GOVERNMENT OF INDIA
MINISTRY OF JAL SHAKTI
DEPARTMENT OF DRINKING WATER AND SANITATION

RAJYA SABHA
STARRED QUESTION NO. *377
ANSWERED ON 30/03/2026

MONITORING OF DRINKING WATER QUALITY IN RURAL AND URBAN AREAS

377# SHRI PRADIP KUMAR VARMA:

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

(a) the number of water sources undergone laboratory-based quality testing during the last three years;

(b) the number of water sources affected by Arsenic, Fluoride, Iron and other contaminants;

(c) the number of water quality testing laboratories operational to ensure safe drinking water; and

(d) the number of remediation projects proposed by Government for areas affected by contaminated drinking water?

ANSWER

THE MINISTER OF JAL SHAKTI
(SHRI C R PATIL)

(a) to (d): A Statement of reply is laid on the table of the House.

Statement referred to in reply to parts (a) to (d) of Rajya Sabha Starred Question no. 377 answered on 30/03/2026 regarding "Monitoring of drinking water quality in rural and urban areas" asked by Shri Pradip Kumar Varma.

(a) to (d) Jal Jeevan Mission (JJM) is under implementation since August, 2019, in partnership with States/ UTs to make provision of potable tap water supply in adequate quantity, of prescribed quality and on regular & long-term basis to rural households. Under JJM, as per existing guidelines, Bureau of Indian Standards' BIS:10500 standards are adopted as benchmark for quality of water being supplied through the piped water supply schemes. Drinking Water being a State subject, the responsibility of Planning, Designing, Approval, Implementation, Operation & Maintenance of drinking water supply schemes, including those under the Jal Jeevan Mission (JJM), is vested with State/UT Governments. The Government of India supplements the efforts of the States/ UTs by providing financial, policy guidance and technical assistance.

Under JJM, while planning water supply schemes to provide tap water supply to households, priority is given to habitations affected by chemical contaminants. States/ UTs have been advised to plan and implement piped water supply schemes based on alternative safe water sources including surface water sources for the villages with water quality issues.

Under JJM, to enable the States/ UTs for online reporting of water quality monitoring and surveillance including test reports of water samples for water quality, sample collection etc. for drinking water, an online JJM – Water Quality Management Information System (WQMIS) portal has been developed. Further, in consultation with various stakeholders 'Concise Handbook for Monitoring Water Quality of Piped Drinking Water Supply to Rural Households' has been released in December 2024 for guidance to States/ UT's. This handbook recommended for a comprehensive testing of drinking water samples at various testing points such as source, treatment plant, storage and distribution points, and remedial action wherever necessary, to ensure that the water supplied to households is of prescribed quality (BIS:10500).

As reported by States/ UTs on JJM-WQMIS, the number of water sources and total no. of samples from such sources tested in laboratory in last three years are given below:

S. No.	Year	Total No. of water source tested in laboratories	Total No. of samples from sources tested in laboratory
1	2023-24	6,63,825	15,55,950
2	2024-25	9,33,309	21,40,008
3	2025-26 (so far)	8,60,237	21,22,697

Further, the total numbers of water quality samples for source, delivery point, etc. tested are as under:

Year/ Period	Samples Tested in Laboratories	Tested through Field Testing Kits (FTKs)

2023-24	75,00,041	1,08,54,196
2024–25	82,68,247	93,84,186
2025–26 (up to 24.03.2026)	68,72,416	48,75,372

As reported by States/ UTs on JJM-WQMIS, as on 24.03.2026, the State Public Health Engineering/ Rural Water Supply Departments operate a network of 2,874 water quality testing laboratories at various levels viz. State, regional, district, sub-division, block, mobile and/ or WTP facility laboratories. Out of these, there are 1,710 laboratories are accredited/ recognised.

For groundwater quality assessment, Central Ground Water Board (CGWB) generates groundwater quality data at a regional scale across the country, through its groundwater quality monitoring programme and scientific studies as per the approved Standard Operating Procedure (SOP). Data on ground water quality available with CGWB are made available in public domain through reports as well as through the web site (http://www.cgwb.gov.in) for use by various stakeholders. The data is also shared with concerned State Governments for taking necessary remedial measures. Further, to ensure safe drinking water and mitigate groundwater contamination by various pollutants, a combination of preventive, treatment, and management strategies has been suggested in the Annual Ground Water Quality Report – 2025.

The number of groundwater samples analysed by CGWB during the last three available monitoring years are given below:

S. No.	Year	Total No. of groundwater samples analysed by CGWB
1	2022	15,407
2	2023	15,259
3	2024	14,978

CGWB has also informed that under the National Aquifer Mapping Programme (NAQUIM) of CGWB, special attention is being given to the aspect of ground water quality including contamination by toxic substances in ground water on issues like salinity ingress, alkalinity etc. which are being taken up on priority basis for NAQUIM studies.

For Arsenic contamination, CGWB has developed the innovative cement sealing technique for construction of Arsenic-free wells in the Gangetic flood plains. CGWB is providing technical assistance to State agencies to enable tapping of contamination-free aquifers and facilitating construction of arsenic-safe wells. To address Fluoride contamination, Central Ground Water Board (CGWB) has provided technical assistance and proposed an eco-friendly, sustainable natural recharge model. This model involves constructing wells near to the surface water bodies that tap into the shallow water table aquifer within colluvium, alluvium, and the weathered sections of granitic/basaltic areas, at depths ranging from 18 to 30 meters.

The Ministry of Housing and Urban Affairs (MoHUA) has informed that Urban Local Bodies (ULBs)/ Parastatal conduct testing of water at Water Treatment Plants (WTPs) and household levels as per applicable norms. As reported by MoHUA, the compliance status for E. coli, Arsenic, Fluoride testing of Water Quality Samples under urban locations in AMRUT 2.0 during the period 01.01.2024 – 31.12.2024 are as under:

Sampling Location	Total Samples Tested	Compliant Samples
Water Treatment Plants (WTPs)	3,35,278	3,32,170
Household Level (Urban Areas)	22,45,200	22,18,838

So far, 6140 Million Litre per Day (MLD) of WTP capacity has been approved under AMRUT, of which, 5,429 MLD WTP capacity has been created. Under AMRUT 2.0, 11,395 MLD WTP capacity has been approved so far. These treatment plants are generally equipped with inhouse lab facilities or have tie up with the Labs for regular water quality testing.

MoHUA has published Manual on Water Supply and Treatment Systems (Drink from Tap) in March 2024 for reference by the States/ ULBs for designing, implementation, drinking water quality and monitoring of the water supply projects. (https://mohua.gov.in/publication/manual-on-water-supplyandtreatment-systems---drink-from-tap---march-2024.php).

Central Pollution Control Board (CPCB) is also monitoring ground water quality under National Water Quality Monitoring Programme (NWMP) at 1271 locations in the country. Industry Specific Discharge Standards and General Standards notified by the Central Government under the Environment (Protection) Rules,1986 are enforced by the State Pollution Control Boards (SPCBs) and Pollution Control Committees (PCCs) through consent mechanism in respective State/ UT. Based on the water quality data of Ground Water locations, CPCB requested concerned SPCBs/PCCs to identify sources of pollution at non-complying locations and take necessary corrective actions, actions such as –

i. Sealing of hand pumps/ wells having contaminated ground water
ii. Display sign board indicating (Not Fit for Drinking Water purposes) in vernacular language.
iii. Arrangement of alternate drinking water supply in the affected areas

The States/ UTs are taking testing and remediation measures towards ensuring safe drinking water supply in due consideration of above facts.

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