GOVERNMENT OF INDIA
MINISTRY OF JAL SHAKTI,
DEPARTMENT OF WATER RESOURCES, RIVER DEVELOPMENT & GANGA REJUVENATION
RAJYA SABHA
UNSTARRED QUESTION NO. 716
ANSWERED ON 26.07.2021

HAZARDOUS CHEMICALS IN UNDERGROUND WATER

716 Lt. Gen. (Dr.) D. P. VATS (Retd.)
SHRI HARNATH SINGH YADAV

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

(a) whether Government has taken cognizance of the availability of hazardous chemical contents in underground water which is being used for drinking purposes throughout the country despite being unfit, thereby adversely affecting human health;
(b) whether 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 contemplated by Government, in coordination with various State Governments, in this regard; and
(e) the new steps being taken by Government to ensure availability of safe drinking water to the citizens?

ANSWER

THE MINISTER OF JAL SHAKTI

(SHRI GAJENDRA SINGH SHEKHAWAT)

(a) The Government is aware of the presence of various hazardous chemical contents in ground water at some places in the country. However, Central government has taken a number of initiatives in collaboration with States to provide safe water to the citizens.

(b) Yes, 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 along with various scientific studies.

(c) CGWB studies indicate the occurrence of contaminants such as Flouride, Arsenic, Nitrate, Iron and heavy metals beyond permissible limits (as per BIS) for human consumption in isolated pockets in various States / UTs. The ground water contamination reported by CGWB is mostly geogenic in nature and does not show significant change over the years. However, nitrate contamination is mostly anthropogenic and its spread has been noticed in some areas, particularly areas adjoining habitations. Nitrate contamination may also be caused by excessive use of fertilizers. State-wise details of contamination of ground water are given at **Annexure.**

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(d) & (e) 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 by 2024. Under JJM, while planning water supply schemes to provide tap water supply to households, 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 likely to take time, States/ UTs have been advised to install community water purification plants (CWPPs) in such habitations, purely as an interim measure, to provide potable water to every household at the rate of 8–10 litre per capita per day to meet their drinking and cooking requirements.

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.

Under Atal Mission for Rejuvenation and Urban Transformation (AMRUT) launched on 25th June, 2015 in selected 500 cities 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 with Arsenic, Fluoride etc.

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.

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ANNEXURE

Annexure referred to in reply to part (c) of Unstarred Question No. 716 to be answered in Rajya Sabha on 26.07.2021 regarding "Hazardous Chemicals in Underground Water".

States Wise Number of Partly Affected Districts with different Contaminants in Ground Water of India

S. No.	State/ UT	Salinity (EC above 3000 micro mhos/ cm) (EC : Electrical Conductivity)	Fluoride (above 1.5 mg/l)	Nitrate (above 45 mg/l)	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	12	12	13	3	7			
2	Telangana	8	10	10	1	8	2	1	1
3	Assam		9		19	18			
4	Arunachal Prades				4				
5	Bihar		13	10	22	19			
6	Chhattisgarh	1	19	12	1	17	1	1	1
7	Delhi	7	7	8	2		3	1	4
8	Goa					2			
9	Gujarat	21	22	24	12	10			
10	Haryana	18	21	21	15	17	17	7	1
11	Himachal Pradesh			6	1				
12	Jammu & Kashm		2	6	3	9	3	1	
13	Jharkhand		12	11	2	6	1		
14	Karnataka	29	30	29	2	22			
15	Kerala	4	5	11		14	2		1
16	Madhya Pradesh	18	43	51	8	41	16		
17	Maharashtra	25	17	30		20	19		
18	Manipur		1		2	4			
19	Meghalaya		1			6			
20	Nagaland		1			1			
21	Odisha	17	26	28	1	30			1
22	Punjab	10	19	21	10	9	6	8	10
23	Rajasthan	30	33	33	1	33	3		
24	Tamil Nadu	28	25	29	9	2	3	1	5
25	Tripura					4			
26	Uttar Pradesh	13	34	59	28	15	10	2	3
27	Uttarakhand			4	5				
28	West Bengal	6	8	5	9	16	6	2	2
29	Andaman& Nicol	1				2			
30	Daman & Diu	1		1	1				
31	Puducherry			1					
	Total	**Parts of 249 districts in 18 states & UTs**	**Parts of 370 districts in 23 states & UTs**	**Parts of 423 districts in 23 states & UTs**	**Parts of 152 districts in 21 states & UTs**	**Parts of 341 districts in 27 states & UTs**	**Pb in parts of 92 districts in 14 states**	**Cd in parts of 24 districts in 9 states**	**Cr in parts of 29districts in 10 states**

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