

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

**UNSTARRED QUESTION NO. 171**

ANSWERED ON 20.07.2023

**DECREASE IN WATER TABLE**

171. SHRI FEROZE VARUN GANDHI

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

- (a) the details of decrease in the water table across the country divided into various regions since, 2000;
- (b) whether the Government has taken any measures under Har Ghar Jal Yojana to conserve water and reduce the rate of decline in water table across the country;
- (c) if so, the details thereof and if not, the reasons therefor;
- (d) whether there is a proposal to update the current framework for ground water management to tackle the challenges related to decrease in water table; and
- (e) if so, the details thereof and if not, the reasons therefor?

**ANSWER**

**THE MINISTER OF STATE FOR JAL SHAKTI**

(SHRI BISHWESWAR TUDU)

(a) Central Ground Water Board (CGWB), an organisation under the Department of Water Resources, River Development & Ganga Rejuvenation is periodically monitoring the ground water levels throughout the country on a regional scale, through a network of monitoring wells. The water level data collected by CGWB during November 2022 has been compared with the groundwater level data of November 2000. Analysis of water level data indicates that about 34.1% of the wells monitored have registered fall in ground water levels while 65.6% of the wells have registered rise in ground water levels. The State-wise details in this regard are given in **Annexure-I**.

Further, in order to assess the long term fluctuation in ground water level, the water level data collected by CGWB during November 2022 has been compared with the mean of November (2000-2021). Analysis of water level data indicates that about 38.4% of the wells monitored have registered fall in ground water levels while 61.6% of the wells have registered rise in ground water levels. The State-wise details are given in **Annexure-II**.

(b) & (c) Since August, 2019, Government of India in partnership with States is implementing Jal Jeevan Mission (JJM) to make provision of potable tap water supply to every rural household of the country by 2024. Drinking water being a State subject, it is States, who plan, design, approve and

implement drinking water supply schemes; however, Government of India supplements the efforts of the States by providing technical and financial assistance.

Under JJM it has been mandated for the States to carry out activities for source recharging, viz. dedicated bore well recharge structures, rain water recharge, rejuvenation of existing water bodies, etc. by adopting watershed/ spring-shed principles, in convergence with various Central/State Government schemes.

The efforts to effectively harvest the rain water including sustainable groundwater management fall under States' mandate; however, a number of steps have been taken by Central Government in this regard which can be seen at

<https://cdnbbsr.s3waas.gov.in/s3a70dc40477bc2adceef4d2c90f47eb82/uploads/2023/02/2023021742.pdf>

**(d) & (e)** Government of India is promoting participatory groundwater management involving the communities to prepare water conservation plan and take active participation in management of groundwater resources at village level. Further, the concept of crop rotation, crop diversification, focusing on water use efficiency at farm level through micro irrigation (drip and sprinkler irrigation system etc) is also being promoted to conserve the groundwater resources.

In addition, CGWB is assisting the States/UTs in the field of sustainable groundwater management by using the latest available technologies like Time domain Electromagnetic (TEM) survey and Helicopter borne surveys, in addition to technologies like Vertical Electrical Sounding (VES), exploratory drilling etc. CGWB has prepared the aquifer maps of entire mappable area of the country including determining the aquifer characteristics and their management plans by using latest survey techniques under National Aquifer Mapping Program (NAQUIM 1.0). The management plans have been shared with States/UTs for suitable interventions.

CGWB has taken up aquifer mapping (NAQUIM 2.0) at varied finer scale in eleven types of identified priority areas. These areas have been identified based on ground water related issues/criticality of groundwater situations like water stressed areas, urban agglomerates, coastal areas, industrial cluster & mining areas, areas with spring as the principle sources, areas with deeper aquifers, ground water contamination, auto flow zones, canal command areas, areas with poor ground water quality etc.

In addition, the Department of Water Resources, River Development & Ganga Rejuvenation has taken up strengthening of the groundwater monitoring network by installing Digital Water Level Recorder (DWLR) along with telemetry system for dissemination of groundwater level data on real time basis through a web-based system maintained by National Water Informatics Centre, an organisation under the Department, for better policy formulation and timely interventions by stakeholders.

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ANNEXURE REFERRED TO IN REPLY TO PART (a) OF UNSTARRED QUESTION NO. 171 TO BE ANSWERED IN LOK SABHA ON 20.07.2023  
REGARDING “DECREASE IN WATER TABLE”.

State Wise - Fluctuation of Water Level of November 2022 with November 2000

Sl. No.	Name of State	No. of wells Analysed	Rise						Fall						Rise		Fall	
			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	%
1.	Andhra Pradesh	224	124	55.4%	27	12.1%	17	7.6%	49	21.9%	6	2.7%	0	0.0%	168	75.0%	55	24.6%
2	Arunachal Pradesh	5	1	20.0%	0	0.0%	0	0.0%	4	80.0%	0	0.0%	0	0.0%	1	20.0%	4	80.0%
3	Assam	123	60	48.8%	9	7.3%	1	0.8%	44	35.8%	7	5.7%	2	1.6%	70	56.9%	53	43.1%
4	Bihar	197	72	36.5%	9	4.6%	3	1.5%	90	45.7%	12	6.1%	10	5.1%	84	42.6%	112	56.9%
5	Chandigarh	6	0	0.0%	0	0.0%	0	0.0%	2	33.3%	1	16.7%	3	50.0%	0	0.0%	6	100.0%
6	Chhattisgarh	181	77	42.5%	20	11.0%	15	8.3%	57	31.5%	10	5.5%	1	0.6%	112	61.9%	68	37.6%
7	Dadra And Nagar Haveli	7	4	57.1%	0	0.0%	0	0.0%	3	42.9%	0	0.0%	0	0.0%	4	57.1%	3	42.9%
8	Delhi	26	11	42.3%	5	19.2%	0	0.0%	2	7.7%	1	3.8%	6	23.1%	16	61.5%	9	34.6%
9	Goa	31	5	16.1%	1	3.2%	0	0.0%	25	80.6%	0	0.0%	0	0.0%	6	19.4%	25	80.6%
10	Gujarat	457	87	19.0%	88	19.3%	228	49.9%	39	8.5%	7	1.5%	8	1.8%	403	88.2%	54	11.8%
11	Haryana	111	36	32.4%	20	18.0%	13	11.7%	17	15.3%	5	4.5%	20	18.0%	69	62.2%	42	37.8%
12	Himachal Pradesh	54	18	33.3%	9	16.7%	3	5.6%	17	31.5%	6	11.1%	1	1.9%	30	55.6%	24	44.4%
13	Jammu and Kashmir	87	35	40.2%	8	9.2%	1	1.1%	33	37.9%	4	4.6%	6	6.9%	44	50.6%	43	49.4%
14	Jharkhand	75	27	36.0%	11	14.7%	2	2.7%	23	30.7%	11	14.7%	1	1.3%	40	53.3%	35	46.7%
15	Karnataka	464	177	38.1%	61	13.1%	49	10.6%	136	29.3%	26	5.6%	10	2.2%	287	61.9%	172	37.1%
16	Kerala	477	235	49.3%	35	7.3%	9	1.9%	170	35.6%	18	3.8%	8	1.7%	279	58.5%	196	41.1%
17	Madhya Pradesh	733	270	36.8%	162	22.1%	143	19.5%	98	13.4%	35	4.8%	23	3.1%	575	78.4%	156	21.3%
18	Maharashtra	715	299	41.8%	116	16.2%	61	8.5%	197	27.6%	22	3.1%	13	1.8%	476	66.6%	232	32.4%
19	Meghalaya	20	10	50.0%	1	5.0%	1	5.0%	7	35.0%	1	5.0%	0	0.0%	12	60.0%	8	40.0%
20	Orissa	470	237	50.4%	98	20.9%	23	4.9%	95	20.2%	14	3.0%	1	0.2%	358	76.2%	110	23.4%
21	Pondicherry	4	2	50.0%	0	0.0%	1	25.0%	1	25.0%	0	0.0%	0	0.0%	3	75.0%	1	25.0%
22	Punjab	76	19	25.0%	3	3.9%	3	3.9%	21	27.6%	5	6.6%	25	32.9%	25	32.9%	51	67.1%
23	Rajasthan	338	58	17.2%	58	17.2%	135	39.9%	24	7.1%	15	4.4%	48	14.2%	251	74.3%	87	25.7%
24	Tamil Nadu	503	164	32.6%	108	21.5%	144	28.6%	57	11.3%	18	3.6%	12	2.4%	416	82.7%	87	17.3%
25	Telangana	139	60	43.2%	34	24.5%	22	15.8%	17	12.2%	3	2.2%	3	2.2%	116	83.5%	23	16.5%
26	Tripura	4	2	50.0%	1	25.0%	0	0.0%	1	25.0%	0	0.0%	0	0.0%	3	75.0%	1	25.0%
27	Uttar Pradesh	421	145	34.4%	18	4.3%	6	1.4%	174	41.3%	44	10.5%	34	8.1%	169	40.1%	252	59.9%
28	Uttaranchal	16	7	43.8%	1	6.3%	1	6.3%	1	6.3%	2	12.5%	4	25.0%	9	56.3%	7	43.8%
29	West Bengal	345	92	26.7%	14	4.1%	5	1.4%	115	33.3%	55	15.9%	64	18.6%	111	32.2%	234	67.8%
	<b>Total</b>	<b>6309</b>	<b>2334</b>	<b>37.0%</b>	<b>917</b>	<b>14.5%</b>	<b>886</b>	<b>14.0%</b>	<b>1519</b>	<b>24.1%</b>	<b>328</b>	<b>5.2%</b>	<b>303</b>	<b>4.8%</b>	<b>4137</b>	<b>65.6%</b>	<b>2150</b>	<b>34.1%</b>

\* No change in 22 Wells

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Depth to Water Level Fluctuation with Mean [November (2000 to 2021)] and November 2022

S.N.	State/UT	No. of wells Analysed	Rise						Fall						Rise		Fall	
			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	%
1	Andaman and Nicobar	99	70	70.7%	2	2.0%	0	0.0%	26	26.3%	0	0.0%	0	0.0%	72	72.7%	26	26.3%
2	Andhra Pradesh	663	339	51.1%	104	15.7%	56	8.4%	149	22.5%	12	1.8%	3	0.5%	499	75.3%	164	24.7%
3	Arunachal Pradesh	9	2	22.2%	0	0.0%	0	0.0%	6	66.7%	1	11.1%	0	0.0%	2	22.2%	7	77.8%
4	Assam	171	94	55.0%	2	1.2%	0	0.0%	68	39.8%	5	2.9%	2	1.2%	96	56.1%	75	43.9%
5	Bihar	642	288	44.9%	17	2.6%	4	0.6%	285	44.4%	38	5.9%	10	1.6%	309	48.1%	333	51.9%
6	Chandigarh	14	2	14.3%	0	0.0%	1	7.1%	6	42.9%	3	21.4%	2	14.3%	3	21.4%	11	78.6%
7	Chhattisgarh	718	358	49.9%	78	10.9%	20	2.8%	216	30.1%	32	4.5%	14	1.9%	456	63.5%	262	36.5%
8	Dadra And Nagar Haveli	15	9	60.0%	0	0.0%	0	0.0%	6	40.0%	0	0.0%	0	0.0%	9	60.0%	6	40.0%
9	Delhi	84	24	28.6%	15	17.9%	14	16.7%	16	19.0%	2	2.4%	13	15.5%	53	63.1%	31	36.9%
10	Goa	63	9	14.3%	0	0.0%	0	0.0%	48	76.2%	5	7.9%	1	1.6%	9	14.3%	54	85.7%
11	Gujarat	716	299	41.8%	126	17.6%	91	12.7%	141	19.7%	35	4.9%	24	3.4%	516	72.1%	200	27.9%
12	Haryana	261	98	37.5%	29	11.1%	12	4.6%	61	23.4%	28	10.7%	33	12.6%	139	53.3%	122	46.7%
13	Himachal Pradesh	84	28	33.3%	4	4.8%	3	3.6%	44	52.4%	3	3.6%	2	2.4%	35	41.7%	49	58.3%
14	Jammu and Kashmir	271	104	38.4%	7	2.6%	3	1.1%	146	53.9%	10	3.7%	0	0.0%	114	42.1%	156	57.6%
15	Jharkhand	177	83	46.9%	11	6.2%	4	2.3%	62	35.0%	16	9.0%	1	0.6%	98	55.4%	79	44.6%
16	Karnataka	1329	553	41.6%	206	15.5%	144	10.8%	383	28.8%	26	2.0%	16	1.2%	903	67.9%	425	32.0%
17	Kerala	1411	568	40.3%	35	2.5%	6	0.4%	748	53.0%	42	3.0%	11	0.8%	609	43.2%	801	56.8%
18	Madhya Pradesh	1260	587	46.6%	299	23.7%	130	10.3%	190	15.1%	34	2.7%	20	1.6%	1016	80.6%	244	19.4%
19	Maharashtra	1477	664	45.0%	255	17.3%	105	7.1%	368	24.9%	62	4.2%	22	1.5%	1024	69.3%	452	30.6%
20	Meghalaya	24	10	41.7%	0	0.0%	1	4.2%	12	50.0%	1	4.2%	0	0.0%	11	45.8%	13	54.2%
21	Nagaland	4	1	25.0%	1	25.0%	0	0.0%	1	25.0%	1	25.0%	0	0.0%	2	50.0%	2	50.0%
22	Orissa	1212	690	56.9%	39	3.2%	2	0.2%	450	37.1%	28	2.3%	3	0.2%	731	60.3%	481	39.7%
23	Puducherry	4	4	100.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	4	100.0%	0	0.0%
24	Punjab	231	57	24.7%	5	2.2%	3	1.3%	67	29.0%	48	20.8%	51	22.1%	65	28.1%	166	71.9%
25	Rajasthan	889	266	29.9%	134	15.1%	115	12.9%	200	22.5%	73	8.2%	101	11.4%	515	57.9%	374	42.1%
26	Tamil Nadu	625	223	35.7%	162	25.9%	143	22.9%	78	12.5%	12	1.9%	7	1.1%	528	84.5%	97	15.5%
27	Telangana	512	217	42.4%	109	21.3%	141	27.5%	37	7.2%	3	0.6%	5	1.0%	467	91.2%	45	8.8%
28	Tripura	20	6	30.0%	1	5.0%	0	0.0%	11	55.0%	2	10.0%	0	0.0%	7	35.0%	13	65.0%
29	Uttar Pradesh	634	329	51.9%	39	6.2%	11	1.7%	191	30.1%	38	6.0%	26	4.1%	379	59.8%	255	40.2%
30	Uttaranchal	45	22	48.9%	4	8.9%	2	4.4%	11	24.4%	4	8.9%	2	4.4%	28	62.2%	17	37.8%
31	West Bengal	770	164	21.3%	16	2.1%	9	1.2%	332	43.1%	120	15.6%	129	16.8%	189	24.5%	581	75.5%
	<b>Total</b>	<b>14434</b>	<b>6168</b>	<b>42.7%</b>	<b>1700</b>	<b>11.8%</b>	<b>1020</b>	<b>7.1%</b>	<b>4359</b>	<b>30.2%</b>	<b>684</b>	<b>4.7%</b>	<b>498</b>	<b>3.5%</b>	<b>8888</b>	<b>61.6%</b>	<b>5541</b>	<b>38.4%</b>

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