

GOVERNMENT OF INDIA
MINISTRY OF JAL SHAKTI
DEPARTMENT OF WATER RESOURCES, RIVER DEVELOPMENT & GANGA REJUVENATION
RAJYA SABHA
UNSTARRED QUESTION NO. 2001
ANSWERED ON 07.08.2023

FLOOD HAVOC

2001#. SHRI RAM NATH THAKUR

Will the Minister of **JAL SHAKTI** be pleased to state:

- (a) the details of the different cities in the country which suffered heavy losses due to flood in the last five years;
- (b) whether every year the country faces the flood fury causing huge losses;
- (c) the details about the precautionary measures taken by Government in view of the flood havoc which causes loss to life and property;
- (d) the total fund which has been released to different States for relief of flood victims in these five years, State-wise, year-wise details thereof; and
- (e) the cause of the recent flood in Delhi in July?

ANSWER

THE MINISTER OF STATE FOR JAL SHAKTI

(SHRI BISHWESWAR TUDU)

(a) & (b) Floods are natural calamity that India faces almost every year, in varying degrees of magnitude. The frequent occurrence of floods can be attributed to various factors, including wide variations in rainfall both in time and space with frequent departures from the normal pattern, inadequate carrying capacities of rivers, river bank erosion and silting of river beds, landslides, poor natural drainage in flood prone areas, glacial lake outbursts, etc.

The state-wise data on damages due to heavy rain and floods is compiled by Central Water Commission (CWC) after receipt of confirmation from respective States. The statement showing damage due to floods/heavy rain in the country during the last five years (2017-2021), State/UT-wise is at **Annexure – I**.

(c) Flood management falls within the purview of the States. Flood management and erosion control projects are formulated and implemented by concerned State Governments from own resources as per their priority. The Union Government supplements the efforts of the States by providing technical guidance and also promotional financial assistance for management of floods in critical areas. Integrated flood approach aims at adopting judicious mix of structural and non-structural measures to provide a reasonable degree of protection against flood damages at economic cost.

To strengthen the structural measures of flood management, Union Government had implemented Flood Management Programme (FMP) during XI & XII Plans for providing central

assistance to States for works related to flood control, anti-erosion, drainage development, anti-sea erosion, etc. which subsequently continued as a component of "Flood Management and Border Areas Programme" (FMBAP) for the period from 2017-18 to 2020-21 and was further extended up to September 2022 with limited outlay. 427 completed projects under FMP component of FMBAP have given protection to an area of around 4.994 Mha and protected a population of about 53.57 million.

Central Water Commission (CWC) is the nodal Organisation entrusted with the task of flood forecasting & early flood warnings in the country. Presently, CWC issues flood forecasts for 338 forecasting stations (138 Inflow Forecast Stations & 200 Level Forecast Stations) which include 25 States and UTs. The network has been established in consultation with the State Governments and UTs. In order to provide more lead time to the local authorities to plan evacuation of people & take other remedial measures, CWC has developed basin wise flood forecasting model based on rainfall-runoff mathematical modelling for 5 days' advance advisory at its forecasting stations.

(d) The primary responsibility of disaster management rests with the State Government concerned. The Central Government supplements the efforts of the State Government and provides requisite logistics and financial support. The State Government undertakes assessment of damages caused due to 12 notified natural calamities including rain and floods and provide relief assistance from State Disaster Response Fund (SDRF) already placed at their disposal as per Government of India's approved norms. Additional financial assistance is provided from National Disaster Response Fund (NDRF), as per laid down procedure in case of disaster of 'severe nature' which includes an assessment based on the visit of an Inter-Ministerial Central Team (IMCT). Total funds released to different States under SDRF and NDRF during last five years is at **Annexure-II**.

(e) Delhi faced extreme flood situation in the river Yamuna during second week of July 2023 due to very heavy rainfall in the Himalayan region upstream of Hathnikund Barrage. Very high discharge passed downstream of Hathnikund Barrage, resulting in a highest ever recorded water level of 208.66 meters at Old Railway Bridge in Delhi at 18:00 hrs on 13th July, 2023, surpassing the earlier Highest Flood Level of 207.49 m recorded in September, 1978.

**ANNEXURE TO BE REFERRED TO IN REPLY TO PART (a) & (b) OF UNSTARRED
QUESTION NO.2001 TO BE ANSWERED IN RAJYA SABHA ON 07.08.2023 REGARDING
“FLOOD HAVOC”**

**State-wise Total Damages due to Heavy Rains and Floods (2017-2021)
(in Rs. crore)**

States/UT's	2017	2018	2019	2020	2021
ANDHRA PRADESH	-	3687.171	698.05	917.66	6320.46
ARUNACHAL PRADESH	1574.68	1913.82728		1390.08	567.9
ASSAM	4164.81	2480.98	3121.98	2439.73	1072.43
BIHAR	-	5.5598	-	810.19	6444.86
CHATTISGARH	-	41.689	-	31.34	1.24
GOA	-	-	-	-	218.62
GUJARAT	3555.87	118.048	2.79	2915.31	1259.98
HARYANA	18.007	89.026	0.6	-	614.63
HIMACHAL PRADESH	51.3667	65.9	229.11	60.55	1127.47
JHARKHAND	0.667	0.2	13.25	0.89	1.49
KARNATAKA	-	4620.78	-	9833	1975.81
KERALA	-	3320.76	-	-	NR
MADHYA PRAADESH	-	1.67	-	-	NR
MAHARASHTRA	-	-	-	-	NR
MANIPUR	-	-	-	-	NR
MEGHALAYA	0.14	0.0663	3.66	-	NR
MIZORAM	104.02	-	-	0.05	0.4
NAGALAND	551.59	-	-	-	NR
ODISHA	334.315	299.84	454.82	1509.33	379.51
PUNJAB	18.64	124.52	-	-	46.61
RAJASTHAN	1876.8578	31.7275	8820.91	191.17	5477.18
SIKKIM	245.44	-	-	349	92.43
TAMILNADU	-	-	1.21	-	7039.56
TELENGANA	-	-	-	-	NR
TRIPURA	132.824	946.1775	437.65	137.92	38.12
UTTAR PRADESH	308.053	547.4233	809.63	602.96	825.26
UTTARAKHAND	-	-	-	-	NR
WEST BENGAL	17727.94	54.006	1269.83	-	16079.45
A & N ISLAND	-	-	-	-	0.11
CHANDIGARH	-	-	-	-	Nil
D & N HAVELI	0.1	-	0.03	-	Nil
LADAKH	-	-	-	-	NR
DELHI	-	-	-	-	18.39
JAMMU & KASHMIR	-	-	-	-	NR
LAKSHADWEEP	-	-	5	5	NR
PUDUCHCHERRY	-	0.6	-	-	15.71
DAMAN & DIU	0.525	-	-	-	-
TOTAL	30665.8455	18349.97168	15868.52	21194.18	49617.62

NR- Not Reported

ANNEXURE TO BE REFERRED TO IN REPLY TO PART (d) OF UNSTARRED QUESTION NO. 2001 TO BE ANSWERED IN RAJYA SABHA ON 07.08.2023 REGARDING “FLOOD HAVOC”

STATEMENT SHOWING STATE-WISE DETAILS OF ALLOCATION AND RELEASE OF FUNDS UNDER SDRF AND NDRF DURING THE YEAR 201&19 TO 2022-23 (AS ON 31-03-2023)

(Rs. in crore)

Sl. NO.	State	Allocation under SDRF including Centre and State share					Centre's Share of SDRF Released					Release from NDRF (For all calamities)				
		2018-19	2019-20	2020-21	2021-22	2022-23	2018-19	2019-20	2020-21	2021-22	2022-23	2018-19	2019-20	2020-21	2021-22	2022-23
1.	Andhra Pradesh	509.00	534.00	1192.80	1192.80	1252.80	458.10	324.15	895.20	895.20	940.00	1004.88	570.91	657.029	351.43	
2.	Arunachal Pradesh	60.00	63.00	222.40	222.40	233.60	54.00	56.70	200.00	200.00	210.40	132.49		59.34		
3.	Assam	532.00	559.00	686.40	686.40	720.80	478.80	503.10	617.60	617.60	648.80			44.37		250.00
4.	Bihar	543.00	570.00	1510.40	1510.40	1586.40	101.815	631.12	1132.80	1132.80	1189.60	--	953.17	1255.27	1038.96	
5.	Chhattisgarh	278.00	292.00	460.80	460.80	484.00	349.575	177.30	345.60	345.60	181.60					
6.	Goa	4.00	4.00	12.00	12.00	12.80	1.80	4.20	9.60	9.60	9.60					
7.	Gujarat	816.00	856.00	1412.00	1412.00	1482.40	449.95	886.80	1059.20	1059.20	556.00				1000.00	
8.	Haryana	356.00	374.00	524.00	524.00	550.40	320.40	227.10	392.80	392.80	412.80					
9.	Himachal Pradesh	273.00	287.00	363.20	363.20	380.80	245.70	197.23	327.20	327.20	342.40	227.29	518.06	290		214.26
10.	Jammu & Kashmir *	295.00	310.00				252.90	405.00								
11.	Jharkhand	421.00	442.00	605.60	605.60	635.20	315.75	331.50	454.40	454.40					200.00	
12.	Karnataka	320.00	336.00	843.20	843.20	885.60	288.00	204.00	632.80	632.80	664.00	959.84	3208.28	689.27	1623.30	939.83
13.	Kerala	214.00	225.00	335.20	335.20	352.00	192.60	136.65	251.20	251.20	264.00	2904.85				
14.	Madhya Pradesh	1016.00	1066.00	1941.60	1941.60	2038.40	914.40	647.10	1456.00	1456.00	1528.80	334.00	1712.14	1891.79	600.50	
15.	Maharashtra	1717.00	1803.00	3436.80	3436.80	3608.80	1287.75	1352.25	2577.60	2577.60	2706.40	2088.59	5189.40	420.12	1056.39	
16.	Manipur	22.00	23.00	37.60	37.60	39.20	9.90	30.60	33.60	33.60	35.20			26.53		
17.	Meghalaya	28.00	29.00	58.40	58.40	60.80		38.70	52.80	52.80	27.20	--		16.52		
18.	Mizoram	20.00	20.00	41.60	41.60	43.20	18.00	18.00	37.60	37.60	39.20					
19.	Nagaland	11.00	12.00	36.80	36.80	38.40	9.90	10.80	32.80	32.80	34.40	195.99	176.52	1.335	--	107.304
20.	Odisha	865.00	909.00	1711.20	1711.20	1796.80	778.50	552.00	1283.20	1283.20	1348.00	341.72	3294.10	500.00	500.00	
21.	Punjab	451.00	474.00	528.00	528.00	554.40	321.99	412.37	474.43	396.00	416.00	-				
22.	Rajasthan	1277.00	1340.00	1580.00	1580.00	1659.20	957.75	1005.00	1184.80	1184.80	1244.80	526.14	1949.59	68.65	--	13.46
23.	Sikkim	36.00	36.00	44.80	44.80	47.20	32.40	34.20	40.00	40.00	42.40	54.93	--	73.86	55.23	
24.	Tamil Nadu	786.00	825.00	1088.00	1088.00	1142.40	707.40	500.85	816.00	816.00	856.80	900.31		286.91	566.36	
25.	Telangana	317.00	333.00	479.20	478.20	503.20	226.50	487.50	359.20	359.20	188.80	--				
26.	Tripura	36.00	38.00	60.80	60.80	63.20	32.40	34.20	54.40	54.40	56.80	171.74	--	12.93		
27.	Uttar Pradesh	781.00	2062.40		2062.40	2165.60	351.45	849.30	1546.40	1546.40	812.00	157.23				
28.	Uttarakhand	243.00	255.00	832.80	832.80	874.40	218.70	229.50	749.60	749.60	787.20					
29.	West Bengal	598.00	628.00	1078.40	1078.40	1132.80	269.10	650.40	808.80	808.80	849.60	--	958.33	2250.28	350.13	
TOTAL		12825.00	13465.00	23186.40	23186.40	24344.80	9658.13	10937.62	17825.63	17747.20	16392.80	10000.00	18530.50	8257.11	7542.30	1524.854

* Now UT of Jammu and Kashmir and UT of Ladakh.

