

GOVERNMENT OF INDIA  
MINISTRY OF JAL SHAKTI,  
DEPARTMENT OF WATER RESOURCES, RIVER DEVELOPMENT & GANGA  
REJUVENATION  
**LOK SABHA**  
**UNSTARRED QUESTION NO. 3520**  
ANSWERED ON 24.03.2022  
**ARSENIC IN GROUND WATER**

3520. SHRIMATI HARSIMRAT KAUR BADAL

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

- (a) whether the Government is aware that arsenic and heavy metals are found in ground water across the country and if so, the details thereof;
- (b) the number of habitations receiving contaminated water in the country;
- (c) whether the Government is aware that in Punjab particularly in Malwa region ground water comprises of uranium, arsenic, lead and heavy metals which has caused havoc in Punjab and if so, the details thereof; and
- (d) the steps taken by the Government to reduce contamination of water in the country including Punjab?

**ANSWER**

THE MINISTER OF STATE FOR JAL SHAKTI

(SHRI BISHWESWAR TUDU)

(a) The Central Ground Water Board (CGWB) generates ground water quality data of the country on a regional scale as part of its ground water quality monitoring program and various scientific studies. These studies indicate the occurrence of contaminants including arsenic and heavy metals beyond permissible limits (as per BIS) for human consumption in isolated pockets in various States/UTs. The details are given in **Annexure-I**.

(b) As reported by States/UTs (as on 17.03.2022) 29,517 rural habitations have been reported to have quality issues in drinking water sources. State-wise details in this regard are given at **Annexure – II**. Government of India in partnership with States, is implementing Jal Jeevan Mission (JJM) in rural areas to provide potable tap water of prescribed quality to every rural households, prioritising quality affected habitations in the country.

(c) As per the data available with CGWB, in the State of Punjab, particularly in Malwa belt, arsenic in ground water beyond the permissible limit has been encountered in 3 districts viz. Mansa, Faridkot and Sangrur; lead from 3 districts viz Bathinda, Ferozepur and Muktsar; cadmium from 4 districts viz Fatehgarh Sahib, Ludhiana, Patiala, and Sangrur; Chromium from 3 districts viz Bathinda, Mansa, and Sangrur districts; uranium from 9 districts viz Bathinda, Moga, Faridkot, Fatehgarh Sahib, Ferozepur, Ludhiana, Muktsar, Patiala and Sangrur.

(d) Water being a State subject, initiatives on water management, including its quality is primarily States' responsibility; however, various steps have been taken by the Central Government for facilitating ground water quality improvement/ remediation of contamination in the drinking water in the country including Punjab. Details in this regard are given at **Annexure III**. Further, as per information received from Government of Punjab, the State Government has already covered 883 quality affected habitations with short term/long term measures in terms of surface water projects, arsenic-cum-iron removal plants, household purifiers, community water purification plants and RO plants to provide potable water to affected citizens.

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**ANNEXURE REFERRED TO IN REPLY TO PARTS (a) OF UNSTARRED QUESTION NO. 3520 TO BE ANSWERED IN LOK SABHA ON 24.03.2022 REGARDING “ARSENIC IN GROUND WATER”.**

**State-wise Number of Partly Affected Districts with different Contaminants in Ground Water of India**

S. No.	State/ UT	Arsenic (above 0.01 mg/l)	Iron (above 1mg/l)	Lead (above 0.01 mg/l)	Cadmium (above 0.003 mg/l)	Chromium (above 0.05 mg/l)
1	Andhra Pradesh	3	7			
2	Telangana	1	8	2	1	1
3	Assam	19	18			
4	Arunachal Pradesh		4			
5	Bihar	22	19			
6	Chhattisgarh	1	17	1	1	1
7	Delhi	2		3	1	4
8	Goa		2			
9	Gujarat	12	10			
10	Haryana	15	17	17	7	1
11	Himachal Pradesh	1				
12	Jammu & Kashmir	3	9	3	1	
13	Jharkhand	2	6	1		
14	Karnataka	2	22			
15	Kerala		14	2		1
16	Madhya Pradesh	8	41	16		
17	Maharashtra		20	19		
18	Manipur	2	4			
19	Meghalaya		6			
20	Nagaland		1			
21	Odisha	1	30			1
22	Punjab	10	9	6	8	10
23	Rajasthan	1	33	3		
24	Tamil Nadu	9	2	3	1	5
25	Tripura		4			

26	Uttar Pradesh	28	15	10	2	3
27	Uttarakhand		5			
28	West Bengal	9	16	6	2	2
29	Andaman& Nicobar		2			
30	Daman & Diu	1				
31	Puducherry					
	<b>Total</b>	<b>Parts of 152 districts in 21 States &amp; UTs</b>	<b>Parts of 341 districts in 27 States &amp; UTs</b>	<b>Pb in parts of 92 districts in 14 States</b>	<b>Cd in parts of 24 districts in 9 States</b>	<b>Cr in parts of 29 districts in 10 States</b>

**ANNEXURE REFERRED TO IN REPLY TO PARTS (b) OF UNSTARRED QUESTION NO. 3520 TO BE ANSWERED IN LOK SABHA ON 24.03.2022 REGARDING “ARSENIC IN GROUND WATER”.****State-wise details of rural habitations having contaminants in drinking water source  
(as on 17.03.2022)**

S. No.	State/UT	Number of quality affected habitations						Total
		Fluoride	Arsenic	Iron	Salinity	Nitrate	Heavy Metal	
1.	Andhra Pradesh	86	-	-	6	1	-	93
2.	Arunachal Pradesh	-	-	224	-	-	-	224
3.	Assam	-	32	10,378	-	-	3	10,413
4.	Bihar	1	11	450	-	-	-	462
5.	Chhattisgarh	154	-	30	-	-	-	184
6.	Jharkhand	48	1	59	-	-	-	108
7.	Kerala	5	-	61	18	8	-	92
8.	Madhya Pradesh	37	-	16	5	2	-	60
9.	Maharashtra	3	-	6	34	7	-	50
10.	Odisha	45	-	2,031	30	6	-	2,112
11.	Punjab	180	560	7	-	19	112	878
12.	Rajasthan	188	-	4	9,773	463	-	10,428
13.	Tripura	-	-	1,052	-	-	-	1,052
14.	Uttar Pradesh	38	107	281	79	10	-	515
15.	Uttarakhand	-	-	2	-	2	-	4
16.	West Bengal	127	946	1,630	72	-	67	2,842
<b>Total</b>		<b>912</b>	<b>1,657</b>	<b>16,231</b>	<b>10,017</b>	<b>518</b>	<b>182</b>	<b>29,517</b>

*Source: JJM-IMIS*

**ANNEXURE REFERRED TO IN REPLY TO PART (d) OF UNSTARRED QUESTION NO. 3520 TO BE ANSWERED IN LOK SABHA ON 24.03.2022 REGARDING “ARSENIC IN GROUND WATER”.**

**Steps taken by the Central Government for facilitating ground water quality improvement/ remediation of contamination in the drinking water in the country**

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 in the country, including Punjab, to prevent and control pollution in water.

Government of India launched Jal Shakti Abhiyan (JSA) in 2019, a time bound campaign with a mission mode approach intended to improve water availability including ground water conditions in the water stressed blocks of 256 districts in India, including Punjab. In 2021, “Jal Shakti Abhiyan: Catch the Rain” (JSA:CTR) with the theme “Catch the Rain - Where it Falls When it Falls” was launched to cover all the blocks of all districts (rural as well as urban areas) across the country, including Punjab, during 22nd March 2021 to 30th November 2021. The campaign was launched by the Hon’ble Prime Minister on 22 March 2021. Improvement in groundwater recharge due to construction of artificial recharge structures and increased water harvesting is likely to significantly contribute towards reducing the contaminants level in the aquifer waters.

Government of India in partnership with States, is implementing Jal Jeevan Mission (JJM) since August, 2019 to provide potable tap water supply of prescribed quality to every rural household in the country, including Punjab, by 2024. Under JJM, while planning water supply schemes to provide tap water supply to house-holds, priority is given to quality-affected habitations. While allocating the funds to States/ UTs in a particular financial year, 10% weightage is given to the population residing in habitations affected by chemical contaminants including arsenic and fluoride, as on 31st March of the preceding financial year.

Since, planning, implementation and commissioning of piped water supply schemes based on a safe water source may take time, purely as an interim measure, States/ UTs have been advised to install community water purification plants (CWPPs) in such 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.

Department of Drinking Water & Sanitation had launched a National Water Quality Sub-Mission (NWQSM) on 22<sup>nd</sup> March, 2017 as a part of National Rural Drinking Water Programme (NRDWP), which has now been subsumed under Jal Jeevan Mission, to provide safe drinking water to 27,544 arsenic/ fluoride affected rural habitations (as on 18.08.2016) in the country, including Punjab.

Under Atal Mission for Rejuvenation and Urban Transformation (AMRUT) was launched on 25th June, 2015 in selected 500 cities of the country, including Punjab, with focus on development of urban infrastructure in various sectors including water supply, States/UTs have the option to take projects on special water supply arrangements for difficult areas, hill and coastal cities, including those having water quality problems.

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 such as arsenic in ground water.

CGWB has constructed several exploratory and observation wells in the country tapping the arsenic safe deeper aquifer zones delineated through exploration aided detailed aquifer mapping under National Aquifer Mapping programme. Successful wells have been handed over to the State Governments for their purposeful utilization. Further, CGWB is providing technical assistance to the States by sharing the cement sealing technology for tapping contamination free aquifers in Gangetic flood plains.

Guidelines have been issued by Government of India for control and regulation of groundwater extraction with pan-India applicability on 24 September 2020. The guidelines include suitable provisions on measures to be adopted to control groundwater pollution.

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