

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

LOK SABHA
UNSTARRED QUESTION NO. 835
ANSWERED ON 21/07/2022

CONTAMINATION OF GROUND WATER

835. MS. RAMYA HARIDAS:

SHRIMATI POONAM MAHAJAN:

Will the Minister of JAL SHAKTI be pleased to state:

- (a) whether the Government has taken cognizance of the availability of hazardous chemical contents in ground water which is being used for drinking purposes throughout the country despite being unfit, thereby adversely affecting human health;
- (b) if so, whether the Government has conducted any scientific study in this matter;
- (c) if so, the details thereof, State-wise and if not, the reasons therefor;
- (d) the remedial steps taken/being taken by the Government, in coordination with various State Governments, in this regard; and
- (e) the steps being taken by the Government to ensure availability of safe drinking water to the citizens?

ANSWER

THE MINISTER OF STATE FOR JAL SHAKTI
(SHRI PRAHLAD SINGH PATEL)

(a) to (e) Bureau of Indian Standards IS-10500: 2012 specifies 'acceptable limit' and 'permissible limit in the absence of alternate source' for various physio-chemical and bacteriological parameters for drinking water quality as provided in the **Annex-I**. As reported by States/ UTs, State-wise details of habitations affected with contamination of Arsenic, Fluoride, Iron, Salinity, Nitrate & Heavy Metals in drinking water sources are at **Annex-II**.

Central Ground Water Board generates ground water quality data on regional scale during various scientific studies and ground water monitoring programme throughout the country. Data on ground water quality has been shared with concerned State Governments for taking remedial measures, awareness and monitoring of drinking water use.

To make provision of potable tap water supply in adequate quantity, of prescribed quality and on regular & long-term basis to every rural household by 2024, since August, 2019, Government of India in partnership with States, is implementing Jal Jeevan Mission (JJM) – Har Ghar Jal. Under JJM, while allocating the funds to States/ UTs, 10% weightage is given to the population residing in habitations affected by chemical contaminants.

Under JJM, while planning for potable water supply to household through tap water connection, priority is to be given to quality-affected habitations. Since, planning, implementation and commissioning of piped water supply scheme 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) especially in Arsenic and Fluoride 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.

Under Jal Jeevan Mission, as per existing guidelines, IS:10500 is to be adopted for ensuring safe drinking water supply and States/ UTs have been advised to carry out testing of drinking water sources once in year for chemical and physical parameters, and twice in a year for bacteriological parameters. To enable States/ UTs to test water samples for water quality, and for sample collection, reporting, monitoring and surveillance of drinking water sources, an online JJM – Water Quality Management Information System (WQMIS) portal has been developed. The State–wise details of water quality test reported through WQMIS is available in public domain on JJM Dashboard and can also be accessed at:

<https://neer.icmr.org.in/website/main.php>

To encourage water quality testing to ensure potable drinking water supply, States/ UTs have opened water quality testing laboratories to general public for testing of their water samples at a nominal rate.

States/ UTs have been advised to identify and train 5 persons preferably women viz. ASHA workers, health workers, VWSC members, teachers, etc. in each village to conduct water quality tests using FTKs/ bacteriological vials at village level and report the same on the portal.

Annex – I

Referred to in the reply to Lok Sabha unstarred Question No. 835 due for reply on 21.07.2022

‘Acceptable limit’ and ‘permissible limit in the absence of alternate source’ prescribed by Bureau of Indian Standard (BIS) (extract) for various physio-chemical and bacteriological parameters for drinking water quality

S. No.	Characteristics	Unit	Acceptable Limit	Permissible Limit
1.	pH value	..	6.5 -8.5	No relaxation
2.	Total dissolved solids	Milligram/ litre	500	2,000
3.	Turbidity	NTU	1	5
4.	Chloride	Milligram/ litre	250	1,000
5.	Total Alkalinity	Milligram/ litre	200	600
6.	Total Hardness	Milligram/ litre	200	600
7.	Sulphate	Milligram/ litre	200	400
8.	Iron	Milligram/ litre	1.0	No relaxation
9.	Total Arsenic	Milligram/ litre	0.01	No relaxation
10.	Fluoride	Milligram/ litre	1.0	1.5
11.	Nitrate	Milligram/ litre	45	No relaxation
12.	Total Coliform bacteria	Shall not be detectable in any 100 ml sample		
13.	E-coli or thermo-tolerant coliform bacteria	Shall not be detectable in any 100 ml sample		

Referred to in the reply to Lok Sabha unstarred Question No. 835 due for reply on 21.07.2022

State-wise number of habitations affected with contamination in drinking water sources and CWPPs installed in Arsenic and Fluoride affected habitations

S. No.	State	Number of quality affected habitations							
		Fluoride	CWPP Installed	Arsenic	CWPP installed	Iron	Salinity	Nitrate	Heavy Metal
1.	Arunachal Pradesh	-	-	-	-	224	-	-	-
2.	Assam	-	-	7	7	10,231	-	-	3
3.	Bihar	1	-	11	2	449	-	-	-
4.	Chhattisgarh	168	-	-	-	25	-	-	-
5.	Jharkhand	2	2	-	-	57	-	-	-
6.	Kerala	5	5	-	-	61	18	8	-
7.	Madhya Pradesh	1	-	-	-	-	4	-	-
8.	Maharashtra	3	-	-	-	6	31	6	-
9.	Odisha	41	-	-	-	1,972	26	6	-
10.	Punjab	182	134	556	289	7	-	23	103
11.	Rajasthan	188	153	-	-	4	9,772	463	-
12.	Tripura	-	-	-	-	748	-	-	-
13.	Uttar Pradesh	38	38	107	107	281	79	10	-
14.	Uttarakhand	-	-	-	-	2	-	1	-
15.	West Bengal	42	7	133	48	18	1	-	5
Total		671	339	814	453	14,085	9,931	517	111

Source: JJM-IMIS