



**Central Water Commission**  
**Upper Ganga Basin Organisation, Lucknow**  
**Daily Flood Situation Report Cum Advisories**  
**Date: 10 AUGUST, 2020**

**FSR No.49**

**Dated 10-08-20205**

**1. Weather forecast by IMD**

**I. SYNOPTIC SITUATION:**

- ◆ The low pressure area over northeast Madhya Pradesh & neighbourhood persists. The associated cyclonic circulation now extends upto 2.1 km above mean sea level.
- ◆ The monsoon trough at mean sea level now passes through Bikaner, Jaipur, Gwalior, centre of low pressure area over northeast Madhya Pradesh, Jamshedpur, Contai and thence south eastwards to Northeast Bay of Bengal and extends upto 0.9 km above mean sea level.
- ◆ The cyclonic circulation over southeast Uttar Pradesh and neighbourhood at 1.5 km above mean sea level has merged with the cyclonic circulation associated with the low pressure area northeast Madhya Pradesh & neighbourhood.
- ◆ The trough from southeast Rajasthan to cyclonic circulation associated with low pressure area over northeast Madhya Pradesh at 3.1 km above mean sea level has become less marked.

**II. a) DETERMINISTIC FORECAST (QPF):**

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

5	Ramganga	Ramganga	11-25	11-25	11-25
6	Rapti	Rapti	11-25	26-50	26-50
7.	Sharda	Sharda	11-25	11-25	26-50

## 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	FWS	M	WS
2	Bhagirathi	Bhagirathi	M	FWS	M	FWS	M	WS
3	Ganga	Chhatnag to Mirzapur	M	FWS	M	WS	M	WS
		Narora to Phaphamau	M	FWS	M	WS	M	WS
		Phaphamau to Ballia	M	SCT	M	WS	M	WS
		Gomti	M	WS	M	WS	M	WS
		Sai	M	WS	M	WS	M	WS
		Upper Ganga	M	WS	M	WS	M	WS
4	Ghaghra	Lower Ghaghra	M	FWS	M	WS	M	WS
		Middle Ghaghra	M	FWS	M	WS	M	WS
		Upper Ghaghra	M	WS	M	WS	M	WS
5	Ramganga	Ramganga	M	FWS	M	WS	M	WS
6	Rapti	Rapti	M	WS	M	WS	M	WS
7.	Sharda	Sharda	M	WS	M	WS	M	WS

<b>QPF in Ranges (mm)</b>	<b>UNLISTED</b>	<b>0</b>	<b>0.1-10</b>	<b>11-25</b>	<b>26-50</b>	<b>51-100</b>	<b>&gt;100</b>
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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			H	ISOL	H	ISOL
Bhagirathi	Bhagirathi			H	ISOL	H	ISOL
Ganga	Chhatnag to Mirzapur					H	ISOL
	Narora to Phaphamau	H	ISOL	H	ISOL	H	ISOL
	Phaphamau to Ballia			H	ISOL	H	SCT
	Gomti	H	ISOL	H	ISOL	H	ISOL
	Sai	H	ISOL	H	ISOL	H	ISOL
	Upper Ganga	H	ISOL	H	SCT	H	SCT
Ghaghra	Lower Ghaghra			H	ISOL	H	ISOL
	Middle Ghaghra			H	ISOL	H	ISOL
	Upper Ghaghra			H	ISOL	H	ISOL
Ramganga	Ramganga			H	ISOL	H	ISOL
Rapti	Rapti	H	ISOL	H	ISOL	H	SCT
Sharda	Sharda	H	ISOL	H	ISOL	H	SCT

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

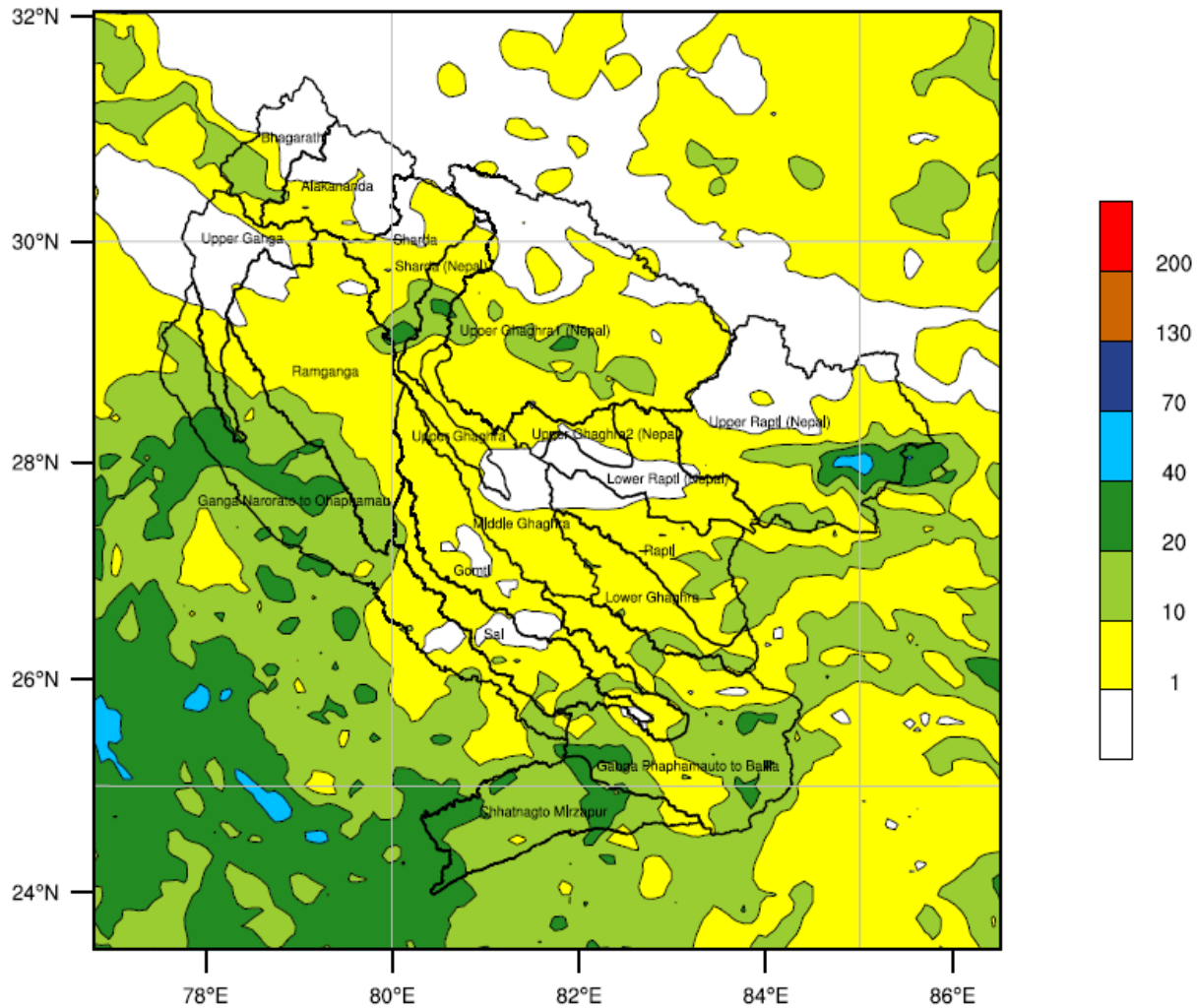
S. No.	BASIN NAME	SUBBASIN CODE/NAME	Day-1						Day-2						Day-3					
			0 mm	0.1-10 mm	11-25 mm	26-50 mm	51-100 mm	>100 mm	0 mm	0.1-10 mm	11-25 mm	26-50 mm	51-100 mm	>100 mm	0 mm	0.1-10 mm	11-25 mm	26-50 mm	51-100 mm	>100 mm
1	Alaknanda	Alaknanda		75-100	5-25					50-75	25-50						75-100			
2	Bhagirathi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

Probability of occurrence (%)	0-5	5-25	25-50	50-75	75-100
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Init: 2020-08-10\_00:00:00  
 Vald: 2020-08-11\_03:00:00

## FLOOD MET OFFICE LUCKNOW

### IMD WRF Rainfall (mm) Forecast(24hr)



### Sub basin wise Average Rainfall Estimation

Alaknanda =	1 mm	Rapti =	6 mm
Bhagirathi =	5 mm	Sai =	6 mm
Chhatnagto Mirzapur =	17 mm	Sharda =	8 mm
Ganga Narorato Ohaphamau =	13 mm	Sharda (Nepal) =	4 mm
Ganga Phaphamauto Balia =	12 mm	Upper Ganga =	3 mm
Gomti =	3 mm	Upper Ghaghra =	5 mm
Lower Ghaghara =	7 mm	Upper Ghaghra1 (Nepal) =	2 mm
Lower Rapti (Nepal) =	3 mm	Upper Ghaghra2 (Nepal) =	2 mm
Middle Ghaghara =	3 mm	Upper Rapti (Nepal) =	7 mm
Ramganga =	6 mm		

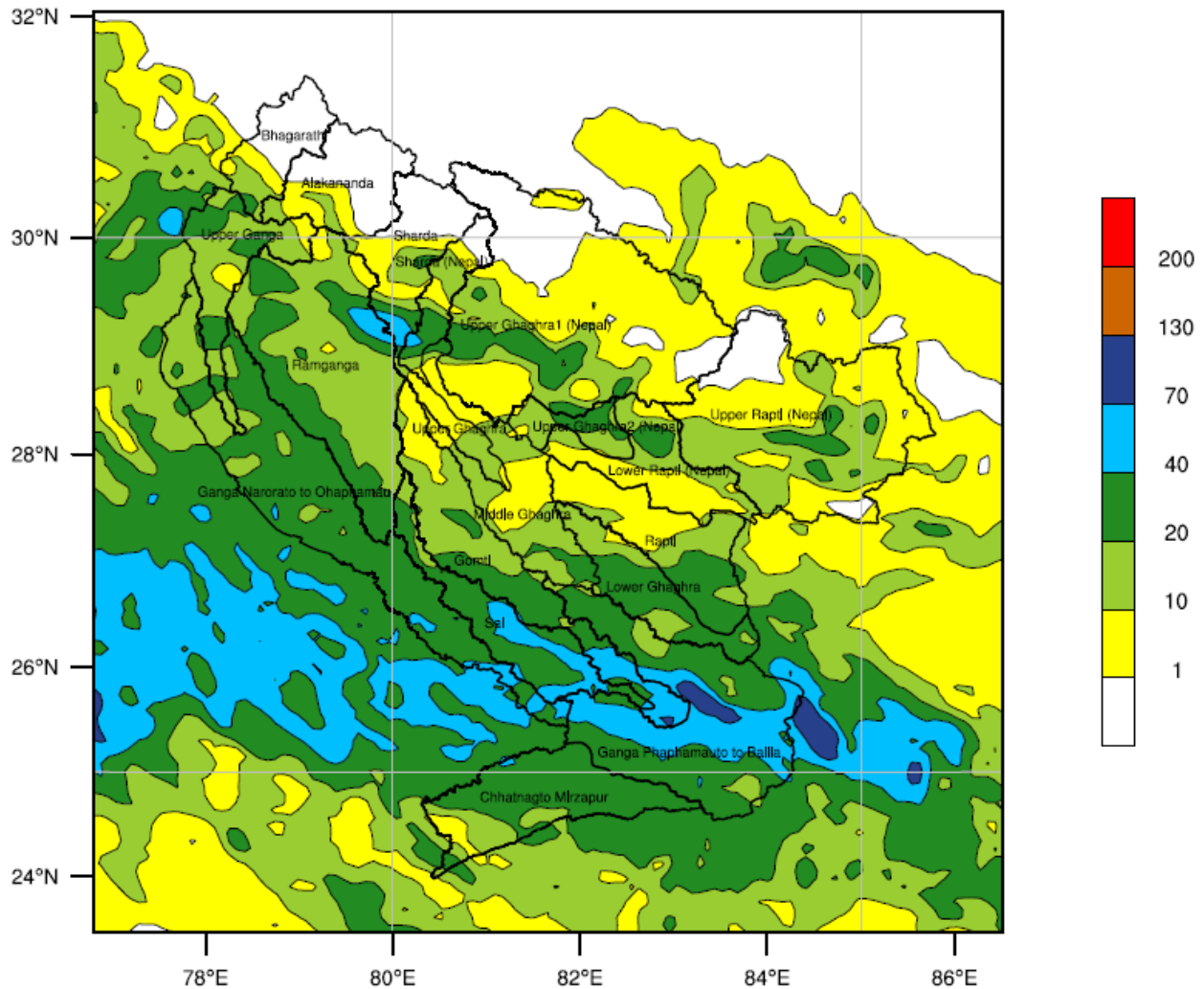
OUTPUT FROM WRF V3.6.1 MODEL

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

Init: 2020-08-10\_00:00:00  
Valld: 2020-08-12\_03:00:00

## FLOOD MET OFFICE LUCKNOW

### IMD WRF Rainfall (mm) Forecast(48hr)



### Sub basin wise Average Rainfall Estimation

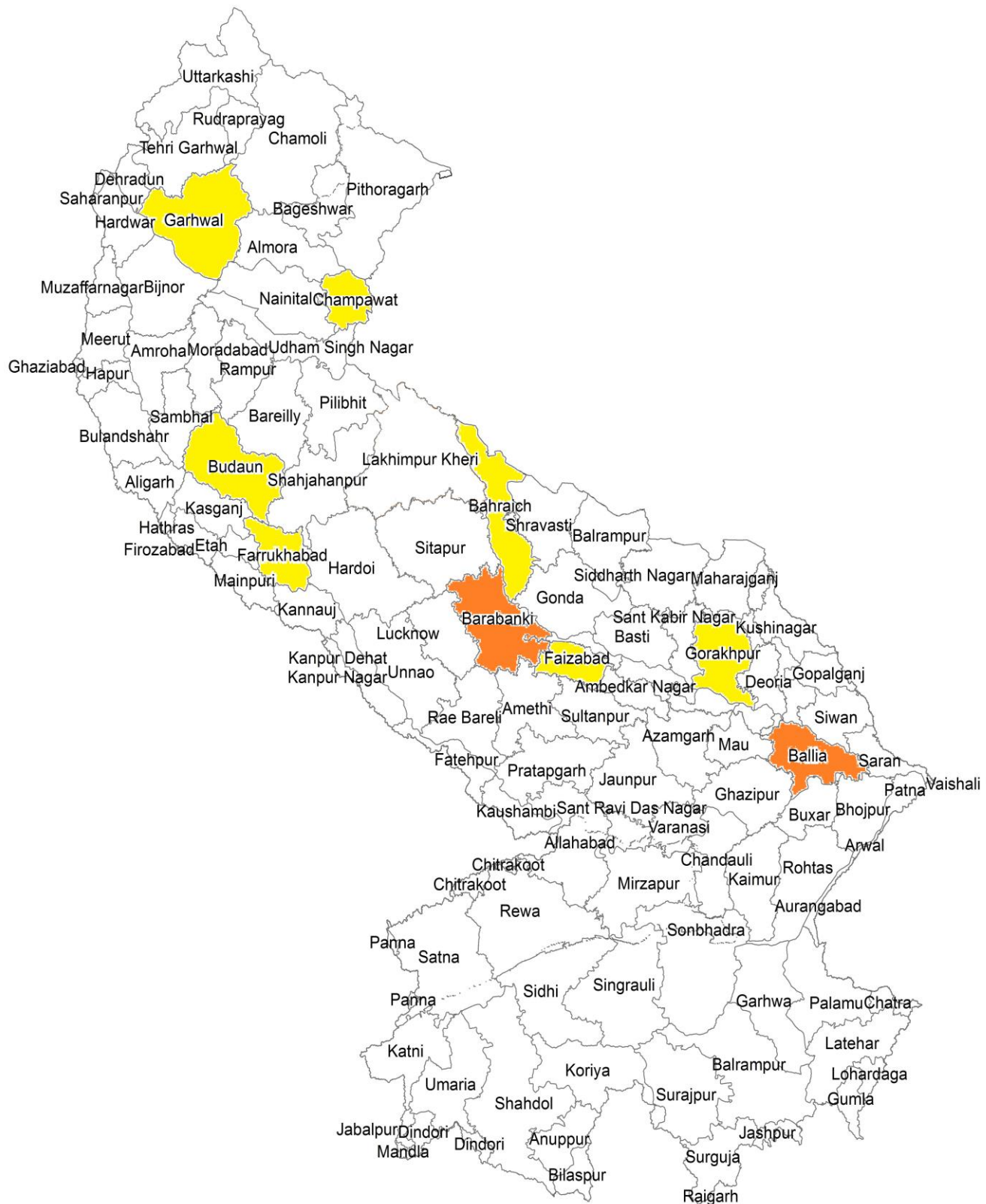
Alakananda =	2 mm	Rapti =	14 mm
Bhagirathi =	4 mm	Sai =	35 mm
Chhatnagto Mirzapur =	24 mm	Sharda =	14 mm
Ganga Narorato Ohaphamau =	27 mm	Sharda (Nepal) =	9 mm
Ganga Phaphamauto Ballia =	38 mm	Upper Ganga =	18 mm
Gomti =	24 mm	Upper Ghaghra =	7 mm
Lower Ghaghara =	21 mm	Upper Ghaghra1 (Nepal) =	17 mm
Lower Rapti (Nepal) =	11 mm	Upper Ghaghra2 (Nepal) =	8 mm
Middle Ghaghara =	13 mm	Upper Rapti (Nepal) =	9 mm
Ramganga =	20 mm		

OUTPUT FROM WRF V3.6.1 MODEL

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

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

### Flood Situation on 10 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 154.49m with falling trend which is 0.39m above its Danger Level of 154.1 m and 1.83m 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 64.29m with falling trend which is 0.28 above its Danger Level of 64.01 m and 1.71 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 106.076m with rising trend which is 0.006 m above its Danger Level of 106.07 m and 1.54m below its previous HFL of 107.616 m (2014-08-18).



## 2.1 Rainfall Situation

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

Name of Place (State)	Rainfall (in mm)
Sharda Nagar (U.P)	97.0
Motipur (U.P)	135.4
Katernia Ghat Barrage (U.P)	84.0
B.K.Ghat (U.P)	67.6
Chauguruji (U.P)	115.6
Ramnagar Bagha (U.P)	56.8
New Motipur (U.P)	99.2
Kukea (U.K)	94.4
Bangaoani (U.K)	60.4
Kabirganj (U.k)	90.4
Gagrigol (U.K)	58.0
Chisapani (Nepal)	127.8

## 2.2 LEVEL FORECAST

LEVEL FORECAST		
S.No.	Flood Situations	No. of Forecasting Sites
A.	<b>Extreme Flood Situation:</b>	
	(Site (s) where the previous Highest Flood Level (HFL) is exceeded or equalized)	0
B.	<b>Severe Flood Situation :</b>	
	(Site(s) where water Level touching or exceeding the Danger Level but below Highest Flood Level(HFL)	2
C.	<b>Above Normal Flood Situation:</b>	
	(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)		7
<b>INFLOW FORECAST</b>		
Number of Sites for which inflow forecasts issued:		3
(Where inflow are equal or exceed the specified Threshold Limit for a particular reservoir/ barrage)		3

### 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
Ghaghra	Ayodhya	Faizabad	U.P	92.73	91.73	94.01	2009	92.54	0800	S	92.52	11.08.20	0800	F
Rapti	Birdghat	Gorakhpur	U.P	74.98	73.98	77.54	1998	74.96	0800	F	74.70	11.08.20	0800	R
Ganga	Kachhla bridge	Budaun	U.P	161	162	162.79	2010	161.53	0800	S	161.45	11.08.20	0800	F
Ganga	Fatehgarh	Farukhabad	U.P	137.6	136.60	138.14	2010	136.81	0800	F	136.60	11.08.20	0800	F
Alaknanda	Sri Nagar	Pauri Garhwal	U.K	536.00	526.00	537.90	2013	534.72	1300	F	534.00	11.08.20	1300	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	64.36	0800	F	64.20	11.08.20	0800	F
Ghaghra	Elgin Bridge	Barabanki	U.P.	106.07	105.07	107.616	2014	105.986	0800	R	106.30	11.08.20	0800	R

## 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 10.08.2020

## 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			5316.148	0800	F	5600.00	11.08.20	0800	R
Sharda	Banbasa Barrage	Champawat	U.K		222.96			2369.044	0800	F	4530.00	11.08.20	0800	R
Sone	Bansagar Dam	Harda	M.P.		341.64				0800	R	633.00	11.08.20	0800	R

### **Advisory on Hydro Meteorological Situation Expected from 11-08-2020 to 12-08-2020**

As per rainfall pattern given in section II, Alaknanda, Bhagirathi, Ganga rivers are expected to receive moderate to heavy rain at fairly widespread to widespread areas in next 48 hrs. Ghaghra, Ramganga, Sharda & Rapti river basins are expected to receive moderate to heavy rain at widespread areas in next 48 hours. Water level at most of CWC stations are expected to steady/raise 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, Above normal flood like situation is expected in Ganga, Ghaghra, Rapti & Sharda river basins.

अधिशसीअभियंता

मध्य गंगा मण्डल -1 लखनऊ