

GOVERNMENT OF INDIA  
MINISTRY OF JAL SHAKTI,  
DEPARTMENT OF WATER RESOURCES, RIVER DEVELOPMENT & GANGA REJUVENATION

**LOK SABHA**

**UNSTARRED QUESTION NO. 244**

ANSWERED ON 08.12.2022

**CONTAMINATION OF GROUND WATER**

244 SHRIMATI POONAM MAHAJAN

MS. RAMYA HARIDAS

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

- (a) the details of the States where rivers and groundwater have been found to be contaminated with salinity, iron and nitrates;
- (b) whether it is a fact that the contamination is in excess of the limit prescribed by the Bureau of Indian Standards (BIS);
- (c) if so, the details thereof and the reasons therefor; and
- (d) the corrective steps being taken by the Government in this regard?

**ANSWER**

THE MINISTER OF STATE FOR JAL SHAKTI

(SHRI BISHWESWAR TUDU)

**(a) to (c)** 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 such as Nitrate, Iron and Salinity beyond permissible limits (as per BIS) for human consumption in isolated pockets in various States / UTs. The details in this regard are given at **Annexure I**.

Further, Central Water Commission (CWC) generates surface water quality information with respect to rivers in the country through various sites located in various parts of the country. As per the information for the period August, 2018 to December, 2020, iron parameter were found to have values more than the prescribed standard for drinking water (as per BIS) at 414 sites located in certain river basins falling in the States of Rajasthan, Jharkhand, Assam, Uttar Pradesh, Odisha, Tripura, Tamil Nadu, West Bengal, Maharashtra, Andhra Pradesh, Kerala, Karnataka, Bihar, Madhya Pradesh, Uttarakhand, Chhattisgarh, Arunachal Pradesh, Meghalaya, Gujarat, Manipur, Delhi, Telangana, Himachal Pradesh and Sikkim. In addition, the value of Nitrates were found beyond prescribed limits for drinking water (as per BIS) at 8 sites

out of 588 sites for water year 1<sup>st</sup> June, 2019 to 31<sup>st</sup> May, 2020. Details in this regard are given at **Annexure II**.

Water demand in the country is continuously increasing due to population rise, industrialization & urbanization etc which are contributing to rise in contaminants level in rivers and groundwater. Excessive use of fertilizers in the agriculture practices may also be considered as one of the factor for contamination in groundwater and surface water sources.

**(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 controlling water contamination 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 and the Environment (Protection) Act, 1986 to prevent and control pollution in water. CPCB has made a comprehensive programme on water pollution for controlling point sources by developing industry specific standards and general standards for discharge of effluents notified under the Environment (Protection) Act, 1986 for enforcement by SPCBs/PCCs. As per the directives of CPCB, Online Continuous Effluent Monitoring Systems (OCEMS) are installed by the industrial units in the country for getting real time information on the effluent quality and non-complying units are identified for follow-up inspections and actions.

The Department of Water Resources, River Development and Ganga Rejuvenation 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.

The water pollution also owe its origin to contamination of surface water sources for which various efforts have been made in the country by installing Sewage Treatment Plants, Effluent Treatment Plants and better system of sewage networks etc. However, the adverse effects of the water pollution can be addressed to a large extent if safe water is made available to public. With this aim, central Government 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.

In addition, Ministry of Housing & Urban Affairs supplements the efforts of the States/ UTs through its programmes and policies. Atal Mission for Rejuvenation and Urban Transformation (AMRUT) is one of such programmes, which was launched on June 25, 2015, in selected 500 cities and towns across the country. The Mission focuses on development of basic urban infrastructure in the AMRUT cities, such as

water supply, sewerage & septage management, storm water drainage, green spaces & parks, and non-motorized urban transport.

Further, AMRUT- 2.0 was launched on 01<sup>st</sup> October 2021 for the period of 05 years (FY 2021-22 to 2025-26), with the objective of providing universal coverage of water supply through functional household tap connection in all statutory towns in the country.

Contaminants level in groundwater can be reduced to some extent if groundwater is recharged through rainwater harvesting. Government of India in this regard has taken up a number of initiatives/schemes like Jal Shakti Abiyan, PMKSY-Watershed development, MGNREGA, Atal Bhujal Yojana etc. The JSA in this regard was initiated in 2019 which continued during 2021 and 2022 also. Further, the JSA for the years 2021 and 2022 have been launched by the Hon'ble Prime Minister and Hon'ble President of India respectively. The JSA has given special emphasis on creation of recharge structures, rejuvenation of traditional water bodies, intensive afforestation etc for effective rainfall harvesting.

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**ANNEXURE I**

**ANNEXURE REFERRED TO IN REPLY TO PART (a) TO (c) OF UNSTARRED QUESTION NO. 244 TO BE ANSWERED IN LOK SABHA ON 08.12.2022 REGARDING “CONTAMINATION OF GROUND WATER”.**

**States Wise Number of Partly Affected Districts with Salinity, Iron and Nitrate contaminants in Ground Water of India**

Sl.No.	State/ UT	Salinity (EC above 3000 micro mhos/cm) (EC: Electrical Conductivity)	Nitrate (Above 45 mg/l)	Iron (Above 1mg/l)
1	Andhra Pradesh	12	13	12
2	Telangana	9	10	9
3	Assam			25
4	Arunachal Pradesh			6
5	Bihar	4	32	35
6	Chhattisgarh	1	24	22
7	Delhi	8	9	5
8	Goa			2
9	Gujarat	26	32	14
10	Haryana	18	21	20
11	Himachal Pradesh		7	5
12	Jammu & Kashmir		9	10
13	Jharkhand		23	23
14	Karnataka	29	29	22
15	Kerala	4	14	15
16	Madhya Pradesh	20	51	47
17	Maharashtra	28	30	24
18	Manipur			4
19	Meghalaya			7
20	Nagaland			5
21	Odisha	18	29	31
22	Punjab	12	23	16
23	Rajasthan	31	33	33
24	Tamil Nadu	29	32	16
25	Tripura			8
26	Uttar Pradesh	14	62	68
27	Uttarakhand	1	4	8
28	West Bengal	9	16	21
29	Andaman & Nicobar	1		3
30	Daman & Diu	1	2	
31	Puducherry		2	
	<b>Total</b>	<b>Parts of 275 districts in 20 states &amp; UTs</b>	<b>Parts of 507 districts in 23 states &amp; UTs</b>	<b>Parts of 516 districts in 29 states &amp; UTs</b>

**ANNEXURE II**

**ANNEXURE REFERRED TO IN REPLY TO PART (a) TO (c) OF UNSTARRED QUESTION NO. 244 TO BE ANSWERED IN LOK SABHA ON 08.12.2022 REGARDING “CONTAMINATION OF GROUND WATER”.**

<b>Sr. No</b>	<b>Water Quality Sites</b>	<b>River</b>	<b>Year</b>	<b>Month</b>	<b>Nitrate (above 45 mg/l)</b>
1	Amgaon	Chulband	2019	November	62.925
2	Bhakari	Wainganga	2019	November	45.1
	Bhakari	Wainganga	2019	September	45.45
3	Kollegal	Cauvery	2019	June	81.26
4	Lodhikheda	Jam	2019	November	47.60
5	Mungoli	Penganga	2019	September	47.55
6	T.Bekuppe	Arkavathy	2019	November	51.70
	T.Bekuppe	Arkavathy	2019	November	45.17
7	Tandi	Bhaga	2019	August	75.64
	Tandi	Bhaga	2019	June	48.8
	Tandi	Bhaga	2019	October	97.6
	Tandi	Bhaga	2019	September	107.54
8	Thimmanahalli	Yagachi	2019	June	78.06

**Study Period (2019-20)**

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