

the past by the Union Government on the subject of flood management, absolute and permanent immunity against floods is not techno-economically feasible and impacts of floods can be minimized to a certain degree by adopting an optimum combination of structural measures in the form of large storage reservoirs, detention basins, embankments, improvement of channel capacities; and non-structural measures like flood forecasting, flood plain zoning and catchment area treatment. The National Water Policy-2012 as adopted by the National Water Resources Council emphasizes on these measures of flood management, besides effective implementation of inter-basin transfer of surplus/flood water to water scarce regions.

(e) and (f) The general measures of flood management are under implementation in all the flood affected States including the flood affected States of south India. During Eleventh Plan, the Union Government had launched the Flood Management Programme for providing central assistance to the State Governments for undertaking works related to river management, flood control, anti-erosion, drainage development, restoration of damaged earlier flood management works and anti-sea erosion. This programme was implemented in the entire country including the States of Tamil Nadu, Kerala and Karnataka in south India, and the total central assistance of Rs. 3566 crore was released during Eleventh Plan. The Ministry of Water Resources has proposed continuation of Flood Management Programme during Twelfth Plan also.

Further, the National Water Development Agency (NWDA) has been entrusted with the study of peninsular component envisaging 16 nos. of inter-basin water transfer links which also include rivers falling in the States of south India.

#### **Committee on rain water harvesting and groundwater level**

4332. SHRI T.M. SELVAGANAPATHI: Will the Minister of WATER RESOURCES be pleased to state:

- (a) whether it is a fact that a committee has been set up to report on rain water harvesting and groundwater level status in many parts of the country;
- (b) if so, the details thereof;
- (c) whether it is also a fact that the groundwater level in many parts of the country is depleting very fast; and

(d) if so, the details thereof?

THE MINISTER OF WATER RESOURCES (SHRI HARISH RAWAT): (a) and (b) Central Government has not set up any committee to report on rain water harvesting and ground water level status in parts of the country. However, Central Ground Water Board under the Ministry of Water Resources has prepared a Master Plan for Artificial Recharge to Ground Water. The Master Plan is a conceptual document which comprises of State-wise details of feasibility of artificial recharge through various types of structures suitable to the local conditions in the respective States/Union Territories. The Plan takes into consideration the existing ground water conditions in the respective States/UTs, long term ground water level behaviour, the geomorphology of the area as well as the experience gathered during the Pilot Projects taken up under Demonstrative Artificial Recharge scheme in various parts of the Country.

(c) and (d) Central Ground Water Board 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. At majority of the locations, water level has declined at the rate of 1 meter/year. State-wise details are given in the Statement.

**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	4	5	Maximum Rate of Decline/ Trend (m/yr)	No. of wells showing declining trend in the range of				>2 (m/yr)
						0.00-1.00 (m/yr)	1.00-2.00 (m/yr)	%	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

1	2	3	4	5	6	7	8	9	10	11
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
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
Odisha	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