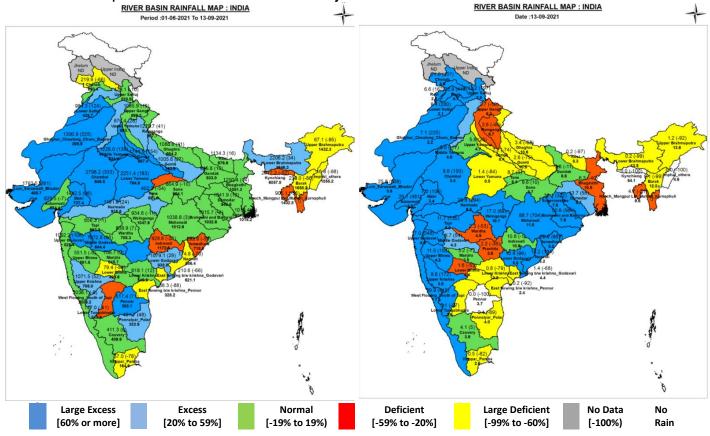


Central Water Commission Daily Flood Situation Report cum Advisories 13-09-2021

1.0 Rainfall Situation

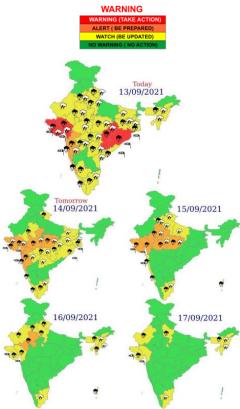
1.1 Basin wise departure from normal of cumulative and daily rainfall



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 13th September, 2021 (Midday) by IMD



• Very Heavy/Extremely heavy Rainfall over Gujarat State during 13th-16th; north Konkan, Madhya Maharashtra on 13th & 14th; East Rajasthan on 15th & 16th; Madhya Pradesh during 14th- 15th; Chhattisgarh & Odisha on 13th September 2021.

2.0 Flood Situation and Advisories

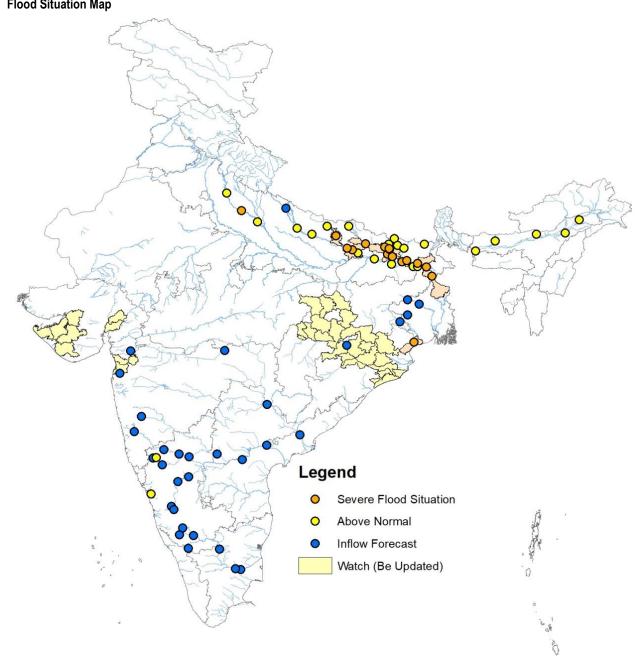
2.1 Summary of Flood Situation as per CWC Flood Forecasting Network

On 13th September, 2021, 16 Stations (10 in Bihar, 3 in Uttar Pradesh and 1 each in Odisha, Jharkhand & West Bengal) are flowing in Severe Flood Situation and 23 stations (10 in Bihar, 6 in Uttar Pradesh, 5 in Assam, 2 in Karnataka) are flowing in Above Normal Flood Situation. Inflow Forecast has been issued for 33 Barrages & Dams (13 in Karnataka, 4 in Andhra Pradesh, 3 each in Maharashtra & Tamilnadu, 2 each in Jharkhand, Gujarat, Telangana & West Bengal and 1 each in Odisha & Uttar Pradesh).

onatriand, Gujarat, Telangana & West Bengarand Teachin Odisha & Ottal Fradesh).							
PART - I: LEVEL FORECAST							
S.No.	Flood Situations	Numbers of Forecasting Sites					
А	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))	16					
С	Above Normal Flood Situation: (Site (s) where water level is touching or exceeding the Warning Level but below Danger Level)	23					
Total number of sites above Warning Level (A+B+C)							
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)							

Details are given at link: http://cwc.gov.in/sites/default/files/cwcdfb-13.09.2021_5.pdf

2.1.1 Flood Situation Map



2.2 CWC Advisories

2.2.1 Brahmani, Baitarni, Subernrekha, Burhbalang & Mahanadi Basins

2.2.1.1 Odisha

Due to presence of Deep depression over north Interior Odisha, rivers such as Brahmani & Baitarni and Mahanadi are expected to get good amount of runoff. Water levels are expected to rise in rivers such as Brahmani, Baitarni, Mahanadi, Burhabalang and its tributaries. Hence alert may be kept in districts such as Angul, Deogarh, Sundargarh, Kendraparha, Dhenkanal, Jajpur (Brahmani river), Kendujhar, Bhadrak (Baitarni river), Cuttack, Khordha, Puri, Jagatsinghpur, Bolangir, Sonepur, Bauda (Mahanadi basin) and Balasore (Burhabalang river). Flood Situation is expected in Odisha since IMD has predicted extremely heavy falls. Rengali on Brahmani river and Hirakud dam on Mahanadi river are having high storages. Releases from dams may be done as per SOP after informing downstream districts. Currently, river Jalka of Subarnarekha basin in Baleshwar district is flowing in severe flood situation with rising trend.

2.2.1.2 Chhattisgarh

Water levels of river Mahanadi and its tributaries are expected to rise in districts **Bilaspur**, **Janjgir-Champa**, **Raigarh**, **Jashpur**, **Koriya**, **Korba & Mungeli**. Rivers of Ganges basin in districts **Surguja**, **Surajpur**, **Koriya & Balrampur** are also expected to gets increased flows.

2.2.2 West Flowing Rivers from Tapi to Tadri, Tadri to Kanyakumari, Tapi, Damanganaga & Krishna

2.2.2.1 Maharashtra

Independent rivers originating from Western Ghats: IMD has predicted strengthening of monsoon current due to presence of low pressure area over Gujarat and deep depression over Odisha. This would create increased rainfall activity along Konkon Coast, hence, there is likelihood of water level rise in rivers originating from Ghat regions such as Gad, Kajvi, Khadapar, Madai, Savitri, Kal, Vashisti, Bav, Wagh & Bogeshwari in next 2 days. Alert may be kept in districts **Raigad** and **Ratnagiri**, etc.

<u>Krishna Basin</u>: In Krishna basin water level rise is expected in rivers Yerala, Nira, Bhima and upper Krishna. Keep watch in districts **Kolhapur** and **Pune**.

2.2.2.2 **Gujarat**

<u>Daman Ganga Basin:</u> Madhuban dam is expected to receive heavy inflows of more than 3500 cumec on average till today (13.09.2021) night. Alert may be kept in districts **Valsad and Navsari.** Currently Damanganga river is flowing is above normal flood situation in **Valsad** and **Dadra & Nagar Haveli.**

<u>Tapi basin</u>: Increased flows are expected in lower Tapi basin, hence, alert may be kept in district **Surat, Tapi**, **Dangs** and basin is expected to receive increased flows in forthcoming days. Ukai reservoir is expected to receive increased average inflows of 1800 cumec till today (13.09.2021) night.

<u>Independent Rivers of Saurashtra:</u> Due to the presence of low pressure area over Gujarat, heavy rainfall alert has been issued by IMD in Saurashtra region. Hence alert may be kept in districts **Jamnagar**, **Morbi**, **Porbander**, **Dwarka**, **Jungadh** & **Rajkot**.

2.2.2.3 Karnataka

<u>Tadri to Kanyakumari Basin</u>: Aler may be kept in districts **Udupi, Uttar kannada** and **Dakshin Kannada**. Water level rise is expected in rivers Sita, Haladi, Gurpur, Netravathi, Kumaradhara, Shambhavi, Swarna & Aghanashini. River Aghanashini is flowing in above normal flood situation in Uttar Kannada district.

2.2.3 Narmada, Sone (Ganga basin), Waiganga (Godavari basin), Kalisingh (Chambal), Betwa, Mahi, Tapi- Madhya Pradesh

Alert may be kept in districts Tikamgarh, Umaria, Katni, Dindori, Damoh, Sagar, Narasimhapur, Seoni, Chindwara, Sehore, Agar-Malwa, Ujjain, Rajgarh, Betul, Balaghat, Jabalpur, Indore, Ratlam & Dhar. Water level is expected to rise in rivers Narmada, Sone, Waiganga (Godavari basin), Kalisingh (Chambal), Betwa, Mahi, Tapi and its tributaries.

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

Northern tributaries of Ganga in Uttar Pradesh & Bihar such as Ghagra, Rapti, Gandak, Burhi Gandak, Bagmati, Adhwara, Kamla, Kosi, Parman & Mahananda continue to flow in Severe to Above Normal Flood Situation with steady/falling trend. In coming days, flooding situation is expected to recede slowly. Main Ganga stem is also flowing in above normal to severe flood situation in Bihar, Jharkhand & West Bengal with slow falling trend.

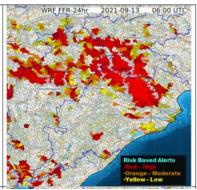
2.3 Flash Flood Guidance

IMD has issued Flash Flood Guidance of high risk over few watersheds and neighborhoods of Odisha, Chattisgarh and Jharkhand and also in Konkan & Goa adjoining Gujarat region and Saurashtra & Kutch in next 24 hours.

24 hours Outlook for the Flash Flood Risk (FFR) till 1130 IST of 14.09.2021:

High Risk over many watersheds and neighborhood of Odisha, Chhattisgarh and Jharkhand met subdivision in next 24 hours.

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



24 hours Outlook for the Flash Flood Risk (FFR) till 1130 IST of 14.09.2021;

High Risk over many watersheds and neighborhood of Konkan & Goa adjoining Gujarat region and Saurashtra & Kutch met subdivision in next 24 hours.

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



3.0 Storage Position in Dams where Inflow forecast is being issued by CWC as on 13th September, 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 90%	
Storage above 75%	

QPF categories (mm)	0	0.1-10	11-25	26-37	38-50	51-75	76-100	>100
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#	Reservoir/Dams	River/Sub-Basin /Basin	State	US/ DS District	Rainfall situation						
					Day 1	Day 2	Day 3	Day 4	Day 5		
1	NagarjunaSagar	Krishna/Lower Krishna/Krishna	AP	Nalgonda(Tel), Guntoor (AP)							
2	Musi	Musi/Lower Krishna/ Krishna	Tel	Nalgonda							
3	Sri Pada Yellampally	Godavari/Middle Godavari/Godavari	Tel	Mancherial/ JaishankarBhupalpally							
4	Sriramsagar Project	Godavari/Middle Godavari/Godavari	Tel	Nanded (Mah)/Nirmal (Tel)							
5	Kaddam	Kaddam/Middle Godavari/Godavari	Tel	Adilabad, Nirmal/ Mancherial							
6	Singur	Manjira/Manjira/Godavari	Tel	Medak							
7	Panchet	Damodar/Damodar East/ Ganga	Jhar	Dhanbad, Jamtara (Jhar)/ Puruliya, PaschimBardhaman, Bankura (WB)							
8	Getalsud	Damodar/ Damodar West/Ganga & its tributaries	Jhar	Bokaro (Jharkand)							
9	Konar	Konar/ Damodar West/Ganga & its tributaries	Jhar	Hazaribagh (Jharkand)							
10	Tilaiya	Barakar/ Barakar West/Ganga & its tributaries	Jhar	Koderma (Jharkand)							
11	Maithon	Barakar/ Barakar East/Ganga	Jhar	Dhanbad, Jamtara (Jhar)/ Puruliya, PaschimBardhaman, Bankura (WB)							
12	Kabini	Kabini/Kabini/Cauvery	Kar	Wayanad (Kerala)/ Mysuru (Kar)							
13	Harangi	Harangi/Harangi/Cauvery	Kar	Kodagu/Mandya							
14	Karanja	Karanja/Manjira/Godavari	Kar	Bidar (Kar), Vikarabad(Tel)/Bidar(Kar)							
15	Almatti	Krishna/Upper Krishna/Krishna	Kar	Kolhapur(Mah)/ Bagalkote(Kar)							
16	Narayanpur	Krishna/Upper Krishna/Krishna	Kar	Bagalkot, Vijayapura/ Raichur, Yaadgir							
17	KRS	Cauvery/Middle Cauvery/Cauvery	Kar	Mandya, Mysore							
18	Tungabhadra	Tungabhadra/Middle Tungabhadra/Krishna	Kar	Gadag/Bellary, Koppal, Raichur							
19	Hemavathy	Hemavathy/ Hemavathy/Cauvery	Kar	Hassan, Kodagu/Mandya, Mysore							
20	Bhadra	Bhadra/UpperTungabhadra/Krishna	Kar	Chikmagaluru/Shimoga							
21	Hidkal	Ghataprabha/Ghataprabha/Krishna	Kar	Kolhapur (Mah)/ Belgaum (Kar)							
22	Malaprabha	Malaprabha/Malaprabha/Krishna	Kar	Belgaum							
23	Warana	Warana/Upper Krishna/Krishna	Mah	Kolhapur, Sangli							
24	Koyna	Koyna/ Upper Krishna/Krishna	Mah	Satara/Kolhapur, Sangli							
25	Yeldari	Purna/Purna/Godavari	Mah	Parbhani, Hingoli							
26	Isapur	Penganga/Penganga/Godavari	Mah	Hingoli, Yavatmal/Yavatmal, Nanded							
27	Manjlegaon	Sindphana/Middle Godavari/Godavari	Mah	Bid/Parbhani							
28	Parwati	Parbati/Kalisindh/Upper Chambal	Raj	Baran (Raj)/Baran (Raj), Kota (Raj), Sheopur (MP)							
29	RanaPratapSagar	Chambal/Upper Chambal/Ganga	Raj	Neemuch(MP)/Dholpur,Kota, Bundi(Raj)							
30	Panchana	Gambhiri/Upper Chambal/Ganga	Raj	Karauli							
31	Gudha	Mejchambal/UpperChambal/Ganga	Raj	Bhilwara/Bundi							

32	Kalisindh	Kalisindh/Upper Chambal/Ganga	Raj	Jhalawar, Kota			
33	Gandhi Sagar	Chambal/Upper Chambal/Ganga	MP	Mandsaur, Neemuch (MP)/Dholpur (Raj)			
34	Bargi	Narmada/Upper Narmada/Narmada	MP	Mandla, Seoni/Jabalpur, Narsimhapur			
35	Tawa	Tawa/Middle Narmada/Narmada	MP	Betul,Hoshnabad/Sehore			
36	Rajghat	Betwa/Betwa/Ganga	MP	Ashoknagar(MP), Lalitpur(UP)/Shivpuri, Lalitpur(UP)			
37	Bhavanisagar	Bhavani/Middle Cauvery/Cauvery	TN	Palakad (Kerala), Nilgiri (TN), Coimbatore (TN)/ Erode (TN)			
38	Rengali	Brahmani River/Brahmani and Baitarni/Brahmani and Baitarni	Odisha	Deogarh/Angul, Dhenkanal			
39	Nizamsagar	Manjira/Manjira/Godavari	Tel	Medak/Kamareddy			
40	Srisailam	Krishna/Lower Krishna/Krishna	AP	JogulambaGadwal(Telangana), Kurnool(AP)/ Nalgonda(Telangana), Guntoor (AP)			
41	Ukai	Tapi/Lower Tapi/Tapi	Guj	Nadurbar(Mah), Tapi(Guj)/ Surat (Guj)			
42	PD Jurala	Krishna/ Middle Krishna/Krishna	Tel	Raichur(Kar)/Kurnool(Andhra Pradesh),JogulambaGadwal(Tel)			
43	Edamalayar	Upper Periyar/Periyar	Ker	Coimbatore/Ernakulam			

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.