

GOVERNMENT OF INDIA  
MINISTRY OF WATER RESOURCES,  
RIVER DEVELOPMENT & GANGA REJUVENATION  
**LOK SABHA**  
**STARRED QUESTION NO. \*118**  
ANSWERED ON 03.03.2016

**EROSION BY RIVERS**

\*118. SHRI BISHNU PADA RAY  
SHRI RAVINDER KUSHAWAHA

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

- (a) the details of the loss suffered due to floods and soil/bank erosion by rivers in the country including Andaman and Nicobar Islands during each of the last three years, State/UT-wise;
- (b) whether the Government has provided any financial or other assistance for the purpose and if so, the details thereof along with success achieved in the matter, State/UT-wise; and
- (c) the future plan of the Government to check soil/bank erosion, conserve/utilise rain water and control recurring floods in the country?

**ANSWER**

THE MINISTER OF WATER RESOURCES, RIVER DEVELOPMENT AND GANGA REJUVENATION

(SUSHRI UMA BHARTI)

(a) to (c) A statement is laid on the Table of the House.

**Statement Referred to in Reply of para (a) to (c) of Lok Sabha Starred Question No. 118 for answer on 03.03.2016 regarding “Erosion by Rivers”**

(a) The State/UT-wise details of losses suffered due to floods including soil/bank erosion by rivers in the country including Andaman and Nicobar Islands during the years 2013, 2014 and 2015 as informed by respective State/ UT Governments are given in **Annexure-1 to 3** respectively.

(b) Yes, Madam. The Government of India has provided central assistance to the State Governments under the State-Sector Scheme, Flood Management Programme (FMP) for undertaking works related to flood control, river management, anti-erosion, removal of drainage congestion and anti-sea erosion during XI and XII plans. The State-wise details of works approved, funds released till date and area protected are given in **Annexure-4 and 5** respectively.

(c) As regards soil / bank erosion and controlling recurring floods, the related schemes are formulated and implemented by the State Governments as per their priorities, since the subject of flood management falls within the purview of States. However, Government of India supplements their efforts by rendering technical advice and promotional financial assistance to enable the State Governments to undertake flood management and anti-erosion works in critical areas. The Ministry has initiated the study of siltation and erosion in major rivers in order to enable States to undertake combination of structural measures viz. embankments and channel improvement through dredging and non-structural measures viz. flood forecasting and flood plain zoning for effective mitigation of flood damages. The Government of India has already provided additional financial resources to the States through devolution of central taxes for undertaking required flood control measures.

For conservation of rain water, the Ministry has prepared plans for promoting (i) Rain Water harvesting & artificial recharge of ground water, (ii) Inter-linking/Intra-linking of rivers for transfer of excess water from surplus river basins to deficit basins and (iii) Repair Renovation & Restoration (RRR) of water bodies.

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Annexure referred to in Reply of Part (a) of Lok Sabha Starred Question No. 118 for answer on 03.03.2016-regarding "Erosion by Rivers".

## STATE-WISE FLOOD DAMAGES DURING 2013

Sl.No.	Name of State	Area affected	Population affected	Damage to Crops		Damage to Houses		Cattle lost	Human lives lost	Damage to public utilities	Total damages crops,house& public utilities
		m.ha	million	Area in m.ha	Value Rs.Cr.	Nos.	Value Rs.Cr.	nos.	nos.	Rs.Crore	in Rs.Crore
1	2	3	4	5	6	7	8	9	10	11	12
1	ANDHRA PRADESH	1.630	3.020	1.630	44.905	75304	2.244	2743	88	66.957	114.285
2	ARUNACHAL PRADESH	0.310	0.310	0.310	8.245	986	12.851	75	52	854.424	875.519
3	ASSAM	0.001	0.006	0.001	0.000	0	0.000	0	0	0.000	0.000
4	BIHAR	0.600	6.900	0.600	105.720	156518	24.020	6548	218	16.610	146.350
5	CHATTISGARH	0.000	NR	0.000	NR	0	NR	0	NR	0.000	NR
6	GOA	NR	0	0	0	4	0.008	0	0	0	0.008
7	GUJARAT	NR	0.177	0.000	7.750	407	0.144	274	186	0.000	7.894
8	HARYANA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
9	HIMACHAL PRADESH	0.102	0.000	0.102	506.000	11243	200.000	24267	73	2228.370	2934.370
10	JAMMU & KASHMIR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
11	JHARKHAND	0.022	0.199	0.022	3.894	528	0.202	1	3	0.000	4.096
12	KARNATAKA	0.228	0.000	0.228	1703.070	12310	9.997	368	124	0.000	1713.067
13	KERALA	0.011	2.839	0.011	138.800	26694	36.830	80059	198	499.900	675.530
14	MADHYA PRAADESH	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
15	MAHARASHTRA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
16	MANIPUR	0.000	0.000	0.000	0.000	0	0.000	0	0	0.000	0.000
17	MEGHALAYA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
18	MIZORAM	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
19	NAGALAND	NR	0.075	0.000	1.720	982	29.890	2680	0	1.800	33.410
20	ODISHA	0.046	0.390	0.046	0.000	5857	0.216	34	24	0.000	0.216
21	PUNJAB	0.110	0.0087	0.110	136.460	36206	25.040	954	44	195.420	356.920
22	RAJASTHAN	0.040	0.229	0.040	22.300	13108	3.859	157	14	60.860	87.020
23	SIKKIM	NR	0.200	NR	NR	34	NR	106	16	NR	156.200
24	TAMILNADU	NR	NR	NR	NR	1314	NR	258	92	NR	NR
25	TRIPURA	0.002	0.021	0.002	2.163	3338	1.854	0	4	0.198	4.215
26	UTTAR PRADESH	0.349	3.544	0.349	0.000	79600	0.000	550	380	0.000	3259.530
27	UTTARAKHAND	NR	0	0	0	4726	0	9470	580	0	0
28	WEST BENGAL	0.182	3.112	0.182	533.950	233336	178.970	28311	41	13.580	726.500
29	A & N ISLAND	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
30	CHANDIGARH	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
31	D & N HAVELI	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
32	DAMAN & DIU	0.000	0.000	0.000	0.000	0	0.000	0	0	0.000	0.000
33	DELHI	0.007	0.008	0.002	0.010	nil	nil	nil	nil	nil	0.010
34	LAKSHADWEEP	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
35	PUDUCHCHERRY	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
	TOTAL	3.640	21.147	3.636	3214.987	662495	526.125	156855	2137	3938.119	11095.139

Annexure referred to in Reply of Part (a) of Lok Sabha Starred Question No. 118 for answer on 03.03.2016-regarding "Erosion by Rivers".

## STATE-WISE FLOOD DAMAGES DURING 2014

Sl. No.	Name of State	Area affected in	Population affected in	Damage to Crops		Damage to Houses		Cattle lost	Human lives lost	Damage to public utilities	Total damages crops, house, & public utilities
		Mha	Million	Area in mha	Value in RsCrore	Nos.	Value in RsCrore	Nos.	Nos.	in Rs.Crore	in Rs.Crore
1	2	3	4	5	6	7	8	9	10	11	12
1	ANDHRA PRADESH	NR	NR	NR	NR	3279	317.040	NR	NR	NR	317.040
2	ARUNACHAL PRADESH	0.000	0.833	0.023	97.380	2742	3.525	1992	56	2335.408	2436.313
3	ASSAM	0.002	0.003	0.002	NR	NR	NR	NR	NR	79.780	NR
4	BIHAR	3.900	0.312	0.500	176.400	13662	10.780	34	158	5.400	192.580
5	CHATTISGARH	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
6	GOA	NR	NR	NR	NR	41	NR	NR	NR	NR	NR
7	GUJARAT	0.000	0.000	0.000	0.000	0	0.000	0	0	0.000	0.000
8	HARYANA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
9	HIMACHAL PRADESH	1.780	0.481	0.014	189.150	1963	3.710	698	45	638.970	831.830
10	JAMMU & KASHMIR	NR	0.275	NR	NR	NR	NR	NR	298	NR	NR
11	JHARKHAND	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
12	KARNATAKA	0.005	NR	0.005	NR	895	NR	85	27	728.800	728.800
13	KERALA	0.019	0.032	0.019	215.563	7197	10.000	NR	122	108.000	333.563
14	MADHYA PRADESH	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
15	MAHARASHTRA	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
16	MANIPUR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
17	MEGHALAYA	0.016	0.341	0.016	70.700	10701	71.203	8822	66	77.417	219.320
18	MIZORAM	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
19	NAGALAND	0.004	NR	0.004	NR	847	NR	2860	NR	NR	NR
20	ODISHA	3.970	4.019	3.970	NR	49104	NR	187	61	NR	NR
21	PUNJAB	0.039	0.400	0.039	44.930	36429	21.590	954	44	66.600	133.120
22	RAJASTHAN	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
23	SIKKIM	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
24	TAMILNADU	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
25	TRIPURA	0.001	0.004	0.000	1.449	2045	2.971	20	0	0.544	4.530
26	UTTAR PRADESH	0.450	1.398	0.450	NR	3652	NR	73	106	NR	NR
27	UTTARAKHAND	0.001	NR	0.001	NR	1447	NR	348	66	NR	NR
28	WEST BENGAL	0.051	0.448	0.038	0.000	25477	0.000	132	134	19.137	19.137
29	A & N ISLAND	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
30	CHANDIGARH	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
31	D & N HAVELI	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
32	DAMAN & DIU	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
33	DELHI	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
34	LAKSHADWEEP	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
35	PUDUCHCHERRY	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
	TOTAL	10.238	8.545	5.081	795.572	159481	440.819	16205	1183	4060.056	5216.233

## STATE-WISE FLOOD DAMAGE DURING 2015

Sl. No.	Name of State	Area affected in	Population affected in	Damage to Crops		Damage to Houses		Cattle lost	Human lives lost	Damage to public utilities	Total damages crops, house, & public utilities
		Mha	Million	Area in mha	Value in RsCrore	Nos.	Value in RsCrore	Nos.	Nos.	in Rs.Crore	in Rs.Crore
1	2	3	4	5	6	7	8	9	10	11	12
1	ANDHRA PRADESH			0.000		103		420	28		
2	ARUNACHAL PRADESH										
3	ASSAM		0.018	0.002		16					
4	BIHAR		0.279			379			9	62.000	62.000
5	CHATTISGARH										
6	GOA	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000
7	GUJARAT		4.000						98		
8	HARYANA										
9	HIMACHAL PRADESH	0.006	6.865		121.380	3264	6.690	686	133	2.550	787.470
10	JAMMU & KASHMIR								3		
11	JHARKHAND										
12	KARNATAKA			0.174	776.480	10427	12.020	430	128	75.490	863.990
13	KERALA		0.017	0.006		6705		4	74	6.507	109.170
14	MADHYA PRADESH										
15	MAHARASHTRA								2		
16	MANIPUR		0.103			12			5		
17	MEGHALAYA		0.000			50			1		
18	MIZORAM					4					
19	NAGALAND										
20	ODISHA		0.012	0.046		573			3		
21	PUNJAB		0.032	0.071		151		14	11	420.340	624.877
22	RAJASTHAN		0.001						40		
23	SIKKIM			6.000				303			
24	TAMILNADU										
25	TRIPURA										
26	UTTAR PRADESH		0.010			6					0.530
27	UTTARAKHAND					411		181	33		
28	WEST BENGAL		10.840	1.300	11433.680	830245	7895.630	22774	338	6023.960	25353.270
29	A & N ISLAND										
30	CHANDIGARH										
31	D & N HAVELI	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
32	DAMAN & DIU										
33	DELHI										
34	LAKSHADWEEP										
35	PUDUCHCHERRY										
	TOTAL	0.006	22.176	7.599	12331.540	852346	7914.340	24812	906	6590.85	27801.31

Annexure referred to in Reply of Part (b) of Lok Sabha Starred Question No. 118 for answer on 03.03.2016-regarding "Erosion by Rivers".  
State-Wise Works Approved, Works Completed and Funds Released under Flood Management Programme ( FMP ) during XI and XII Plan

Rs. in crore

Sl. No.	State	XI Plan			XII Plan			Total (XI + XII Plan) Status			
		Works Approved		Funds Released ( XI Plan)	Works Approved		Funds Released ( XII Plan)	Works Approved		Number of Works Completed ( upto 12.3.2015)	Total Funds Released ( XI + XII Plan)
		Nos.	Estimated Cost		Nos.	Estimated Cost		Nos.	Estimated Cost		
1	Arunachal Pradesh	21	224.69	81.69	0	0.00	46.83	21	224.69	11	128.52
2	Assam	100	996.14	748.86	41	1386.97	37.67	141	2383.11	94	786.52
3	Bihar	43	1370.42	723.18	4	447.63	184.64	47	1818.05	41	907.82
4	Chhattisgarh	3	31.13	15.57	0	0.00	3.75	3	31.13		19.32
5	Goa	2	22.73	9.98	0	0.00	2.00	2	22.73	2	11.98
6	Gujarat	2	19.79	2.00	0	0.00	0.00	2	19.79	1	2.00
7	Haryana	1	173.75	46.91	0	0.00	0.00	1	173.75		46.91
8	Himachal Pradesh	3	225.32	165.98	4	1139.62	171.87	7	1364.94	1	337.85
9	Jammu & Kashmir	28	408.22	252.57	14	163.18	82.81	42	571.40	8	335.38
10	Jharkhand	3	39.30	18.44	0	0.00	4.27	3	39.30	2	22.71
11	Karnataka	3	59.46	23.80	0	0.00	0.00	3	59.46		23.80
12	Kerala	4	279.74	63.68	0	0.00	55.22	4	279.74		118.90
13	Manipur	22	109.34	66.34	0	0.00	24.36	22	109.34	19	90.70
14	Meghalaya	0	0.00	3.81	0	0.00	0.00	0	0.00	0	3.81
15	Mizoram	2	9.13	14.48	0	0.00	1.46	2	9.13		15.94
16	Nagaland	11	49.35	28.96	3	37.38	31.04	14	86.73	9	60.00
17	Orissa	67	169.00	101.12	1	62.32	0.00	68	231.32	60	101.12
18	Puducherry	1	139.67	7.50	0	0.00	0.00	1	139.67		7.50
19	Punjab	5	153.40	40.43	0	0.00	0.00	5	153.40		40.43
20	Sikkim	28	104.92	83.69	17	261.40	8.15	45	366.32	21	91.84
21	Tamilnadu	5	635.54	59.82	0	0.00	0.00	5	635.54		59.82
22	Tripura	11	26.57	23.62	0	0.00	0.00	11	26.57	8	23.62
23	Uttar Pradesh	26	667.57	290.69	3	382.27	111.22	29	1049.84	6	401.91
24	Uttarakhand	12	119.82	49.63	9	183.45	132.65	21	303.27	8	182.28
25	West Bengal	17	1822.08	643.26	1	438.94	146.14	18	2261.02	6	789.40
	Total	420	7857.08	3566.00	97	4503.16	1044.09	517	12360.24	293	4610.09

Annexure referred to in Reply of Part (b) of Lok Sabha Starred Question No. 118 for answer on 03.03.2016-regarding "Erosion by Rivers".

State-wise Details of Works completed and Area Protected  
Under Flood Management Programme During XI Plan

Sl. No	State	Total Schemes Completed (As on 31 <sup>st</sup> March , 2012)				
		Area protected in lakh ha				Population benefited in Lakh
		Nos.	Old Area restored	New Area Protected	Total	
1	Arunachal. Pradesh	11	0	0.566	0.566	0.697
2	Assam	77	3.864	1.007	4.871	97.848
3	Bihar	26	10.237	0.285	10.522	70.92
4	Goa	1	0	0.002	0.002	0.15
5	J&K	8	0.9	0	0.9	0
6	Manipur	19	0	0.28	0.28	1.582
7	Nagaland	9	0	0.004	0.004	0.6
8	Orissa	60	1.474	0.082	1.556	7.202
9	Sikkim	21	0	0.201	0.201	2.397
10	Uttar Pradesh	6	0.442	0.096	0.538	4.005
11	Uttarakhand	3	0	0.001	0.001	0.053
12	West Bengal	7	0.087	0.063	0.15	11.81
13	Tripura	4	0	0.002	0.002	0.013
	Total	252	17.004	2.589	19.593	197.277