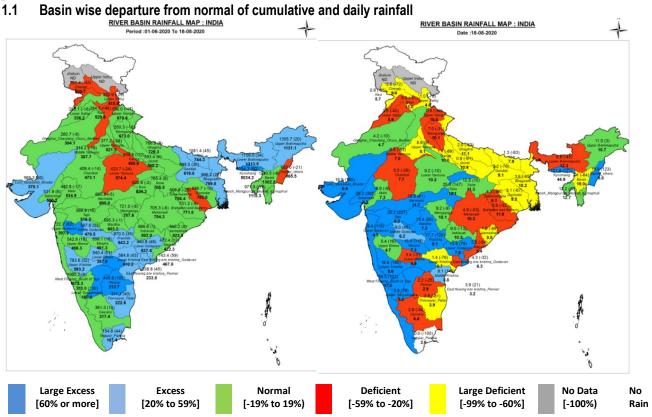


# **Central Water Commission Daily Flood Situation Report cum Advisories** 18-08-2020

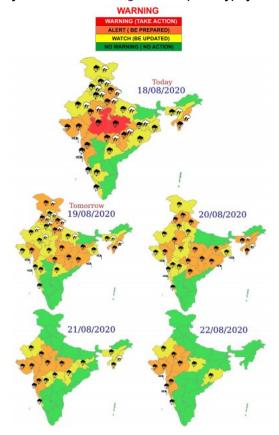
#### 1.0 **IMD** information

# 1.1



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 18th August 2020 (Midday) by IMD



# 2.0 CWC inferences

# 2.1 Flood Situation on 18th August 2020

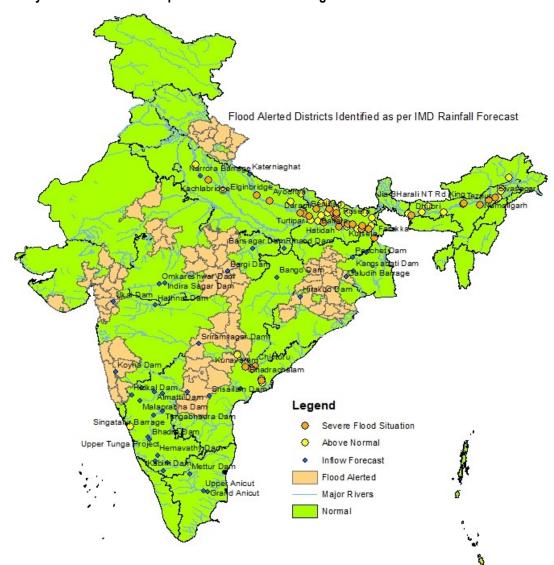
# 2.1.1 Summary of Flood Situation as per CWC Flood Forecasting Network

On 18<sup>th</sup> August 2020, 31 Stations (15 in Bihar, 6 in Assam, 4 in Uttar Pradesh, 3 in Andhra Pradesh and 1 each in Jharkhand, Telangana and West Bengal) are flowing in Severe Flood Situation and 32 stations (15 in Bihar, 7 in Assam, 4 in Uttar Pradesh, 2 each in Telangana & Andhra Pradesh and 1 each in Arunachal Pradesh & Karnataka) are flowing in Above Normal Flood Situation. Inflow Forecast has been issued for 38 Barrages and Dams (13 in Karnataka, 4 in Madhya Pradesh, 3 each in Andhra Pradesh, Tamilnadu, Telangana & Uttar Pradesh, 2 each in Jharkhand, Maharashtra & West Bengal, 1 each in Chhattisgarh, Gujarat & Odisha).

PART - I: LEVEL FORECAST					
S.No.	Flood Situations	Numbers of Forecasting Sites			
Α	Extreme Flood Situation: (Site (s) where the previous Highest Flood Level (HFL) is exceeded or equalled)	0			
В	Severe Flood Situation: (Site (s) where water level is touching or exceeding the Danger Level but below Highest Flood Level (HFL))	31			
С	Above Normal Flood Situation: (Site (s) where water level is touching or exceeding the Warning Level but below Danger Level)	32			
	63				
PART	- II: INFLOW FORECAST	4			
Number of sites for which inflow forecasts issued: (Where Inflows are equal or exceed the specified Threshold Limit for a particular reservoir / barrage)					

Details can be seen in link <a href="http://cwc.gov.in/sites/default/files/cfcr-cwcdfb18082020">http://cwc.gov.in/sites/default/files/cfcr-cwcdfb18082020</a> 5.pdf

# 2.1.1 Summary of Flood Situation as per CWC Flood Forecasting Network



# 2.2 CWC Advisories

- Widespread rainfall with isolated heavy to very heavy falls very likely over Gujarat state, Maharashtra State & Goa, Madhya Pradesh, Chhattisgarh, Jharkhand, Odisha during next 4-5 days. Isolated extremely heavy falls also likely over Madhya Pradesh on 18th; southwest Odisha on 19th; Vidarbha & Chhattisgarh on 20th and Gujarat State on 22nd August, 2020.
- Fairly widespread to widespread rainfall activity with heavy falls very likely over northwest India including Western Himalayan region till 20 August, 2020 and decrease thereafter. Isolated heavy to very heavy rainfall also very likely over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad on 19th; Uttarakhand during 18th-20th; Punjab on 19th & 20th; West Uttar Pradesh on 18th & 19th; East Rajasthan on 18th and 20th-22nd August, 2020.
- Fairly widespread to widespread with isolated heavy to very heavy falls very likely also over Northeastern states (except Arunachal Pradesh) during next 3- 4 days. Isolated extremely heavy falls likely over Tripura on 19th & 20th August, 2020.

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

## 2.2.1 Gujarat, Maharashtra & Goa

Heavy to very Heavy rainfall is likely over Maharashtra State and Gujarat State during next 4-5 days. There is rise in Water Levels in the basins of Lower Mahi, Lower Narmada, Lower Tapi and Damanganga. Rivers Narmada, Tapi, Damanganga are rising rapidly and further rise is expected due to the forecasted heavy rainfall for next 4-5 days. Madhuban Dam in Valsad District at present has storage of 63.65% and Ukai Dam in Surat District on river Tapi has storage of 74.88%. These dams are likely to get heavy inflows due to the forecasted rainfall. Close watch is to be maintained and releases if any has to be done, it should be 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 and Sardar Sarovar Dam on river Narmada have present storage of 32.98%, 42.88%, and 54.48% respectively and are also getting increased inflows. Hatnur Dam in Jalgaon District of Maharashtra is likely to get an inflow of around 1620 cumec till today night and Ukai Dam is also expected to receive around 2083 cumec till tomorrow morning. Due to forecast of very 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. Many of the small dams in Saurashtra & Kutch are already near their FRL and as heavy to very heavy rainfall has also been forecasted for 4-5 days, close watch is to be maintained for proper reservoir operation.

Due to forecasted heavy rainfall for 4-5 days in Konkan & Goa and in Hill ranges of Western Ghats in Maharashtra, there is probability of sudden rise in water levels in West Flowing Rivers between Tapi and Tadri in States of Maharashtra, Goa and UT of Dadra & Nagar Haveli and Daman & Diu, such as rivers Damanganga, Ulhas, Savithri, Kal, etc. Maximum vigil is to be maintained along the low lying areas of these rivers which are near to Railway lines and Highways during the above period. Small Dams in these reaches may get filled up and start releasing excess water at short notice. River Krishna at Kurundwad in Kolhapur District of Maharashtra is flowing close to Danger Level and is expected to cross Danger Level by today evening. River Panchganga at Terwad in Kolhapur District is flowing above Danger Level and is expected to rise further. Since most of the dams in the region have storage of the order of 85 to 100% of their Full capacity, hence all the dams should exercise caution. Khadakwasla Dam in Pune District is 96.17% of its full capacity Veer Dam in Pune District is 94% full and both dams are releasing excess water. All these releases will be increasing the level of river Bhima. Ujni Dam in Sholapur District is 54.75% full; the increase flow in Bhima will increase the storage in Ujni dam.

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.

#### 2.2.2 Odisha, Chhattisgarh, Andhra Pradesh & Telangana

Heavy to very heavy rainfall is likely over Odisha and Chhattisgarh during next 4-5 days. Due to ongoing extremely heavy rainfall, River Godavari is also getting good flows due to rain in Chhattisgarh, Maharashtra and Telangana. River Godavari at Dowlaiswaram Barrage (Sir Arthur Cotton Barrage) & Kunavaram and River Sabari at Chinturu in East Godavari District of Andhra Pradesh are flowing in Severe Flood Situation with falling trend. Polavaram project on River Godavari in Andhra Pradesh is likely to get around 42500 cumec till 0830 hours tomorrow. River Godavari at Bhadrachalam in Bhadradri Kothagudem District in Telangana is flowing above Danger Level and River Godavari at Dummagudem in Bhadradri Kothagudem District of Telangana, Rajahmundry Railway Bridge and Atreyapuram in East Godavari District of Andhra Pradesh is flowing in Above Normal Flood situation. Sriram Sagar Reservoir and Laxmi Barrage on River Godavari in Telangana are likely to get inflows of around 1800 cumec and 13000 cumec respectively till tomorrow morning.

River Krishna at P D Jurala in Jogulamba Gadwal District of Telangana is expected to get inflow of about 9200 cumec till tomorrow morning and Srisailam Dam in Kurnool District of Andhra Pradesh about 9000 cumec till tomorrow morning. As the inflow of around 2.5 to 3 lakh cusec is expected for next 2-3 days, Srisailam Dam may reach its FRL in 2-3 days. Necessary precautions may have to be taken. Since Nagarjunasagar Dam is also about 83% filled, it is expected that with inflows for next 4 to 5 days may increase its storage due to which Nagarjunasagar dam may also reach very close to FRL during the next 3-4 days. Necessary precautionary steps have to be taken in advance. Due to heavy rainfall in downstream areas of river Krishna in Warangal, Khammam, Nalgonda and Krishna Districts of Telangana and Andhra Pradesh, river Krishna at

Prakasam Barrage is getting inflows above its threshold limit and inflow forecasts have been issued for the same.

River Mahanadi is likely to get inflow of about 7400 cumec in Hirakud Dam and the dam is likely to continue getting heavy inflows due heavy rainfall forecasted in Chhattisgarh catchment. Bango Dam reservoir in Chhattisgarh is getting inflows above its threshold limit and inflow forecasts have been issued for the same. Close watch is to be maintained.

#### 2.2.3 Karnataka

Most of the dams in Krishna Basin are also having storage in the range of 72% to 98%. Due to heavy rain in Madhya Maharashtra, Hidkal and Malaprabha Dams are getting heavy inflows. Hidkal Dam on River Ghataprabha is filled to 98% of its full capacity and is releasing 39,591 cusec. Malaprabha Dam on River Malaprabha is filled to 91% of its full capacity and is releasing 26,964 cusec. Close watch has to be maintained for any increased inflows likely due to the heavy to very heavy rainfall forecasted in Madhya Maharashtra during the next 4-5 days. River Krishna at Gokak Falls in Belagavi District of Karnataka continues to flow above Danger Level. River Krishna at Huvinahedgi in Raichur District is rising due to releases from Narayanpur Dam. 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 83% and 72% of the full capacity respectively, both the dams are releasing the excess flow continuously. There is forecast of heavy to very heavy rainfall in Maharashtra for next 4-5 days. 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.

Due to continuous inflows from the previous spell of rainfall, most of the dams in Cauvery Basin have reached very close to 96% - 100% 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. There is forecast of isolated heavy rainfall in South Interior Karnataka in source regions of river Cauvery, Harangi and Hemavathi for the next 24 hours. Krishna Raja Sagar Dam in Mandya District of Karnataka attained its FRL today. The outflow from the dam has been increased to 41,000 cusec and is continuing. Care should be exercised for any local thunderstorm around the reservoir area to regulate the excess water if any. 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.

## 2.2.4 Madhya Pradesh

Due to forecast of heavy to very heavy rainfall in Madhya Pradesh for next 4-5 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 87% and hence care should be exercised to monitor the situation very closely. River Narmada at Mandla in Mandla District of Madhya Pradesh is flowing above Danger Level and is rising rapidly. Presently the river is flowing 0.93 m below its HFL. As the rainfall is expected to continue it is likely to go very close to its HFL and there is 5-25% percent chances of it crossing HFL. Heavy to very heavy rainfall in its catchment has given rise to such heavy increase in water level with no major contribution from any dams. The flow in the river at Mandla will be inflows into Bargi Dam which is almost 88% full and due precautions to operate the gates of the reservoir has to be taken. Rajghat Dam in Ashoknagar District on river Betwa in Madhya Pradesh is also getting heavy inflows. Due to very heavy rainfall forecast for next 3-4 days in its catchment maximum care has to be taken to operate the gates and inform all downstream areas including lower riparian states as well as Matatila Dam in Lalitpur District of UP. Bansagar Dam on River Sone in Madhya Pradesh is 93% full and is expected to get inflow of about 2447 cumec till tomorrow morning.

# 2.2.5 Himachal Pradesh, Punjab, Haryana, Uttarakhand, Uttar Pradesh, Jammu & Kashmir

Heavy to very heavy rainfall with extremely heavy rainfall is likely over Uttarakhand from 18<sup>th</sup> - 20<sup>th</sup> August, 2020 and West Uttar Pradesh from 19<sup>th</sup> -20<sup>th</sup> August, 2020. 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. River Jhelum may also get some increased flow due to forecasted very heavy rainfall on 19<sup>th</sup>. Presently the water level in Jhelum River is very much below warning level at all the 3 Flood Forecasting stations.

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

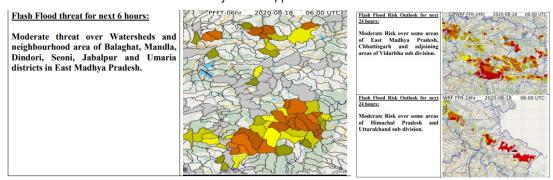
Many of the rivers in Bihar continue to flow in Severe to Above Normal Flood Situation with falling trend. The situation will continue for another 3-4 days.

#### 2.2.7 North Eastern States

Heavy to very heavy rain has been forecasted for the next 3-4 days in North Eastern States (except Arunachal Pradesh). Severe Flood Situation is continuing in Brahmaputra and its tributaries in Jorhat, Sonitpur, Golaghat, Sibsagar and Dhubri Districts. Due to forecasted rainfall, there is likelihood of increase in flood situation in other districts also.

# 2.2.8 Flash Flood Guidance

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



# 2.2.9 Storage Position in Dams where Inflow forecast is being issued by CWC as on 18th August 2020

S. No.	River	Station	State	Present Storage as % FRL	Warning for Heavy rainfall for 24 hours
1	Cauvery	Krishnarajasagar	Karnataka	100	Yes
2	Puma	Yeldari Dam	Maharashtra	98.42	Yes
3	Hemavathy	Hemavathy Dam	Karnataka	98	Yes
4	Ghataprabha	Hidkal Dam	Karnataka	98	Yes
5	Kabini	Kabini Dam	Karnataka	98	Yes
6	Tungabhadra	Tungabhadra Dam	Karnataka	97	Yes
7	Harangi	Harangi Dam	Karnataka	97	Yes
8	Wardha	Upper Wardha Project	Maharashtra	94.22	Yes
9	Nira	Veer Dam	Maharashtra	94	Yes
10	Pench	Totladoh Project	Madhya Pradesh	94	Yes
11	Sone	Bansagar Dam	Madhya Pradesh	93	Yes
12	Hasdeo	Bango Dam	Chattisgarh	92.55	Yes
13	Malaprabha	Malaprabha Dam	Karnataka	91	Yes
14	Warana	Warana Dam	Maharashtra	90	Yes
15	Bhadra	Bhadra Dam	Karnataka	89	Yes
16	Mandla	Bargi Dam	Madhya Pradesh	88	Yes
17	Kalisindh	Kalisindh Dam	Rajasthan	87.23	Yes
18	Koyna	Koyna Dam	Maharashtra	87	Yes
19	Kaddamvagu	Kaddam Dam	Telangana	83.6	Yes
20	Krishna	Almatti Dam	Karnataka	83	Yes
21	Gambhiri	Panchana Dam	Rajasthan	82.81	Yes
22	Krishna	Priyadarshini Jurala Project	Telangana	82	Yes
23	Sindhpana	Manjlegaon	Maharashtra	81.44	Yes
24	Wainganga	Upper Wainganga Project	Madhya Pradesh	79.68	Yes
25	Som Kamla	Som Kamla Amba Dam	Rajasthan	76.13	Yes
26	Krishna	Srisailam Dam	Andhra Pradesh	75	Yes
27	Tapi	Ukai Dam	Gujarat	74.88	Yes
28	Chambal	Rana Pratap Sagar	Rajasthan	72.66	Yes
29	Krishna	Narayanpur Dam	Karnataka	72	Yes
30	Betwa	Rajghat Dam	Madhya Pradesh	70	Yes

Reservoirs shown in red are having storage greater than 90%, reservoirs shown in orange are having storage greater than 75% and the reservoirs shown in yellow are having storage between 70% and 75%. 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 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

**Assam:** Districts along Brahmaputra and its tributaries.