

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

**LOK SABHA**  
**UNSTARRED QUESTION NO. 6253**  
ANSWERED ON 02/04/2026

**TESTING LABORATORIES TO CHECK FOR GROUNDWATER CONTAMINATION**

6253. THIRU D M KATHIR ANAND:

Will the Minister of JAL SHAKTI be pleased to state:

- (a) whether the Government has established any testing laboratories to find out the presence of harmful and high levels of contamination of arsenic, mercury and fluoride in groundwater in the country;
- (b) if so, the details thereof and if not, the reasons therefor;
- (c) whether the Government has any new project proposal to control arsenic, mercury and fluoride and other harmful substances contamination in groundwater, if so, the details thereof and the total amount of funds sanctioned in this regard; and
- (d) the details of the funds allocated to establish water contamination testing laboratories in Tamil Nadu and the status of the new projects being implemented in Tamil Nadu during the last five years, particularly in Vellore Lok Sabha Constituency?

**ANSWER**

THE MINISTER OF STATE FOR JAL SHAKTI  
(SHRI V. SOMANNA)

(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. 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.

As per the Operational Guidelines, States/ UTs including Tamil Nadu can utilize JJM funds for Water Quality Monitoring & Surveillance (WQM&S) activities, inter-alia, which includes setting up and strengthening of water quality testing laboratories, procurement of equipment, instruments, chemicals, glassware, consumables, hiring of skilled manpower, surveillance by community using field test kits (FTKs), awareness generation, educational programmes on water quality, accreditation/recognition of laboratories, etc.

As reported by States/ UTs on JJM – Water Quality Management Information System (JJM-WQMIS), as on 31.03.2026, the State Public Health Engineering/ Rural Water Supply Departments operate a network of 2,874 (including 113 in Tamil Nadu) water quality testing laboratories at various levels viz. State, regional, district, sub-division, block, mobile and/ or WTP facility laboratories.

Under the Jal Jeevan Mission, 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. 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 for the villages with water quality issues.

The Ministry of Housing Affairs (MoHUA) has informed that they have 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>). MoHUA has issued an advisory "Strengthening Water Quality Monitoring in Cities through Community Participation" under AMRUT 2.0 in November, 2024 to all the States to formulate a Water Quality Monitoring strategy at the State or City level and to strengthen the institutional capacity for citywide monitoring of drinking water quality in urban areas along with Digital Display Boards for water quality parameters for public information & awareness.

To ensure safe drinking water supply to the urban households, AMRUT/AMRUT 2.0 supports, rehabilitation and upgradation of water supply network and creation/augmentation of Water Treatment Plants (WTPs) plants. Under AMRUT/ AMRUT2.0, 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.

The Central Ground Water Board (CGWB) has informed that groundwater quality monitoring and testing is conducted by CGWB on a regional scale across the country through its groundwater quality monitoring programme and scientific studies conducted as per the approved Standard Operating Procedure (SOP). CWGB has a total of 16 Regional Chemical Laboratories located at Jammu, Chandigarh, Jaipur, Ahmedabad, Bhopal, Raipur, Nagpur, Lucknow, Patna, Kolkata, Guwahati, Bhubaneswar, Hyderabad, Bengaluru, Chennai and Thiruvananthapuram. These laboratories have facilities to analyse groundwater samples for basic parameters such as pH, electrical conductivity, nitrate, fluoride, etc., and heavy metals including iron (Fe), mercury (Hg), arsenic (As) and uranium (U) etc.

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 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 shallow aquifers are considered free of fluoride but are not sustainable during the summer season. These wells should be located near surface water bodies such as check dams, percolation tanks, canal command areas, river sections, Amrit Sarovar, and Pushkar Talab. This approach will facilitate the natural recharge of the upper layer of the unconfined aquifer.

For Arsenic contamination, CGWB has developed the innovative cement sealing technique through in-house research for construction of Arsenic-free wells in the Gangetic flood plains. CGWB is providing technical assistance to State agencies by sharing this cement-sealing technology to enable tapping of contamination-free aquifers and facilitating construction of arsenic-safe wells.

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