

GOVERNMENT OF INDIA
MINISTRY OF JAL SHAKTI,
DEPARTMENT OF WATER RESOURCES, RIVER DEVELOPMENT & GANGA REJUVENATION
LOK SABHA
UNSTARRED QUESTION NO. 3077
ANSWERED ON 16.12.2021

HEAVY METALS IN GROUND WATER

3077. 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 details of number of habitations receiving contaminated water in the country;
- (c) whether the Government is aware that in Punjab particularly in Malwa belt ground water comprises of uranium, arsenic, lead and heavy metals which has caused havoc and if so, the details thereof; and
- (d) the steps taken by the Government to reduce contamination of water in the country and specifically in Punjab?

ANSWER

THE MINISTER OF STATE FOR JAL SHAKTI

(SHRI BISHWESWAR TUDU)

(a) Yes, Sir. 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 13.12.2021) 36,873 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 707 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.

ANNEXURE-I

ANNEXURE REFERRED TO IN REPLY TO PART (a) OF UNSTARRED QUESTION NO. 3077 ANSWERED IN LOK SABHA ON 16.12.2021 REGARDING “HEAVY METALS IN GROUND WATER”.

States Wise Number of Partly Affected Districts with Arsenic and Heavy metals Contaminants in Ground Water of India

S. No.	State/ UT	Arsenic (above 0.01 mg/l)	Lead (above 0.01 mg/l)	Cadmium (above 0.003 mg/l)	Chromium (above 0.05 mg/l)
1	Andhra Pradesh	3			
2	Telangana	1	2	1	1
3	Assam	19			
4	Arunachal Pradesh				
5	Bihar	24			
6	Chhattisgarh	1	1	1	1
7	Delhi	2	3	1	4
8	Goa				
9	Gujarat	12			
10	Haryana	15	17	7	1
11	Himachal Pradesh	1			
12	Jammu & Kashmir	3	3	1	
13	Jharkhand	2	1		
14	Karnataka	2			
15	Kerala		2		1
16	Madhya Pradesh	8	16		
17	Maharashtra		19		
18	Manipur	2			
19	Meghalaya				
20	Nagaland				
21	Odisha	1			1
22	Punjab	10	6	8	10
23	Rajasthan	1	3		
24	Tamil Nadu	9	3	1	5
25	Tripura				
26	Uttar Pradesh	28	10	2	3
27	Uttarakhand				
28	West Bengal	9	6	2	2
29	Andaman & Nicobar				
30	Daman & Diu	1			
31	Puducherry				
	Total	Parts of 154 districts in 21 states & UTs	Pb in parts of 92 districts in 14 states	Cd in parts of 24 districts in 9 states	Cr in parts of 29 districts in 10 states

ANNEXURE-II

ANNEXURE REFERRED TO IN REPLY TO PART (b) OF UNSTARRED QUESTION NO. 3077 ANSWERED IN LOK SABHA ON 16.12.2021 REGARDING “HEAVY METALS IN GROUND WATER”.

State-wise details of rural habitations having contaminants in drinking water source

S. No.	State/UT	Fluoride	Arsenic	Iron	Salinity	Nitrate	Heavy Metal	Total
1.	Andhra Pradesh	86	-	-	12	1	-	99
2.	Arunachal Pradesh	-	-	224	-	-	-	224
3.	Assam	-	47	14,294	-	-	5	14,346
4.	Bihar	1	11	450	-	-	-	462
5.	Chhattisgarh	154	-	30	-	-	-	184
6.	Jammu & Kashmir	1	-	2	-	-	-	3
7.	Jharkhand	48	1	127	-	-	-	176
8.	Kerala	5	-	61	18	8	-	92
9.	Madhya Pradesh	53	-	24	7	2	-	86
10.	Maharashtra	14	-	8	13	44	-	79
11.	Odisha	68	-	3,336	33	23	-	3,460
12.	Punjab	176	570	10	-	37	184	977
13.	Rajasthan	1,304	-	5	10,104	691	-	12,104
14.	Tripura	-	-	1,079	-	-	-	1,079
15.	Uttar Pradesh	41	107	281	79	10	-	518
16.	Uttarakhand	-	-	2	-	2	-	4
17.	West Bengal	145	1,066	1,630	72	-	67	2,980
Total		2,096	1,802	21,563	10,338	818	256	36,873

Source: JJM- IMIS

Note : The problems of quality affected habitations are being addressed through Jal Jeevan Mission.

ANNEXURE REFERRED TO IN REPLY TO PART (d) OF UNSTARRED QUESTION NO. 3077 ANSWERED IN LOK SABHA ON 16.12.2021 REGARDING “HEAVY METALS IN GROUND WATER”.

- (a) 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 & The Environment (Protection) Act, 1986 in the country including Punjab to prevent and control pollution in water.
- (b) 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 this regard, teams of officers from Central Government along-with technical officers from Ministry of Jal Shakti were deputed to visit water stressed districts and to work in close collaboration with district level officials to undertake suitable interventions.

In addition, Ministry of Jal Shakti has taken up the “Jal Shakti Abhiyan: Catch the Rain” (JSA:CTR) with the theme “Catch the Rain - Where it Falls When it Falls” 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. The improved 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.

- (c) 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.
- (d) 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.

- (e) Department of Drinking Water & Sanitation had launched a National Water Quality Sub-Mission (NWQSM) on 22nd 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 in the country including Punjab.
- (f) 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.
- (g) 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.
- (h) 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.
- (i) This Ministry has issued guidelines for control and regulation of groundwater extraction with pan-India applicability notified on 24 September 2020. The guidelines include suitable provisions on measures to be adopted to control groundwater pollution.
