GOVERNMENT OF INDIA

MINISTRY OF JAL SHAKTI

DEPARTMENT OF WATER RESOURCES, RIVER DEVELOPMENT & GANGA REJUVENATION

LOK SABHA

UNSTARRED QUESTION NO. 2454

ANSWERED ON 13.03.2025

LEVEL OF HEAVY METAL IN GROUNDWATER

2454. DR. MOHAMMAD JAWED

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

(a) whether the Government has any data on the levels of heavy metal contamination in groundwater during the last five years in Bihar and the current year and if so, the details thereof;

(b) the initiatives taken/being taken by the Government to reduce heavy metal contamination in ground water; and

(c) the steps taken/being taken to mitigate contamination from other sources, particularly in severely affected State like Bihar?

ANSWER

THE MINISTER OF STATE FOR JAL SHAKTI

(SHRI RAJ BHUSHAN CHOUDHARY**)**

(a) Central Ground Water Board (CGWB) generates ground water quality data of the entire country including Bihar on a regional scale as part of its ground water quality monitoring program and various scientific studies. Most of the regular parameters like Electrical Conductivity (EC), Carbonates, Sodium, Nitrate, Fluoride etc. are monitored annually, however heavy metal analysis is being done periodically. The data on ground water quality for Bihar indicates that the ground water in the state remains largely potable. However, localized occurrence of certain contaminants, including heavy metals like Arsenic, Iron, Lead, Chromium and Uranium, beyond the limits prescribed for drinking water use has been reported in some isolated pockets in the analysis conducted during 2019. Such details of heavy metals observed in ground water samples from Bihar is provided in **Annexure.**

(b) & (c) Water is a state subject and the responsibility of ground water management, including taking initiatives for improving ground water quality and mitigate the contamination issue, lies primarily with the state governments. In addition to this, several steps have been taken by the Central Government in this direction. Some of the important ones are mentioned below:-

i. The ground water quality data generated by CGWB including that for heavy metal contamination, is regularly disseminated through Annual Reports, Half-yearly Bulletins and Fortnightly Alerts for quick action by the stakeholders.

ii. CGWB has successfully constructed Arsenic free wells in arsenic affected areas using the cement sealing technology for tapping contamination free aquifers and also providing technical assistance to state departments for replicating such construction. So far, 525

exploratory wells tapping arsenic safe aquifers have been constructed under NAQUIM programme including 40 in Bihar.

iii. Under the National Aquifer Mapping Programme (NAQUIM) of CGWB, while taking up aquifer studies, special attention is being given to the aspect of ground water quality including contamination by toxic substances such as heavy metals in ground water.

iv. Government of India in partnership with States, is implementing Jal Jeevan Mission (JJM) – Har Ghar Jal, since August 2019, to make provision of potable tap water supply in adequate quantity, of prescribed quality and on regular & long-term basis to every rural household in the country. Under the JJM, Bureau of Indian Standards' BIS:10500 standards have been adopted as prescribed norms for quality of tap water service delivery. Water safety has been one of the key priorities under the JJM since its inception. Further, under JJM, while allocating the funds to States/ UTs, 10% weightage is given to the population residing in habitations affected by chemical contaminants, including heavy metals.

v. States/ UTs have been advised to plan and implement piped water supply schemes of bulk water transfer based on safe water sources such as surface water sources or alternative safe ground water sources for the villages with water quality issues.

vi. Further, the quality of groundwater can be improved to some extent if concerted efforts are made to improve the groundwater resources through appropriate groundwater recharge/rainwater harvesting. Government of India in this regard has taken up a number of initiatives/schemes like Jal Shakti Abhiyan, PMKSY-Watershed development, MGNREGA, Atal Bhujal Yojana etc.

vii. The ground water pollution also owes its origin to contamination of surface water sources for which various efforts have been made in the country like installing Sewage Treatment Plants, Effluent Treatment Plants and better system of sewage networks etc. Under National Mission for Clean Ganga (NMCG), the government has initiated several steps for improving the water quality along the river Ganga and its tributaries. Under the project, a total of 203 number of sewerage infrastructure projects costing ₹ 32,613 crores have been taken up for remediation of polluted river areas with treatment capacity of 6,255 Million Liters per Day (MLD). 127 STP projects with a capacity of 3,446 MLD have been completed and made operational. Further, total 41 projects have been completed in Bihar under NMCG.

viii. Central Pollution Control Board (CPCB) in association with State Pollution Control Boards/Pollution Control Committees (SPCBs/PCCs) is implementing the provisions of the Water (Prevention & Control) Act, 1974 and the Environment (Protection) Act, 1986 to prevent and control pollution in water. CPCB has made a comprehensive programme on water pollution for controlling point sources by developing industry specific standards and general standards for discharge of effluents notified under the Environment (Protection) Act, 1986 for enforcement by SPCBs/PCCs.

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ANNEXURE

ANNEXURE REFERRED TO IN REPLY TO PART (a) OF UNSTARRED QUESTION NO. 2454 TO BE ANSWERED IN LOK SABHA ON 13.03.2025 REGARDING "LEVEL OF HEAVY METAL IN GROUNDWATER".

Heavy metal Contamination in groundwater in Bihar

State	Total Samples	Arsenic		Uranium		Lead		Chromium		Iron	
		No. of samples above Permissible Limit	% Above Limit	No. of samples above Permissible Limit	% Above Limit	No. of samples above Permissible Limit	% Above Limit	No. of samples above Permissible Limit	% Above Limit	No. of samples above Permissible Limit	% Above Limit
Bihar	607	72	11.86	11	1.81	14	2.31	11	1.81	184	31.31

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