

Depletion of ground water level in Rajasthan

†*374. SHRI ASHK ALI TAK: Will the Minister of WATER RESOURCES be pleased to state:

- (a) whether it is a fact that the level of ground water is continuously depleting in Rajasthan;
- (b) if so, the details of the assistance provided to the State by the Central Government to check it during the last five years; and
- (c) the details of the measures taken by the Central Government, so far, to check the depleting level of ground water?

THE MINISTRY OF WATER RESOURCES (SHRI PAWAN KUMAR BANSAL): (a) The analysis of water level data collected by Central Ground Water Board during May 2011 when compared with average water level during the last decade (May 2001 - May 2010) indicates that in the State of Rajasthan 60% of the observation wells have registered rise while remaining 40% wells have registered decline in ground water levels. A statement regarding district-wise annual fluctuation and frequency distribution of different ranges from May 2001 - May 2011 is given in statement (See below).

(b) Central Ground Water Board (CGWB) has been implementing pilot/ demonstrative projects on rain water harvesting and artificial recharge since 8th Plan for replication by the States under similar hydrogeological environments. During 2006-07 of the Tenth Plan, demonstrative projects were not implemented in Rajasthan. No proposal has been received from State Level Technical Advisory Committee (STAC) of Rajasthan during the last four years (2007-08 to 2010-11) of Eleventh Plan. During the current year, 15 proposals costing Rs. 59.86 crore received from STAC for construction of 18 roof top rain water harvesting structures have been sanctioned. A sum of Rs. 41.90 crore has been released to State implementing agencies as first instalment.

The Government has also implemented dug well recharge project in Over-exploited, Critical and Semi-Critical assessment units in seven States including Rajasthan to provide sustainability to the dugwells during the period 2007-10. For the State of Rajasthan, subsidy of Rs. 29.743 crore was released to 88765 beneficiaries for installation of dug well recharge structures in their farms. Further, a sum of Rs. 2 crore was released to the State Government for IEC activities.

†Original notice of the question was received in Hindi.

(c) Central Ground Water Board/ Authority has undertaken the following measures for promoting rain water harvesting and artificial recharge and for regulation of ground water development and management in the country including the State of Rajasthan :

- Central Ground Water Board have constructed 4 sub-surface barriers in rural areas in Jhujhunu and Sikar districts and 14 roof top rain water harvesting structures in Jaipur and Udaipur districts under the demonstrative projects on artificial recharge implemented during Ninth Plan.
- States have been advised for making rainwater harvesting mandatory. In pursuance thereof, 18 States including Rajasthan and 4 UTs have made rain water harvesting mandatory under building bye-laws.
- Direction have been issued by the Central Ground Water Authority (CGWA) to Chief Secretaries in 12 States including Rajasthan and Administrators in 2 Union Territories having Over-exploited blocks to take all necessary measures to promote/ adopt artificial recharge to ground water/ rain water harvesting.
- Central Ground Water Board organizes IEC activities like mass awareness and training programmes, painting completion, displaying models in exhibitions and fairs, printing of Meghdoot cards, display of hoardings at prominent public places etc.
- Central Ground Water Authority has notified 82 areas in the country including 32 in Rajasthan for regulation of ground water development and management. In these notified areas, installation of new ground water abstraction structures is not permitted without prior specific approval of the Authority/ Authorized officer. For enforcement of the regulatory directions issued under Section 5 of EPA, 1986, concerned Deputy Commissioners/ District Collectors have been authorized to take necessary action in case of violations of directives of CGWA in the notified areas. For more effective regulation of ground water development and management, Advisory Committees under the Chairmanship of District Collector/ Deputy Commissioner with members drawn from various organizations have been constituted.
- Central Ground Water Authority has circulated the list of 839 Over-exploited, 226 critical and 550 semi-critical areas in the country (including 140 over-exploited, 50 critical and 14 semi-critical areas in Rajasthan) to the State Pollution Control Boards, BIS and Ministry of

Environment & Forests which refer the proposals for new industries/ projects falling in these areas to CGWA for obtaining NOC for withdrawal of ground water. The proposals are evaluated based on site specific technical studies and appropriate decisions are conveyed. Pre-conditions in case of permissions are mandatory adoption of rain water harvesting system, monitoring of ground water abstraction as well as monitoring of ground water level and quality etc. by the industry/ project.

- CGWA has directed large and medium Industries using ground water in the over exploited and critical areas in the country (except in the water logged areas) to take up water conservation measures including recharge of ground water/rain water harvesting and adopt practices of treatment, recycle and reuse of waste water in their premises.
- Government has constituted Advisory Council on Artificial Recharge to Ground Water in the year 2006 under the Chairmanship of Hon'ble Minister of Water Resources with the main objective of popularizing concept of artificial recharge among stakeholders as well as water managers.
- The Ministry of Water Resources has instituted 20 Ground Water Augmentation Awards & 1 National Water Award to encourage Non-Governmental Organizations (NGOs) /Gram Panchayats/ Urban Local Bodies/ Institutions/ Corporate Sector and Individuals for adopting innovative practices of ground water augmentation by rainwater harvesting and artificial recharge, promoting water use efficiency, recycling & re-use of water and creating awareness through people's participation.
- Central Ground Water Board organizes IEC activities like mass awareness and training programmes, painting completion, displaying models in exhibitions and fairs, printing of Meghdoot cards, display of hoardings at prominent public places etc.

Statement

*District-wise Annual Fluctuation & Frequency Distribution of
Different Ranges from May 2001 to May 2011 in Rajasthan*

Sl. No.	Name of Districts	No. of wells Analysed	Range in m				Rise				Fall				Total							
			Rise		Fall		0-2 m		2-4 m		>4m		0-2 m		2-4 m		>4m		Rise		Fall	
			Min	Max	Min	Max	No	%	No	%	No	%	No	%	No	%	No	%	No	%	No	%
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	Ajmer	22	0.06	11.34	0.68	4.30	5	22.73	5	22.73	7	31.82	3	13.64	0	0.00	2	9.09	17	77.27	5	22.73
2	Alwar	25	0.01	11.05	0.28	19.45	1	4.00	0	0.00	2	8.00	3	12.00	1	4.00	18	72.00	3	12.00	22	88.00
3	Banswara	5	1.95	5.25	0.76	0.76	1	20.00	1	20.00	2	40.00	1	20.00	0	0.00	0	0.00	4	80.00	1	20.00
4	Baran	8	0.88	4.28	0.34	2.05	4	50.00	0	0.00	1	12.50	2	25.00	1	12.50	0	0.00	5	62.50	3	37.50
5	Barmer	44	0.14	6.34	0.51	13.07	15	34.09	4	9.09	12	27.27	4	9.09	2	4.55	7	15.91	31	70.45	13	29.55
6	Bharatpur	28	0.07	3.15	0.46	9.29	7	25.00	4	14.29	0	0.00	9	32.14	2	7.14	6	21.43	11	39.29	17	60.71

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
7	Bhilwara	23	0.21	9.50	0.22	11.43	3	13.04	4	17.39	12	52.17	1	4.35	0	0.00	3	13.04	19	82.61	4	17.39
8	Bikaner	42	0.11	9.27	0.05	17.30	7	16.67	10	23.81	14	33.33	5	11.90	0	0.00	6	14.29	31	73.81	11	26.19
9	Bundi	7	0.08	7.15	1.14	2.95	3	42.86	0	0.00	2	28.57	1	14.29	1	14.29	0	0.00	5	71.43	2	28.57
10	Chittaurgarh	17	0.13	4.90	1.65	9.18	9	52.94	1	5.88	4	23.53	1	5.88	1	5.88	1	5.88	14	82.35	3	17.65
11	Churu	30	0.20	6.45	0.20	10.45	10	33.33	6	20.00	1	3.33	9	30.00	2	6.67	2	6.67	17	56.67	13	43.33
12	Dausa	14	3.17	3.77	0.69	5.30	0	0.00	3	21.43	0	0.00	1	7.14	1	7.14	9	64.29	3	21.43	11	78.57
13	Dhaulpur	13	1.90	11.39	0.64	12.00	1	7.69	2	15.38	1	7.69	3	23.08	1	7.69	5	38.46	4	30.77	9	69.23
14	Dungarpur	8	1.51	5.10	-	-	3	37.50	3	37.50	2	25.00	0	0.00	0	0.00	0	0.00	8	100.0		0.00
15	Ganganagar	37	1.01	10.95	0.43	16.73	9	24.32	13	35.14	11	29.73	2	5.41	0	0.00	2	5.41	33	89.19	4	10.81

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
16	Hanumangarh	32	0.08	10.34	0.13	13.35	7	21.88	10	31.25	3	9.38	3	9.38	2	6.25	7	21.88	20	62.50	12	37.50
17	Jaipur	34	1.45	5.49	0.49	28.68	5	14.71	0	0.00	1	2.94	7	20.59	4	11.76	17	50.00	6	17.65	28	82.35
18	Jaisalmer	41	0.16	6.39	0.14	9.26	13	31.71	9	21.95	8	19.51	6	14.63	1	2.44	4	9.76	30	73.17	11	26.83
19	Jalore	9	0.94	10.01	1.37	36.77	1	11.11	0	0.00	2	22.22	1	11.11	0	0.00	5	55.56	3	33.33	6	66.67
20	Jhalawar	5	0.07	9.03	3.23	3.23	1	20.00	1	20.00	2	40.00	0	0.00	1	20.00	0	0.00	4	80.00	1	20.00
21	Jhunjhunu	11	3.14	5.55	3.88	21.63	0	0.00	1	9.09	1	9.09	0	0.00	1	9.09	8	72.73	2	18.18	9	81.82
22	Jodhpur	27	0.05	11.26	0.09	15.46	4	14.81	5	18.52	8	29.63	6	22.22	1	3.70	3	11.11	17	62.96	10	37.04
23	Karauli	13	0.36	4.96	0.16	3.48	3	23.08	3	23.08	1	7.69	3	23.08	3	23.08	0	0.00	7	53.85	6	46.15
24	Kota	11	0.19	4.78	0.28	2.60	4	36.36	2	18.18	2	18.18	2	18.18	1	9.09	0	0.00	8	72.73	3	27.27

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
25	Nagaur	18	0.25	6.97	0.38	8.98	4	22.22	2	11.11	1	5.56	3	16.67	3	16.67	5	27.78	7	38.89	11	61.11
26	Pali	20	0.07	7.78	0.49	14.50	6	30.00	2	10.00	2	10.00	3	15.00	2	10.00	5	25.00	10	50.00	10	50.00
27	Rajsamand	22	1.91	13.42	3.17	3.17	1	4.55	3	13.64	17	77.27	0	0.00	1	4.55	0	0.00	21	95.45	1	4.55
28	Sawai Madhopur	14	0.28	2.58	0.65	6.45	4	28.57	1	7.14	0	0.00	2	14.29	2	14.29	5	35.71	5	35.71	9	64.29
29	Sikar	18	0.28	7.27	0.95	15.44	1	5.56	0	0.00	1	5.56	3	16.67	1	5.56	12	66.67	2	11.11	16	88.89
30	Sirohi	10	1.68	12.52	3.01	3.01	3	30.00	3	30.00	3	30.00	0	0.00	1	10.00	0	0.00	9	90.00	1	10.00
31	Tonk	16	0.51	8.25	0.79	13.96	2	12.50	5	31.25	3	18.75	1	6.25	1	6.25	4	25.00	10	62.50	6	37.50
32	Udaipur	27	0.02	13.75	-	-	7	25.93	12	44.44	8	29.63	0	0.00	0	0.00	0	0.00	27	100.0	0	0.00
Total		651					144	22.12	115	17.67	134	20.58	.85	13.06	37	5.68	136	20.89	393	60.37	258	39.63