

GOVERNMENT OF INDIA
MINISTRY OF JAL SHAKTI,
DEPARTMENT OF WATER RESOURCES, RIVER DEVELOPMENT & GANGA
REJUVENATION
RAJYA SABHA

UNSTARRED QUESTION NO. 420

ANSWERED ON 06.02.2023

FREQUENT FLOODING IN STATES

420. SHRI PARIMAL NATHWANI

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

- (a) the details of the areas affected by frequent flooding in different states of the country;
- (b) the details of the funds allotted to flood affected areas in the last three years, State/UTwise with special reference to Andhra Pradesh; and
- (c) the concrete measures taken/proposed to be taken by Government to address the problem being faced by those flood affected areas, State-wise?

ANSWER

THE MINISTER OF STATE FOR JAL SHAKTI

(SHRI BISHWESWAR TUDU)

(a) The assessment of flood prone area of the country has been carried out by different expert committees. The Rashtriya Barh Ayog in the year 1980 estimated the total area liable to floods in the country as 40 Million Hectare (mha). The extent of maximum area affected by floods in any year during 1953-2010 as per the Working Group Report (year 2011) on Flood Management and Region Specific Issues for XII Plan is 49.815 mha, the State-wise break up of which is given at **Annexure I**.

(b) The primary responsibility for disaster management rests with the State Governments concerned. The State Governments provide financial relief to the affected people in the wake of notified disasters (including flood), from the State Disaster Response Fund (SDRF) already placed at their disposal. However, in the event of disaster of a severe nature, additional financial assistance is extended from the National Disaster Response Fund (NDRF) as per the laid down procedure, which includes an assessment based on the visit of an Inter-Ministerial Central Team (IMCT). The funds allocated and released to states including Andhra Pradesh under SDRF/NDRF during last three years are attached as **Annexure II**

(c) Flood management including erosion control falls within the purview of the States. Flood management and anti-erosion 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 also promotional financial assistance for management of floods in critical areas. Integrated flood management 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, Ministry had implemented Flood Management Programme (FMP) during XI & XII Plan for providing Central Assistance to States for works related to flood management, 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 further extended up to September 2022 with limited outlay. So far Central Assistance amounting to Rs. 6977.42 Crores has been released to the States/ Union Territories under FMP component of this Programme since its inception. The central assistance released to States/UTs under FMBAP during last three years is at **Annexure –III**.

For Non-structural measures, 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 333 forecasting stations (199 river level forecast stations & 134 dam/ barrage inflow forecast stations). These stations cover 20 major river basins in 23 States & 2 Union Territories. The State-wise details of Forecasting stations of CWC in India are at **Annexure IV**. In order to provide more lead time to the local authorities to plan evacuation of people & take other remedial measures, Central Water Commission (CWC) has developed basin wise flood forecasting model based on rainfall-runoff mathematical modelling for 5 days advance flood forecast advisory at identified flood forecasting and inflow forecasting stations.

ANNEXURE REFERRED TO IN REPLY TO PART (a) OF UNSTARRED QUESTION NO. 420 TO BE ANSWERED IN RAJYA SABHA ON 06.02.2023 REGARDING “FREQUENT FLOODING IN STATES”

The extent of maximum area affected by floods in any year during 1953-2010 as per the Working Group Report on Flood Management and Region Specific Issues for XII Plan

S. No.	State	Max. Area affected (million ha)
1	Andhra Pradesh*	9.040
2	Arunachal Pradesh	0.207
3	Assam	3.820
4	Bihar	4.986
5	Chhattisgarh	0.089
6	Delhi	0.458
7	Goa	0.000
8	Gujarat	2.050
9	Haryana	1.000
10	Himachal Pradesh	2.870
11	Jammu & Kashmir	0.514
12	Jharkhand	0.000
13	Karnataka	0.900
14	Kerala	1.470
15	Madhya Pradesh	0.377
16	Maharashtra	0.391
17	Manipur	0.080
18	Meghalaya	0.095
19	Mizoram	0.541
20	Nagaland	0.009
21	Orissa	1.400
22	Punjab	2.790
23	Rajasthan	3.260
24	Sikkim	1.170
25	Tamil Nadu	1.466
26	Tripura	0.330
27	U.P.	7.340
28	Uttarakhand	0.002
29	West Bengal	3.080
30	Andaman&Nicobar	0.030
31	Chandigarh	-
32	Dadra & Nagar Haveli	-
33	Daman & Diu	-
34	Lakshadweep	-
35	Puducherry	0.050
	Total	49.815

*Erstwhile state of Andhra Pradesh (prior to promulgation of The Andhra Pradesh Reorganistaion Act, 2014)

ANNEXURE REFERRED TO IN REPLY TO PART (b) OF UNSTARRED QUESTION NO. 420 TO BE ANSWERED IN RAJAYA SABHA ON 06.02.2023 REGARDING “FREQUENT FLOODING IN STATES”

Details of fund allocated and released to the States during 2019-20 to 2021-22

Amount in Rs. Crores

S.No.	Name of State	State Disaster Response Fund (SDRF)				Amount released from NDRF for flood/ landslides/ cloudburst/ Hailstorm/ Avalanches
		Central Share	State Share	Total	Central Share Released	
	2019-20					
1.	Andhra Pradesh	400.50	133.50	534.00	324.15	-
2.	Arunachal Pradesh	56.70	6.30	63.00	56.70	-
3.	Assam	503.10	55.90	559.00	503.10	314.83
4.	Bihar	427.50	142.50	570.00	631.12	953.17
5.	Chhattisgarh	219.00	73.00	292.00	177.30	-
6.	Goa	3.00	1.00	4.00	4.20	-
7.	Gujarat	642.00	214.00	856.00	886.80	-
8.	Haryana	280.50	93.50	374.00	227.10	-
9.	Himachal Pradesh	258.30	28.70	287.00	197.23	348.46
10.	Jammu & Kashmir	279.00	31.00	310.00	405.00	-
11.	Jharkhand	331.50	110.50	442.00	331.50	-
12.	Karnataka	252.00	84.00	336.00	204.00	1652.54
13.	Kerala	168.75	56.25	225.00	136.65	-
14.	Madhya Pradesh	799.50	266.50	1066.00	647.10	1712.14
15.	Maharashtra	1352.25	450.75	1803.00	1352.25	956.93
16.	Manipur	20.70	2.30	23.00	30.60	-
17.	Meghalaya	26.10	2.90	29.00	38.70	16.52
18.	Mizoram	18.00	2.00	20.00	18.00	-
19.	Nagaland	10.80	1.20	12.00	10.80	176.94
20.	Odisha	681.75	227.25	909.00	552.00	-
21.	Punjab	355.50	118.50	474.00	412.37	-
22.	Rajasthan	1005.00	335.00	1340.00	1005.00	622.97
23.	Sikkim	34.20	3.80	38.00	34.20	-
24.	Tamil Nadu	618.75	206.25	825.00	500.85	-
25.	Telangana	249.75	83.25	333.00	487.50	-
26.	Tripura	34.20	3.80	38.00	34.20	-
27.	Uttar Pradesh	615.00	205.00	820.00	849.30	-
28.	Uttarakhand	229.50	25.50	255.00	229.50	-
29.	West Bengal	471.00	157.00	628.00	650.40	-
	2020-21					
1.	Andhra Pradesh	1119.00	372.00	1419.00	1119.00	233.49
2.	Arunachal Pradesh	250.00	28.00	278.00	250.00	59.34
3.	Assam	772.00	86.00	858.00	772.00	44.37
4.	Bihar	1416.00	472.00	1888.00	1416.00	1255.27
5.	Chhattisgarh	432.00	144.00	576.00	432.00	-
6.	Goa	12.00	3.00	15.00	12.00	-
7.	Gujarat	1324.00	441.00	1765.00	1324.00	-

8.	Haryana	491.00	164.00	655.00	491.00	-
9.	Himachal Pradesh	409.00	45.00	454.00	409.00	-
10.	Jharkhand	568.00	189.00	757.00	568.00	-
11.	Karnataka	791.00	263.00	1054.00	791.00	1318.30
12.	Kerala	314.00	105.00	419.00	314.00	-
13.	Madhya Pradesh	1820.00	607.00	2427.00	1820.00	611.61
14.	Maharashtra	3222.00	1074.00	4296.00	3222.00	852.53
15.	Manipur	42.00	5.00	47.00	42.00	-
16.	Meghalaya	66.00	7.00	73.00	66.00	-
17.	Mizoram	47.00	5.00	52.00	47.00	-
18.	Nagaland	41.00	5.00	46.00	41.00	-
19.	Odisha	1604.00	535.00	2139.00	1604.00	-
20.	Punjab	495.00	165.00	660.00	573.425	-
21.	Rajasthan	1481.00	494.00	1975.00	1481.00	-
22.	Sikkim	50.00	6.00	56.00	50.00	73.86
23.	Tamil Nadu	1020.00	340.00	1360.00	1020.00	213.51
24.	Telangana	449.00	150.00	599.00	449.00	0.00
25.	Tripura	68.00	8.00	76.00	68.00	-
26.	Uttar Pradesh	1933.00	645.00	2578.00	1933.00	-
27.	Uttarakhand	937.00	104.00	1041.00	937.00	-
28.	West Bengal	1011.00	337.00	1348.00	1011.00	-
	2021-22					
1.	Andhra Pradesh	895.20	297.60	1192.80	895.20	351.43
2.	Arunachal Pradesh	200.00	22.40	222.40	200.00	-
3.	Assam	617.60	68.80	686.40	617.60	-
4.	Bihar	1132.80	377.60	1510.40	1132.80	1038.96
5.	Chhattisgarh	345.60	115.20	460.80	345.60	-
6.	Goa	9.60	2.40	12.00	9.60	-
7.	Gujarat	1059.20	352.80	1412.00	1059.20	-
8.	Haryana	392.80	131.20	524.00	392.80	-
9.	Himachal Pradesh	327.20	36.00	363.20	327.20	-
10.	Jharkhand	454.40	151.20	605.60	454.40	-
11.	Karnataka	632.80	210.40	843.20	632.80	994.27
12.	Kerala	251.20	84.00	335.20	251.20	-
13.	Madhya Pradesh	1456.00	485.60	1941.60	1456.00	600.50
14.	Maharashtra	2577.60	859.20	3436.80	2577.60	355.39
15.	Manipur	33.60	4.00	37.60	33.60	-
16.	Meghalaya	52.80	5.60	58.40	52.80	-
17.	Mizoram	37.60	4.00	41.60	37.60	-
18.	Nagaland	32.80	4.00	36.80	32.80	-
19.	Odisha	1283.20	428.00	1711.20	1283.20	-
20.	Punjab	396.00	132.00	528.00	396.00	-
21.	Rajasthan	1184.80	395.20	1580.00	1184.80	-
22.	Sikkim	40.00	4.80	44.80	40.00	55.23
23.	Tamil Nadu	816.00	272.00	1088.00	816.00	352.85
24.	Telangana	359.20	120.00	479.20	359.20	-
25.	Tripura	54.40	6.40	60.80	54.40	-
26.	Uttar Pradesh	1546.40	516.00	2062.40	1546.40	-
27.	Uttarakhand	749.60	83.20	832.80	749.60	0.00
28.	West Bengal	808.80	269.60	1078.40	808.80	50.13

ANNEXURE REFERRED TO IN REPLY TO PART (c) OF UNSTARRED QUESTION NO. 420 TO BE ANSWERED IN RAJYA SABHA ON 06.02.2023 REGARDING “FREQUENT FLOODING IN STATES”

Central assistance released to States/UTs under Flood Management and Border Areas programme (FMBAP) during last three years.

Amount in Rs. Crores

S.No.	State/UT	2018-19	2019-20	2020-21	2021-22	2022-23 (up to Jan 2023)	Total
1	Assam	142.12	85.03		14.08	214.00	455.23
2	Bihar	132.28	65.29	42.49		88.96	329.02
3	Himachal Pradesh	162.60	176.41	11.87	6.35		357.23
4	Jammu & Kashmir	55.03	97.05	10.14	116.79		279.01
5	Manipur				52.38	76.63	129.01
6	Nagaland	10.84					10.84
7	Odisha			15.79	2.51		18.30
8	Punjab				3.74		3.74
9	Uttar Pradesh	87.87	39.15				127.02
10	Uttarakhand	4.63	35.58		2.77		42.98
11	West Bengal	89.31	117.12		44.15		250.58

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State-wise Central Water Commission Flood Forecasting Stations

Sl.No.	Name of State/UT	Number of flood forecasting Stations		
		Level	Inflow	Total
1	Andhra Pradesh	10	10	20
2	Arunachal Pradesh	3	0	3
3	Assam	30	0	30
4	Bihar	40	3	43
5	Chhattisgarh	1	2	3
6	Gujarat	6	7	13
7	Haryana	1	1	2
8	Himachal Pradesh	1	0	1
9	Jammu & Kashmir	3	0	3
10	Jharkhand	2	15	17
11	Karnataka	1	14	15
12	Kerala	3	2	5
13	Madhya Pradesh	2	12	14
14	Maharashtra	8	14	22
15	Odisha	12	7	19
16	Rajasthan	4	11	15
17	Sikkim	3	5	8
18	Tamil Nadu	4	11	15
19	Telangana	5	9	14
20	Tripura	2	0	2
21	Uttar Pradesh	39	5	44
22	Uttarakhand	4	2	6
23	West Bengal	12	4	16
24	Daman & Diu	1	0	1
25	NCT of Delhi	2	0	2
	Total	199	134	333
