GOVERNMENT OF INDIA

MINISTRY OF JAL SHAKTI

DEPARTMENT OF WATER RESOURCES, RIVER DEVELOPMENT & GANGA REJUVENATION

RAJYA SABHA

UNSTARRED QUESTION NO.1677

ANSWERED ON 04.08.2025

DEPLETION OF GROUNDWATER RESERVES

1677 #. SHRI SUBHASH BARALA SHRI KESRIDEVSINH JHALA

SHRI MAYANKKUMAR NAYAK SHRI NARAYANA KORAGAPPA

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

(a) the current status of groundwater reserves across the country, State-wise and districtwise;

(b) the steps taken or being taken by Government to mitigate groundwater depletion in areas where the situation is severe;

(c) the extent and nature of groundwater pollution in various States and districts, along with the major identified pollutants; and

(d) the specific programmes or initiatives undertaken by Government to enhance groundwater levels, particularly in over-exploited and critically affected blocks?

ANSWER

THE MINISTER OF STATE FOR JAL SHAKTI

(SHRI RAJ BHUSHAN CHOUDHARY**)**

(a) Assessment of Dynamic groundwater resources of each State/UT is being carried out on annual basis jointly by the Central Ground Water Board and the concerned State Nodal/Ground Water Departments. As per the report of "National Compilation of Dynamic Ground Water Resources of India, 2024", the total annual groundwater recharge in the country has been assessed as 446.9 billion cubic metres (bcm). Total annual extractable groundwater resource has been assessed as 406.19 bcm and the total annual groundwater extraction for all purposes (like domestic, industrial, agricultural uses etc) is estimated as 245.64 bcm. The Stage of groundwater Extraction (SoE), which is defined as a ratio of Annual Ground Water Extraction over Annual Extractable Ground Water Resource for the whole country is arrived at 60.47 %.

The details of state-wise Ground Water Resource assessment for the country as per the 2024 report is given in **Annexure I.** District-wise details may be accessed from the following link: https://cgwb.gov.in/cgwbpnm/public/uploads/documents/17357182991031590738file.pdf#page=167

(b) to (d) Water being a State subject, sustainable development and management of groundwater resources is primarily the responsibility of the State Governments. However, the Central Government facilitates the efforts of the State Governments by way of technical and financial assistance through its various schemes and projects. In this direction, the important steps taken by the Ministry of Jal Shakti and other central ministries for conservation and sustainable development of ground water resources in the country, with a focus of vulnerable areas like over-exploited and critical Blocks, are given below:-

i. The Government is implementing Jal Shakti Abhiyan (JSA) in the country since 2019 in which is a mission mode and time bound programme for harvesting the rainfall and taking up water conservation activities. Currently, JSA 2025 is being implemented in the country with special focus on over-exploited and critical areas. JSA is an umbrella campaign under which various ground water recharge and conservation related works are being taken up in convergence with various central and state schemes. As per JSA dashboard, in the past 4 years, more than 1.14 Cr water harvesting and recharge works have been completed through coordination in the country.

ii. Further, CGWB has also completed the National Aquifer Mapping (NAQUIM) Project covering approximately 25 lakh square kms. of mappable area across the country. Further, District-wise Aquifer maps and management plans have been prepared and shared with the respective State agencies for taking up further suitable interventions.

iii. Master Plan for Artificial Recharge to Groundwater- 2020 has been prepared by the CGWB and shared with States/UTs providing a broad outline for construction of around 1.42 crore rain water harvesting and artificial recharge structures in the country with estimated cost to harness about 185 Billion Cubic Meters (BCM) of water.

iv. The government of India is implementing Atal Bhujal Yojana in 80 water stressed districts of 7 states which has community led sustainable management of ground water resources and demand management as its core theme.

v. Department of Agriculture & Farmers' Welfare (DA & FW), GoI, is implementing Per Drop More Crop (PDMC) Scheme in the country, since 2015-16, which focuses on enhancing water use efficiency at farm level through Micro Irrigation and better on-farm water management practices to optimize the use of available water resources. From 2015-16 till December 2024, an area of 94.36 lakh ha has been covered under micro irrigation in the country through PDMC scheme.

vi. Mission Amrit Sarovar was launched by the Government of India, which aimed at developing and rejuvenating at least 75 water bodies in each district of the country. As an outcome nearly 69,000 Amrit Sarovars have been constructed/rejuvenated in the country.

vii. M/o Jal Shakti is promoting conjunctive use of surface water and groundwater and to reduce dependence on groundwater, surface water based Major and Medium irrigation projects have been taken up in the country under PMKSY-AIBP scheme in collaboration with States/UTs.

viii. The Central Ground Water Authority (CGWA) has been constituted under the Ministry of Jal Shakti for the purpose of regulation and control of ground water development and management in the country. Abstraction cum use of Groundwater in the country is regulated by CGWA as per the provisions of its Guidelines dated 24.09.2020 which have pan India applicability.

ix. To complement the above efforts, a number of States have done notable work in the field of water conservation/harvesting. Some of them can be mentioned as 'Mukhyamantri Jal Swavlamban Abhiyan' in Rajasthan, 'Jalyukt Shibar' in Maharashtra, 'Sujalam Sufalam Abhiyan' in Gujarat, 'Mission Kakatiya' in Telangana, Neeru Chettu' in Andhra Pradesh, Jal Jeevan Hariyali in Bihar, 'Jal Hi Jeevan' in Haryana, Kudimaramath scheme in Tamil Nadu etc.

Central Ground Water Board (CGWB) generates ground water quality data of the entire country on a regional scale as part of its ground water quality monitoring program and various scientific studies. Overall, the data on ground water quality indicates that the ground water in the country remains largely potable. However, localized occurrence of certain contaminants, like Arsenic, Fluoride, Heavy metals, Nitrates etc, beyond the prescribed limits for drinking water use has been reported in certain isolated pockets of some States/UTs. Details of major contaminants as per the Annual Groundwater Quality Report 2024 of CGWB, based on the ground water sampling and analysis data from 15,259 monitoring locations spread across the country, is provided in **Annexure –II**. For further details on district-wise distribution and trends, the Annual Groundwater Quality Report 2024 may be referred, which is available on CGWB web site and can be accessed through the following link :https://cgwb.gov.in/cgwbpnm/public/uploads/documents/17363272771910393216file.pdf

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ANNEXURE-I

ANNEXURE REFERRED TO IN REPLY TO PART (a) OF UNSTARRED QUESTION NO. 1677 TO BE ANSWERED IN RAJYA SABHA ON 04.08.2025 REGARDING "DEPLETION OF GROUNDWATER RESERVES".

STATE-WISE GROUND WATER RESOURCES OF INDIA, 2024

S. No.	States /Union Territories	Total Annual Ground Water Recharge (in BCM*)	Annual Extractable Ground Water Resource (in BCM)	Current Annual Ground Water Extraction (in BCM)	Stage of Ground Water Extraction (%)
1	Andhra Pradesh	27.80	26.41	7.88	29.83
2	Arunachal Pradesh	3.88	3.46	0.01	0.39
3	Assam	27.21	20.89	2.64	12.61
4	Bihar	34.15	30.95	14.10	45.54
5	Chhattisgarh	14.18	12.93	6.12	47.32
6	Goa	0.38	0.31	0.07	22.91
7	Gujarat	27.58	25.58	13.86	54.21
8	Haryana	10.32	9.36	12.72	135.96
9	Himachal Pradesh	1.11	1.01	0.36	35.48
10	Jharkhand	6.28	5.76	1.81	31.43
11	Karnataka	18.74	16.88	11.55	68.44
12	Kerala	5.67	5.13	2.76	53.78
13	Madhya Pradesh	35.90	33.99	19.85	58.40
14	Maharashtra	33.03	31.15	16.50	52.99
15	Manipur	0.52	0.47	0.04	8.00
16	Meghalaya	1.86	1.53	0.07	4.60
17	Mizoram	0.21	0.19	0.01	3.95
18	Nagaland	0.62	0.56	0.03	4.72
19	Odisha	17.46	16.04	7.74	48.23
20	Punjab	19.19	17.63	27.66	156.87
21	Rajasthan	12.58	11.37	17.05	149.86
22	Sikkim	0.24	0.22	0.01	5.85
23	Tamil Nadu	21.51	19.46	14.45	74.26
24	Telangana	20.40	18.44	8.47	45.91
25	Tripura	1.45	1.18	0.11	9.48
26	Uttar Pradesh	72.84	66.38	46.76	70.45
27	Uttarakhand	2.14	1.96	1.05	53.54
28	West Bengal	25.89	23.56	10.75	45.63
29	Andaman And Nicobar	0.38	0.34	0.01	2.08
30	Chandigarh	0.06	0.05	0.03	66.13
31	Dadra and Nagar Haveli and Daman and Diu	0.12	0.12	0.16	142.17
32	Delhi	0.38	0.34	0.34	100.77
33	Jammu And Kashmir	2.55	2.30	0.51	22.28
34	Ladakh	0.07	0.06	0.02	30.93
35	Lakshadweep	0.01	0.01	0.00	61.32
36	Puducherry	0.19	0.17	0.13	75.91
	Grand Total	**446.908**	**406.194**	**245.646**	**60.475**

***BCM – Billion Cubic Meters**

ANNEXURE-II

ANNEXURE REFERRED TO IN REPLY TO PART (b) to (d) OF UNSTARRED QUESTION NO. 1677 TO BE ANSWERED IN RAJYA SABHA ON 04.08.2025 REGARDING "DEPLETION OF GROUNDWATER RESERVES".

State-wise details of major contaminants in Ground Water as per Annual Ground water Quality Report 2024

S. No.	State	Electrical Conductivity (EC)			Nitrate			Fluoride		
		No. of Samples Analysed	% of samples with EC >3000 µS/cm	No. of districts having EC > 3000 µS/cm in isolated pockets	No. of Samples Analysed	% of samples with NO_3>45 mg/L	No. of districts having Nitrate > 45 mg/L in isolated pockets	No. of Samples Analysed	% of samples with F >1.5 mg/L	No of districts having F >1.5 mg/L in isolated pockets
1	Andaman & Nicobar Islands	113	0	0	113	0	0	113	0	0
2	Andhra Pradesh	1149	9.7	23	1149	23.5	26	1149	11.31	17
3	Arunachal Pradesh	12	0	0	12	0	0	12	0	0
4	Assam	155	0.6	1	155	0	0	155	0	0
5	Bihar	808	0.9	5	808	2.35	15	808	4.58	6
6	Chandigarh UT	8	0	0	8	0	0	8	0	0
7	Chhattisgarh	783	0.3	2	783	11.49	20	783	1.79	8
8	Dadra And Nagar Haveli & Daman and Diu	17	5.9	1	17	0	0	17	0	0
9	Delhi	103	23.3	5	103	20.39	7	103	16.5	6
10	Goa	10	0	0	10	0	0	10	0	0
11	Gujarat	632	19.6	24	632	18.04	23	632	13.92	25
12	Haryana	879	21	19	879	14.56	21	879	23.66	17
13	Himachal Pradesh	171	0	0	171	9.36	6	171	1.17	2
14	Jammu & Kashmir	250	0	0	250	9.2	6	250	0	0

15	Jharkhand	397	0	0	397	5.79	9	397	2.77	8
16	Karnataka	345	14.5	15	345	48.99	27	345	17.68	19
17	Kerala	342	0	0	342	6.73	10	342	0.29	1
18	Madhya Pradesh	589	1.2	5	589	22.58	39	589	1.02	6
19	Maharashtra	1567	3.6	21	1567	35.74	32	1567	1.91	10
20	Meghalaya	39	0	0	39	0	0	39	0	0
21	Mizoram	3	0	0	3	0	0	3	0	0
22	Nagaland	6	0	0	6	0	0	6	0	0
23	Odisha	625	1.1	4	625	14.4	15	625	4.48	10
24	Pondicherry	4	0	0	4	25	1	4	0	0
25	Punjab	922	6.7	9	922	12.58	20	922	13.77	17
26	Rajasthan	630	48.6	26	630	49.52	30	630	43.17	31
27	Tamil Nadu	916	9.2	24	916	37.77	31	916	9.72	21
28	Telangana	1150	3	16	1150	27.48	32	1150	14.87	28
29	Tripura	81	0	0	81	2.47	2	81	0	0
30	Uttar Pradesh	1387	2.7	13	1387	9.37	48	1387	5.7	27
31	Uttarakhand	207	0	0	207	17.39	5	207	0.48	1
32	West Bengal	959	0.8	5	959	8.65	18	959	0.73	3
Grand Total		**15259**	**7.3**	**218**	**15259**	**19.8**	**443**	**15259**	**9.04**	**263**
		Parts of 218 districts in 18 States/UTs			**Parts of 443 districts in 23 States/UTs**			**Parts of 263 districts in 20 States/UTs**		

***Note: Out of 36 States/UTs, Ladakh, Lakshadweep, Sikkim and Manipur are not having Ground Water Quality Monitoring Stations of CGWB**

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