

Institute of Ocean Management jointly conducted a study under the guidance of Ministry of Environment, Forests and Climate Change and published a report on "Shoreline Change Assessment of Kerala Coast". In the study, the shoreline of Kerala has been classified into 8 zones of erosion/accretion as under:

- (i) High accretion (28.8 km).
- (ii) Medium accretion (53.1 km).
- (iii) Low accretion (58.69 km).
- (iv) Stable Coast (46.3 km).
- (v) Low erosion (49.2 km).
- (vi) Medium erosion (9.2 km.)
- (vii) High erosion (2.3 km).
- (viii) Artificial Coast (Eroding Coast) (309.7 km).

(c) to (e) The flood management including anti-sea erosion works being within the purview of the States, the related schemes for such measures are planned, formulated and implemented by concerned State Governments with their own resources and as per priority within the State.

As informed by Government of Kerala, an amount of ₹ 100 crore had been awarded by 13th Finance Commission for coastal zone management in Kerala out of which 117 works of coastal protection and maintenance had been taken up. In addition, the State Government is utilizing its own resources and also availing assistance from NABARD for coastal protection in most vulnerable reaches. Besides, the Government of India also provides central assistance to States for works related to flood management / anti sea erosion under Flood Management Programme which was launched in Eleventh Plan and its continuation had been approved by Cabinet for Twelfth Plan with an outlay of ₹ 10,000 crore.

So far, no eligible proposal has been received from the Government of Kerala for central assistance under FMP for coastal protection.

Water conservation

1694. SHRI A.W. RABI BERNARD: Will the Minister of WATER RESOURCES, RIVER DEVELOPMENT AND GANGA REJUVENATION be pleased to state:

(a) whether the Central Ground Water Board (CGWB) had informed the Ministry that 56 per cent of the wells, which were analysed to keep a tap on groundwater level showed decline in its level as compared to the average of preceding ten years period;

(b) if so, the details thereof;

(c) whether it is a fact that 90 per cent of the waste water discharge in rivers does not meet environmental norms while 65 per cent rain water runs off, goes into sea which is a major waste; and

(d) if so, the details thereof and the necessary steps taken by Government under the National Water Conservation and Water Enrichment Scheme?

THE MINISTER OF STATE IN THE MINISTRY OF WATER RESOURCES, RIVER DEVELOPMENT AND GANGA REJUVENATION (SHRI SANWAR LAL JAT): (a) and (b) Central Ground Water Board had informed that around 56% of the wells are showing decline in ground water level in various parts of the country as per the data of pre-monsoon 2013, compared with decadal mean of pre-monsoon (2003-2012). However, as per the latest ground water monitoring data of CGWB for pre-monsoon 2014, compared with decadal mean of pre-monsoon (2004-2013), indicates that out of total wells analyzed, around 39% of the wells are showing decline in ground water level in various parts of the Country. State-wise details are given in Statement (*See below*).

(c) and (d) India receives an average rainfall of about 1170 mm which corresponds to an annual precipitation of about 4000 BCM (Billion Cubic Metre) including snowfall. However, there is considerable variation in rainfall both temporally and spatially. Nearly 75% of this *i.e.*, 3000 BCM occurs during the monsoon season confined to 3 to 4 month (June to September) in a year. After accounting for evaporation and evapotranspiration, the average annual water availability in the country has been assessed as 1869 BCM. It has been estimated that owing to topographic, hydrological and other constraints, the utilizable water is 1123 BCM which comprises of 690 BCM of surface water 433 BCM of replenishable ground water resources. As per latest assessment made by the CWC in 2010 the live storage capacity of completed projects is 253.388 BCM.

As per assessment conducted by CPCB in 2015, the sewage generation and treatment capacity for Urban Population of India for the year is estimated to be 62,000 MLD approximately against sewage treatment capacity of 23,277 MLD with 816 STPs (Sewage Treatment Plants).

As per available information, there is no scheme of National Water Conservation and Water Enrichment, however, the works under 'National Ganga River Basin Authority' (NGRBA) Programme include laying of sewerage system, sewage treatment plants, solid waste management, common effluent treatment plant for controlling industrial pollution, river front management, crematoria etc.

Statement

*State-wise decadal water level fluctuation with mean Pre-Monsoon (2004 to 2013)
and Pre-Monsoon 2014*

Sl. No.	Name of State	No. of Wells Analysed	Wells Showing Rise		Wells Showing Fall	
			No.	%	No.	%
1	2	3	4	5	6	7
1.	Andhra Pradesh	566	345	61	219	39
2.	Arunachal Pradesh	12	9	75	3	25
3.	Assam	159	77	48	82	52
4.	Bihar	351	218	62	129	37
5.	Chandigarh	16	9	56	7	44
6.	Chhattisgarh	552	316	57	223	40
7.	Dadra and Nagar Haveli	5	5	100	0	0
8.	Daman and Diu	12	4	33	8	67
9.	Delhi	116	62	53	54	47
10.	Goa	75	56	75	18	24
11.	Gujarat	751	442	59	305	41
12.	Haryana	335	186	56	149	44
13.	Himachal Pradesh	94	74	79	20	21
14.	Jammu and Kashmir	227	165	73	61	27
15.	Jharkhand	169	120	71	49	29
16.	Karnataka	1167	674	58	471	40
17.	Kerala	894	471	53	421	47
18.	Madhya Pradesh	1154	917	79	234	20
19.	Maharashtra	1224	887	72	332	27
20.	Meghalaya	20	8	40	12	60
21.	Odisha	1110	684	62	412	37
22.	Puducherry	4	2	50	2	50
23.	Punjab	379	210	55	168	44
24.	Rajasthan	847	424	50	406	48
25.	Tamil Nadu	637	168	26	469	74

1	2	3	4	5	6	7
26.	Telangana	467	362	78	104	22
27.	Tripura	16	6	38	10	63
28.	Uttar Pradesh	881	552	63	324	37
29.	Uttarakhand	37	16	43	21	57
30.	West Bengal	932	511	55	419	45
TOTAL		13209	7980	60	5132	39

Note: 97 wells (1%) do not show any change in water level.

Depletion of water table

1695. SHRI KIRANMAY NANDA: Will the Minister of WATER RESOURCES, RIVER DEVELOPMENT AND GANGA REJUVENATION be pleased to state:

(a) whether it is a fact that water table is decreasing very fast in almost all the States;

(b) if so, the details of average water table decrease during the last 10 years, State-wise;

(c) whether Government has suggested any major change in cropping pattern and agricultural practices to improve the level of underground water; and

(d) if so, the result noticed after such changes in agricultural practices?

THE MINISTER OF STATE IN THE MINISTRY OF WATER RESOURCES, RIVER DEVELOPMENT AND GANGA REJUVENATION (SHRI SANWAR LAL JAT): (a) and (b) Ground water monitoring data of Central Ground Water Board (CGWB) for pre-monsoon 2014, compared with decadal mean of pre-monsoon (2004-2013), indicates that out of total wells analyzed, around 39% of the wells are showing decline in ground water levels in various parts of the country. State-wise details refer to the statement appended to the USQ No. 1694 part (a) and (b).

(c) and (d) As per the information received from Ministry of Agriculture, agriculture being a State subject, cropping pattern/cropping system is decided by the States. However, Department of Agriculture through its programmes/schemes/missions is promoting farming systems/cropping systems suitable to agro climatic conditions.