

GOVERNMENT OF INDIA
MINISTRY OF JAL SHAKTI,
DEPARTMENT OF WATER RESOURCES, RIVER DEVELOPMENT & GANGA
REJUVENATION
LOK SABHA
UNSTARRED QUESTION NO. 4668
ANSWERED ON 31.03.2022

FILLING UP OF URBAN AQUIFIERS

4668. SHRI GNANATHIRAVIAM S.

Will the Minister of JAL SHAKTI be pleased to state:

- (a) whether it is a fact that urban aquifers (underground reservoirs) that are recharged by abused rivers are filled with sewage and that water is later pumped up by domestic borewells and if so, the details thereof;
- (b) whether it is also fact that thirteen major rivers of the country make up eighty per cent of the total surface water and their basins are home to nearly eighty five per cent of the population and the water in these rivers, particularly near towns and industrial belts, are feeding place for bacteria and if so, the details thereof;
- (c) whether the Government has conducted any study in this regard; and
- (d) if so, the details thereof and the action proposed to be taken to clean these rivers?

ANSWER

THE MINISTER OF STATE FOR JAL SHAKTI

(SHRI BISHWESWAR TUDU)

(a) Central Ground Water Board (CGWB) generates ground water quality data on a regional scale during various scientific studies and ground water quality monitoring throughout the country. These studies indicate the occurrence of Salinity, Fluoride, Arsenic, Nitrate, Iron and Heavy Metals beyond the Bureau of Indian Standards (BIS) permissible limits in isolated pockets in various parts of the country. 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 can also be caused by excessive use of fertilizers. High Salinity has been reported from 248 districts in 18 States, Fluoride beyond permissible limit has been encountered from 370 districts in 23 States, Nitrate from 423 districts in 23 States, Arsenic from 152 districts in 21 States, Iron from 341 districts in 27 States, Lead from 92 districts in 14 States, Cadmium from 24 districts in 9 States and Chromium from 29 districts in 10 States. State-wise details of contamination of ground water is given at **Annexure-I**.

(b) to (d) As per the study 'Reassessment of Water Availability in India using Space Inputs, 2019' by Central Water Commission (CWC), the average annual water resource of all the 20 basins of the country has been assessed as 1999.20 Billion Cubic Meters (BCM). The basin-wise water availability and estimated population for the years 2025 and 2050 have been shown in **Annexure-II**.

Central Pollution Control Board (CPCB) in association with the State Pollution Control Boards/Committees in different States/Union Territories (UTs) have been monitoring the water quality of rivers and other water bodies through a network of monitoring stations under the National Water Quality Monitoring Programme. Based on water quality monitoring results, pollution assessment of rivers has been carried out by CPCB from time to time. As per the last report published by CPCB in

September 2018, 351 polluted stretches were identified on 323 rivers based on monitoring results in terms of Bio-chemical Oxygen Demand (BOD), an indicator of organic pollution.

Cleaning/rejuvenation of rivers is a continuous process. It is the responsibility of the States/UTs, local bodies and industrial units to ensure required treatment of sewage and industrial effluents to the prescribed norms before discharging into river and other water bodies, coastal waters or land to prevent and control of pollution therein. For conservation of rivers, this Ministry has been supplementing efforts of the States/UTs by providing financial and technical assistance for abatement of pollution in identified stretches of rivers in the country through the Central Sector Scheme of Namami Gange for rivers in Ganga basin and the Centrally Sponsored Scheme of National River Conservation Plan (NRCP) for other rivers.

Proposals for pollution abatement works in the towns along polluted river stretches are received from the States/UTs from time to time for consideration under NRCP and sanctioned based on their prioritization, conformity with NRCP guidelines, availability of plan funds, etc. NRCP has so far covered polluted stretches on 34 rivers in 77 towns spread over 16 States in the country with the project sanctioned cost of Rs.6050.18 crore, and *inter-alia*, a sewage treatment capacity of 2677 million litres per day (mld) has been created. Under Namami Gange programme, a total of 36 projects, including 160 projects for sewage treatment of 5024 mld and sewer network of 5227 kms., have been sanctioned at a cost of Rs.30853 crore.

In addition, sewerage infrastructure is created under programs like Atal Mission for Rejuvenation & Urban Transformation (AMRUT) and Smart Cities Mission of Ministry of Housing & Urban Affairs.

As per the Provisions of Environment (Protection) Act, 1986 and Water (Prevention & Control of Pollution), Act 1974, industrial units are required to install effluent treatment plants (ETPs) and treat their effluents to comply with stipulated environmental standards before discharging into river and water bodies. Accordingly, CPCB, State Pollution Control Boards/Pollution Control Committees monitor industries with respect to effluent discharge standards and take action for non-compliance under provisions of these Acts.

Besides, in compliance of the orders of National Green Tribunal (NGT) in Original Application No.673/2018 regarding rejuvenation of polluted river stretches in the country, States/UTs are required to implement approved action plans for restoration of the polluted stretches in their jurisdiction as identified by CPCB and published in their report of 2018, within the stipulated timelines. As per the orders of NGT, regular review on implementation of action plans is undertaken in the States/UTs and also at Central level.

ANNEXURE REFERRED TO IN REPLY TO PART (a) OF LOK SABHA UNSTARRED QUESTION NO. 4668 TO BE ANSWERED ON THE 31ST MARCH, 2022 REGARDING FILLING UP OF URBAN AQUIFIERS

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 Pradesh					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 & Kashmir		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	27	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 & Nicobar	1				2			
30	Daman & Diu	1		1	1				
31	Puducherry			1					
	Total	Parts of 248 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 29 districts in 10 states

ANNEXURE REFERRED TO IN REPLY TO PARTS (b) TO (d) OF LOK SABHA UNSTARRED QUESTION NO. 4668 TO BE ANSWERED ON THE 31.03.2022 REGARDING FILLING UP OF URBAN AQUIFIERS

Water Resources Availability and Estimated Population in India for year 2025 & 2050

SI No.	River Basin	Average Annual Water Resource Potential (BCM)*	Estimated Population (Million)**	
			2025	2050
(1)	(2)	(3)	(4)	(5)
1.	Indus (Up to Border)	45.53	69.2	81.41
2.	Ganga- Brahmaputra-Meghna			
	(a). Ganga	509.52	593.04	697.69
	(b). Brahmaputra	527.28	48.06	56.54
	(c). Barak & Others	86.67	10.24	12.05
3.	Godavari	117.74	89.18	104.92
4.	Krishna	89.04	100.41	118.13
5.	Cauvery	27.67	48.39	56.93
6.	Subarnarekha	15.05	15.52	18.26
7.	Brahmini & Baitarani	35.65	16.18	19.04
8.	Mahanadi	73	43.93	51.68
9.	Pennar	11.02	16.02	18.85
10.	Mahi	14.96	17.34	20.4
11.	Sabarmati	12.96	17.34	20.4
12.	Narmada	58.21	24.28	28.56
13.	Tapi	26.24	24.44	28.75
14.	West Flowing river from Tapi to Tadri	118.35	42.61	50.13
15.	West flowing rivers from Tadri to Kanyakumari	119.06	53.84	63.34
16.	East flowing rivers between Mahanadi and Pennar	26.41	38.97	45.85
17.	East flowing rivers between Pennar and Kanyakumari	26.74	74.32	87.43
18.	West flowing rivers of Kutch and Saurashtra including Luni	26.93	36.5	42.94
19.	Area of Island drainage in Rajasthan		11.73	13.79
20.	Minor River Draining into Myanmar (Burma) & Bangladesh	31.17	2.48	2.91
	TOTAL	1999.2	1394.02	1640

* Reassessment of Water Availability in India using Space Inputs, 2019, CWC

** Report of the Standing Sub-Committee for assessment of availability and requirement of water for diverse uses in the country, August, 2000
