

purposes is within the purview of the respective State Governments. However, the Ministry of Water Resources reviews the storage available in reservoirs vis-a-vis progress of onset of south west monsoon and issue Advisory to the state governments stating *inter-alia* that priority is to be given to drinking water supply and irrigation and making judicious use of water.

Union Government provides financial assistance to the State Governments under the Accelerated Irrigation Benefits Programme for completion of ongoing irrigation projects which includes water storage projects thereby increasing live storage capacity. Union government also provides financial assistance under the scheme of RRR of Water Bodies which results in restoration of lost water storage potential of these water bodies. In addition, Union Government provides financial assistance under CAD&WM programme for better management of available water which results in efficient water utilization for irrigation.

Depletion of underground aquifers

3713. DR. JANARDHAN WAGHMARE:

SHRI N.K. SINGH:

Will the Minister of WATER RESOURCES be pleased to state:

- (a) whether there are any studies conducted to examine the claims that there is a severe depletion of underground aquifers and sharply reduced soil fertility;
- (b) if so, the details thereof; and
- (c) if not, the reasons therefor?

THE MINISTER OF WATER RESOURCES (SHRI HARISH RAWAT): (a) and (b) Central Ground Water Board (CGWB) under the Ministry of Water Resources monitors ground water levels on regional scale through a network of observation wells located throughout the Country. Ground water level data of 11024 wells analysed for the pre-monsoon period (April/May) during the last five years (2007-2012) indicates that 55% of the wells have registered declining trend of ground water level. State-wise details are given in the Statement (*See below*). CGWB has not conducted any study relating depletion of ground water levels with soil fertility. Reduction in soil moisture results in less dissolution of nutrients in the soil. The depletion in ground water level reduces the soil moisture in the root zone and accordingly the nutrient uptake by the crops get hampered leading to reduction in crop yield.

- (c) In view of the reply at (a) and (b) above, question does not arise.

Statement*Rate of Decline of Ground Water for Pre-monsoon period (April/ May) during 2007 to 2012*

Name of the States/UTs	Total No. of Wells analysed	Total No. of wells showing decline	% of wells showing decline	Maximum Rate of Decline/ Trend (m/yr)	No. of Wells showing Declining trend in the Range of					
					0.00-1.0 (m/yr)		1.00-2.00 (m/yr)		>2 (m/yr)	
					No.	%	No.	%	No.	%
1	2	3	4	5	6	7	8	9	10	11
Andhra Pradesh	750	558	74	2.39	470	62.7	79	10.53	9	1.20
Bihar	261	190	73	1.58	182	69.7	8	3.07	0	0.00
Chandigarh	24	17	71	0.81	17	70.8	0	0.00	0	0.00
Chhattisgarh	415	221	53	2.65	210	50.6	10	2.41	1	0.24
Delhi	124	106	85	2.93	88	71.0	13	10.48	5	4.03
Goa	45	20	44	0.59	20	44.4	0	0.00	0	0.00
Gujarat	760	402	53	2.70	330	43.4	55	7.24	17	2.24
Haryana	346	186	54	2.56	151	43.6	27	7.80	8	2.31
Himachal Pradesh	79	54	68	1.12	53	67.1	1	1.27	0	0.00

1	2	3	4	5	6	7	8	9	10	11
Jharkhand	178	130	73	1.28	127	71.3	3	1.69	0	0.00
Karnataka	1055	394	37	2.83	358	33.9	29	2.75	7	0.66
Kerala	676	377	56	2.24	367	54.3	9	1.33	1	0.15
Maharashtra	1051	555	53	2.54	493	46.9	48	4.57	14	1.33
Madhya Pradesh	1031	491	48	2.15	441	42.8	45	4.36	5	0.48
Orissa	851	454	53	2.06	434	51.0	19	2.23	1	0.12
Punjab	218	144	66	1.80	125	57.3	19	8.72	0	0.00
Rajasthan	877	521	59	3.96	365	41.6	104	11.86	52	5.93
Tamil Nadu	736	363	49	3.14	313	42.5	40	5.43	10	1.36
Uttar Pradesh	851	467	55	2.14	453	53.2	12	1.41	2	0.24
Uttarakhand	59	32	54	1.44	30	50.8	2	3.39	0	0.00
West Bengal	637	423	66	3.09	361	56.7	47	7.38	15	2.35
GRAND TOTAL	11024	6105	55		5388	48.87	570	5.17	147	1.33