GOVERNMENT OF INDIA

MINISTRY OF JAL SHAKTI

DEPARTMENT OF WATER RESOURCES, RIVER DEVELOPMENT & GANGA REJUVENATION

RAJYA SABHA

UNSTARRED QUESTION NO. 96

ANSWERED ON 01.12.2025

WATER MANAGEMENT AND CONSERVATION

96. SHRI KESRIDEVSINH JHALA: SHRI MADAN RATHORE:
SHRI NARHARI AMIN: SHRI NARAYANA KORAGAPPA:
DR. BHAGWAT KARAD: SHRI MITHLESH KUMAR:
SHRI BRIJ LAL: SHRI SHAMBHU SHARAN PATEL:
SMT. REKHA SHARMA: SHRI SUJEET KUMAR:
SHRI CHUNNILAL GARASIYA:

Will the Minister of **Jal Shakti** be pleased to state:

(a) the key objectives and present coverage of Atal Bhujal Yojana across participating States and Gram Panchayats;

(b) the progress achieved in the enumeration and geo-tagging of water bodies under Jal Shakti Abhiyan and related initiatives;

(c) the digital and technological tools presently employed for groundwater monitoring, surface water assessment, and water body mapping under various schemes of Government; and

(d) the manner in which data collected through these systems is utilised for planning, decision-making, and performance evaluation of water conservation measures?

ANSWER

THE MINISTER OF STATE FOR JAL SHAKTI

(SHRI RAJ BHUSHAN CHOUDHARY**)**

(a) Atal Bhujal Yojana, a community led participatory ground water management scheme, was implemented as a pilot scheme across 8,203 priority water stressed Gram Panchayats of seven states viz. Gujarat, Haryana, Karnataka, Madhya Pradesh, Maharashtra, Rajasthan and Uttar Pradesh. The key objective of Atal Bhujal Yojana was to improve groundwater management in selected states through community participation and focusing on demand-side interventions, ensuring sustainability of the resource. The scheme aimed to achieve this objective by strengthening institutional and governance frameworks and by incentivizing states to implement groundwater conservation measures at grassroots level.

(b) Under the Jal Shakti Abhiyan: Catch the Rain (JSA: CTR) campaign, implemented by the Ministry of Jal Shakti, one of the key interventions is the enumeration, geo-tagging and inventorization of water

bodies to facilitate the preparation of scientific water conservation plans. District Collectors and Magistrates have been requested to enumerate water bodies using old revenue records, remote sensing data from the National Remote Sensing Agency (NRSA) and Geographic Information System (GIS) mapping technology to mark boundaries, geo-tag structures and integrate data from the National Water Informatics Centre (NWIC) and State Water Resources Information Systems. This approach enables the development of data-driven scientific conservation plans.

In addition, a notable initiative in this regard is the development of the GIS-based sub-portal "Jal Dharohar", operational in its beta version since 1st November 2023, under the India-WRIS Portal. This portal presents a consolidated and geo-tagged database of water bodies across India and integrates data from multiple national programmes and sources, including the Jal Shakti Abhiyan, Atal Bhujal Yojana, Minor Irrigation Statistics, the First Census of Water Bodies, and the National Water Informatics Centre (NWIC). It serves as a visual and spatial tool for awareness creation, planning, and monitoring of water resources.

(c) & (d) Water being a State subject, the Central Government plays only a supportive role by supplementing the efforts of the States through various technical, financial, and policy-level interventions.

In this direction, the government employs a range of state of the art digital and technological tools not only for mapping and monitoring water resources of the country, but also for planning precise policy interventions and evaluating performance of schemes. The following are a few noteworthy ones :

- National Aquifer Mapping and Management Programme (NAQUIM): The Central Ground Water Board (CGWB) is implementing NAQUIM, utilizing advanced technologies such as Remote Sensing (RS) and Geographic Information Systems (GIS) for aquifer mapping, identifying recharge zones and assessing source sustainability. Heliborne geophysical surveys are being deployed in specific areas for high-resolution subsurface data.

- Real-Time Monitoring: CGWB conducts real-time groundwater level monitoring through a nationwide network of around 23,000 Digital Water Level Recorders (DWLRs) equipped with telemetry systems. This network facilitates the transmission of near real-time data on groundwater levels to a central server, helping in devising more focused conservation plans.

- Web-based Platforms: CGWB developed the India-Groundwater Resource Estimation System (IN-GRES), a web-based application that provides a standardized platform for groundwater resource assessment across the country. Such data forms the scientific basis for implementing schemes like MGNREGA, Atal Bhujal Yojana, Jal Shakti Abhiyan etc.
- The JSA: CTR dashboard : is a central digital platform created by the National Water Mission under this Ministry for monitoring, evaluating, and managing the "Catch the Rain" (CTR)

campaign under the Jal Shakti Abhiyan (JSA). It serves as a data collection and analysis hub to track progress on water conservation activities and facilitates the creation of scientific water conservation plans.

- National Water Informatics Centre (NWIC) : under this Ministry acts as the central repository of water resources data of the country. In-line with its mandate, NWIC is maintaining spatial, non-spatial, time-series and static hydro-meteorological data like rainfall, river water levels & discharge, ground water level, water quality, soil moisture, climatic, geological and other geomorphological data.

- Reservoir level and Flood monitoring : 'Flood Watch India' app, developed in-house by the Central Water Commission, utilizes advanced technologies such as satellite data analysis, mathematical modelling and real-time monitoring to deliver accurate and timely flood forecasts. The app provides information about 592 flood monitoring stations and also regarding the storage positions of 150 major reservoirs in the country.

- GIS based monitoring : Various irrigation/water conservation structures created under PMKSY-SMI, RRR, Atal Bhujal Yojana etc. are monitored through GIS based applications and tools.

- Use of Satellite and Remote sensing data : The Ministry is actively collaborating with agencies like Bhaskaracharya National Institute for Space Applications and Geo-informatics (BISAG -N) and Space Application Centre, Ahmedabad for making use of satellite and remote sensing data for various kinds of mapping and monitoring of water resources.

- Additionally, extensive use of digital dashboards, web portals, mobile apps etc. is being made for collection and dissemination of data and performance monitoring of several schemes of the Ministry like PMKSY, NMCG, Atal Bhujal Yojana, MI census etc.

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