GOVERNMENT OF INDIA
MINISTRY OF JAL SHAKTI,
DEPARTMENT OF WATER RESOURCES, RIVER DEVELOPMENT & GANGA REJUVENATION
LOK SABHA
UNSTARRED QUESTION NO. 2931
ANSWERED ON 05.08.2021

CONTAMINATION OF GROUND WATER

2931. 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;
(b) the number of habitations receiving contaminated water in India,
(c) whether the Government is aware of the presence of uranium, arsenic, lead and heavy metals in the ground water of Punjab, particularly in Malwa belt; and
(d) the steps taken by the Government to reduce contamination of water across the country particularly in Punjab?

ANSWER

MINISTER OF STATE FOR JAL SHAKTI & FOOD PROCESSING INDUSTRIES

(SHRI PRAHLAD SINGH PATEL)

(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.

(b) As per information received from Department of Drinking Water & Sanitation (DoDW&S) and as reported by States/ UTs (as on 23.07.2021), 47873 rural habitations have been reported to have quality issues in drinking water sources. State-wise details in this regard are given at **Annexure-I**.

(c) As per the data available with CGWB, in the State of Punjab, Arsenic concentration in ground water beyond the permissible limit has been reported from 10 districts, Lead from 6 districts, Cadmium from 8 districts, Chromium from 10 districts, Uranium from 16 districts. In Malwa belt, Arsenic concentration in ground water beyond the permissible limit has been reported from 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.

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(d) Water being a State subject, initiatives on water management, including addressing 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.

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 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 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 'Jal Shakti Abhiyan – Catch the Rain' campaign has been launched by Hon'ble Prime Minister of India 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.

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 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.

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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.

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 ensure groundwater free from pollution.

Some of the initiatives of Government of Punjab are given at **Annexure II.**

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ANNEXURE-I

Annexure referred to in reply to part (b) of Unstarred Question No. 2931 to be answered in Lok Sabha on 05.08.2021 regarding "Contamination of Groundwater".

State-wise details of habitations reported to have quality-issues in drinking water sources (as on 23.07.2021)

S. No.	State/ UT	Number of quality affected habitations								
		Fluoride	**Arsenic**	**Iron**	**Salinity**	**Nitrate**	**Heavy Metal**	**Total**	**Covered with CWPP***	**Remaining**
1.	Andhra Pradesh	86	-	-	13	1	-	100	87	13
2.	Arunachal Pradesh	-	-	229	-	-	-	229	-	229
3.	Assam	12	1,194	19,745	-	-	5	20,956	1,220	19,736
4.	Bihar	23	24	3,919	-	-	-	3,966	2	3,964
5.	Chhattisgarh	150	-	52	-	-	-	202	-	202
6.	Haryana	1	-	-	-	-	-	1	-	1
7.	Jammu & Kashmir	2	-	2	-	-	-	4	-	4
8.	Jharkhand	48	1	199	-	-	-	248	48	200
9.	Kerala	5	-	65	20	8	-	98	-	98
10.	Madhya Pradesh	177	-	29	10	6	-	222	3	219
11.	Maharashtra	22	-	10	13	53	-	98	-	98
12.	Odisha	69	-	3,338	33	25	-	3,465	1	3,464
13.	Puducherry	-	-	7	-	-	-	7	-	7
14.	Punjab	210	605	34	-	59	224	1,132	107	1,025
15.	Rajasthan	1,358	-	5	10,106	691	-	12,160	1,220	10,940
16.	Tripura	-	-	1,335	-	-	-	1,335	-	1,335
17.	Uttar Pradesh	53	124	283	79	10	-	549	174	375
18.	Uttarakhand	-	-	7	-	2	-	9	-	9
19.	West Bengal	149	1,083	1,718	73	-	69	3,092	214	2,878
	Total	**2,365**	**3,031**	**30,977**	**10,347**	**855**	**298**	**47,873**	**3,076**	**44,797**

Source: JJM – IMIS

***** *CWPP installed for providing safe drinking water at the rate of 8-10 lpcd for drinking and cooking purpose*

ANNEXURE II

Annexure referred to in reply to part (d) of Unstarred Question No. 2931 to be answered in Lok Sabha on 05.08.2021 regarding "Contamination of Groundwater".

Government of Punjab has prepared a long term and short term mitigation strategy to tackle the water quality problems in the State. Details in this regard is given below.

Long Term Measures

- **Surface Water projects:** First preference is given to Surface water projects, wherever it is techno-economically feasible. Accordingly, Punjab is covering 642 Quality affected habitations as per feasibility for which work is under progress.

- **In-line Arsenic cum Iron removal plants (AIRPs):** Where provision of Surface Water is not feasible, Punjab is retrofitting inline AIRPs in Arsenic affected habitations to provide water @ 70 litre per capita per day.

Short Term Measures

- **Community Water Purification Plants:** CWPPs are being installed as mentioned in para (d) above.

- **Decentralized household purifiers:** Installing CWPPs in very small habitations is generally not economical and sustainable. Therefore, after successful demonstration of *Household Purifiers* in one village, concept is being replicated in Arsenic affected habitations for providing household purifiers.

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