

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

**RAJYA SABHA**

**UNSTARRED QUESTION NO. 2495**

ANSWERED ON 08.08.2022

**STATUS OF GROUNDWATER**

2495 SHRI RAKESH SINHA

Will the Minister of JAL SHAKTI be pleased to state:

- (a) the status of groundwater in the country;
- (b) its trend for the last five years;
- (c) whether Government has estimated its position by 2030;
- (d) the States where the level of groundwater is at critical level;
- (e) the States where groundwater level is satisfactory; and
- (f) the actions being taken to improve the situation?

**ANSWER**

THE MINISTER OF STATE FOR JAL SHAKTI

(SHRI BISHWESWAR TUDU)

**(a) & (b)** The Dynamic Ground Water Resources of the country are being periodically assessed jointly by Central Ground Water Board (CGWB) and State Governments. As per the 2020 assessment, Annual Extractable Ground Water Resource and Annual Ground Water Extraction for all uses are around 398 Billion Cubic Meter (BCM) and nearly 245 BCM respectively. Further, as per 2017 assessment, Annual Extractable Ground Water Resource and Annual Ground Water Extraction for all uses are nearly 393 BCM and around 249 BCM respectively. In addition, the stage of overall groundwater extraction in the country during 2020 when compared with 2017 has reduced from 63.33 % to 61.60 %.

Further, in order to assess the long term fluctuation in ground water level, the water level data collected by CGWB (through a set of monitoring network) during November 2021 when compared with the five year mean of November 2016 to Nov 2020 indicates that about 70 % wells have registered rise in water level whereas, about 30% of the wells monitored have registered decline in ground water level. Details are given in **Annexure-I**.

**(c)** Groundwater resource assessment of the country is being done by the CGWB periodically in collaboration with States/UTs, however, the ground water position in country by 2030 has not been estimated.

**(d) to (f)** The State-wise details of groundwater resource and their overall extraction level as per the 2020 assessment is given at **Annexure- II**. It can be seen that Punjab, Rajasthan, Haryana, Delhi and Daman & Diu are having stage of GW extraction more than 100%.

Water is a State subject, Central Government has taken a number of important measures for conservation, management of ground water including effective implementation of rain water harvesting in the country, which can be seen at [http://jalshakti-dowr.gov.in/sites/default/files/Steps%20taken%20by%20the%20Central%20Govt%20for%20water\\_depletion\\_july2022.pdf](http://jalshakti-dowr.gov.in/sites/default/files/Steps%20taken%20by%20the%20Central%20Govt%20for%20water_depletion_july2022.pdf).

Government of India is implementing Jal Shakti Abhiyan (JSA) in the country. First JSA was launched in 2019 in water stressed blocks of 256 districts which continued during the year 2021 (across entire country both rural and urban areas) also with the primary aim to effectively harvest the monsoon rainfall through creation of artificial recharge structures, watershed management, recharge and reuse structures, intensive afforestation and awareness generation etc. JSA for the year 2021 and 2022 were launched by Hon'ble Prime Minister and Hon'ble President on 22.03.2021 and 29.03.2022 respectively.

Hon'ble Prime Minister launched Amrit Sarovar Mission on 24<sup>th</sup> April 2022. The Mission is aimed at developing and rejuvenating 75 water bodies in each district of the country as a part of celebration of Azadi ka Amrit Mahotsav.

Central Government is implementing Atal Bhujal Yojana with an outlay of Rs. 6,000 crore, in collaboration with States, in certain water stressed areas of Gujarat, Haryana, Karnataka, Madhya Pradesh, Maharashtra, Rajasthan and Uttar Pradesh. The primary aim of the scheme is demand side management through scientific means involving the local communities at village levels leading to sustainable groundwater management in the targeted areas.

Several States have done notable work in the field of water conservation/harvesting such as 'Mukhyamantri Jal Swavlamban Abhiyan' in Rajasthan, 'Jalyukt Shibir' 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, and Kudimaramath scheme in Tamil Nadu etc.

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ANNEXURE REFERRED TO IN REPLY TO PART (a) & (b) OF UNSTARRED QUESTION NO. 2495 TO BE ANSWERED IN RAJYA SABHA ON 08.08.2022 REGARDING "STATUS OF GROUNDWATER".

**State-wise Water Level Fluctuation of November 2021 vis-a-vis Mean of November 2016 and Nov 2020**

S. No.	Name of State	No. of wells Analy sed	Rise						Fall						Rise		Fall		Wells showin g no change	
			0-2 m		2-4 m		>4 m		0-2 m		2-4 m		>4 m		No	%	No	%	No	%
			No	%	No	%	No	%	No	%	No	%	No	%	No	%	No	%	No	%
1	Andhra Pradesh	705	429	60.9	83	11.8	59	8.4	109	15.5	18	2.6	6	0.9	571	81	133	19	1	0
2	Arunachal Pradesh	10	1	10.0	0	0.0	0	0.0	7	70.0	1	10.0	0	0.0	1	10	8	80	1	10
3	Assam	163	67	41.1	2	1.2	1	0.6	85	52.1	5	3.1	3	1.8	70	43	93	57	0	0
4	Bihar	592	371	62.7	86	14.5	12	2.0	115	19.4	8	1.4	0	0.0	469	79	123	21	0	0
5	Chandigarh	12	5	41.7	2	16.7	1	8.3	2	16.7	1	8.3	1	8.3	8	67	4	33	0	0
6	Chhattisgarh	693	327	47.2	87	12.6	32	4.6	190	27.4	34	4.9	23	3.3	446	64	247	36	0	0
7	Dadra & Nagar Haveli	17	15	88.2	0	0.0	0	0.0	2	11.8	0	0.0	0	0.0	15	88	2	12	0	0
8	Daman & Diu	4	2	50.0	1	25.0	0	0.0	1	25.0	0	0.0	0	0.0	3	75	1	25	0	0
9	Delhi	85	25	29.4	24	28.2	22	25.9	9	10.6	5	5.9	0	0.0	71	84	14	16	0	0
10	Goa	68	12	17.6	1	1.5	0	0.0	49	72.1	5	7.4	1	1.5	13	19	55	81	0	0
11	Gujarat	742	273	36.8	115	15.5	89	12.0	179	24.1	37	5.0	47	6.3	477	64	263	35	2	0
12	Haryana	181	74	40.9	7	3.9	8	4.4	69	38.1	11	6.1	12	6.6	89	49	92	51	0	0
13	Himachal Pradesh	86	45	52.3	4	4.7	2	2.3	30	34.9	3	3.5	2	2.3	51	59	35	41	0	0
14	Jammu & Kashmir	211	109	51.7	11	5.2	3	1.4	81	38.4	6	2.8	1	0.5	123	58	88	42	0	0
15	Jharkhand	191	117	61.3	12	6.3	1	0.5	55	28.8	6	3.1	0	0.0	130	68	61	32	0	0
16	Karnataka	1290	707	54.8	264	20.5	126	9.8	161	12.5	19	1.5	11	0.9	1097	85	191	15	2	0
17	Kerala	1297	858	66.2	164	12.6	44	3.4	206	15.9	15	1.2	9	0.7	1066	82	230	18	1	0
18	Madhya Pradesh	1297	588	45.3	178	13.7	107	8.2	334	25.8	66	5.1	22	1.7	873	67	422	33	2	0
19	Maharashtra	1727	874	50.6	285	16.5	142	8.2	346	20.0	51	3.0	24	1.4	1301	75	421	24	5	0
20	Meghalaya	24	10	41.7	0	0.0	0	0.0	14	58.3	0	0.0	0	0.0	10	42	14	58	0	0
21	Nagaland	2	1	50.0	0	0.0	0	0.0	0	0.0	1	50.0	0	0.0	1	50	1	50	0	0
22	Odisha	1226	640	52.2	28	2.3	3	0.2	516	42.1	33	2.7	6	0.5	671	55	555	45	0	0
23	Pondicherry	6	4	66.7	0	0.0	1	16.7	1	16.7	0	0.0	0	0.0	5	83	1	17	0	0
24	Punjab	175	53	30.3	5	2.9	2	1.1	90	51.4	23	13.1	2	1.1	60	34	115	66	0	0
25	Rajasthan	917	257	28.0	75	8.2	40	4.4	307	33.5	114	12.4	123	13.4	372	41	544	59	1	0
26	Tamil Nadu	530	173	32.6	154	29.1	129	24.3	53	10.0	14	2.6	7	1.3	456	86	74	14	0	0
27	Telangana	537	213	39.7	88	16.4	119	22.2	102	19.0	5	0.9	10	1.9	420	78	117	22	0	0
28	Tripura	22	4	18.2	0	0.0	0	0.0	15	68.2	2	9.1	0	0.0	4	18	17	77	1	5
29	Uttar Pradesh	644	358	55.6	111	17.2	26	4.0	126	19.6	16	2.5	7	1.1	495	77	149	23	0	0
30	Uttarakhand	45	21	46.7	5	11.1	2	4.4	12	26.7	3	6.7	2	4.4	28	62	17	38	0	0
31	West Bengal	706	409	57.9	98	13.9	31	4.4	113	16.0	27	3.8	27	3.8	538	76	167	24	1	0
<b>Total</b>		<b>14205</b>	<b>7042</b>	<b>49.6</b>	<b>1890</b>	<b>13.3</b>	<b>1002</b>	<b>7.1</b>	<b>3379</b>	<b>23.8</b>	<b>529</b>	<b>3.7</b>	<b>346</b>	<b>2.4</b>	<b>9934</b>	<b>70</b>	<b>4254</b>	<b>30</b>	<b>17</b>	<b>0</b>

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## STATE-WISE GROUND WATER RESOURCES OF INDIA, 2020 (in bcm)

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 (%)
				Irrigation	Industrial & Domestic	Total	
1	Andhra Pradesh	24.15	22.94	6.60	1.03	7.63	33.26
2	Arunachal Pradesh	3.19	2.92	0.003	0.01	0.01	0.36
3	Assam	27.05	21.97	1.97	0.60	2.58	11.73
4	Bihar	28.05	25.46	10.33	2.69	13.02	51.14
5	Chhattisgarh	12.65	11.55	4.53	0.82	5.35	46.34
6	Delhi	0.32	0.29	0.07	0.22	0.29	101.40
7	Goa	0.40	0.32	0.02	0.05	0.08	23.48
8	Gujarat	26.81	24.91	12.65	0.64	13.30	53.39
9	Haryana	9.53	8.63	10.47	1.15	11.61	134.56
10	Himachal Pradesh	1.07	0.97	0.20	0.16	0.36	36.83
11	Jharkhand	6.15	5.64	0.93	0.72	1.64	29.13
12	Karnataka	18.16	16.40	9.60	1.03	10.63	64.85
13	Kerala	5.65	5.12	1.16	1.48	2.65	51.68
14	Madhya Pradesh	36.16	33.38	17.33	1.64	18.97	56.82
15	Maharashtra	32.01	30.25	15.29	1.34	16.63	54.99
16	Manipur	0.51	0.46	0.003	0.02	0.02	5.12
17	Meghalaya	2.04	1.82	0.03	0.05	0.08	4.22
18	Mizoram	0.22	0.20	0.00	0.01	0.01	3.81
19	Nagaland	2.17	1.95	0.002	0.02	0.02	1.04
20	Odisha	17.08	15.71	5.50	1.36	6.86	43.65
21	Punjab	22.80	20.59	32.80	1.05	33.85	164.42
22	Rajasthan	12.24	11.07	14.37	2.27	16.63	150.22
23	Sikkim	0.96	0.86	0.00	0.01	0.01	0.86
24	Tamil Nadu	19.59	17.69	13.52	1.15	14.67	82.93
25	Telangana	16.63	15.03	7.13	0.88	8.01	53.32
26	Tripura	1.47	1.24	0.02	0.08	0.10	7.94
27	Uttar Pradesh	72.20	66.88	41.29	4.74	46.03	68.83
28	Uttarakhand	2.02	1.85	0.63	0.24	0.87	46.80
29	West Bengal*	29.33	26.56	10.84	1.00	11.84	44.60
30	Andaman and Nicobar	0.32	0.28	0.0001	0.01	0.01	2.60
31	Chandigarh	0.06	0.06	0.01	0.04	0.05	80.60
32	Dadra & Nagar Haveli	0.07	0.07	0.01	0.02	0.03	45.99
	Daman & Diu	0.03	0.03	0.003	0.03	0.03	113.38
33	Jammu and Kashmir	4.68	4.22	0.20	0.69	0.89	21.03
34	Ladakh	0.12	0.11	0.001	0.02	0.02	17.90
35	Lakshadweep	0.01	0.005	0.00	0.003	0.003	58.47
36	Puducherry	0.22	0.20	0.10	0.05	0.15	74.27
	<b>Grand Total</b>	<b>436.15</b>	<b>397.62</b>	<b>217.61</b>	<b>27.30</b>	<b>244.92</b>	<b>61.60</b>

NOTE-The Ground Water resources assessment as on 2013 has been considered for the state of West Bengal.