



Central Water Commission
Upper Ganga Basin Organisation, Lucknow
Daily Flood Situation Report Cum Advisories
Date: 17 AUGUST, 2020

FSR No.56

Dated 17-08-2020

1. Weather forecast by IMD

I. SYNOPTIC SITUATION:

- ◆ The Low pressure area over north Chhattisgarh & neighbourhood now lies over Northeast Madhya Pradesh & adjoining areas of north Chhattisgarh and Southeast Uttar Pradesh with the associated cyclonic circulation extending upto 5.8 km above mean sea level tilting southwards with height. It is very likely to move west northwestwards and weaken during next 24 hours.
- ◆ The monsoon trough at mean sea level now passes through Anupgarh, Churu, Dholpur, Gwalior, Satna, centre of Low pressure area over Northeast Madhya Pradesh & adjoining areas of north Chhattisgarh and Southeast Uttar Pradesh, Daltonganj, Bankura, Digha and thence Southeastwards to Northeast Bay of Bengal and extends upto 1.5 km above mean sea level.
- ◆ The cyclonic circulation over south Punjab & neighbourhood persists and now seen at 1.5 km above mean sea level.

II. a) DETERMINISTIC FORECAST (QPF):

Sr. No.	BASIN NAME	SUBBASIN CODE/NAME	QPF (mm)		
			Day-1	Day-2	Day-3
1	Alaknanda	Alaknanda	11-25	11-25	0.1-10
2	Bhagirathi	Bhagirathi	0.1-10	0.1-10	0.1-10
3	Ganga	Chhatnag to Mirzapur	0.1-10	0.1-10	0.1-10
		Narora to Phaphamau	0.1-10	0.1-10	11-25
		Phaphamau to Ballia	0.1-10	0.1-10	0.1-10
		Gomti	0.1-10	0.1-10	0.1-10
		Sai	0.1-10	0.1-10	0.1-10
		Upper Ganga	11-25	11-25	26-50
4	Ghaghra	Lower Ghaghra	0.1-10	0.1-10	0.1-10
		Middle Ghaghra	0.1-10	0.1-10	0.1-10
		Upper Ghaghra	0.1-10	0.1-10	11-25
5	Ramganga	Ramganga	0.1-10	11-25	11-25
6	Rapti	Rapti	0.1-10	0.1-10	0.1-10
7.	Sharda	Sharda	11-25	11-25	11-25

II (b) DETERMINISTIC FORECAST (DISTRIBUTION)

	BASIN NAME	SUBBASIN CODE/NAME	INTENSITY (I) & SPATIAL DISTRIBUTION (D)					
			Day-1		Day-2		Day-3	
			I	D	I	D	I	D
1	Alaknanda	Alaknanda	M	FWS	M	WS	M	WS
2	Bhagirathi	Bhagirathi	M	FWS	M	WS	M	WS
3	Ganga	Chhatnag to Mirzapur	M	WS	M	WS	M	WS
		Narora to Phaphamau	L	SCT	L	FWS	L	FWS
		Phaphamau to Ballia	L	SCT	L	FWS	L	FWS
		Gomti	VL	ISOL	L	FWS	L	FWS
		Sai	L	SCT	L	FWS	L	FWS
		Upper Ganga	M	WS	M	WS	M	WS
4	Ghaghra	Lower Ghaghra	L	SCT	M	FWS	M	FWS
		Middle Ghaghra	L	SCT	M	FWS	M	FWS
		Upper Ghaghra	M	FWS	M	WS	M	WS
5	Ramganga	Ramganga	M	FWS	M	WS	M	WS
6	Rapti	Rapti	M	FWS	M	WS	M	WS
7.	Sharda	Sharda	M	WS	M	WS	M	WS

QPF in Ranges (mm)	UNLISTED	0	0.1-10	11-25	26-50	51-100	>100
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III. HEAVY RAINFALL WARNING:

NAME OF BASIN	NAME OF SUB- BASIN	Day-1		Day-2		Day-3	
		I	D	I	D	I	D
Alaknanda	Alaknanda						
Bhagirathi	Bhagirathi						
Ganga	Chhatnag to Mirzapur			H	ISOL		
	Narora to Phaphamau						
	Phaphamau to Ballia						
	Gomti						
	Sai						
	Upper Ganga	H	ISOL	H	ISOL	H	ISOL
Ghaghra	Lower Ghaghra						
	Middle Ghaghra						
	Upper Ghaghra	H	ISOL	H	ISOL	H	ISOL
Ramganga	Ramganga	H	ISOL	H	ISOL	H	ISOL
Rapti	Rapti						
Sharda	Sharda	H	ISOL	H	ISOL	H	ISOL

Spatial Distribution of Rainfall		
DRY	Dry	No Station reported rainfall
ISOL	One or two Places	25% or less number of stations recorded rainfall 2.5 mm
SCT	At a few Places	26%-50% number of stations recorded rainfall 2.5 mm
FWS	At many Places	51%-75% number of stations recorded rainfall 2.5 mm
WS	At most places	76%-100% number of stations recorded rainfall 2.5 mm

Intensity of Rainfall					
MDry	NIL	0 cm	VL	Very Light Rainfall	Trace
L	Light Rainfall	Upto 1 cm	M	Moderate rainfall	02-06 cm
H	Heavy rainfall	07-11 cm	VH	Very Heavy rainfall	12-20 cm
EH	Extremely Heavy rainfall	21 cm or More			
ExH	Exceptionally Heavy Rainfall	When the amount is a value near about the highest recorded rainfall at or near the station for the month or season. However, this term will be used only when the actual rainfall amount exceeds 12 cm			

IV. PROBABILISTIC FORECAST

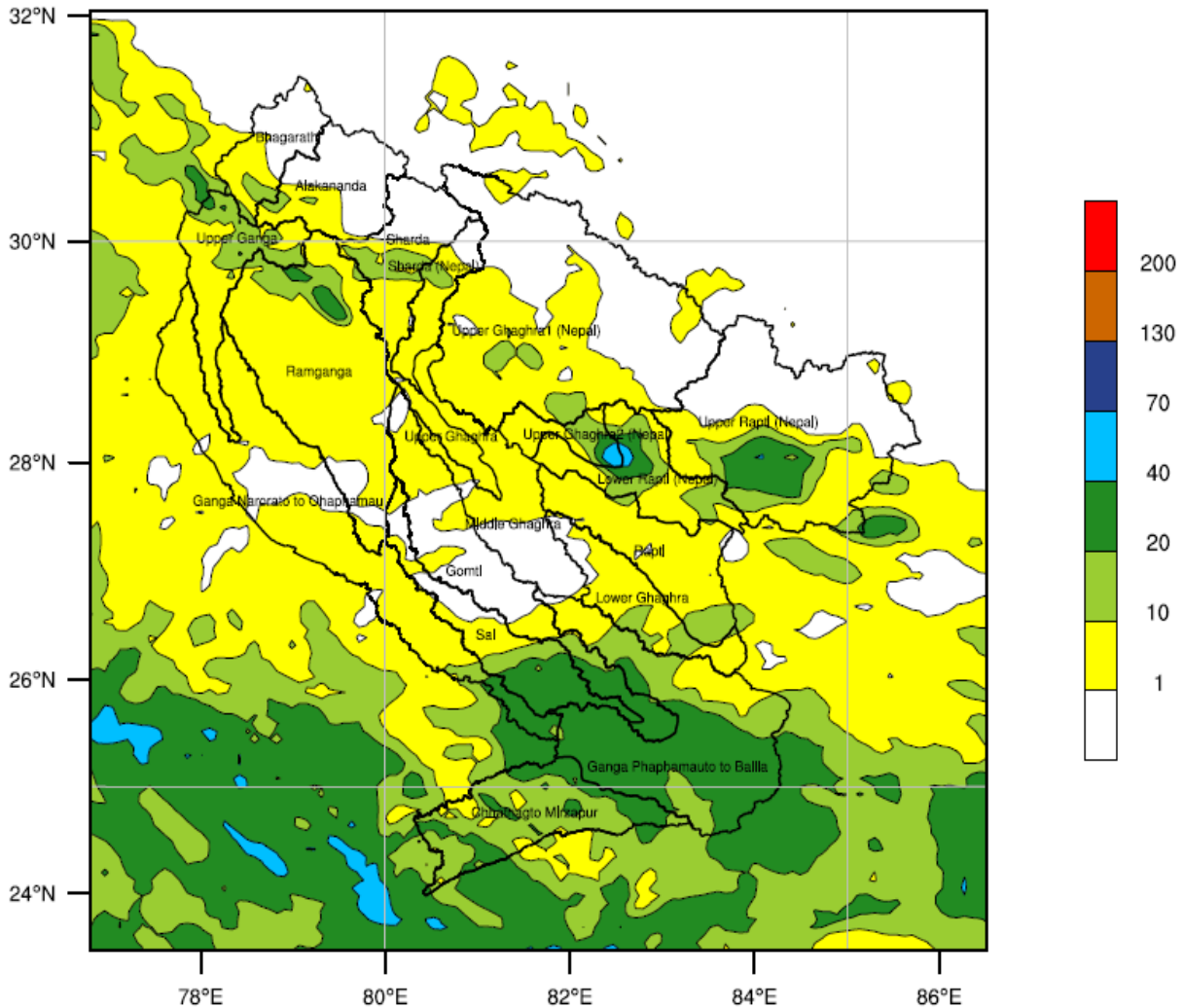
S. No.	BASIN NAME	SUBBASIN CODE/NAME	Day-1						Day-2						Day-3					
			0 mm	0.1-10 mm	11-25 mm	26-50 mm	51-100 mm	>100 mm	0 mm	0.1-10 mm	11-25 mm	26-50 mm	51-100 mm	>100 mm	0 mm	0.1-10 mm	11-25 mm	26-50 mm	51-100 mm	>100 mm
1	Alaknanda	Alaknanda		25-50	50-75					25-50	50-75					75-100				
2	Bhagirathi	Bhagirathi		50-75	25-50					50-75	25-50					75-100				
3	Ganga	Chhatnag to Mirzapur		50-75	25-50					25-50	50-75					50-75	25-50			
		Narora to Phaphamau		75-100						75-100						25-50	50-75			
		Phaphamau to Ballia		75-100						50-75	25-50					75-100				
		Gomti		75-100						75-100						75-100				
		Sai		75-100						75-100						75-100				
		Upper Ganga		5-25	75-100					5-25	75-100						25-50	50-75		
4	Ghaghra	Lower Ghaghra		75-100						75-100						75-100				
		Middle Ghaghra		75-100						75-100						75-100				
		Upper Ghaghra		75-100						75-100						25-50	50-75			
5	Ramganga	Ramganga		50-75	25-50					25-50	50-75					25-50	50-75			
6	Rapti	Rapti		75-100						75-100						75-100				
7.	Sharda	Sharda		25-50	50-75					25-50	50-75					25-50	50-75			

Probability of occurrence (%)	0-5	5-25	25-50	50-75	75-100
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Init: 2020-08-17_00:00:00
Vald: 2020-08-18_03:00:00

FLOOD MET OFFICE LUCKNOW

IMD WRF Rainfall (mm) Forecast(24hr)



Sub basin wise Average Rainfall Estimation

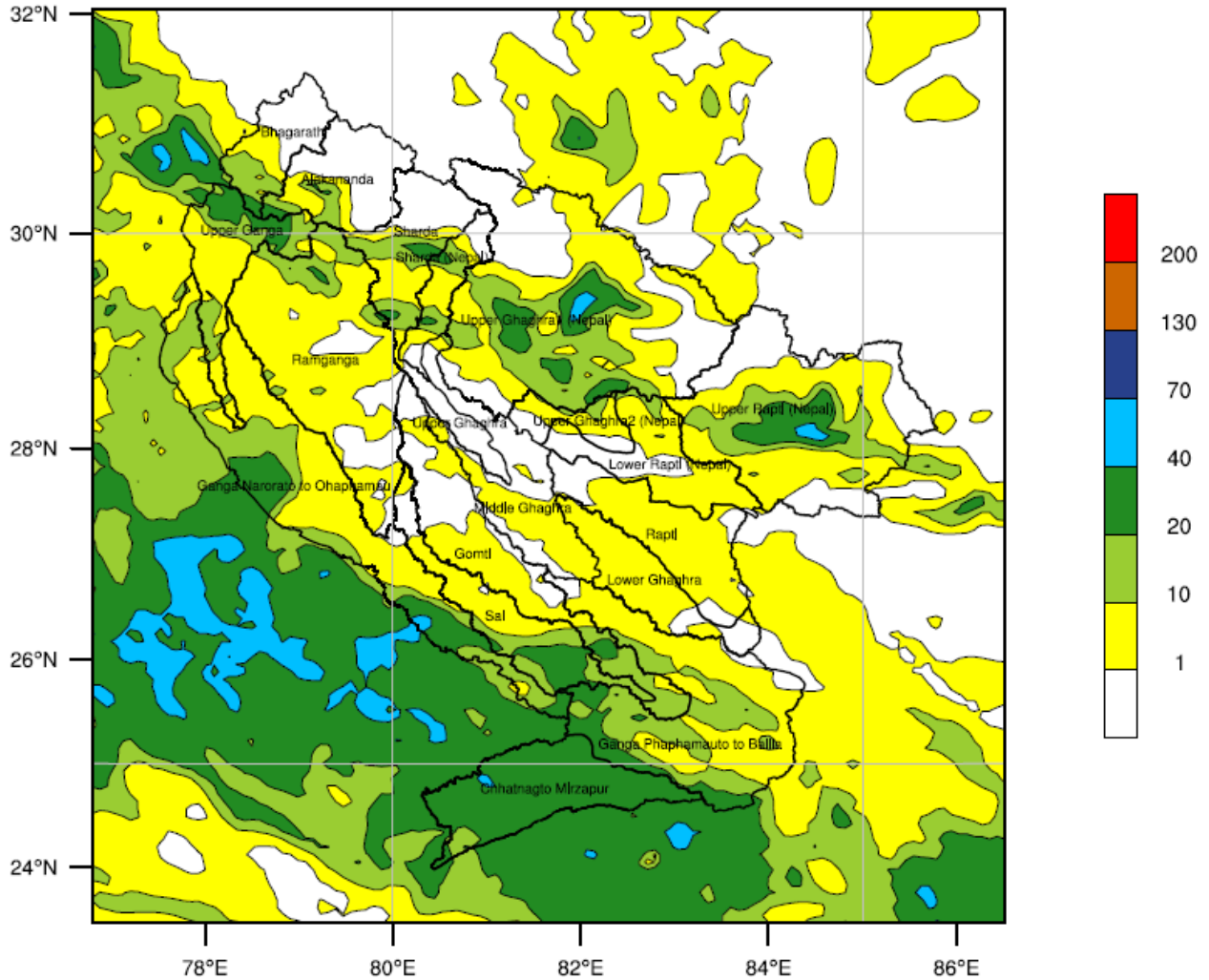
Alaknanda =	2 mm	Rapti =	5 mm
Bhagirathi =	4 mm	Sai =	12 mm
Chhatnagto Mirzapur =	17 mm	Sharda =	4 mm
Ganga Narorato Ohaphamau =	5 mm	Sharda (Nepal) =	4 mm
Ganga Phaphamauto Ballia =	21 mm	Upper Ganga =	9 mm
Gomti =	6 mm	Upper Ghaghra =	3 mm
Lower Ghaghara =	6 mm	Upper Ghaghra1 (Nepal) =	14 mm
Lower Rapti (Nepal) =	11 mm	Upper Ghaghra2 (Nepal) =	3 mm
Middle Ghaghara =	1 mm	Upper Rapti (Nepal) =	7 mm
Ramganga =	6 mm		

OUTPUT FROM WRF V3.6.1 MODEL
WE = 1001 ; SN = 945 ; Levels = 45 ; Dls = 9km ; Phys Opt = 16 ; PBL Opt = 2 ; Cu Opt = 5

Init: 2020-08-17_00:00:00
Valid: 2020-08-19_03:00:00

FLOOD MET OFFICE LUCKNOW

IMD WRF Rainfall (mm) Forecast(48hr)



Sub basin wise Average Rainfall Estimation

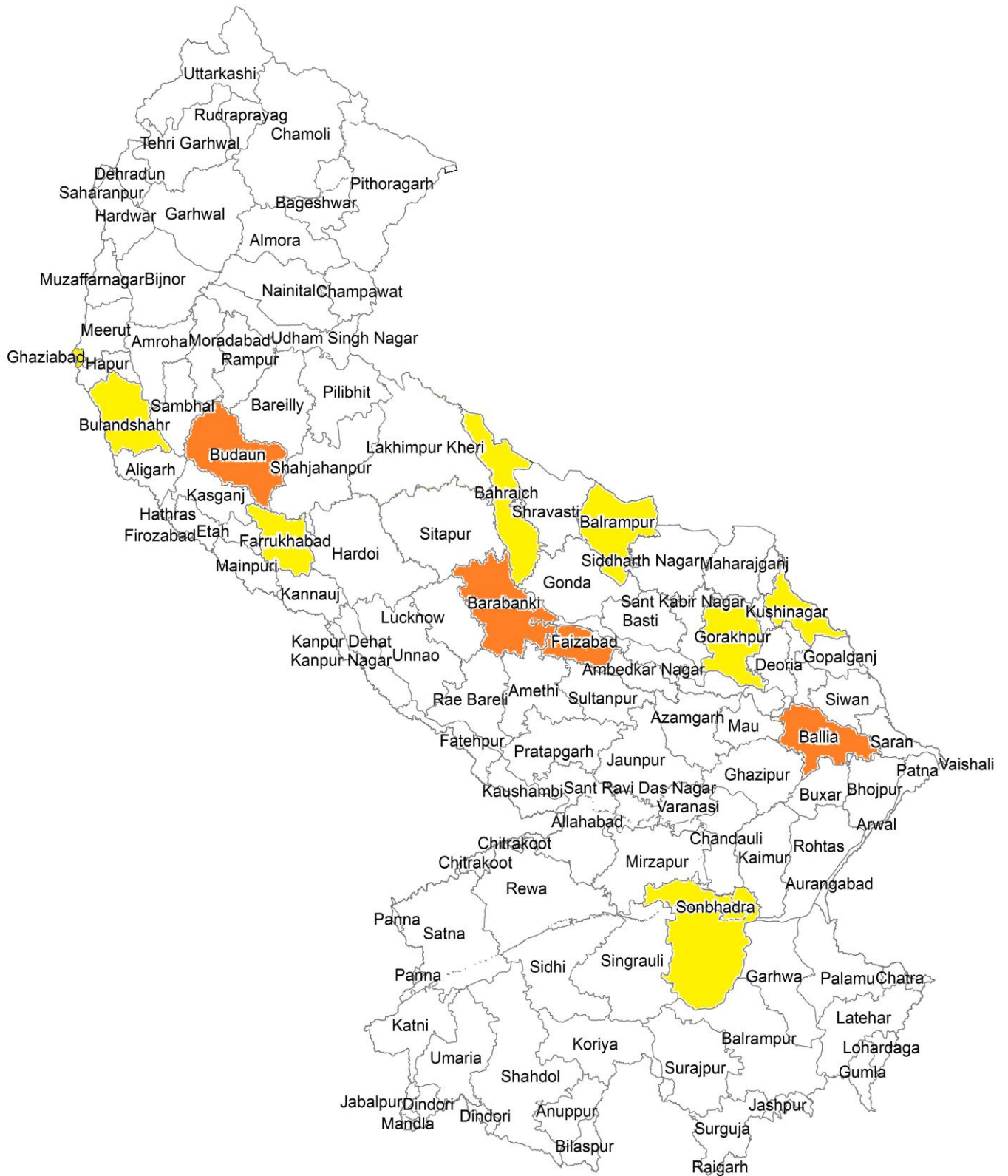
Alaknanda =	4 mm	Rapti =	2 mm
Bhagirathi =	5 mm	Sai =	11 mm
Chhatnagto Mirzapur =	29 mm	Sharda =	7 mm
Ganga Narorato Ohaphamau =	12 mm	Sharda (Nepal) =	5 mm
Ganga Phaphamauto Ballia =	11 mm	Upper Ganga =	12 mm
Gomti =	4 mm	Upper Ghaghra =	8 mm
Lower Ghaghra =	4 mm	Upper Ghaghra1 (Nepal) =	5 mm
Lower Rapti (Nepal) =	3 mm	Upper Ghaghra2 (Nepal) =	0 mm
Middle Ghaghra =	2 mm	Upper Rapti (Nepal) =	8 mm
Ramganga =	5 mm		

OUTPUT FROM WRF V3.6.1 MODEL

WE = 1001 ; SN = 945 ; Levels = 45 ; Dls = 9km ; Phys Opt = 16 ; PBL Opt = 2 ; Cu Opt = 5

2. Summary of flood situation as per CWC flood forecasting network

Flood Situation on 17 AUGUST, 2020



1. River Sarda at Paliakalan in KHERI district of Uttar Pradesh continues to flow in SEVERE SITUATION at 14:00 hrs today. At 14:00 hrs, it was flowing at a level of 154.69 with steady trend which is 0.59m above its Danger Level of 154.1 m and 0.63m below its previous HFL of 155.32 m (2014-07-21).
2. River Ghagra at Turtipar in BALLIA district of Uttar Pradesh continues to flow in SEVERE SITUATION at 14:00 hrs today. At 14:00 hrs, it was flowing at a level of 65.09m with steady trend which is 1.08 above its Danger Level of 64.01 m and 0.91 m below its previous HFL of 66.0 m (1998-08-28).
3. River Ghagra at Elginbridge in BARABANKI district of Uttar Pradesh continues to flow in SEVERE SITUATION at 14:00 hrs today. At 14:00 hrs, it was flowing at a level of 107.016m with steady trend which is 0.946 m above its Danger Level of 106.07 m and 0.60m below its previous HFL of 107.616 m (2014-08-18).
4. River Ghagra at Ayodhya in FAIZABAD district of Uttar Pradesh continues to flow in SEVERE SITUATION at 14:00 hrs today. At 14:00 hrs, it was flowing at a level of 93.47m with steady trend which is 0.74 m above its Danger Level of 92.73 m and 0.54 m below its previous HFL of 94.01 m (2009-10-11).
5. River Ganga at Kachhlabridge in BUDAN district of Uttar Pradesh continues to flow in SEVERE SITUATION at 08:00 hrs today. At 08:00 hrs, it was flowing at a level of 162.66 m with steady trend which is 0.66m above its Danger Level of 162.0 m and 0.13 m below its previous HFL of 162.79 m (2010-09-24).

2.1 Rainfall Situation

Amount of rainfall recorded at 8:30 hours IST of today (≥ 50 mm or more)

Name of Place (State)	Rainfall (in mm)
Thal (U.K)	72.2

2.2 LEVEL FORECAST

LEVEL FORECAST		
S.No.	Flood Situations	No. of Forecasting Sites
A.	Extreme Flood Situation:	
	(Site (s) where the previous Highest Flood Level (HFL) is exceeded or equalized)	0
B.	Severe Flood Situation :	
	(Site(s) where water Level touching or exceeding the Danger Level but below Highest Flood Level(HFL)	4
C.	Above Normal Flood Situation:	
	(Site (s) where water level touching or exceeding the warning Level but below Danger Level)	5
Total Numbers of Sites above Warning Level (A+B+C)		9
INFLOW FORECAST		
Number of Sites for which inflow forecasts issued:		4
(Where inflow are equal or exceed the specified Threshold Limit for a particular reservoir/ barrage)		4

2.3 Above Normal (Water Level touching or exceeding the warning Level but below Danger Level)

Name of river	Flood Forecasting Sites	District	State	Danger Level(m)	Warning Level (m)	Previous Highest		Actual Level			Forecast			
						Level (m)	Date	Level (m)	Time	Trend	Level (m)	Date	Time	Trend
Rapti	Balrampur	Balrampur	U.P	104.62	103.62	105.54	2015	103.88	0800	S	103.70	18.08.20	0800	F
Rapti	Birdghat	Gorakhpur	U.P	74.98	73.98	77.54	1998	74.38	0800	F	74.25	18.08.20	0800	F
Ganga	Garhmukteshwar	Ghaziabad	U.P	199.33	198.33	199.9	2010	198.60	0800	R	198.85	18.08.20	0800	R
Ganga	Fatehgarh	Farukhhabad	U.P	137.6	136.60	138.14	2010	137.34	0800	S	137.25	18.08.20	0800	F
Gandak	Khadda	Kushinagar	U.P	96.0	95.0	97.50	2002	95.42	0800	S	95.38	18.08.20	03:00	F

2.4 Severe Flood Situation (Water Level touching or exceeding the Danger Level but below Highest Flood Level (HFL))

Name of river	Flood Forecasting Sites	District	State	Danger Level(m)	Warning Level (m)	Previous Highest		Actual Level			Forecast			
						Level(m)	Date	Level(m)	Time	Trend	Level (m)	Date	Time	Trend
Ghaghra	Turtipar	Baliya	U.P	64.01	63.01	66.00	1998	65.09	0800	S	65.15	18.08.20	0800	R
Ghaghra	Elgin Bridge	Barabanki	U.P	106.07	105.07	107.616	2014	107.016	0800	S	107.10	18.08.20	0800	R
Ghaghra	Ayodhya	Faizabad	U.P	92.73	91.73	94.01	2009	93.47	0800	S	93.55	18.08.20	0800	R
Ganga	Kachhla bridge	Budaun	U.P	161.00	162.00	162.79	2010	162.66	0800	S	162.40	18.08.20	0800	F

2.5 Extreme Flood Situation (Water Level exceeded or equalized Highest Flood Level (HFL))

Name of river	Flood Forecasting Sites	District	State	Danger Level(m)	Warning Level (m)	Previous Highest		Actual Level			Forecast			
						Level(m)	Date	Level(m)	Time	Trend	Level (m)	Date	Time	Trend

Note - No Station is in this situation Dated 17.08.2020

2.6 Inflow Forecast

Name of river	Flood Forecasting Sites	District	State	HFL(m)	FRL(m)	Previous Highest		Actual Level			Forecast			
						Discharge (Q)	Date	Discharge (Q)	Time	Trend	D (Q)	Date	Time	Trend
Ghaghra	Katerniaghat Barrage	Bahraich	U.P.		138			5515.623	0800	F	5200.00	18.08.20	0800	F
Sharda	Narora Barrage	Bulandshahr	U.P.					4594.60	0800	S	4956.00	18.08.20	0800	R
Sone	Bansagar Dam	Harda	M.P.		341.64				0800	R	1269.00	18.08.20	0800	R
Rihand	Rihand Dam	Sonbhadra	U.P.		265.18				0800	R	626.00	18.08.20	0800	R

Advisory on Hydro Meteorological Situation Expected from 18-08-2020 to 19-08-2020

As per rainfall pattern given in section II, Alaknanda, Bhagirathi, Ganga rivers are expected to receive moderate rain at fairly widespread to widespread areas in next 48 hrs. Ganga river is expected to receive light rain at scattered to fairly widespread areas in next 48 hrs. Ghaghra, Ramganga, Sharda & Rapti river basins are expected to receive moderate to heavy rain at fairly widespread to widespread areas in next 48 hours. Water level at most of CWC stations are expected to steady in next 48 hours. Level forecast will be issued if the level of river at stations are likely to touch or cross warning level. From the given QPF, Severe flood like situation is expected in Ghaghra, Rapti & Sharda river basins.

अधिशसीअभियंता

मध्य गंगा मण्डल -1 लखनऊ