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

RAJYA SABHA

UNSTARRED QUESTION NO. 1690

ANSWERED ON 01.08.2022

OVER EXPLOITATION OF GROUNDWATER

1690 SMT. PHULO DEVI NETAM

Will the Minister of JAL SHAKTI be pleased to state:

(a) the average rate of depletion of groundwater resources;

(b) data on annual groundwater exploitation for the past five years, State-wise;

(c) number of districts as State-wise percentage total that face over exploitation of groundwater;

(d) the reasons for poor water management in the country; and

(e) the steps taken by Government to reduce depletion of groundwater in the country?

ANSWER

THE MINISTER OF STATE FOR JAL SHAKTI

(SHRI BISHWESWAR TUDU**)**

(a) Availability of groundwater resources in an area depends on a number of factors like intensity & period of rainfall, geological strata of the area, number of existing recharge structures, extraction by consumers for various purposes like industrial applications, drinking/domestic purposes, irrigation etc and therefore, the increase or, depletion rate of the groundwater resources will be different for different areas.

However, the comparison of groundwater extraction between the years 2017 and 2020 (as assessed by the Central Ground Water Board (CGWB) and States) indicates decrease in extraction (on an average for the entire country) from around 249 BCM to nearly 245 BCM. 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 decadal mean of November 2011 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.

(b) CGWB is not compiling the information with respect to year-wise extraction of groundwater resources, however, the State-wise details in this regard as assessed by the CGWB in collaboration with States/UTs for the last two assessments viz. for the years 2020 and 2017 are given at **Annexure I**.

(c) The groundwater resource estimation in the country is being done at assessment units (blocks, mandals, talukas etc) level. The State-wise details (in percentage terms) of over-exploited assessment units vis-à-vis total number of available assessment units in the States are given at **Annexure II**.

(d) Increased demand of fresh water for various uses, vagaries of rainfall, increased population; industrialization, urbanization etc. have impacted the sustainable water management in the country, however, sincere efforts are being made by the Government including all stakeholders through policy/site interventions to achieve the desired objective.

(e) Though 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.

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 24th 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.

CGWB is implementing National Aquifer Mapping Program (NAQUIM) with an aim to identify the groundwater aquifer system along-with their characterization for its sustainable management. Out of the total mappable area of nearly 25 lakh sq km, nearly 22.10 lakh sq km of the area (as on 30th June 2022) in the country has been covered. The balance area has been targeted to be covered by March 2023. The NAQUIM study report alongwith management plans are shared with States/UTs for suitable interventions.

The Central Government has notified groundwater regulation guidelines dated 24.09.2020 for controlling the extraction of groundwater by various consumers/project proponents like industries, infrastructure projects and mining projects under which No Objection Certificate (NOC) for extraction has been made mandatory.

Water is a State subject and several States have done notable work in the field of water conservation/harvesting such 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, and Kudimaramath scheme in Tamil Nadu.

***

ANNEXURE I

ANNEXURE REFERRED TO IN REPLY TO PART (b) OF UNSTARRED QUESTION NO. 1690 TO BE ANSWERED IN RAJYA SABHA ON 01.08.2022 REGARDING "OVER EXPLOITATION OF GROUNDWATER".

State-wise data on ground water extraction for the assessment years 2017 and 2020

S. No.	States / Union Territories	2020			2017		
		Annual Extractable Ground Water Resource-2020 (in bcm)	Annual Ground Water Extraction-2020(in bcm)	Stage of Ground Water Extraction (%) -2020 (in bcm)	Annual Extractable Ground Water Resource-2017 (in bcm)	Annual Ground Water Extraction -2017 (in bcm)	Stage of Ground Water Extraction (%) -2017
1	Andhra Pradesh	22.94	7.63	33.26	20.15	8.90	44.15
2	Arunachal Pradesh	2.92	0.01	0.36	2.67	0.01	0.28
3	Assam	21.97	2.58	11.73	24.26	2.73	11.25
4	Bihar	25.46	13.02	51.14	28.99	13.26	45.76
5	Chhattisgarh	11.55	5.35	46.34	10.57	4.70	44.43
6	Delhi	0.29	0.29	101.40	0.30	0.36	119.61
7	Goa	0.32	0.08	23.48	0.16	0.05	33.50
8	Gujarat	24.91	13.30	53.39	21.25	13.58	63.89
9	Haryana	8.63	11.61	134.56	9.13	12.50	136.91
10	Himachal Pradesh	0.97	0.36	36.83	0.46	0.39	86.37
11	Jharkhand	5.64	1.64	29.13	5.69	1.58	27.73
12	Karnataka	16.40	10.63	64.85	14.79	10.34	69.87
13	Kerala	5.12	2.65	51.68	5.21	2.67	51.27
14	Madhya Pradesh	33.38	18.97	56.82	34.47	18.88	54.76
15	Maharashtra	30.25	16.63	54.99	29.90	16.33	54.62
16	Manipur	0.46	0.02	5.12	0.39	0.01	1.44
17	Meghalaya	1.82	0.08	4.22	1.64	0.04	2.28
18	Mizoram	0.20	0.01	3.81	0.19	0.01	3.82
19	Nagaland	1.95	0.02	1.04	1.98	0.02	0.99
20	Odisha	15.71	6.86	43.65	15.57	6.57	42.18
21	Punjab	20.59	33.85	164.42	21.58	35.78	165.77
22	Rajasthan	11.07	16.63	150.22	11.99	16.77	139.88
23	Sikkim	0.86	0.01	0.86	1.52	0.00	0.06
24	Tamil Nadu	17.69	14.67	82.93	18.20	14.73	80.94
25	Telangana	15.03	8.01	53.32	12.37	8.09	65.45
26	Tripura	1.24	0.10	7.94	1.24	0.10	7.88
27	Uttar Pradesh	66.88	46.03	68.83	65.32	45.84	70.18
28	Uttarakhand	1.85	0.87	46.80	2.89	1.64	56.83
29	West Bengal*	26.56	11.84	44.60	26.56	11.84	44.60
30	Andaman and	0.28	0.01	2.60	0.33	0.01	2.74
31	Chandigarh	0.06	0.05	80.60	0.04	0.03	89.00
32	Dadra & Nagar	0.07	0.03	45.99	0.07	0.02	31.34
	Daman & Diu	0.03	0.03	113.38	0.02	0.01	61.40
33	Jammu and Kashmir	4.22	0.89	21.03	2.60	0.76	29.47
34	Ladakh	0.11	0.02	17.90			
35	Lakshadweep	0.00	0.00	58.47	0.00	0.00	65.99
36	Puducherry	0.20	0.15	74.27	0.20	0.15	74.33
	Grand Total	**397.62**	**244.92**	**61.60**	**392.70**	**248.69**	**63.33**

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

ANNEXURE II

ANNEXURE REFERRED TO IN REPLY TO PART (c) OF UNSTARRED QUESTION NO. 1690 TO BE ANSWERED IN RAJYA SABHA ON 01.08.2022 REGARDING "OVER EXPLOITATION OF GROUNDWATER".

The State wise details of the over exploited assessment units vis-à-vis available assessment units

S.No.	State/Union Territories	Total No. of Assessed Units	Over-Exploited Assessment Units	
			Nos.	%
1	Andhra Pradesh	667	23	3.45
2	Arunachal Pradesh	11		
3	Assam	28		
4	Bihar	534	7	1.31
5	Chhattisgarh	146		
6	Delhi	34	17	50.00
7	Goa	12		
8	Gujarat	248	25	10.08
9	Haryana	141	85	60.28
10	Himachal Pradesh	10		
11	Jharkhand	259	3	1.16
12	Karnataka	227	52	22.91
13	Kerala	152		
14	Madhya Pradesh	317	26	8.21
15	Maharashtra	353	10	2.83
16	Manipur	9		
17	Meghalaya	12		
18	Mizoram	26		
19	Nagaland	11		
20	Odisha	314		
21	Punjab	150	117	78.00
22	Rajasthan	295	203	68.81
23	Sikkim	4		
24	Tamil Nadu	1166	435	37.31
25	Telangana	589	44	7.47
26	Tripura	59		
27	Uttar Pradesh	830	66	7.95
28	Uttarakhand	18		
29	West Bengal*	268		
30	Andaman and Nicobar	36		
31	Chandigarh	1		
32	Dadra & Nagar Haveli	1		
	Daman & Diu	2	1	50.00
33	Jammu and Kashmir	20		
34	Ladakh	2		
35	Lakshadweep	9		
36	Puducherry	4		
	Grand Total	**6965**	**1114**	**15.99**

***