

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

RAJYA SABHA
UNSTARRED QUESTION NO. 2806
ANSWERED ON 18/08/2025

HIGH LEVELS OF SELENIUM IN GROUNDWATER

2806. SMT. RAJANI ASHOKRAO PATIL:

Will the Minister of JAL SHAKTI be pleased to state:

- (a) whether Government is aware of reports indicating dangerously high levels of Selenium in groundwater and drinking water sources in certain parts of country;
- (b) the districts where Selenium levels have exceeded permissible BIS limits as per the recent water quality monitoring data;
- (c) whether any health impact assessments or epidemiological studies have been conducted in these regions due to chronic Selenium exposure;
- (d) whether corrective measures like alternative safe water supply, treatment plants, or awareness campaigns have been implemented in affected areas; and
- (e) whether Government proposes to revise monitoring protocols or launch a national action plan to address Selenium contamination in drinking water?

ANSWER

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

(a) to (e) As informed by Central Ground Water Board (CGWB), ground water quality data generated on regional scale as part of their ground water quality monitoring program and various scientific studies. During 2019, CGWB has collected and analysed 5,956 groundwater samples for selenium from the 17 States/UTs of Andhra Pradesh, Arunachal Pradesh, Assam, Chandigarh, Chhattisgarh, Delhi, Dadra & Nagar Haveli, Gujarat, Haryana, Himachal Pradesh, Madhya Pradesh, Maharashtra, Meghalaya, Nagaland, Punjab, Telangana, and Tripura.

Out of the 5,956 samples collected, only four samples analysed for Jhajjar district in Haryana and Rupnagar (Ropar) district in Punjab, has showed Selenium concentrations exceeding the permissible limit of 10 ppb.

The Government of India launched the Jal Jeevan Mission (JJM) in August 2019 in partnership with States/UTs to make provision of potable tap water supply in adequate quantity, of prescribed quality and on a regular & long-term basis to rural households in the country. Drinking water being a state subject, the responsibility of planning, approval, implementation, operation & maintenance of drinking water supply schemes, including those under the JJM, lies with State/UT Governments. The Government of India supports the states by providing technical and financial assistance.

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. While planning water supply schemes under JJM 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. Under the Jal Jeevan Mission (JJM), purely as an interim measure, States/ UTs have been advised to install community water purification plants (CWPPs) especially in water quality affected habitations to provide potable water to every household at the rate of 8–10 litre per capita per day (lpcd) to meet their drinking and cooking requirements.

As per the Operational Guidelines, States/ UTs can utilize up to 2% of their annual allocation of funds under JJM 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.

CGWB has informed that awareness generation programs/ workshop on various aspects of ground water including preventing ground water pollution and safe use of contaminated water are being conducted periodically. CGWB has organised nearly 1,550 Public Interaction Programs (PIP) across the country, in which nearly 1.36 lakh individuals have participated. These programmes address a range of local groundwater issues, including water quality, and aim to educate the public on the impacts of contamination, promote sustainable practices for maintaining water resources, and provide information on rainwater harvesting techniques as well as the role of recharge structures in improving groundwater quality.

Further, in consultation with various stakeholders 'Concise Handbook for Monitoring Water Quality of Piped Drinking Water Supply to Rural Households' has been released for guidance to States/ UT's. The handbook recommends 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. States are advised to test all chemical parameters in accordance with JJM guidelines, including region-specific parameters at the sources, to ensure water quality and implement remedial action for any contamination to ensure that the water supplied to households is of prescribed quality.

Another Handbook on Drinking Water Treatment Technologies was released to disseminate information regarding new technologies available amongst all stakeholders to understand and implement the new technologies that address local issues and challenges faced in water-quality affected villages. The States may take up appropriate numbers of water treatment system of one or a combination of technologies depending upon techno-economic feasibility.
