

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

LOK SABHA
UNSTARRED QUESTION NO. 2606
TO BE ANSWERED ON 17.03.2022

ADVERSE EFFECT OF HARMFUL CHEMICAL SUBSTANCE IN WATER

†2606. DR. RAMAPATI RAM TRIPATHI:

Will the Minister of JAL SHAKTI be pleased to state:

- (a) whether the Government is aware that ground water with harmful chemical substance which adversely affects human health is being used for drinking across the country;
- (b) if so, the details thereof;
- (c) whether the Government has conducted any scientific study on this issue;
- (d) if so, the details thereof, State-wise and if not, the reasons therefor; and
- (e) the steps taken or proposed to be taken by the Government to ensure clean potable water to the citizens in coordination with various States?

ANSWER

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 by Arsenic, Fluoride, Iron, Salinity, Nitrate & Heavy Metals 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 in the reply to Lok Sabha unstarred Question No. 2606 due for reply on 17.03.2022

Acceptable limit and permissible limit 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		

Annex–II referred in the reply to Lok Sabha unstarred Question No. 2606 due for reply on 17.03.2022

State-wise number of water quality-affected habitations and CWPPs installed in Arsenic and Fluoride affected habitations

S. No.	State/ UT	Number of quality-affected habitations							
		Fluoride	CWPP installed	Arsenic	CWPP installed	Iron	Salinity	Nitrate	Heavy metals
1.	Andhra Pradesh	86	86	-	-	-	12	1	
2.	Arunachal Pradesh	-	-	-	-	224	-	-	
3.	Assam	-	-	32	32	10,841	-	-	4
4.	Bihar	1	-	11	2	450	-	-	
5.	Chhattisgarh	154	31	-	-	30	-	-	
6.	Jharkhand	48	47	1	1	59	-	-	
7.	Kerala	5	-	-	-	61	18	8	
8.	Madhya Pradesh	52	-	-	-	20	7	2	
9.	Maharashtra	3	-	-	-	6	34	7	
10.	Odisha	45	-	-	-	2,031	30	6	
11.	Punjab	180	11	560	93	7	-	19	112
12.	Rajasthan	189	144	-	-	4	9,777	464	
13.	Tripura	-	-	-	-	1,079	-	-	
14.	Uttar Pradesh	41	39	107	107	281	79	10	
15.	Uttarakhand	-	-	-	-	2	-	2	
16.	West Bengal	127	1	946	211	1,630	72	-	67
Total		931	359	1,657	446	16,725	10,029	519	183

Source: JJM-IMIS