

GOVERNMENT OF INDIA
MINISTRY OF JAL SHAKTI,
DEPARTMENT OF WATER RESOURCES, RIVER DEVELOPMENT & GANGA REJUVENATION
LOK SABHA
UNSTARRED QUESTION NO. †907
ANSWERED ON 17.09.2020

LOSS OF CROPS AND PROPERTIES DUE TO FLOODS

†907. SHRI ASHOK KUMAR RAWAT

Will the Minister of JAL SHAKTI be pleased to state:

- (a) the details of damage caused to crops and property every year due to devastating floods, Statewise especially in rural and backward areas;
- (b) the steps taken till date to control the devastating floods, State-wise;
- (c) the steps proposed to be taken to conserve water by utilising rain water for irrigation;
- (d) whether the Government proposes to consider any plan to control the devastating floods by preserving water through utilising rain water for irrigation; and
- (e) if so, the details thereof with special reference to rural and backward areas?

ANSWER

THE MINISTER OF STATE FOR JAL SHAKTI & SOCIAL JUSTICE AND EMPOWERMENT

(SHRI RATTAN LAL KATARIA)

- (a) Central Water Commission maintains the flood damage data of the country and State-wise details of damage due to floods as given by the respective State Governments for the period 2016-2018 is given in **Annexure I**.
- (b) The Government of India has been making regular efforts to assist the State Governments in effective flood management and it had taken several important actions, including setting up of Various Expert Committees / Task Forces/ Commissions from time to time, which studied the flood problems and recommended suitable flood management measures for implementation by the State Governments. A gist of important initiatives is as under:
 - (i) Government of India launched Flood Management Programme (FMP) during XI Plan for providing financial assistance to the State Governments for taking up works related to river management, flood control, anti-erosion, drainage development, flood proofing works, restoration of damaged flood management works and anti-sea erosion works which was continued during XII Plan and further extended up to March 2021 as a component under Flood Management and border areas programme (FMBAP). State-wise central assistance released to States/UTs under this Programme since its inception at **Annexure II**.

- (ii) Ganga Flood Control Commission (GFCC) was set up at Patna in 1972 to address the flood and erosion problems of Ganga basin States.
 - (iii) Rashtriya Barh Ayog (RBA) was set up in 1976 which submitted its report in 1980 recommending various measures of flood control.
 - (iv) Brahmaputra Board was set up in 1980 to address the flood erosion problems in the North Eastern States including North Bengal and Sikkim. It has prepared 57 Master Plans and circulated them to concerned States for implementation.
 - (v) The Task Force - 2004 on Flood Management / Erosion Control, set up in August, 2004, submitted its Report in December, 2004 recommending immediate, short-term and long-term measures for flood management and erosion control in the States of Assam & neighbouring North-Eastern States, Bihar, West Bengal, Eastern Uttar Pradesh.
 - (vi) The Government of India is having regular dialogue with neighbouring countries viz. Nepal, Bhutan, Bangladesh and China on flood management aspects in India, besides other issues related to water resources.
 - (vii) As a non-structural measure, Central Water Commission (CWC) has established a flood forecasting network across the country and issues flood forecasts at 328 stations.
 - (viii) The Government of India issued National Water Policy-2012 which emphasizes construction of large storage reservoirs and other non-structural measures for integrated flood management.
- (c) National Water Mission (NWM) of Ministry of Jal Shakti has initiated “Catch the Rain” campaign in order to promote creation of Rain Water Harvesting Structures (RWHS) suitable to the climatic conditions and sub-soil strata to store rain water. Drives to make water harvesting pits, rooftop RWHS and check dams; removal of encroachments and de-silting of tanks to increase their storage capacity; removal of obstructions in the channels which bring water to them from the catchment areas; repairs to traditional water harvesting structures like step-wells and using defunct bore-wells and old wells to put the water back to aquifers etc, are some of the activities suggested to be taken up with peoples’ active participation under this campaign.

Central Ground Water Board is implementing a nationwide programme of “National Aquifer Mapping and Management (NAQUIM)” for mapping of aquifers (Water bearing formations), their characterization and development of aquifer management plans to facilitate sustainable development of ground water resources. Aquifer maps and management plans have been shared with the respective State Government agencies. Public Interaction Programs are being organised at grass root level for disseminating the tenets of the Aquifer Management Plans for the benefit of the stakeholders.

To promote recharge of ground water, Ministry of Housing & Urban Affairs has formulated guidelines for the States to adopt measures suitable to local conditions. Adequate focus has been given on requirement of rainwater harvesting and water conservation measures in Model Building Bye Laws (MBBL), 2016 and Urban and Regional Development Plan Formulation and Implementation (URDPFI) Guidelines, 2014.

(d) & (e) Floods are natural calamity and is attributed to various factors like wide variation in rainfall both in time and space with frequent departure from normal pattern, inadequate carrying capacities of rivers, river bank erosion, silting of river beds, landslides, poor natural drainage, snow melts and glacial lake out bursts. The flood management schemes are formulated and implemented by concerned State Governments as per their priority. The Union Government supplements the efforts of the States by providing technical guidance and promotional financial assistance for management of floods in critical areas.

ANNEXURE REFERRED TO IN REPLY TO PART (a) OF UNSTARRED QUESTION NO. †907 TO BE ANSWERED IN LOK SABHA ON 17.09.2020 REGARDING “LOSS OF CROPS AND PROPERTIES DUE TO FLOODS”

STATEMENT SHOWING STATE-WISE FLOOD DAMAGE DURING 2016

Sl.No	Name of State	Area Affected (Mha)	Population Affected (Million)	Damages to Crops		Damage to Houses		Cattle Lost Nos.	Human Lives Lost Nos.	Damage to Public Utilities (Rs. Crore)	Total Damages Crops, Houses & Public Utilities (Rs. Crore)
				Area (Mha)	Value (Rs. Crore)	Nos.	Value (Rs. Crore)				
1	2	3	4	5	6	7	8	9	10	11	12
1	ANDHRA PRADESH	0.003	0.386	0.003	0.000	0	0.000	4	3	0.000	0.000
2	ARUNACHAL PRADESH	0.000	0.000	0.000	0.000	354	0.000	15671	42	0.000	0.000
3	ASSAM	0.000	0.003	0.000	0.000	0	0.000	0	36	17.890	17.890
4	BIHAR	0.410	8.823	0.410	443.530	16717	44.262	246	254	40.970	528.762
5	CHATTISGARH	0.000	0.000	0.000	0.000	0	0.000	0	0	0.000	0.000
6	GOA	0	0	0	0	0	0	0	0	0	0
7	GUJARAT	0.000	0.012	0.000	0.000	128	0.000	322	99	0.000	0.000
8	HARYANA	0.004	0.000	0.004	518.235	49	4.212	1	2	0.000	522.447
9	HIMACHAL PRADESH	0.035	6.865	0.035	26.830	2283	15.270	136	40	3.020	45.120
10	JAMMU & KASHMIR	0.000	0.000	0.000	0.000	0	0.000	0	3	0.000	0.000
11	JHARKHAND	0.000	0.000	0.000	0.000	0	0.000	0	0	0.000	0.000
12	KARNATAKA	3.780	2.180	3.780	1771.260	21224	5.370	521	63	236.180	2012.810
13	KERALA	0.002	0.006	0.002	42.680	5809	0.000	56	66	0.000	42.680
14	MADHYA PRADESH	1.304	1.560	1.304	0.000	168267	0.000	2623	327	207.860	207.860
15	MAHARASHTRA	0.015	0.077	0.015	0.000	8164	0.000	1036	145	0.000	0.000
16	MANIPUR	0.000	0.000	0.000	0.000	0	0.000	0	0	0.000	0.000
17	MEGHALAYA	0.003	0.124	0.003	17.730	1412	15.477	0	4	29.322	62.529
18	MIZORAM	0.000	0.000	0.000	0.000	0	0.000	0	0	1.790	1.790
19	NAGALAND	0.000	0.000	0.000	0.000	0	0.000	0	0	0.000	0.000
20	ORISSA	0.009	0.015	0.000	0.000	9	0.050	0	3	31.245	31.295
21	PUNJAB	0.001	0.000	0.001	1.140	20	0.025	0	13	0.495	1.660
22	RAJASTHAN	0.884	4.381	0.796	1014.221	14494	20.378	635	129	164.514	1199.113
23	SIKKIM	0.000	0.000	0.000	0.000	6	0.000	0	0	0.000	0.000
24	TAMILNADU	0.000	0.000	0.000	0.000	0	0.000	0	0	0.000	0.000
25	TRIPURA	0.037	0.091	0.019	89.122	455	0.235	0	3	0.000	89.357
26	UTTAR PRADESH	0.569	2.032	0.277	123.776	35525	0.000	293	74	0.000	123.776
27	UTTARAKHAND	0.010	0.000	0.010	4.200	3324	9.397	823	114	774.640	788.237
28	WEST BENGAL	0.000	0.000	0.000	0.000	0	0.000	0	0	0.000	0.000
29	A & N ISLAND	0.000	0.000	0.000	0.000	0	0.000	0	0	0.000	0.000
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	0.000	0.000	0.000	0.000	0	0.000	0	0	0.000	0.000
34	LAKSHADWEEP	0.000	0.000	0.000	0.000	0	0.000	0	0	0.000	0.000
35	PUDUCHCHERRY	0.000	0.000	0.000	0.000	0	0.000	0	0	0.000	0.000
	Total	7.065	26.555	6.658	4052.723	278240	114.676	22367	1420	1507.926	5675.325

STATEMENT SHOWING STATE-WISE FLOOD DAMAGE DURING 2017

Sl.No	Name of State	Area Affected (Mha)	Population Affected (Million)	Damages to Crops		Damage to Houses		Cattle Lost Nos.	Human Lives Lost Nos.	Damage to Public Utilities (Rs. Crore)	Total Damages Crops, Houses & Public Utilities (Rs. Crore)
				Area (Mha)	Value (Rs. Crore)	Nos.	Value (Rs. Crore)				
1	2	3	4	5	6	7	8	9	10	11	12
1	ANDHRA PRADESH	0.000	0.000	0.000	0.000	25	0.000	0	1	0.000	0.000
2	ARUNACHAL PRADESH	0.106	0.199	0.041	97.540	1463	5.550	1177	60	1471.590	1574.680
3	ASSAM	0.398	5.602	0.398	0.000	78287	0.000	0	160	0.000	0.000
4	BIHAR	0.810	17.164	0.810	0.000	118410	0.000	373	514	0.000	0.000
5	CHATTISGARH	0.000	0.000	0.000	0.000	929	0.000	0	52	0.000	0.000
6	GOA	0	0	0	0	64	0	0	1	0	0
7	GUJARAT	0.891	0.520	0.891	8.600	38796	15.740	9445	284	3531.530	3555.870
8	HARYANA	0.001	0.000	0.001	17.960	8	0.047	0	0	0.000	18.007
9	HIMACHAL PRADESH	0.006	6.865	0.003	34.607	2195	13.300	199	75	3.460	51.367
10	JAMMU & KASHMIR	0.000	0.000	0.000	0.000	92	0.000	0	7	0.000	0.000
11	JHARKHAND	0.000	0.010	0.000	0.000	2668	0.000	0	12	0.000	0.000
12	KARNATAKA	0.000	0.000	0.000	0.000	1910	0.000	0	84	0.000	0.000
13	KERALA	0.000	0.000	0.000	0.000	3836		0	66	0.000	0.000
14	MADHYA PRADESH	0.000	0.000	0.000	0.000	0	0.000	0	0	0.000	0.000
15	MAHARASHTRA	0.000	0.000	0.000	0.000	0	0.000	0	148	0.000	0.000
16	MANIPUR	0.089	0.000	0.089	0.000	18989	0.000	0	21	0.000	0.000
17	MEGHALAYA	0.000	0.000	0.000	0.000	148	0.140	0	1	0.000	0.140
18	MIZORAM	0.046	0.000	0.046	0.000	5437	0.000	0	11	0.000	0.000
19	NAGALAND	0.568	0.667	0.568	9.300	4200	18.200	2515	29	524.090	551.590
20	ODISHA	0.658	0.697	0.021	0.000	5610	0.000	1316	3	334.315	334.315
21	PUNJAB	0.006	0.000	0.006	18.230	130	0.410	6	5	0.000	18.640
22	RAJASTHAN	1.087	3.586	0.739	1333.221	57290	30.450	5536	101	513.186	1876.857
23	SIKKIM	0.002	0.033	0.001	5.000	810	9.270	110	10	231.170	245.440
24	TAMILNADU	0.000	0.000	0.000	0.000	9	0.000	0	1	0.000	0.000
25	TRIPURA	0.057	0.020	0.047	14.387	24682	20.549	193	17	97.888	132.824
26	UTTAR PRADESH	0.437	2.923	0.396	308.053	26834	0.000	93	121	0.000	308.053
27	UTTARAKHAND	0.000	0.000	0.000	0.000	1410	0.000	0	59	0.000	0.000
28	WEST BENGAL	1.033	8.723	1.033	6914.500	826982	9158.28	2857	217	1655.160	17727.940
29	A & N ISLAND	0.000	0.000	0.000	0.000	0	0.000	0	0	0.000	0.000
30	CHANDIGARH	0.000	0.000	0.000	0.000	0	0.000	0	0	0.000	0.000
31	D & N HAVELI	0.000	0.000	0.000	0.000	0	0.000	0	0	0.100	0.100
32	DAMAN & DIU	0.000	0.000	0.000	0.000	0	0.000	0	0	0.000	0.000
33	DELHI	0.000	0.000	0.000	0.000	0	0.000	0	0	0.000	0.000
34	LAKSHADWEEP	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
35	PUDUCHCHERRY	0.000	0.000	0.000	0.000	0	0.000	0	0	0.000	0.000
	Total	6.194	47.007	5.089	8761.398	1221214	9271.936	23820	2060	8362.489	26395.823

STATEMENT SHOWING STATE-WISE FLOOD DAMAGE DURING 2018

Sl. No.	Name of State	Area affected in	Populati on 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 mha	Value in Rs Crore	Nos.	Value in Rs Crore	Nos.	Nos.	Value in Rs Crore	in Rs.Crore
1	2	3	4	5	6	7	8	9	10	11	12
1	ANDHRA PRADESH	0.170	1.910	0.170	237.480	51849	243.910	1259	22	3205.781	3687.171
2	ARUNACHAL PRADESH	0.743	NR	0.743	462.915	1647	589.949	47	33	860.963	1913.827
3	ASSAM	0.043	1.322	0.031	23.490	102737	84.010	122	53	2373.480	2480.980
4	BIHAR	0.034	0.150	0.001	5.137	1074	0.413	0.000	1.000	0.010	5.560
5	CHATTISGARH	0.005	0.194	0.004	12.246	10831	4.140	183	135	25.304	41.689
6	GOA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
7	GUJARAT	2.378	18.600	0.054	47.820	2635	2.068	212	57	68.160	118.048
8	HARYANA	0.079	0.000	0.079	88.446	54	0.580	0	3	0.000	89.026
9	HIMACHAL PRADESH	0.006	6.865	0.411	12.570	6023	43.030	1285	343	10.300	65.900
10	JAMMU & KASHMIR	NR	NR	NR	NR	17	NR	38	6	NR	NR
11	JHARKHAND	0.000	0.000	0.000	0.000	0.000	0.000	0.000	5	0.200	0.200
12	KARNATAKA	0.328	0.350	0.232	2220.700	14955	367.510	1207	215	2032.570	4620.780
13	KERALA	3.150	5.412	0.087	168.480	324386	998.131	47953	450	2154.149	3320.760
14	MADHYA PRADESH	Nil	Nil	Nil	Nil	315	1.670	36	31	Nil	1.670
15	MAHARASHTRA	NR	NR	NR	NR	NR	NR	65	68	NR	NR
16	MANIPUR	0.005	0.127	0.005	NR	17846	NR	400	9	NR	NR
17	MEGHALAYA	0.000	0.000	0.000	0.038	0	0.029	0	0	0.000	0.066
18	MIZORAM	NR	NR	0.000	NR	987	NR	3	11	NR	NR
19	NAGALAND	0.002	0.261	0.002	NR	5209	NR	794	13	NR	NR
20	ODISHA	0.033	0.624	0.026	29.020	43360	23.980	164	21	246.840	299.840
21	PUNJAB	0.057	NR	0.057	120.410	1477	4.110	29	26	0.000	124.520
22	RAJASTHAN	0.002	0.017	0.002	2.200	2159	2.160	341	26	27.368	31.728
23	SIKKIM	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
24	TAMILNADU	0.191	0.560	0.191		220000		1040	52		3500.000
25	TRIPURA	0.004	0.250	0.025	24.282	40897	115.945	3905	22	805.950	946.178
26	UTTAR PRADESH	0.445	0.592	0.383	230.364	28063	13.724	149	105	303.336	547.423
27	UTTARAKHAND	0.001	NR	0.001	NR	2062	NR	895	101	NR	NR
28	WEST BENGAL	0.043	0.157	0.011	22.410	34755	13.268	17	31	18.328	54.006
29	A & N ISLAND	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.000
30	CHANDIGARH	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.000
31	D & N HAVELI	0.000	0.000	0.000	0.000	0	0.000	0	0	0.000	0.000
32	DAMAN & DIU	0.000	0.000	0.000	0.000	0	0.000	0	0	0.000	0.000
33	DELHI	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
34	LAKSHADWEEP	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.000
35	PUDUCHCHERRY	Nil	0.007	0.000	0.180	76	0.030	135	Nil	0.180	0.600
	TOTAL	7.718	37.398	2.515	3708.187	913414	2508.656	60279	1839	12132.919	18349.763

NOTE- NR= NOT REPORTED

ANNEXURE II

ANNEXURE REFERRED TO IN REPLY TO PART (b) OF UNSTARRED QUESTION NO. †907 TO BE ANSWERED IN LOK SABHA ON 17.09.2020 REGARDING “LOSS OF CROPS AND PROPERTIES DUE TO FLOODS”

State-wise central assistance released to States/UTs under Flood Management and Border Areas Programme (FMBAP) during last three years

Rs in crores

S. No.	States	2017-18	2018-19	2019-20	Total funds released
1	Arunachal Pradesh	21.18	0	0	21.18
	Assam	245.49	142.12	85.03	472.64
2	Bihar	52.57	132.27	65.29	250.13
3	Himachal Pradesh	87.5	162.6	176.41	426.51
4	Jammu & Kashmir	119.17	55.0325	97.058	271.2605
5	Kerala	19.05	0	0	19.05
6	Mizoram	0.48	0	0	0.48
7	Nagaland	0	10.84	0	10.84
8	Uttar Pradesh	103.98	87.87	39.15	231
9	Uttarakhand	0	4.63	35.58	40.21
10	Punjab	7.4725	0	0	7.4725
11	West Bengal	65.03	89.3	117.12	271.45
	Total	721.923	684.663	615.638	2022.223