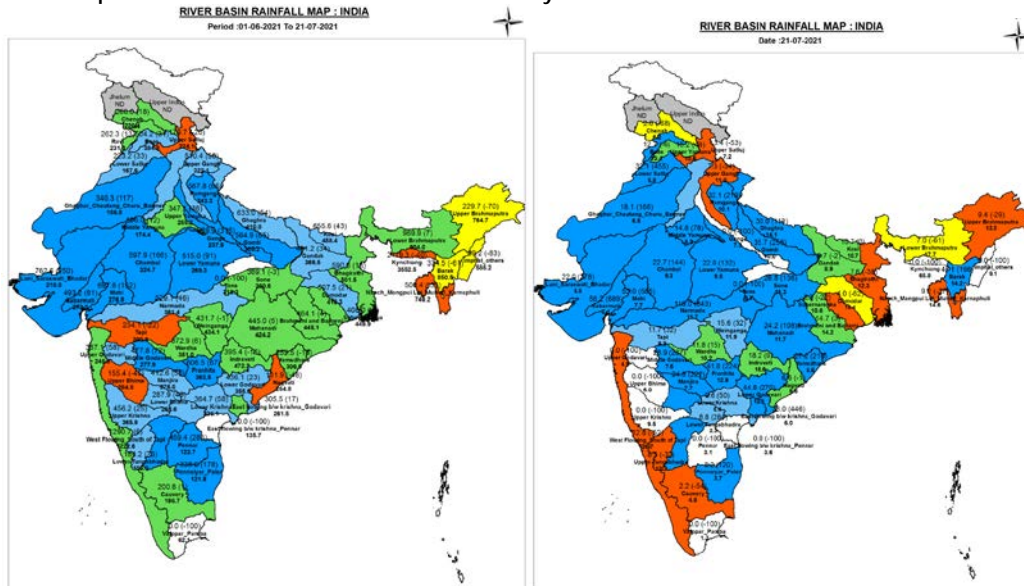




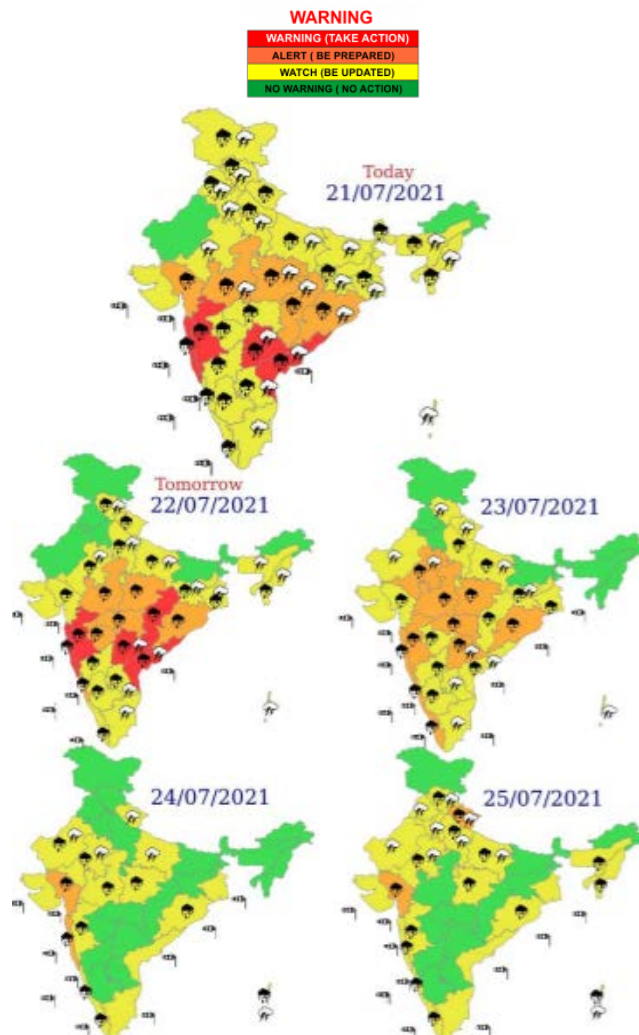
Central Water Commission
Daily Flood Situation Report cum Advisories
21-07-2021

1.0 Rainfall Situation

1.1 Basin wise departure from normal of cumulative and daily rainfall



1.2 Rainfall forecast for next 5 days issued on 21st July 2021 (Midday) by IMD



- Isolated **heavy falls** very likely over Western Himalayan Region (Jammu, Kashmir & Ladakh, Himachal Pradesh and Uttarakhand) and adjoining northwest India (Punjab and Uttar Pradesh) today 21st with further reduction thereafter. It is likely to increase from 25th July.
- Light to Moderate rainfall at scattered places very likely over Delhi during next 24 hours.

- Isolated **heavy to very heavy falls** very likely to continue over west coast and adjoining interior areas and Gujarat region during next 4-5 days. Isolated **extremely heavy falls** also very likely over Konkan & Goa & adjoining Ghat areas of Madhya Maharashtra on 21st -22nd July.
- Isolated **heavy to very heavy falls** likely over east and adjoining central India during 21st -24th July. Isolated **extremely heavy falls** also likely over coastal Andhra Pradesh and Telangana on 21st -22nd July and over Chhattisgarh, Vidarbha and east Madhya Pradesh on 22nd July 2021.

2.0 Flood Situation and Advisories

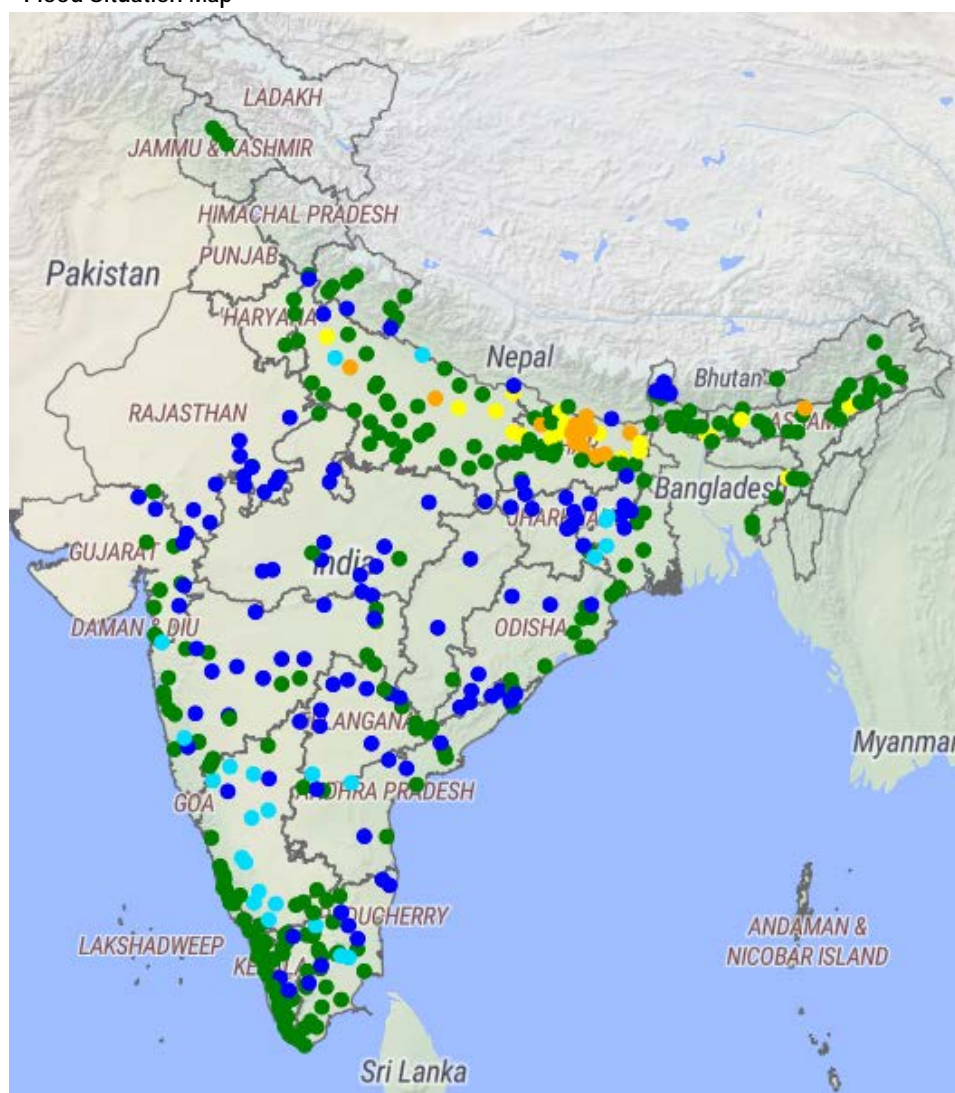
2.1 Summary of Flood Situation as per CWC Flood Forecasting Network

On 21st July, 2021, 15 Stations (12 in Bihar, 2 in Uttar Pradesh & 1 in Assam) are flowing in Severe Flood Situation and 19 stations (9 in Bihar, 5 each in Uttar Pradesh & Assam) are flowing in Above Normal Flood Situation. Inflow Forecast has been issued for 24 Barrages & Dams (11 in Karnataka, 3 each in Tamil Nadu & Jharkhand, 2 in Uttar Pradesh and 1 each in Gujarat, Maharashtra, West Bengal, Andhra Pradesh & Telangana)

FLOOD SITUATION SUMMARY		
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))	15
C	Above Normal Flood Situation: (Site (s) where water level is touching or exceeding the Warning Level but below Danger Level)	19
Total number of sites above Warning Level (A+B+C)		34
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)		24

Details are given at link: http://cwc.gov.in/sites/default/files/cfrcwcdfb-21.07.2021-2_5.pdf

2.1.1 Flood Situation Map



2.2 CWC Advisories

2.2.1 West Flowing Rivers between Tapi and Tadri - Mumbai, Konkan and Goa, Coastal Karnataka

IMD has predicted Heavy to Very Heavy Rainfall over Mumbai, Konkan & Goa and heavy rainfall over Coastal Karnataka. Under its effect the West flowing rivers from Tapi to Tadri such as Ulhas (Thane district); Bhogeshwari, Savitri & Kal of Raigad district; river Bav of Ratnagiri district are expected to rise. Similarly west flowing rivers from Tadri to Kanyakumari located in Karnataka, such as Aghanashini (Uttar Kannada District); Haladi, Sita, Swarna and Shambavi of Udupi district; Gurgur & Netravathi of Dakshin Kannada district may also rise due to heavy rains. Low level bridges and railway tracts crossing these rivers may get submerged and hence traffic needs to be regulated as per flooding situation. Storage of Tillari dam in Sindhudurg district is 81.89%, rest all dams of Konkan region is less than 60% filled. Over all storages of Konkan region is 57.08 % so major spill is not expected.

Since heavy rainfall is likely to continue along Ghats of Shivamogga, Chikmagalur, Hassan & Kodagu Districts in Karnataka, there is likelihood of inflow into all major reservoirs for next 2 days and close watch is to be maintained. Presently Linganamakki Project (Sharavathi river), Varahi Project on (Haladi river) and Supa Project (Kali river) located in districts such as Shivmogga and Uttar Kannada respectively have storages in the range 25 to 55 % hence no spill is expected.

In **Mumbai**, watch for urban flooding situation has to be kept.

Cauvery basin – Karnataka, Tamil Nadu

Due to forecasted heavy rainfall in the next 2-3 days, heavy inflows can be expected in Harangi, Hemavathi, Kabini and KRS dams and close watch is to be maintained as they are in rising trend. Kabini Dam is 87% full with water level at 694.9 m and FRL of the dam is 696.13 m. Harangi dam is 87% filled and Hemavathi is 66% filled. Necessary precautions may be taken for releases from dam after informing all downstream areas in Karnataka and lower riparian States. As per hydro-meteorological situation existing and forecast issued by field offices of CWC, the inflow into Kabini, Harangi, Hemavathi & KRS dam are expected to follow steady trend.

Releases from Kabini dam during last 2 days are being realised at Mettur dam of Salem (Tamil Nadu) and at Dharmapuri district (Tamil Nadu). However, currently the river is flowing in decreasing trend.

2.2.2 Godavari and Krishna basin– Andhra Pradesh, Telangana, Karnataka & Maharashtra

In Krishna basin major projects storages are as follows: Almatti (77%), Narayanpur (87%), P D Jurala (45%), Pulichintala (94%), Musi (64%) and Warana dam (70%). The excess inflows likely to be received due to forecasted rainfall should accordingly be regulated and released as per rule curves of the dams to avoid any downstream flooding and upstream submergence. Since heavy rains are predicted in Shivmogga and Chikmagalur districts, rise in water levels are expected in Tungabhadra river. Similarly, rise in water levels are expected in Bhima and main Krishna rivers due to heavy rains in Pune, Satara, Kolhapur, Sangli (of Maharashtra) and Belagavi district of Karnataka. Releases, if any, should be done following SOP & after informing all downstream districts/lower riparian state. As per current hydrological situation Tungabhadra dam (Bellary Dist.), Singatalur Barrage (Gadag dist.), Bhadra (Chikmagalur), KRS (Mandya), P D Jurala (Mahabubnagar dist.) are expected to get inflows with steady trend. Srisailem dam (Kurnool) inflows are expected to fall whereas Almatti dam inflows are expected rise.

In Godavari basin, Karanja dam on Karanja River (here after River will be denoted as R.) of Bidar district, is 81% filled. Other projects of Telangana such as Yeldari dam (Purna R., Parbhani dist.), Sriramsagar (Bidar dist.), Sripada Yellam Palli (Pedapally dist.) & Kaddam (Nirmal dist.) are having storages 61.9%, 75.7%, 96.12 & 79.06% respectively.

Water levels may rise slowly due to rainfall in sub catchments of Godavari Basin. As PVN Rao Kantapally (Sammakka Barrage), is passing 41,140 Cusecs water due to inflows into the barrage, the same will reach downstream and water levels of downstream sites will rise, hence it is advised that the sites from Perur to Dowlaiswaram to be watchful.

2.2.3 Ganga – Bihar, Uttar Pradesh

Currently river Ghagra, Rapti, Gandak, Bagmati, Kamla, Burhi Gandak, Adhwara, Mahananda, Parman & Kosi are flowing in severe to above normal flood situation in districts Barabanki, Gorakhpur, Ayodhya, Ballia, Ghaziabad (of Uttar Pradesh), Siwan, Muzaffarpur, Gopalganj, Darbhanga, Madhubani, Khagaria, Supaul, Samastipur, Araria, Sitamarhi & Katihar (of Bihar). Abatement of water levels in above mentioned rivers of Bihar are expected to be very slow.

Main Ganga river is showing rising trend and above normal situation in the districts Ghaziabad, Bulandshahar and Buduan have been seen, hence, alert may be also kept in districts such as Bulandshahar, Aligarh and Farrukhabad.

2.2.4 Brahmaputra and its tributaries, Barak & others – Assam, Sikkim, Arunachal Pradesh & Sub Himalayan Bengal

Jia-Bharali river is flowing in severe flood situation in Sonitpur district, while river Sankosh in Dhubri district and Beki at Barpeta are flowing in above normal flood situation. Brahmaputra is flowing in above normal situation at district Jorhat of Assam. Kushiara river in Barak basin is flowing in about normal situation in District Karimganj of Assam.

2.2.5 Jhelum and Chenab basin – Jammu & Kashmir, Punjab

Close watch needs to be maintained in Jhelum, Chenab and Sahibi river.

2.2.6 Narmada, Tapi and Damanganga - Gujarat

Water level at CWC station in Tapi, Lower Narmada, Damanganga & Independent basins are expected to rise slightly in next 48 hours. From the given QPF, flood like situation is not expected in all three river basins and independent basins. Due to forecast of moderate/heavy rainfall at many places in the catchment, there is likelihood of rise in inflows of Madhuban, Ukai, Hathnur and Sardar Sarovar Dam.

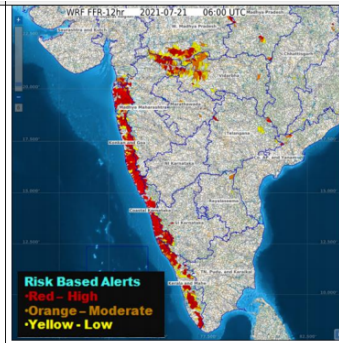
2.3 Flash Flood Guidance

IMD has issued flash flood risk over many watersheds and neighbourhood for Gujarat, Konkan & Goa, Coastal Karnataka, Vidarbha, Madhya Maharashtra & West M.P. and also in Himachal & Uttarakhand met sub-divisions.

24 hours Flash Flood Risk Outlook till 1130 IST of 22.07.2021:

Moderate to High risk over many watersheds and neighborhood of Gujarat Region, Konkan & Goa and Coastal Karnataka, Vidarbha, South of West MP and North east of Madhya Maharashtra met subdivision.

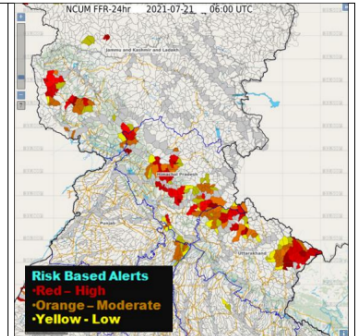
Surface runoff/Inundation may occur at some fully saturated watersheds & low-lying areas due to expected persistent rainfall in next 24 hours.



24 hours Flash Flood Risk Outlook till 1130 IST of 22.07.2021:

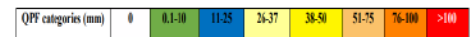
Moderate risk over many watersheds and neighborhood of Himachal Pradesh and Uttarakhand met subdivision.

Surface runoff/Inundation may occur at some fully saturated watersheds & low-lying areas due to expected persistent rainfall in next 24 hours.



3. Storage Position in Dams where Inflow forecast is being issued by CWC as on 21st July 2021

Reservoirs shown in **red** are having gross storage capacity **more than 80%** and those in **orange** are having gross storage **greater than 60%**. Close watch is to be maintained at these reservoirs whenever Very Heavy Rainfall (Orange) and Extremely Heavy Rainfall (Red) warning in next 120 hours are as below:



#	Reservoir/ Dams	River/Sub-Basin/ Basin	State	US/DS District	Rainfall situation				
					Day 1	Day 2	Day 3	Day 4	Day 5
1	Pulichinthala	Krishna/Lower Krishna/ Krishna	Andhra Pradesh	Nalgonda (Telangana)/ Guntur, Krishna (AP)					
2	Sri Pada Yellampally	Godavari/Middle Godavari/Godavari	Telangana	Mancherial/Jaishankar Bhupalpally					
3	Sriramsagar	Godavari/Middle Godavari /Godavari	Telangana	Nanded (Mah)/ Nirmal (Telangana)					
4	Musi	Musi/Lower Krishna/ Krishna	Telangana	Nalgonda					
5	Kaddam	Kaddam/Middle Godavari/Godavari	Telangana	Adilabad, Nirmal/ Mancherial					
6	Panchet	Damodar/Damodar East/ Ganga	Jharkhand	Dhanbad					
7	Maithon	Barakar/Barakar East/ Ganga	Jharkhand	Dhanbad					
8	Narayanpur	Krishna/Upper Krishna/ Krishna	Karnataka	Bagalkot, Vijayapura/ Raichur, Yadgir					
9	Kabini	Kabini/Kabini/ Cauvery	Karnataka	Wayanad (Kerala)/ Mysuru (Karnataka)					
10	Harangi	Cauvery/Upper Cauvery/ Cauvery	Karnataka	Kodagu/Mandya					
11	Almatti	Krishna/ Upper Krishna/ Krishna	Karnataka	Kolhapur (Mah)/ Bagalkote (Kar)					
12	Karanja	Karanja/Manjara/ Godavari	Karnataka	Bidar (Kar), Vikarabad (Telangana)/ Bidar(Kar)					
13	Hemavathy	Hemavathy/Hemavathy/ Cauvery	Karnataka	Hassan, Kodagu/ Mandya, Mysore					
14	Bhadra	Bhadra/UpperTungabhadra/ Krishna	Karnataka	Chikmagalur/ Shimoga					
15	Hidkal	Ghataprabha/Ghataprabha/ Krishna	Karnataka	Kolhapur (Mah)/ Belgaum (Kar)					
16	Warana	Warana/Upper Krishna/ Krishna	Maharashtra	Kolhapur, Sangli					
17	Yeldari	Purna/Purna/Godavari	Maharashtra	Parbhani, Hingoli					
18	Rana Pratap Sagar	Chambal/Upper Chambal/ Ganga	Rajasthan	Neemuch(MP)/ Dholpur, Kota, Bundi (Raj)					
19	Som Kamla Amba	Som/Mahi B/ Mahi	Rajasthan	Udaipur/ Dungarpur					
20	Vaigai	Vaigai/Upper Vaigai/ EF Rivers b/w Cauvery & Kanyakumari	Tamil Nadu	Theni/Madurai					
21	Bhavanisagar	Bhavani/ Middle Cauvery/ Cauvery	Tamil Nadu	Palakad (Kerala), Nilgiri (TN), Coimbatore (TN)/ Erode (TN)					

Note- Based on above information, Project Authority may regulate the reservoirs as per standard operating manuals/ rule levels to avoid downstream flooding and upstream submergence.