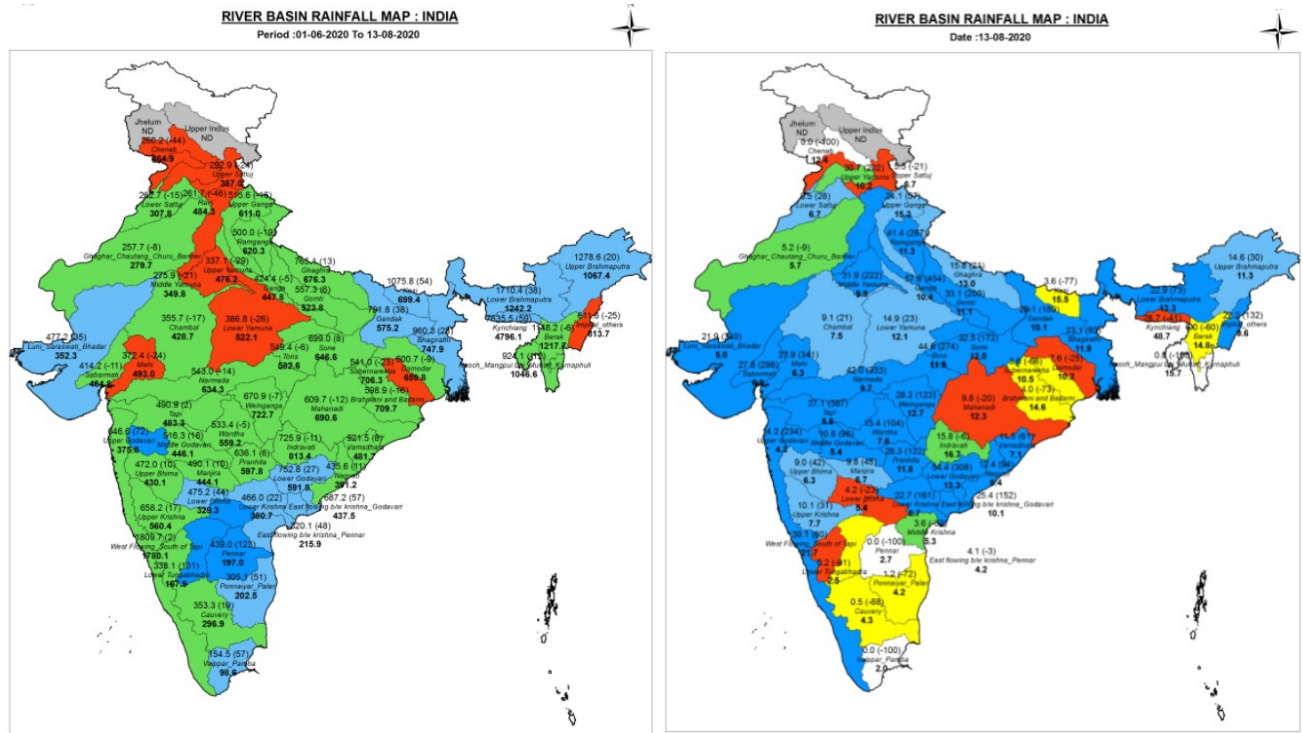




Central Water Commission
Daily Flood Situation Report cum Advisories
13-08-2020

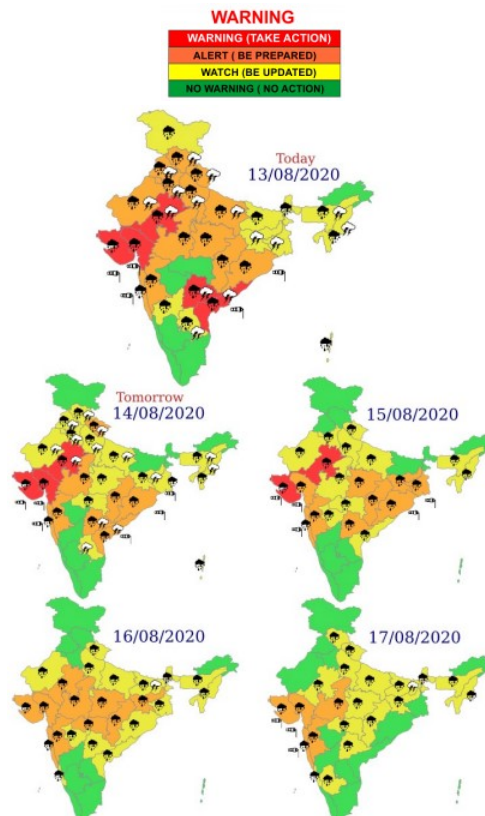
1.0 IMD information

1.1 Basin wise departure from normal of cumulative and daily rainfall



Notes: a) Small figures indicate actual rainfall (mm), while bold figures indicate Normal rainfall (mm)
 b) Percentage departures of rainfall are shown in brackets.

1.2 Rainfall forecast for next 5 days issued on 13th August 2020 (Midday) by IMD



2.0 CWC inferences

2.1 Flood Situation on 13th August 2020

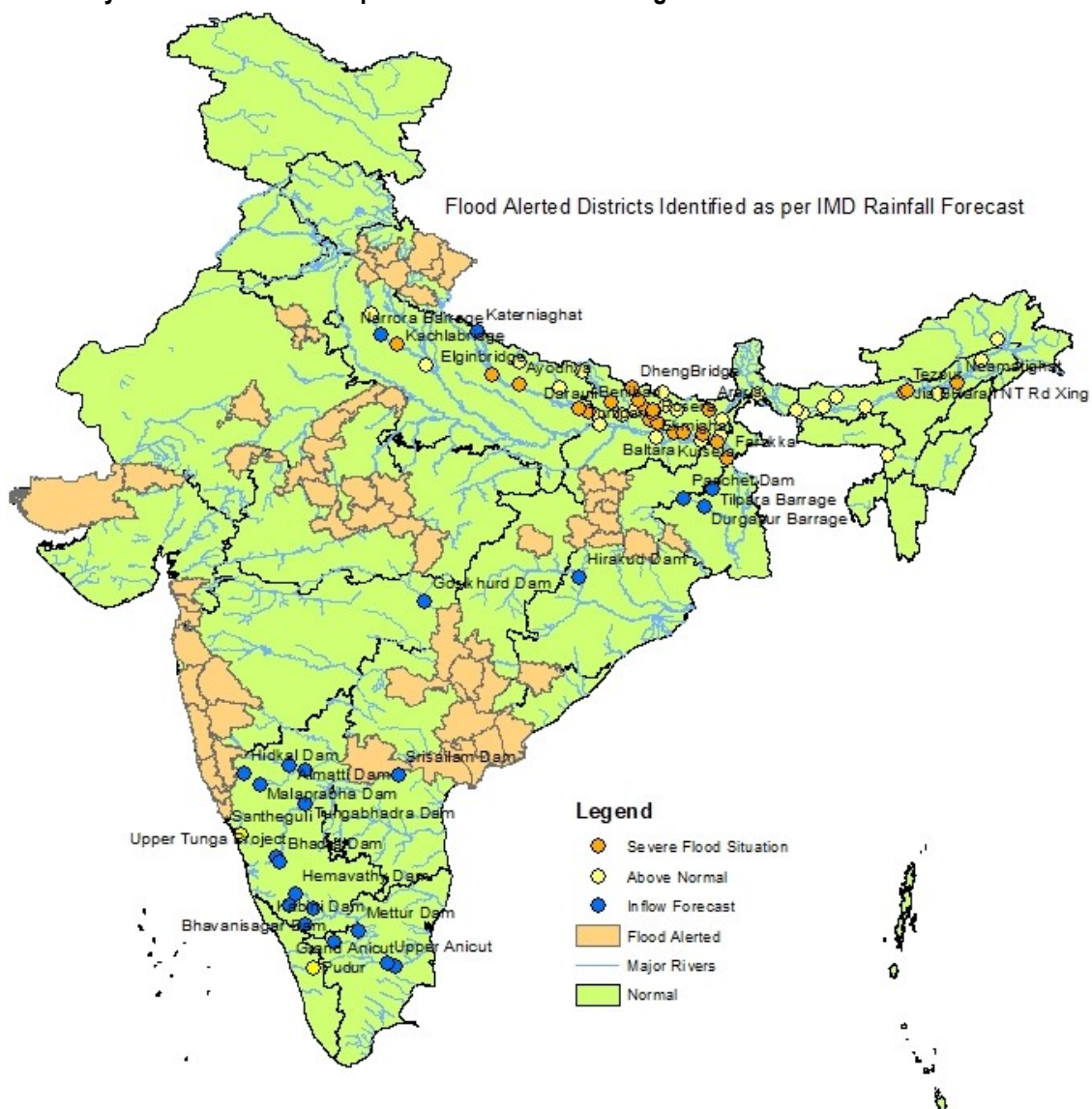
2.1.1 Summary of Flood Situation as per CWC Flood Forecasting Network

On 13th August 2020, 22 Stations (3 in Assam, 13 in Bihar, 4 in Uttar Pradesh, 1 each in Jharkhand and West Bengal) are flowing in Severe Flood Situation and 29 stations (8 in Assam, 12 in Bihar, 5 in Uttar Pradesh, 1 each in Arunachal Pradesh, Kerala, Karnataka and West Bengal) are flowing in Above Normal Flood Situation. Inflow Forecast has been issued for 26 Barrages and Dams (11 in Karnataka, 4 in Tamilnadu, 2 each in West Bengal, Uttar Pradesh, Andhra Pradesh and 1 each in Jharkhand, Madhya Pradesh, Maharashtra, Odisha and Telangana)

PART - I: LEVEL FORECAST		
S.No.	Flood Situations	Numbers of Forecasting Sites
A	Extreme Flood Situation: (Site (s) where the previous Highest Flood Level (HFL) is exceeded or equalled)	0
B	Severe Flood Situation: (Site (s) where water level is touching or exceeding the Danger Level but below Highest Flood Level (HFL))	22
C	Above Normal Flood Situation: (Site (s) where water level is touching or exceeding the Warning Level but below Danger Level)	29
Total number of sites above Warning Level (A+B+C)		51
PART - II: INFLOW FORECAST		
Number of sites for which inflow forecasts issued: (Where Inflows are equal or exceed the specified Threshold Limit for a particular reservoir / barrage)		26

Details can be seen in link :- http://cwc.gov.in/sites/default/files/cfcr-cwcdfb13082020_5.pdf

2.1.1 Summary of Flood Situation as per CWC Flood Forecasting Network



2.2 CWC Advisories

- Fairly widespread to widespread rainfall with heavy to very heavy falls at isolated places very likely over major parts of northwest India (Himachal Pradesh, Uttarakhand, Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh) during next 2 days and decrease thereafter.
- Fairly widespread to widespread rainfall with heavy to very heavy falls at isolated places very likely over Gujarat state, Konkan & Goa, Ghat areas of Madhya Maharashtra, East Rajasthan and parts of central India during next 4-5 days. Isolated extremely heavy falls also likely over Gujarat state & East Rajasthan during next 2-3 days and over Ghat areas of Madhya Maharashtra during next 24 hours.
- Fairly widespread to widespread rainfall with heavy to very heavy falls at isolated places very likely over Odisha, Coastal Andhra Pradesh and Telangana during next 2-3 days.

Based on the above rainfall forecast the following advisories are issued by CWC for various States:

2.2.1 Gujarat, Maharashtra

Extremely heavy rainfall has been forecasted in the basins of Lower Mahi, Lower Narmada, Lower Tapi, Damanganga and Heavy to Very Heavy rain has been forecasted in Northern Konkan in West Flowing Rivers in the Districts of Thane, Palghar and Raigad. There is likelihood of rise in Water Levels in the above basins in Gujarat and North Konkan areas of Maharashtra. Rivers Narmada, Tapi, Damanganga are likely to rise rapidly in association with rains forecasted for next 4-5 days.

Madhuban Dam in Valsad District is having storage of 65.37% and is likely to get heavy inflows due to the forecasted rainfall. Close watch is to be maintained and releases if any has to be done with due care and after informing all downstream districts including Union Territories of Daman.

Other Dams in this region such as Kadana Dam on river Mahi, Panam Dam on river Panam, Sardar Sarovar Dam on river Narmada, Ukai Dam on river Tapi have storage of 30.84%, 38.59%, 51.52% and 68.65% storage respectively. Due to forecast of extremely heavy rain in their catchment, there is likelihood of sudden rise in inflows which may have to be regulated properly following the rule curves and Standard Operating Procedures (SOP) after informing all downstream Districts well in advance.

Dams such as Dantewada (2% filled), Sipu (2% filled) and Dharoi (37% filled) did not get any major rainfall spells in their catchment so far this season and hence the rainfall which is forecasted now may help in adding to the storage in these reservoirs and no spillage is expected.

Forecast of heavy to very heavy rains in Northern Konkan coast of Maharashtra may result in rise of water levels in the West Flowing Rivers between Tapi and Tadri. Necessary precautions have to be taken in Road and Rail Bridges which pass through these areas as they are prone to submergence. Care should be taken to regulate road and rail traffic to avoid any incidents in Northern Konkan Districts of Thane, Palghar and Raigad.

Mumbai and its suburban areas are likely to get heavy to very heavy rainfall for next 3-4 days due to which there may be a low to moderate level risk of Urban Flooding Situation.

2.2.2 Rajasthan & Madhya Pradesh

Due to forecast of heavy to very heavy rainfall in East Rajasthan and West Madhya Pradesh for next 3-4 days, there is likelihood of rise in Water Levels in rivers such as Chambal, Mahi, Sabarmati, Kalisindh, Banas (both East and West Flowing), etc. Most of the dams in these rivers are having storage between 35 to 70%, care should be exercised to monitor the situation very closely. Releases if any has to be done after advance information to all concerned downstream districts and lower riparian States.

2.2.3 Himachal Pradesh, Punjab, Haryana, Uttarakhand, Uttar Pradesh

Due to forecast of heavy to very heavy rainfall in these States in the next 2 days, there is likelihood of rise in Water Levels in rivers such as Sutlej, Ravi, Beas, Ghaggar, Yamuna, Bhagirathi, Alaknanda, Ganga, Ramganga, Sarda, Sarju and Ghaghra. There is likelihood of flash floods in some of the hill districts in these states in association with cloud burst. Necessary precautions have to be taken for possible landslides and blockages of river flows due to landslides in high ranges of these states.

2.2.4 Odisha, Andhra Pradesh & Telangana

Heavy to very heavy falls are likely over Odisha, Coastal Andhra Pradesh and Telangana during next 2-3 days. River Godavari is also getting good flows due to rain in Chhattisgarh, Maharashtra and Telangana. Laxmi Barrage on river Godavari is getting inflows of around 8000 cumec and Polavaram project in Andhra Pradesh is getting around 19000 cumec with increasing trend. There is forecast of heavy to very heavy rainfall in Telangana and Andhra Pradesh also for next 2-3 days. Close watch is to be maintained. River Indravathi and Sabari are also rising rapidly in Koraput, Malkangiri Districts.

It is advised that close watch has to be maintained for increased inflows likely during the next 2-3 days. Releases

from any of these reservoirs may be done as per rule curve and standard operating procedure.

2.2.5 Karnataka & Tamilnadu

The major reservoir level for today as given by Karnataka State Natural Disaster Monitoring Centre (KSNDMC) is as below:

Major Reservoir - Level, Storage, Flows - 13-08-2020														
Sl. No.	Name of the Reservoir	Reservoir Level Information (Meters)			Capacity in TMC				Inflow/Outflow details					
		FRL in Meter above MSL	Present RL as on 13/08/2020	Last Year RL as on 13/08/2019	Gross Capacity	Present Storage as on 13/08/2020	Last year Storage as on 13/08/2019	% of Present Storage = Col. 7/ Col. 6.	Daily Inflows (in cusecs) on 13/08/2020	Daily Outflows (in cusecs) on 13/08/2020			Cumulative inflows from 01.06.2020 (TMC)	Cumulative Outflows (River+Canal) from 01.06.2020 (TMC)
										River	Canal	Total		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	Linganamakki	554.44	547.29	552.47	151.75	84.24	129.53	56	29,142			0	83	31
2	Supa	564.00	544.80	561.26	145.33	75.23	133.77	52	20,034			0	56	22
3	Varahi	594.36	582.62	585.49	31.10	12.77	16.41	41	4,338			0	12	3
	Hydel				328.18	172.24	279.71	52	53,514			0	150	56
4	Harangi	871.42	871.11	870.65	8.50	7.90	7.40	93	5,733	2,218	200	2,418	13	9
5	Hemavathi	890.63	890.37	890.52	37.10	35.57	36.05	96	10,697	1,740	3,450	5,190	32	9
6	K.R.S.*	38.04	37.64	37.71	49.45	47.58	47.93	96	18,027	2,285	1,458	3,743	60	29
7	Kabini	696.16	696.03	696.07	19.52	18.85	18.93	97	22,912	23,438	625	24,063	48	37
	Cauvery Basin				114.57	109.90	110.30	96	53,411	25,723	5,733	31,456	141	70
8	Bhadra	657.76	655.00	656.05	71.54	59.99	65.18	84	17,300	156	2,850	3,006	43	5
9	Tungabhadra	497.74	496.84	497.37	100.86	88.38	94.72	88	50,609	0	9,031	9,031	94	12
10	Ghataprabha	662.94	662.38	662.88	51.00	49.19	50.55	96	15,122	1,021	4,587	5,608	47	7
11	Malaprabha	633.83	632.16	633.35	37.73	29.85	34.85	79	6,808	164	1,100	1,264	23	5
12	Almati	519.63	519.36	518.64	123.08	116.20	104.82	94	1,12,447	69,125	1,922	71,047	228	140
13	Narayanapura	492.25	491.85	489.98	33.31	30.78	23.39	92	97,114	95,061	6,548	1,01,609	147	134
	Krishna Basin				417.52	374.39	373.50	90	2,28,934	95,061	26,038	1,21,099	415	158
	Total				860.27	656.53	763.51	76	3,35,859	1,20,784	31,771	1,52,555	706	284

Due to continuous inflows from the previous spell of rainfall, most of the dams in Cauvery Basin have reached very close to 90-97% storage. Any local rainfall in association with convective activity may also help in adding to the flow in these basins. Round the clock watch has to be maintained for proper reservoir operation and information to all downstream Districts as well as to lower riparian States well in advance. The releases from Kabini and Krishna Raja Sagar through river are becoming inflows into Mettur Dam which is likely to get slow inflows for next 3-4 days. However it is much below its FRL.

Most of the dams in Krishna Basin are also having storage between 80 to 92%. Hidkal Dam on River Ghataprabha is filled to 96% of its full capacity and hence close watch has to be maintained for any increased inflows likely during the next 2-3 days.

Due to river flows from upstream areas of river Krishna, Almatti Dam and Narayanpur Dam are getting heavy inflows and since these dams are filled around 92 to 94% of the capacity, both the dams are releasing the excess flow. There is forecast of heavy to very heavy rainfall in Madhya Maharashtra for next 2 days and heavy rainfall is expected for remaining 3 days in the Districts of Satara and Kolhapur. Due to this there is likelihood of rise in water levels in Upper Krishna Basin in the upstream of Almatti Dam. Close watch is to be maintained for any releases from all the dams in the basin as well as for proper gate operation following SOP.

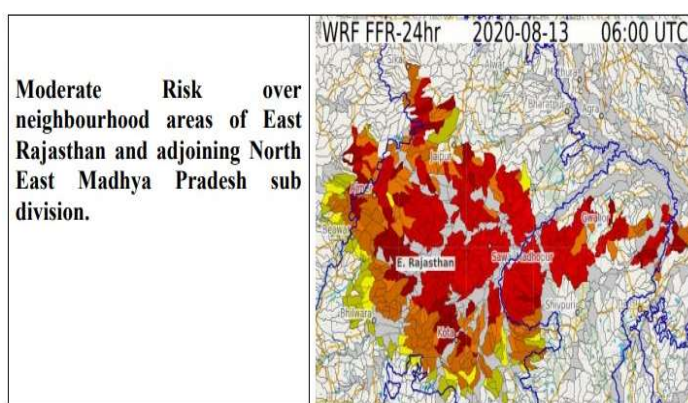
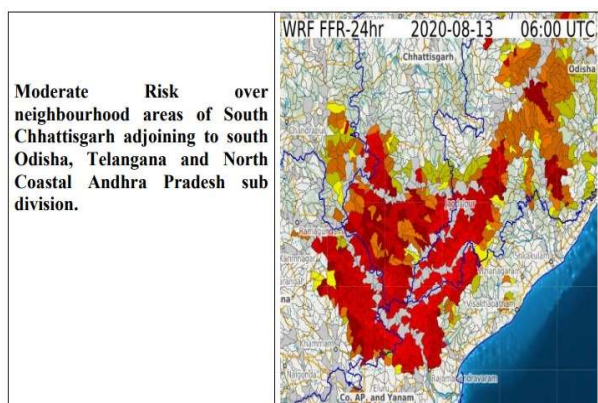
It is advised that close watch has to be maintained for increased inflows likely during the next 2-3 days. Releases from any of these reservoirs may be done as per rule curve and standard operating procedure.

2.2.6 Bihar, Jharkhand and Gangetic West Bengal

Many of the rivers in Bihar continue to flow in Severe to Above Normal Flood Situation with falling trend. The situation will continue for another 3-4 days.

2.2.7 Flash Flood Guidance

Flash Flood Guidance for next 24 hours as issued by IMD is appended.



2.2.8 Storage Position in Dams where Inflow forecast is being issued by CWC as on 13th August 2020

S. No.	River	Station	State	Storage present as % full reservoir level	Warning for Heavy rainfall for 24 hours
1	Nira	Veer Dam	Maharashtra	97.85	Yes
2	Kabini	Kabini Dam	Karnataka	97	No
3	Purna	Yeldari Dam	Maharashtra	96.56	Yes
4	Ghataprabha	Hidkal Dam	Karnataka	96	No
5	Hemavathy	Hemavathy Dam	Karnataka	96	No
6	Cauvery	Krishnarajasagar	Karnataka	96	No
7	Krishna	Almatti Dam	Karnataka	94	No
8	Harangi	Harangi Dam	Karnataka	93	No
9	Pench	Totladoh Project	Madhya Pradesh	92.43	Yes
10	Hasdeo	Bango Dam	Chhattisgarh	92	Yes
11	Krishna	Narayanpur Dam	Karnataka	92	Yes
12	Wardha	Upper Wardha Project	Maharashtra	89.77	Yes
13	Tungabhadra	Tungabhadra Dam	Karnataka	88	No
14	Warana	Warana Dam	Maharashtra	84.71	Yes
15	Bhadra	Bhadra Dam	Karnataka	84	No
16	Wainganga	Upper Wainganga Project	Madhya Pradesh	80	Yes
17	Sone	Bansagar Dam	Madhya Pradesh	79	No
18	Malaprabha	Malaprabha Dam	Karnataka	79	No
19	Kaddamvagu	Kaddam Dam	Telangana	76.2	Yes
20	Koyna	Koyna Dam	Maharashtra	73.56	Yes
21	Chambal	Rana Pratap Sagar	Rajasthan	72.64	Yes
22	Som Kamla	Som Kamla Amba Dam	Rajasthan	70.63	Yes

Close watch has to be maintained at these reservoirs wherever heavy rainfall (Yellow) and Very Heavy Rainfall (Orange) and Extremely Heavy Rainfall (Red) Warnings are given in the last column of Table above.

Impact Based Actions

Strict vigil is to be maintained in all the above States & Districts for next 4-5 days. Breaches in Embankment if any may aggravate further flood like situation which should be monitored and all efforts to fill any such breaches should be done at the earliest. Maximum vigil has to be maintained along the rail and road tracks and bridges on these rivers and regulate traffic suitably to avoid any incident. Submergence of low-level cause ways along rivers and railway tracks along flashy rivers is to be monitored closely especially along Western Ghat areas. All district administrations can take effective measures taking into account the prevailing Covid-19 situation in relief camps being set up in these districts.

3. Flood Affected Districts

Bihar: Araria, Katihar, Darbhanga, Khagaria, Sitamarhi, Muzaffarpur, Siwan, Samastipur, Gopalganj

4. Flood Alerted Districts

Gujarat: Districts along Narmada, Tapi, Damanganga, Mahi
Madhya Pradesh: Districts along Narmada and Upper Chambal, Wainganga, Tapi
Rajasthan: Districts along Chambal and its tributaries, Mahi.
Maharashtra: Districts along West Flowing Rivers in Thane, Godavari, Damanganga, Krishna & its tributaries
Telangana: Districts along Godavari and its tributaries
Chhattisgarh: Districts along Indravathi and its tributaries, Mahanadi & its tributaries
Odisha: Districts along Indravathi, Sabari, Mahanadi and its tributaries
Himachal Pradesh: Flash flood and Landslides
Uttarakhand: Flash Flood and Landslides