

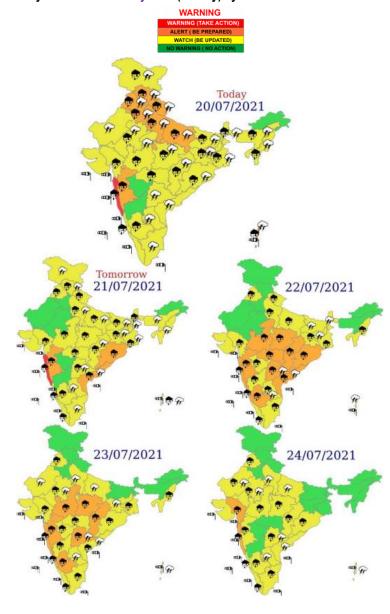
Central Water Commission Daily Flood Situation Report cum Advisories 20-07-2021

1.0 IMD information

1.1 Chief amount of rainfall recorded at 0830 hours IST of today (15 cm or more) as per IMD

Name of Place (State)			
Kalyan (Maharashtra)	37		
Bhiwandi (Maharashtra)	30		
Ulhasnagar (Maharashtra)	29		
Maheran (Maharashtra)	26		
Ambone & Tamini (Maharashtra)	27		
Ambernath (Maharashtra)	25		
Pataudi & Farukhnagar (Haryana), Dungerwadi (Maharashtra), Etah & Sikandra(UP)	24		
Dapoli & Bhira (Maharashtra)	23		
Haldwani (Uttarakhand), Sudhagad Pali (Maharashtra)	22		
Bahadurgarh (Haryana)	20		
Assandh (Haryana),Pen(Maharashtra)	19		

1.2 Rainfall forecast for next 5 days issued on 20th July 2021 (Midday) by IMD



Heavy to very heavy/ Extremely heavy rainfall over Konkan & Goa and Ghat Areas of Madhya Maharashtra during 20th-24th; Himachal Pradesh, Uttarakhand, Punjab, Haryana, Uttar Pradesh and Andaman & Nicobar Islands on 20th; Odisha and Coastal Andhra Pradesh & Yanam on 21st & 22nd; Madhya Pradesh, Chhattisgarh, Vidarbha, Telangana and Coastal & South Interior Karnataka on 22nd & 23rd July, 2021

2.0 Flood Situation and Advisories

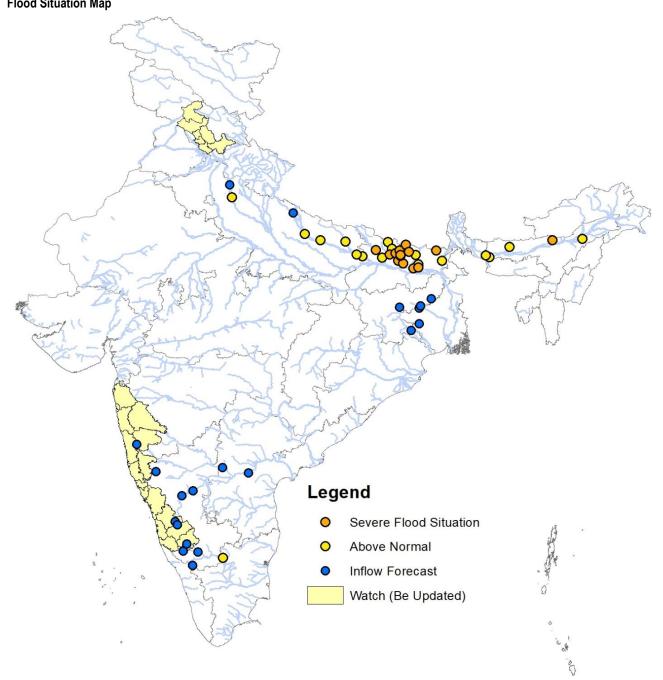
2.1 Summary of Flood Situation as per CWC Flood Forecasting Network

On 20th July, 2021, 14 Stations (13 in Bihar and 1 in Assam) are flowing in Severe Flood Situation and 17 stations (7 in Bihar, 5 in Uttar Pradesh, 4 in Assam and 1 in Tamilnadu) are flowing in Above Normal Flood Situation. Inflow Forecast has been issued for 20 Barrages & Dams (9 in Karnataka, 5 in Jharkhand, 2 in Uttar Pradesh and 1 each in Andhra Pradesh, Maharashtra, Telangana and West Bengal)

west beligal)						
PART - I: LEVEL FORECAST						
S.No.	No. Flood Situations					
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))					
С	Above Normal Flood Situation: (Site (s) where water level is touching or exceeding the Warning Level but below Danger Level)	17				
	31					
PART - II: INFLOW FORECAST						
Number of (Where Inflo	20					

Details are given at link: http://www.cwc.gov.in/sites/default/files/dfbcwc20072021_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, Savithri & 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; Gurpur & Netravathi of Dakshin Kannada district may also show rise due to heavy rains. Low level bridges and railway tracts crossing these rivers may get submerged and hence traffic to be regulated. Storage of Tillari dam in Sindhudurg district is 81%, rest all dams of Konkan region is less than 60% filled. Over all storages of Konkan region is 56.8 % so major spill is not expected.

Since heavy rainfall is likely to continue along Ghats of Shivamogga, Chikmagaluru, Hassan & Kodagu Districts, there is likelihood of inflow into all major reservoirs in Karnataka 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 24 to 54 % 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 694.84 m and FRL of the dam is 696.13 m. Harangi dam is 88% filled and Hemavathi is 64% 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 office of CWC, the inflow into Kabini, Harangi, Hemavathi 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).

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

In Krishna basin major projects such as Almatti (73% filled), Narayanpur (84%), P D Jurala (73%), Pulichintala (95%), Musi (67%) and Warana (66%) dams are getting high inflows. The excess inflows likely to be received due to forecasted rainfall should accordingly be regulated and released as per rule curves of both the dams. Reservoir Operation as per latest rule curves may have to be continued as is being done presently to avoid any downstream flooding and upstream submergence. Since heavy rains are predicted in Shivmogga and Chikmagaluru districts, rise in water levels are expected in Thungabhadra 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 Thungabhadra dam (Bellary Dist.), Singatalur Barrage (Gadag dist.) & Srisailam dam (Kurnool) are expected to get inflows with rising trend. P.D.Jurala project (Mahbubnagar dist.) inflows are expected to fall and Koyna dam (Satara dist.) on Koyna river is expected to have steady inflow trend.

In Godavari basin, Karanja dam on Karanja River (hereafter 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 (Nirmal dist.), Sripada Yellam Palli (Pedapally dist.) & Kaddam (Nirmal dist.) are having storages 61%, 74%, 96 & 80.7% respectively.

Water levels may rise slowly from due to rainfall in sub catchments of Godavari Basin. As PVN Rao Kantapally (Sammakka) Barrage, is passing (39,240 Cusecs) 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 and Yamuna Basin - Bihar, Uttar Pradesh, Uttarakhand

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, Gorakpur, 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 Bijnor, Ghaziabad, and Buduan districts hence alert may be also kept in districts such as Bulandshahar. Aligarh and Farrukhabad.

Yamuna river is in rising trend in its upper reaches so alert may be kept in districts of Himachal Pradesh and Haryana. In Yamuna Basin due to very heavy rains happening can lead to urban flooding in Delhi, NCR regions of Gurgoan & Faridabad.

2.2.4 Brahmaputra and its tributaries - 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.

2.2.5 Jhelum and Chenab basin - Jammu & Kashmir, Punjab

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

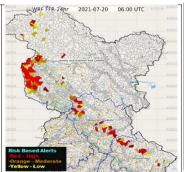
2.3 Flash Flood Guidance

IMD has issued flash flood risk over many watersheds and neighbourhood for Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Coastal Karnataka, Konkan & Goa met sub-divisions.

24 hours Flash Flood Risk Outlook till 1130 IST of 21.07.2021:

Moderate risk over few watersheds and neighborhood of Jammu & Kashmir, Himachal Pradesh and Uttarakhand met subdivision.

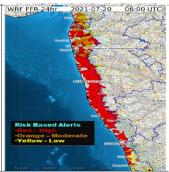
Surface runoff/Inundation may occur at some fully saturated watersheds & low-lying areas due to expected persistent rainfall in next 24 hours.



24 hours Flash Flood Risk Outlook till 1130 IST of 21.07.2021:

Moderate risk over few watersheds and neighborhood of Konkan & Goa and Coastal Karnataka 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 20th 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 given

QPF categories (mm) 0 0.1-10 11-25 26-37 38-50 51-75 76-100 >100

Storage above 85% Storage above 60%

#	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)/ Guntoor,Krishna(AP)						
2	P D Jurala Project	Krishna/ Middle Krishna/Krishna	Telangana	Raichur(Kar)/Kurnool(A ndhra Pradesh),JogulambaGa dwal(Telangana)						
3	Sri	Godavari/Middle	Telangana	Mancherial/Jaishankar						
	PadaYellampally	Godavari/Godavari		Bhupalpally						
4	Sriramsagar Project	Godavari/ Middle Godavari/Godavari	Telangana	Nanded (Mah)/Nirmal (Telangana)						
5	Musi	Musi/Lower Krishna/ Krishna	Telangana	Nalgonda						
6	Kaddam	Kaddam/Middle Godavari/Godavari	Telangana	Adilabad, Nirmal/Manc herial						
7	Panchet	Damodar/Damodar East/ Ganga	Jharkhand	Dhanbad						
8	Maithon	Barakar/Barakar East/Ganga	Jharkhand	Dhanbad						
9	Narayanpur	Krishna/Upper Krishna/Krishna	Karnataka	Bagalkot, Vijayapura/Raichur,Ya dgir						
10	Kabini	Kabini/Kabini/ Cauvery	Karnataka	Wayanad (Kerala)/ Mysuru (Karnataka)						
11	Harangi	Cauvery/Upper Cauvery/Cauvery	Karnataka	Kodagu/Mandya						
12	Almatti	Krishna/Upper Krishna/Krishna	Karnataka	Kolhapur(Mah)/ Bagalkote(Kar)						
13	Karanja	Karanja/Manjera/ Godavari	Karnataka	Bidar (Kar), Vikarabad(Telangana)/ Bidar(Kar)						
14	Hemavathy	Hemavathy/Hemavathy/C auvery	Karnataka	Hassan, Kodagu/Mandya, Mysore						
15	Bhadra	Bhadra/Upper Tungabhadra/ Krishna	Karnataka	Chikmagaluru/Shimoga						
16	Hidkal	Ghataprabha/ Ghataprabha/ Krishna	Karnataka	Kolhapur (Mah)/ Belgaum (Kar)						
17	Warana	Warana/Upper Krishna/Krishna	Maharashtra	Kolhapur, Sangli						
18	Yeldari	Purna/Purna/Godavari	Maharashtra	Parbhani, Hingoli						
19	RanaPratapSagar	Chambal/Upper Chambal/Ganga	Rajasthan	Neemuch(MP)/ Dholpur, Kota, Bundi(Raj)						

20	SomKamlaAmba	Som/Mahi B/ Mahi	Rajasthan	Udaipur/ Dungarpur			
21	Vaigai	Vaigai/Upper Vaigai/EF Rivers b/w Cauvery &Kanyakumari	Tamil Nadu	Theni/Madurai			
22	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.