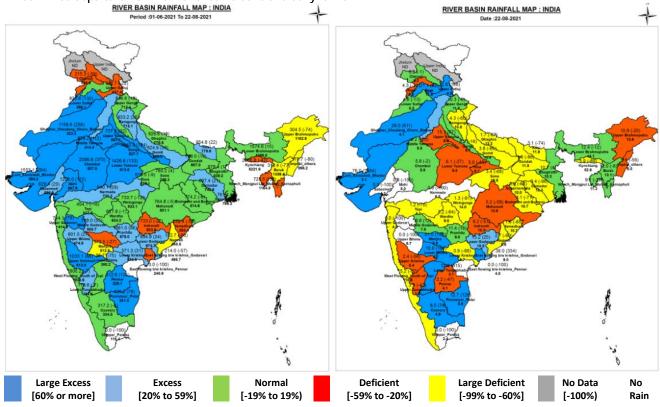


Central Water Commission Daily Flood Situation Report cum Advisories 22-08-2021

1.0 Rainfall Situation

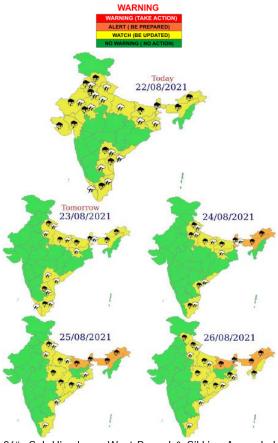
1.1 Basin wise departure from normal of cumulative and daily rainfall



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 22nd August, 2021 (Midday) by IMD



Very heavy rainfall over Bihar on 25th & 26th; Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh and Assam & Meghalaya on 24th, 25th & 26th August, 2021.

2.0 Flood Situation and Advisories

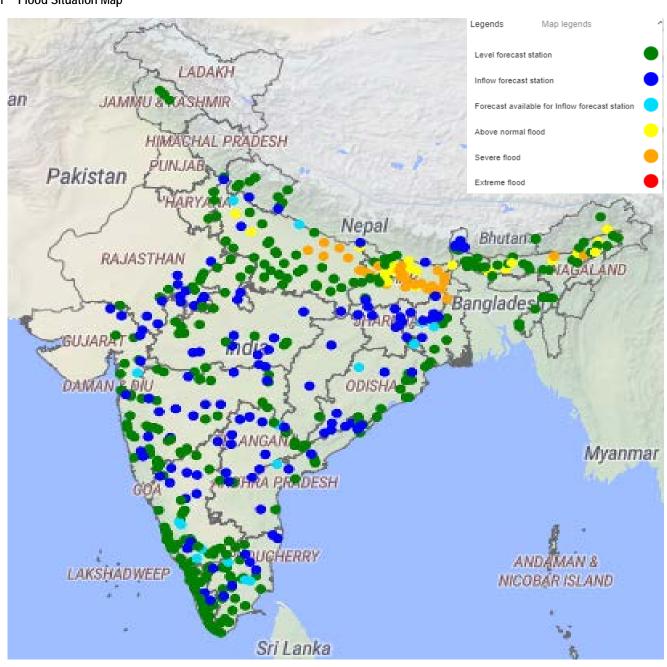
2.1 Summary of Flood Situation as per CWC Flood Forecasting Network

On 22nd August, 2021, 29 Stations (19 in Bihar, 6 in Uttar Pradesh, 2 in Assam and 1 each in Jharkhand & West Bengal) are flowing in Severe Flood Situation and 22 stations (10 in Bihar, 8 in Assam, 3 in Uttar Pradesh and 1 in Arunachal Pradesh) are flowing in Above Normal Flood Situation. Inflow Forecast has been issued for 14 Barrages & Dams (3 in Tamil Nadu, 2 each in Jharkhand, Uttar Pradesh & Karnataka and 1 each in Andhra Pradesh, Gujarat, Telangana, Odisha & West Bengal).

FLOOD SITUATION SUMMARY							
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)						
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)						
	51						
PART - II: INFLOW FORECAST							
Number of (Where Infl	14						

Details are given at link: http://cwc.gov.in/sites/default/files/cfcrcwcdfb-22.08.2021-2_5.pdf

2.1.1 Flood Situation Map



2.2.1 Ganga Basin- Uttarakhand, Uttar Pradesh, Bihar, Jharkhand & West Bengal

Due to forecasted heavy to very heavy rainfall over Uttarakhand for next 24 hrs, there is likelihood of rise in water levels in rivers such as Bhagirathi, Alaknanda, Mandakini, Ganga, Ramganga, Sharda, Sarju, etc. mainly in districts **Dehradun, Uttarkashi, Nainital, Chamoli, Bageshwar & Uddham Singh Nagar.**. There is likelihood of flash floods in some of the hill districts 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 the state. Hence alert may be kept in **all hill districts of Uttarakahand**.

Main Ganga river is flowing in above normal to severe flood situations in districts Budaun, Ballia (U.P.), Patna, Munger, Bhagalpur (Bihar), Sahibganj (Jharkhand) & Murshirabad (West Bengal) with falling trends.

River Ghaghra in Ayodhya, Ballia (Uttar Pradesh) and Siwan (Bihar) districts is flowing in above normal to severe flood situations. River Rapti is flowing in severe flood situations in Siddharth Nagar & Gorakhpur districts (U.P.).

Currently, River Kosi in Supaul, Khagaria & Katihar(Bihar), River Punpun in Patna, River Bagmati in Muzzafarpur & Darbhanga (Bihar), River Gandak in Kushinagar (U.P.), Gopalganj & Muzaffarpur (Bihar), River Parman in Araria (Bihar), River Adhwara in Darbhanga, Rivers Kamla & Kamlabalan in Madhubani, River Burhi Gandak in Muzaffarpur, Samastipur & Khagaria, River Mahananda in Kishanganj, Purnia & Katihar in Bihar are flowing in severe to above normal flood situations. Flood situations may exist in the lower reaches of these rivers in the coming days.

2.2.2 Brahmaputra and its tributaries, Barak and Others - Assam

Due to past 4 to 5 days rainfall, Brahmaputra main river is flowing in above normal flood situations to severe flood situations in Sonitpur, Goalpara, Dhubri, Dibrugarh, Sonitpur & Jorhat districts (Assam). Also tributaries of Brahmaputra namely Subansiri river in Lakhimpur, Beki river in Barpeta district, Jia-Bharali river in Sonitpur and Sankosh river in Dhubri (Assam); Desang river in Sibsagar (Assam); Siang river in East Siang (Arunachal Pradesh) are flowing in above normal flood situations to severe flood situations.

2.2.3 Krishna basin, Cavery, Vaigai – Andhra Pradesh, Karnataka, Tamil Nadu

Most of the dams in Upper Krishna Basin are having very high storages. Hidkal Dam, Almatti Dam and Tungabhadra Dam are filled to their full capacity. Narayanpur and Bhadra Dams are 98% filled up. Malaprabha Dam on River Malaprabha is filled to 93% of its full capacity. Dams Koyana, Warna & Veer are also having high storage. Round the clock watch has to be maintained for proper reservoir operation. Releases from any of these reservoirs may be done as per rule curve and standard operating procedure by prior informing the lower riparian areas.

Alert may be kept in Cauvery and its tributary Chittar mainly in district Salem; Vagai river in district Shivganga.

2.2.4 Sutlej, Yamuna and its tributaries – Haryana, Punjab,

In Punjab alert may be kept in rivers Beas and Sutlej. Keep watch in districts **Nawashahr & Sangrur**. Also alert may be kept in **Jhajjar dist**. (Haryana)

2.3 Flash Flood Guidance

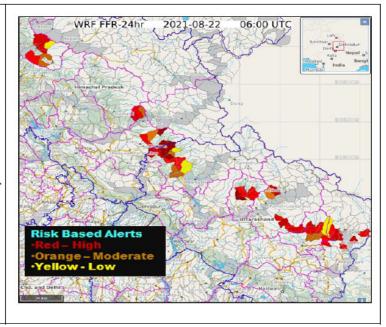
IMD has issued flash flood risk over few watersheds and neighbourhoods of Uttarakhand and Himachal Pradesh met subdivisions.

24hours Flash Flood Risk (FFR) Outlook Till 1130 IST of 23.08.2021:

Moderate Risk over several watersheds and neighborhoods in the Uttarkashi, Rudraprayag, Chamoli, Bageshwar, Pittoragarh districts of Uttarakhand met subdivisions in next 24 hours.

Moderate Risk over few watersheds and neighborhoods in the Chamba, Kinnaur, Kullu, Shimla districts of Himachal Pradesh met subdivision in next 24 hours.

Surface runoff/ Inundation may occur at some fully saturated soils & low-lying areas over AoC as depicted in map due to expected forecasted rainfall in **next 24** hours.



3.0 Storage Position in Dams where Inflow forecast is being issued by CWC as on 22ndAugust, 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 below:

Storage above 85%								
Storage above 60%	QPF categories (mm)	0	0.1-10	11-25	26-37	38-50	51-75	76-100

	lorage above 60%				Delinfall about the				
#	Reservoir/Dams	River/Sub-Basin /Basin	State	US/ DS District	Rainfall situation				
1	Dulishintholo	Kuichna / Laway Kuichna / Kuichna	AP	Nalganda/Tall\/Cuntoon Krishna (AD)	Day 1	Day 2	Day 3	Day 4	Day 5
2	Pulichinthala Srisailam	Krishna/Lower Krishna/Krishna	AP	Nalgonda(Tel)/Guntoor,Krishna (AP) JogulambaGadwal (Tel), Kurnool(AP)/Nalgonda(Tel), Guntoor (AP)			-		
3		Krishna/Lower Krishna/Krishna	AP				-		
4	NagarjunaSagar	Krishna/Lower Krishna/Krishna Musi/Lower Krishna/ Krishna	Tel	Nalgonda (Tel), Guntoor (AP)					
5	Musi Sri PadaYellampally	Godavari/Middle Godavari/Godavari	Tel	Nalgonda Mancherial/ JaishankarBhupalpally					
-		•							
7	Sriramsagar Project Kaddam	Godavari/Middle Godavari/Godavari Kaddam/Middle Godavari/Godavari	Tel Tel	Nanded (Mah)/Nirmal (Tel) Adilabad, Nirmal/ Mancherial					
8	PD Jurala	Krishna/ Middle Krishna/Krishna	Tel	Raichur(Kar)/Kurnool(Andhra Pradesh),JogulambaGadwal(Tel)					
10	Panchet	Damodar/Damodar East/ Ganga	Jhar	Dhanbad, Jamtara (Jhar)/ Puruliya, PaschimBardhaman, Bankura (WB)					
11	Getalsud	Damodar/Damodar/Ganga & its tributaries	Jhar	Bokaro (Jharkand)					
12	Konar		Jhar	Hazaribagh (Jharkand)					
13	Tilaiya	Konar/Damodar/Ganga & its tributaries Barakar/Barakar/Ganga & its tributaries	Jhar	Koderma (Jharkand)					
14	Maithon	Barakar/Barakar East/Ganga	Jhar	Dhanbad, Jamtara (Jhar)/ Puruliya, PaschimBardhaman, Bankura (WB)					
15	Kabini	Kabini/Kabini/ Cauvery	Kar	Wayanad (Kerala)/ Mysuru (Kar)					
16	Harangi	Cauvery/Upper Cauvery/Cauvery	Kar	Kodagu/Mandya					
17	Karanja	Karanja/Manjira/Godavari	Kar	Bidar (Kar), Vikarabad(Tel)/Bidar(Kar)					
18	Almatti	Krishna/Upper Krishna/Krishna	Kar	Kolhapur(Mah)/ Bagalkote(Kar)					
19	Narayanpur	Krishna/Upper Krishna/Krishna	Kar	Bagalkot, Vijayapura/ Raichur, Yaadgir					
20	KRS	Cauvery/Middle Cauvery/Cauvery	Kar	Mandya, Mysore					
21	Tungabhadra	Tungabhadra/Middle Tungabhadra/Krishna	Kar	Gadag/Bellary, Koppal, Raichur					
	Tungabnaara								
22	Hemavathy	Hemavathy/ Hemavathy/ Cauvery	Kar	Hassan, Kodagu/Mandya, Mysore					
23	Bhadra	Bhadra/Upper Tungabhadra/Krishna	Kar	Chikmagaluru/Shimoga					
24	Hidkal	Ghataprabha/Ghataprabha/Krishna	Kar	Kolhapur (Mah)/ Belgaum (Kar)					
25	Malaprabha	Malaprabha/Malaprabha/Krishna	Kar	Belgaum					
26	Warana	Warana/Upper Krishna/Krishna	Mah	Kolhapur, Sangli					
27	Koyna	Koyna/ Upper Krishna/Krishna	Mah	Satara/Kolhapur, Sangli					
28	Yeldari	Purna/Purna/Godavari	Mah	Parbhani, Hingoli					
29	Totladoh	Pench/Wainganga/Godavari	Mah	Chindwara(MP)/Nagpur(Mah)					
30	Isapur	Penganga/Penganga/Godavari	Mah	Hingoli, Yavatmal/Yavatmal,Nanded					
31	Upper Wardha	Wardha/Wardha/Godavari	Mah	Wardha, Amravati					
32	Veer	Nira/Upper Bhima/Krishna	Mah	Pune, Satara					
33	Ujjani	Bhima/Upper Bhima/Krishna	Mah	Pune, Solapur					
34	Mula	Mula/Upper Godavari/Godavari	Mah	Ahmadnagar					
35	RanaPratapSagar	Chambal/Upper Chambal/Ganga	Raj	Neemuch(MP)/Dholpur,Kota, Bundi(Raj)					
36	Panchana	Gambhiri/Upper Chambal/Ganga	Raj	Karauli					
37	Gudha	Mejchambal/UpperChambal/Ganga	Raj	Bhilwara/Bundi					
38	Kalisindh	Kalisingh/Upper Chambal/Ganga	Raj	Jhalawar, Kota					
39	SomKamlaAmba	Som/Mahi B/Mahi	Raj	Udaipur/ Dungarpur					
39	SomKamlaAmba	Som/Mahi B/Mahi	Raj	Udaipur/ Dungarpur					\perp

40	Mahi Bajaj Sagar	Mahi/Mahi B/Mahi	Raj	Ratlam(MP)/Banswara, Pratapgarh, Dungapur (Raj)			
41	Vaigai	Vaigai/Upper Vaigai/EF Rivers b/w Cauvery	TN	Theni/Madurai			
		& Kanyakumari					
42	Bhavanisagar	Bhavani/Middle Cauvery/Cauvery	TN	Palakad (Kerala), Nilgiri (TN), Coimbatore (TN)/ Erode (TN)			
43	Idukki	Periyar/Upper Periyar/West Flowing Rivers from Tadri to Kanyakumari	Kerala	Idduki/Ernakulam			
44	Edamalyar	Periyar/Upper Periyar/West flowing rivers from Tadri to Kanyakumari	Kerala	Ernakulam			
45	Bargi	Narmada/Upper Narmada/Narmada	MP	Mandla, Seoni/Jabalpur, Narsimhapur			
46	Tawa	Tawa/Middle Narmada/Narmada	MP	Betul, Hoshnabad/Sehore			
47	Gandhi Sagar	Chambal/Upper Chambal/Ganga	MP	Mandsaur, Neemuch (MP)/Dholpur (Raj)			
48	Rajghat	Betwa/Betwa/Ganga	MP	Ashoknagar(MP), Lalitpur(UP)/Shivpuri, Lalitpur(UP)			
49	Bansagar	Sone/Sone/Ganga	MP	Katni, Umaria, Shahdol, Satna/ Rewa, Sidhi			
50	Rengali	Brahmani River/Brahmani and Baitarni/Brahmani and Baitarni	Odisha	Deogarh/Angul, Dhenkanal			

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.