GOVERNMENT OF INDIA
MINISTRY OF WATER RESOURCES,
RIVER DEVELOPMENT & GANGA REJUVENATION
LOK SABHA
UNSTARRED QUESTION NO. †3296
ANSWERED ON 15.03.2018

OVER-EXPLOITATION OF GROUND WATER

†3296. SHRI RAHUL KASWAN

Will the Minister of WATER RESOURCES, RIVER DEVELOPMENT AND GANGA REJUVENATION be pleased to state:

(a) whether the Central Ground Water Board has assessed ground water resources in the country including Rajasthan during the last three years and if so, the details thereof;
(b) the number of blocks where ground water resources were found to be over-exploited/depleted/contaminated and declared as dark zone, State/UT-wise;
(c) whether the Government has any mechanism to determine the number of tubewells which can be drilled for irrigation purposes without affecting the underground water table in the country particularly in Rajasthan and if so, the details thereof; and
(d) the corrective steps taken/to be taken by the Government to check the over-exploitation of ground water?

ANSWER

THE MINISTER OF STATE FOR WATER RESOURCES, RIVER DEVELOPMENT AND GANGA REJUVENATION & PARLIAMENTARY AFFAIRS

(SHRI ARJUN RAM MEGHWAL)

(a) & (b) Central Ground Water Board (CGWB) periodically assesses annual replenishable ground water resource availability of the Country jointly with the State Governments. As per the latest assessment (2013), out of the total 6584 assessment units (Block/ Taluks/ Mandals/ watershed/ Firkka) in the Country (including Rajasthan), 1034 units have been categorized as 'Over-exploited'. State-wise details are given at **Annexure - I.**

Further, CGWB also generates ground water quality data on regional scale once in a year and also, as part of various scientific studies. As per the studies, ground water contamination has been reported from isolated pockets in parts of various States of the Country including Rajasthan. State-wise details of contamination of ground water are given at **Annexure - II.**

(c) The assessment of ground water resources in the Country by CGWB and States involves the quantification of annual ground water availability which can be extracted for irrigation without adversely affecting the resource availability and thereby not causing long-term decline of water table. Details are at **Annexure - III.** Based on the ground water availability for future irrigation use in an assessment unit, the number of tube wells feasible in the unit can be calculated.

(d) Water being a State subject, regulation & conservation of ground water is primarily States' responsibility. However, steps taken by the Central Government for conservation of ground water are available at the following URL http://mowr.gov.in/sites/default/files/MeasuresForGW-Depletion_1.pdf:

*****

ANNEXURE - I

Annexure referred to in reply to parts (a) & (b) of Unstarred Q.No. 3296 to be answered in Lok Sabha on 15.03.2018 regarding "Over-Exploitation of Ground Water"

CATEGORIZATION OF BLOCKS/ MANDALS/ TALUKS IN INDIA (2013)

Sl. No.	States / Union Territories	Total No. of Assessed Units	Over-Exploited Assessment Units
	States		
1.	Andhra Pradesh	670	61
2.	Arunachal Pradesh	11	0
3.	Assam	27	0
4.	Bihar	534	0
5.	Chhattisgarh	146	1
6.	Delhi	27	15
7.	Goa	12	0
8.	Gujarat	223	23
9.	Haryana	119	64
10.	Himachal Pradesh	8	1
11.	Jammu & Kashmir	22	0
12.	Jharkhand	260	4
13.	Karnataka	176	43
14.	Kerala	152	1
15.	Madhya Pradesh	313	25
16.	Maharashtra	353	9
17.	Manipur	9	0
18.	Meghalaya	11	0
19.	Mizoram	22	0
20.	Nagaland	11	0
21.	Odisha	314	0
22.	Punjab	138	105
23.	**Rajasthan**	**248**	**164**
24.	Sikkim	-	-
25.	Tamil Nadu	1139	358
26.	Telangana	443	46
27.	Tripura	39	0
28.	Uttar Pradesh	820	113
29.	Uttarakhand	18	0
30.	West Bengal	268	0
	Total (States)	**6533**	**1033**
	Union Territories		
1.	Andaman & Nicobar	34	0
2.	Chandigarh	1	0
3.	Dadra & Nagar Haveli	1	0
4.	Daman & Diu	2	0
5.	Lakshadweep	9	0
6.	Puducherry	4	1
	Total (UTs)	**51**	**1**
	Grand Total	**6584**	**1034**

ANNEXURE - II

Annexure referred to in reply to parts (a) & (b) of Unstarred Q.No. 3296 to be answered in Lok Sabha on 15.03.2018 regarding "Over-Exploitation of Ground Water"

States-Wise No. of Districts affected with Ground Water Contamination by different Chemical Constituents

Sl. No.	Name of the 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)	Heavy Metals: Lead (above 0.01 mg/l)	Cadmium (above 0.003 mg/l)	Chromium (above 0.05 mg/l)
1	Andhra Pradesh	11	11	13	3	7			
2	Arunachal Pradesh					4			
3	Assam		6		19	18			
4	Bihar		13	10	23	19			
5	Chhattisgarh		13	12	1	4	1	1	1
6	Delhi	7	7	8	2		3	1	4
7	Goa					2			
8	Gujarat	21	19	21	12	6			
9	Haryana	15	20	19	15	17	17	7	1
10	Himachal Pradesh			6	1				
11	Jammu & Kashmir		2	4	3	6	3	1	
12	Jharkhand		12	11	1	6	1		
13	Karnataka	29	29	22	2	22			
14	Kerala	4	5	11		15	2		1
15	Madhya Pradesh	16	39	50	8	42	16		
16	Maharashtra	20	17	30		20	19		
17	Manipur				2	1			
18	Meghalaya					3			
19	Nagaland					1			
20	Odisha	7	25	28	1	21			1
21	Punjab	9	19	20	10	9	6	8	10
22	**Rajasthan**	**30**	**33**	**33**	**1**	**33**	**4**		
23	Tamil Nadu	23	19	27	9	2	3	1	5
24	Telangana	7	9	10	1	8	2	1	1
25	Tripura					4			
26	Uttar Pradesh	9	30	46	29	15	10	2	4
27	Uttarakhand			3					
28	West Bengal	4	7	2	9	15	6	2	2
	UTs								
1	Andaman & Nicobar					1			
2	Chandigarh								
3	Dadra & Nagar Haveli								
4	Daman & Diu				1				
5	Puducherry								
	Total No. of Districts	**212**	**335**	**386**	**153**	**301**	**93**	**24**	**30**
	No. of States / UTs	**15**	**20**	**21**	**21**	**26**	**14**	**9**	**10**

ANNEXURE - III

Annexure referred to in reply to parts (c) of Unstarred Q.No. 3296 to be answered in Lok Sabha on 15.03.2018 regarding "Over-Exploitation of Ground Water"

STATE-WISE GROUND WATER RESOURCES AVAILABILITY, UTILIZATION AND STAGE OF DEVELOPMENT IN INDIA (As on 31st March, 2013)

(in bcm → Billion Cubic Metre)

Sl. No.	States / Union Territories	Net Annual Ground Water Availability	Annual Ground Water Draft			Projected demand for Domestic and Industrial uses upto 2025	Ground Water Availability for future irrigation use	Stage of Ground Water Development (%)
			Irrigation	Domestic and industrial uses	Total			
1	2	3	4	5	6	7	8	9
	States							
1	Andhra Pradesh	18.48	7.29	0.81	8.10	1.64	10.21	44
2	Arunachal Pradesh	3.990	0.002	0.007	0.01	0.020	3.967	0.23
3	Assam	28.90	4.06	0.68	4.74	0.84	24.00	16
4	Bihar	28.49	10.36	2.37	12.73	0.60	17.52	45
5	Chhattisgarh	11.90	3.76	0.64	4.40	0.76	7.38	37
6	Delhi	0.31	0.14	0.25	0.39	0.25	0.02	127
7	Goa	0.15	0.02	0.03	0.05	0.04	0.09	37
8	Gujarat	19.79	12.30	1.14	13.44	1.46	6.77	68
9	Haryana	10.30	13.32	0.60	13.92	0.56	-3.58	135
10	Himachal Pradesh	0.53	0.16	0.11	0.27	0.07	0.30	51
11	Jammu & Kashmir	4.82	0.20	0.98	1.18	1.07	3.55	24
12	Jharkhand	5.99	0.63	0.72	1.35	0.17	5.19	23
13	Karnataka	14.83	8.76	0.99	9.76	1.49	5.55	66
14	Kerala	5.66	1.18	1.45	2.63	1.55	2.93	47
15	Madhya Pradesh	34.16	17.95	1.41	19.36	2.35	13.86	57
16	Maharashtra	31.48	15.93	1.14	17.07	2.21	13.72	54
17	Manipur	0.426	0.004	0.001	0.004	0.049	0.374	1.01
18	Meghalaya	2.98	0.0080	0.0040	0.0120	0.207	2.76	0.4
19	Mizoram	0.03548	0	0.00104	0.00104	0.00238	0.0331	2.9
20	Nagaland	1.75	0.00	0.03	0.03	0.01	1.74	2.0
21	Odisha	16.69	4.14	0.87	5.02	1.35	11.20	30
22	Punjab	23.39	34.05	0.77	34.81	0.97	-11.63	149
23	Rajasthan	11.26	13.79	1.92	15.71	2.32	0.90	140
24	Sikkim	-	-	-	-	-	-	-
25	Tamil Nadu	18.59	12.98	1.38	14.36	1.53	4.08	77
26	Telangana	13.39	7.00	0.76	7.77	1.55	4.83	58
27	Tripura	2.269	0.093	0.072	0.165	0.200	1.976	7.3
28	Uttar Pradesh	71.58	48.35	4.41	52.76	6.44	19.01	74
29	Uttarakhand	1.97	0.84	0.15	0.99	0.30	0.82	50
30	West Bengal	26.56	10.84	1.00	11.84	1.53	14.19	45
	Total States	410.65	228.16	24.71	252.87	31.54	161.76	62
	Union Territories							
1	Andaman & Nicobar	0.378	0.0001	0.0035	0.0037	0.016	0.361	1
2	Chandigarh	0.0194	0	0	0	0	0	0
3	Dadra & Nagar Haveli	0.063	0.008	0.013	0.020	0.014	0.042	32
4	Daman & Diu	0.014	0.008	0.002	0.010	0.003	0.003	70
5	Lakshdweep	0.00350	0.00000	0.00237	0.00237	0	0	68
6	Puducherry	0.174	0.124	0.029	0.153	0.047	0.053	88
	Total UTs	0.65	0.139	0.050	0.189	0.08	0.46	29
	Grand Total	411.30	228.30	24.76	253.06	31.62	162.22	62