

GOVERNMENT OF INDIA  
MINISTRY OF JAL SHAKTI  
DEPARTMENT OF WATER RESOURCES, RIVER DEVELOPMENT & GANGA REJUVENATION  
**LOK SABHA**

**UNSTARRED QUESTION NO. 840**

ANSWERED ON 04.12.2025

**RESERVOIR STORAGE MONITORING SYSTEM**

†840. SHRI SANATAN PANDEY:

SHRI RAJPALSINH MAHENDRASINH JADAV:

Will the Minister of **JAL SHAKTI** be pleased to state:

- (a) whether satellite-based technology is being used for real-time monitoring of reservoirs and if so, the details of the agencies assisting in the implementation of the said system;
- (b) the impact of the said real time monitoring on water management and early warning systems for disasters;
- (c) whether any standardisation policy has been adopted for collecting reservoir data under the Reservoir Storage Monitoring System (RSMS);
- (d) if so, the details of the States in which the policy has been implemented effectively and the manner in which the policy has contributed in resolving inter-State water sharing disputes;
- (e) whether the RSMS improves transparency and water resource management and if so, the details thereof; and
- (f) the details of the number of currently functional/active reservoirs along with their total live storage capacity?

**ANSWER**

**THE MINISTER OF STATE FOR JAL SHAKTI**

(SHRI RAJ BHUSHAN CHOUDHARY)

**(a)** Central Water Commission (CWC) monitors the live storage status of 166 reservoirs across the country. Of these, a Telemetry-based Reservoir Monitoring System (TBRMS) has been installed on 78 major reservoirs. However, owing to challenges associated with satellite-based technology, instead of TBRMS, reservoir data is monitored through the Reservoir Storage Monitoring System (RSMS), which was introduced in 2012 to streamline data entry by project authorities and CWC offices. In April 2025, a new web-based RSMS portal was launched, enabling automated data analysis and facilitating the generation of charts, tables, and graphs for inclusion in the reservoir bulletin.

**(b)** As a non-structural flood management measure, CWC issues short-range forecasts with up to 24-hour lead time to State Governments and provides seven-day advisory forecasts online for preparedness. Inflow forecasts are also given to designated reservoirs for regulation. At present, flood forecasts are being issued by CWC at 350 stations across the country, comprising 150 inflow forecast stations and 200 level forecast

stations, in accordance with the Standard Operating Procedure. Daily Flood Situation Reports prepared by the regional offices of the CWC include reservoir storage data, rainfall forecasts issued by the India Meteorological Department (IMD), and advisories from CWC to alert project authorities regarding anticipated hydro-meteorological conditions. At the national level, consolidated reports are issued on a daily basis during the monsoon season to State Chief Secretaries, State Disaster Management Authorities (SDMAs), National Disaster Management Authority (NDMA), National Disaster Response Force (NDRF), and the National Dam Safety Authority (NDSA). In addition, CWC submits reports to the Ministry of Home Affairs (MHA) on the storage status of monitored reservoirs during the monsoon period to facilitate team deployment and positioning.

Flood forecasts are disseminated via the Flood Forecasting website, Flood Watch India 2.0 app, SMS, e-mail, telephone, and social media. Additionally, seven-day advisory forecasts are available through a rainfall-based portal. Common Alert Protocol (CAP) alerts, generated in collaboration with C-DOT and NDMA, are uploaded by CWC for level-forecasting stations and transmitted to SDMAs via the Sachet platform for dissemination of public warnings.

**(c) & (d)** RSMS portal is currently being used in 21 States for monitoring the reservoir live storage capacity of 166 dams. The concerned project authorities or State Governments directly enter water level and live storage data into the RSMS portal following standard procedures. As such, the portal is not directly being used for resolving inter-state water sharing disputes. However, during extreme weather events, especially during the monsoon season, dams are to be operated as per the rule curve and the Operation & Maintenance manual. All the dam owners are required to have O&M manual containing standard operating procedures for their dams/reservoirs in place. As per the Dam Safety Act 2021, every owner of the specified dam shall ensure that a well-documented operation and maintenance manual is kept at each of the specified dam and are followed at all times.

**(e)** Yes, RSMS enhances transparency and strengthens water resource management. Data analysis and bulletin generation are carried out through RSMS, with soft copies of the bulletin disseminated to all concerned stakeholders. In addition, the bulletin is uploaded on the RSMS portal for access by the public at large. The portal dashboard enables the general public to view the status of monitored reservoirs either individually, or aggregated state-wise and basin-wise. This system facilitates better planning and preparedness for drought conditions, as well as improved disaster management during floods, by the concerned Ministries of the Central Government.

**(f)** As per the National Register of Specified Dams 2025 compiled by the National Dam Safety Authority, the country is currently having 6,545 number of completed and functional specified dams with total live storage capacity of 253.95 Billion Cubic Meters (available at URL: [https://dharma.cwc.gov.in/#/national-register-of-specified-dams-\(nrds\)-2025](https://dharma.cwc.gov.in/#/national-register-of-specified-dams-(nrds)-2025)).

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