



Central Water Commission
Upper Ganga Basin Organisation, Lucknow
Daily Flood Situation Report Cum Advisories
Date: 24 AUGUST, 2020

FSR No.63

Dated 24-08-2020

1. Weather forecast by IMD

I. SYNOPTIC SITUATION:

- ♦ The Low Pressure Area over central parts of south Rajasthan & neighbourhood now lies over Southwest Rajasthan & neighbourhood and the associated cyclonic circulation extends upto 7.6 km above mean sea level tilting southwestwards with height . It is likely to persist during next 24 hours and merge with heat low thereafter.
- ♦ The Low Pressure Area over North Bay of Bengal & neighbourhood persists and the associated cyclonic circulation extends upto 7.6 km above mean level tilting southwestwards with height. It is likely to become more marked during next 2 days.
- ♦ The Monsoon Trough at mean sea level now passes through centre of Low Pressure Area over Southwest Rajasthan & neighbourhood, Ajmer, Tikamgarh, Sidhi, Ranchi, Kolkata and thence east-southeastwards to the centre of Low Pressure Area over North Bay of Bengal & neighbourhood.

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	26-50
2	Bhagirathi	Bhagirathi	0.1-10	11-25	11-25
3	Ganga	Chhatnag to Mirzapur	0.1-10	11-25	11-25
		Narora to Phaphamau	0.1-10	0.1-10	11-25
		Phaphamau to Ballia	0.1-10	0.1-10	11-25
		Gomti	0.1-10	0.1-10	26-50
		Sai	0.1-10	0.1-10	11-25
		Upper Ganga	0.1-10	0.1-10	26-50
4	Ghaghra	Lower Ghaghra	0.1-10	0.1-10	26-50
		Middle Ghaghra	0.1-10	0.1-10	26-50
		Upper Ghaghra	0.1-10	11-25	11-25
5	Ramganga	Ramganga	0.1-10	11-25	11-25
6	Rapti	Rapti	0.1-10	11-25	26-50
7.	Sharda	Sharda	0.1-10	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	SCT	M	FWS	M	WS
2	Bhagirathi	Bhagirathi	M	SCT	M	WS	M	WS
3	Ganga	Chhatnag to Mirzapur	M	SCT	M	WS	M	WS
		Narora to Phaphamau	L	SCT	M	SCT	M	WS
		Phaphamau to Ballia	L	SCT	M	FWS	M	WS
		Gomti	L	SCT	M	SCT	M	WS
		Sai	L	SCT	M	SCT	M	WS
		Upper Ganga	L	SCT	M	WS	M	WS
4	Ghaghra	Lower Ghaghra	L	SCT	M	SCT	M	WS
		Middle Ghaghra	L	SCT	M	SCT	M	WS
		Upper Ghaghra	L	SCT	M	WS	M	WS
5	Ramganga	Ramganga	M	SCT	M	WS	M	WS
6	Rapti	Rapti	M	SCT	M	WS	M	WS
7.	Sharda	Sharda	M	SCT	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			H	ISOL	VH	ISOL
Bhagirathi	Bhagirathi			H	ISOL	VH	ISOL
Ganga	Chhatnag to Mirzapur					H	ISOL
	Narora to Phaphamau						
	Phaphamau to Ballia					H	ISOL
	Gomti						
	Sai						
	Upper Ganga			H	ISOL	H	ISOL
Ghaghra	Lower Ghaghra					H	ISOL
	Middle Ghaghra					H	ISOL
	Upper Ghaghra			H	ISOL	H	ISOL
Ramganga	Ramganga			H	ISOL	H	ISOL
Rapti	Rapti					VH	ISOL
Sharda	Sharda			H	ISOL	VH	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

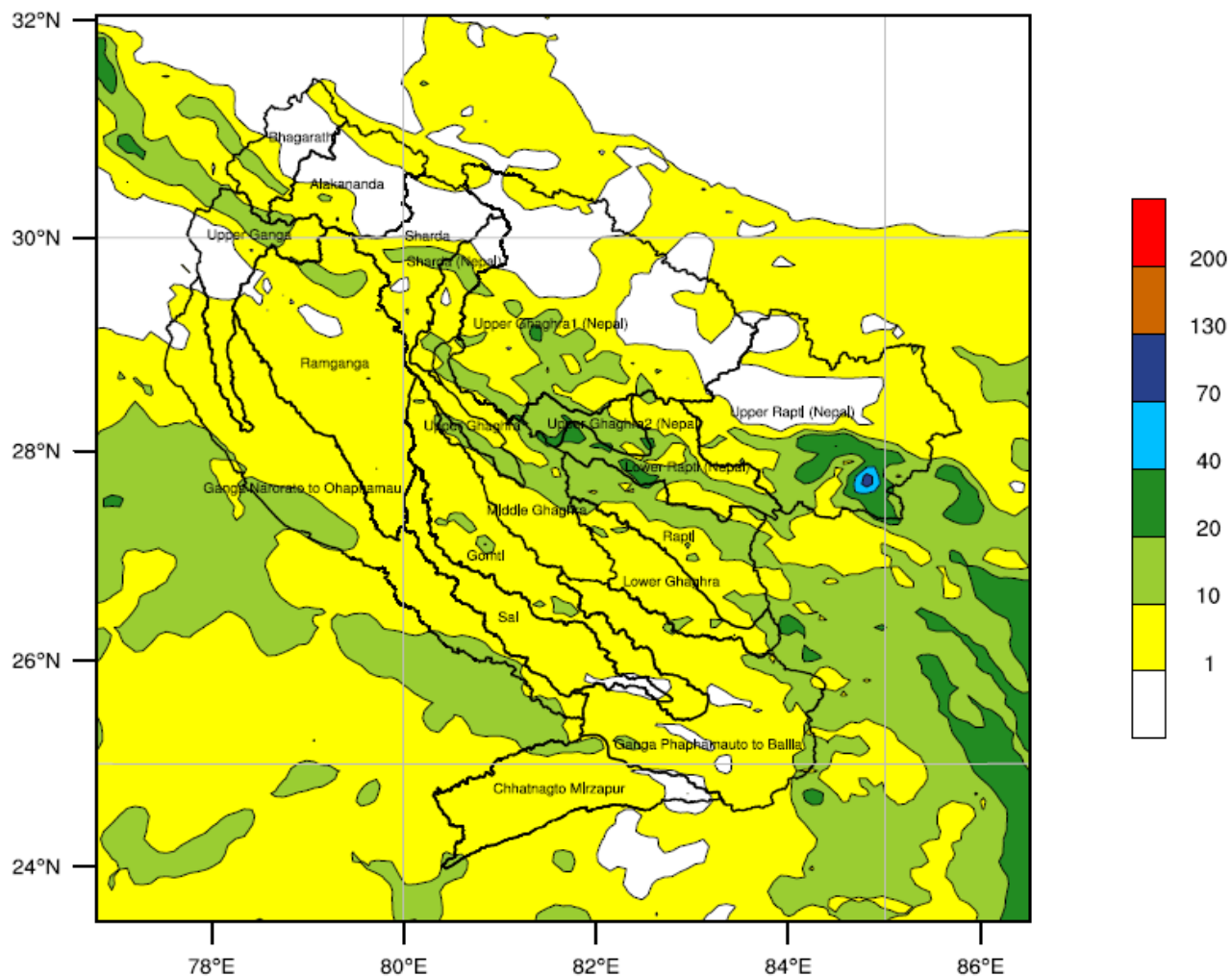
S. No.	BASIN NAME	SUBBASIN CODE/NAME	Day-1						Day-2						Day-3					
			0 mm	0.1-10 mm	11-25 mm	26-50 mm	51-100 mm	>100 mm	0 mm	0.1-10 mm	11-25 mm	26-50 mm	51-100 mm	>100 mm	0 mm	0.1-10 mm	11-25 mm	26-50 mm	51-100 mm	>100 mm
1	Alaknanda	Alaknanda		75-100						50-75	25-50	5-25					25-50	50-75		
2	Bhagirathi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

Probability of occurrence (%)	0-5	5-25	25-50	50-75	75-100
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Init: 2020-08-24_00:00:00
 Valld: 2020-08-25_03:00:00

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IMD WRF Rainfall (mm) Forecast(24hr)



Sub basin wise Average Rainfall Estimation

Alaknanda =	2 mm	Rapti =	10 mm
Bhagirathi =	4 mm	Sai =	5 mm
Chhatnagto Mirzapur =	5 mm	Sharda =	5 mm
Ganga Narorato Ohaphamau =	7 mm	Sharda (Nepal) =	5 mm
Ganga Phaphamauto Ballia =	6 mm	Upper Ganga =	5 mm
Gomti =	7 mm	Upper Ghaghra =	4 mm
Lower Ghaghara =	8 mm	Upper Ghaghra1 (Nepal) =	14 mm
Lower Rapti (Nepal) =	12 mm	Upper Ghaghra2 (Nepal) =	10 mm
Middle Ghaghara =	8 mm	Upper Rapti (Nepal) =	8 mm
Ramganga =	5 mm		

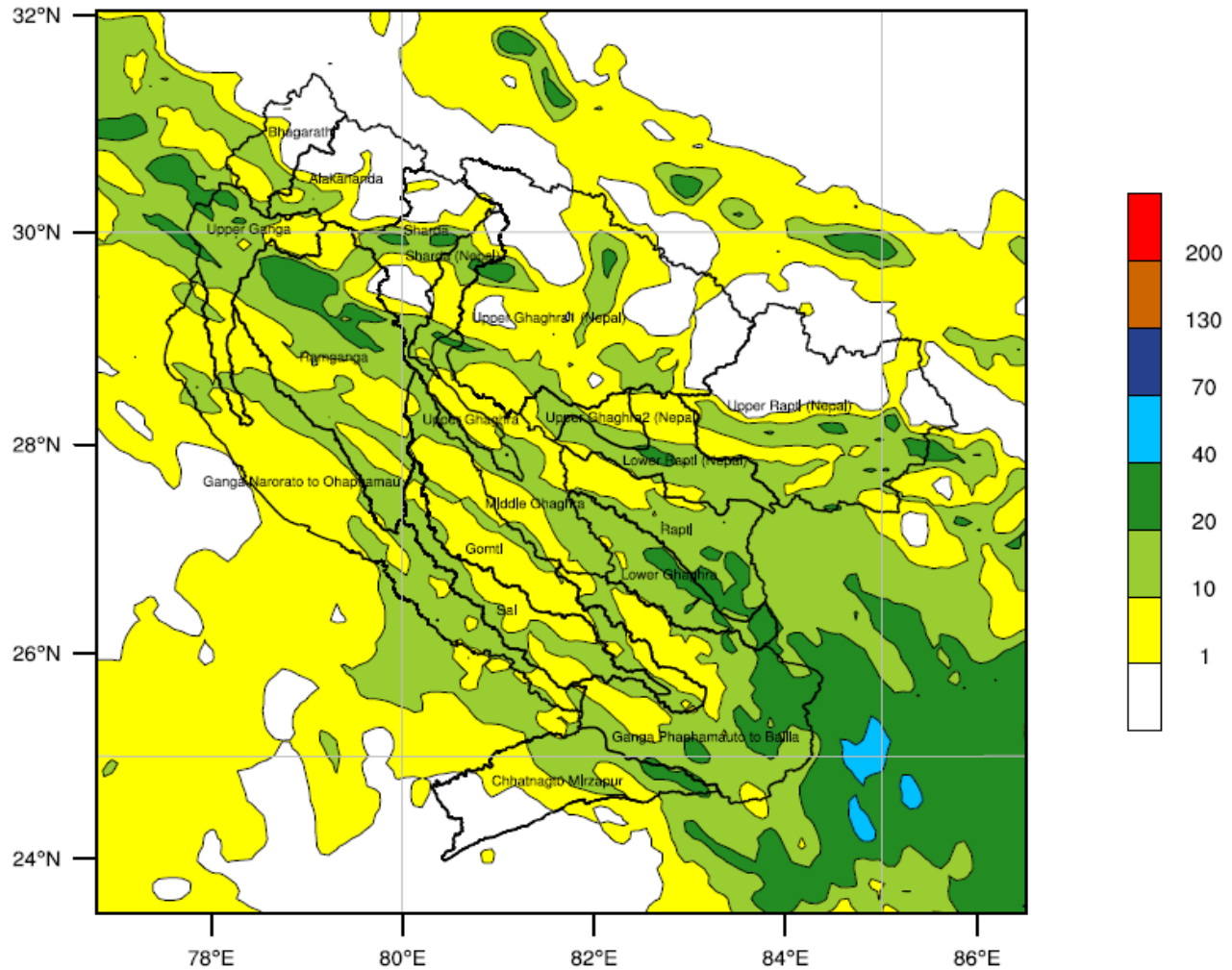
OUTPUT FROM WRF V3.6.1 MODEL

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

Init: 2020-08-24_00:00:00
Valid: 2020-08-26_03:00:00

FLOOD MET OFFICE LUCKNOW

IMD WRF Rainfall (mm) Forecast(48hr)



Sub basin wise Average Rainfall Estimation

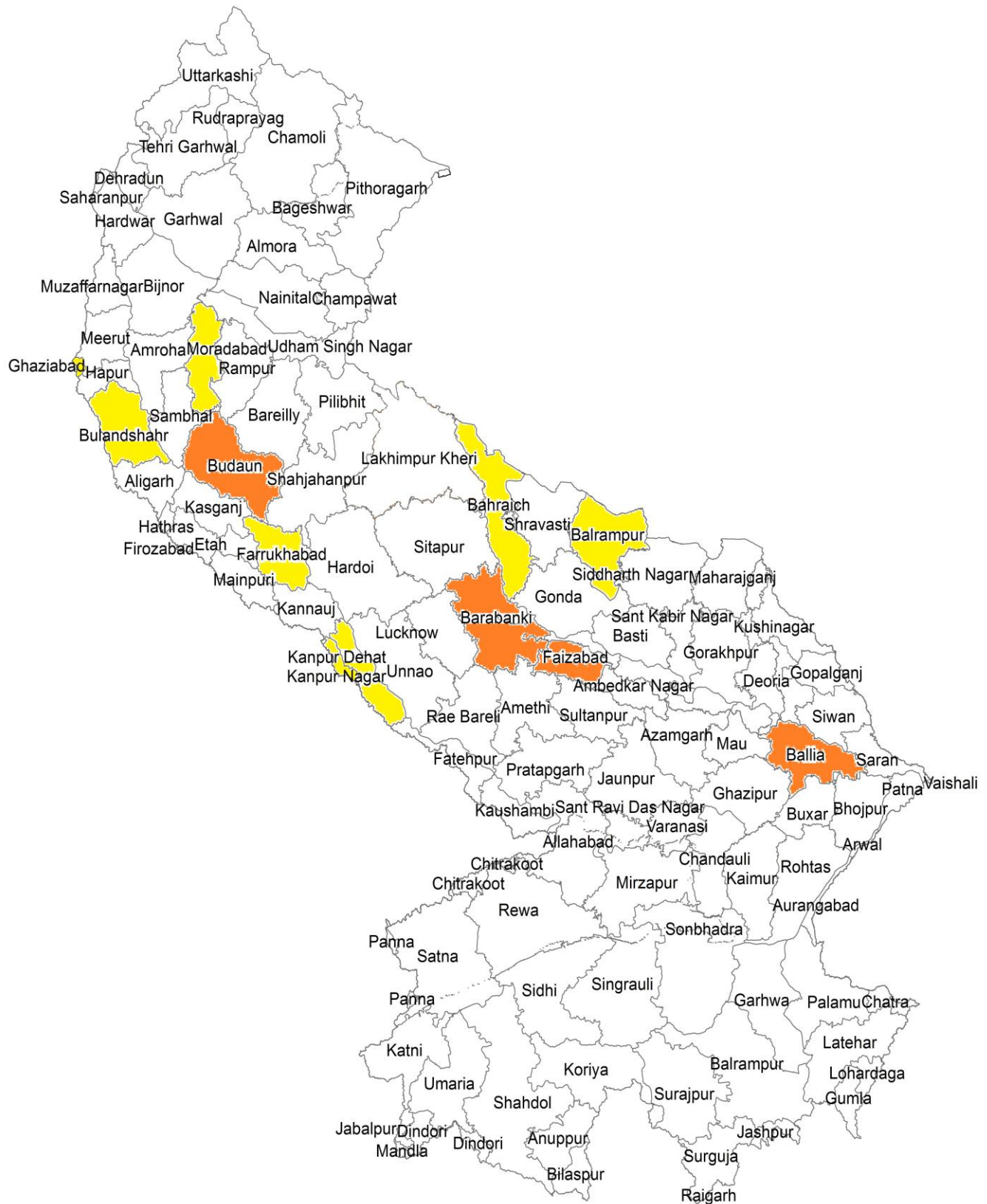
Alaknanda =	3 mm	Rapti =	14 mm
Bhagirathi =	5 mm	Sai =	10 mm
Chhatnagto Mirzapur =	7 mm	Sharda =	9 mm
Ganga Narorato Ohaphamau =	9 mm	Sharda (Nepal) =	7 mm
Ganga Phaphamauto Balia =	14 mm	Upper Ganga =	12 mm
Gomti =	8 mm	Upper Ghaghra =	5 mm
Lower Ghaghara =	17 mm	Upper Ghaghra1 (Nepal) =	10 mm
Lower Rapti (Nepal) =	12 mm	Upper Ghaghra2 (Nepal) =	9 mm
Middle Ghaghara =	11 mm	Upper Rapti (Nepal) =	7 mm
Ramganga =	13 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 24 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 154.20 with falling trend which is 0.10m above its Danger Level of 154.1 m and 1.12m 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 64.96m with falling trend which is 0.95 above its Danger Level of 64.01 m and 1.04m 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 106.226m with falling trend which is 0.156 m above its Danger Level of 106.07 m and 1.39m 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 93.13m with falling trend which is 0.40m above its Danger Level of 92.73 m and 0.88m 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 162.66m with steady trend which is 0.66m above its Danger Level of 162.0 m and 0.13m 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)
Chauhaanoatti (U.P)	97.8

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)	6
Total Numbers of Sites above Warning Level (A+B+C)		10
INFLOW FORECAST		
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
Rapti	Balrampur	Balrampur	U.P	104.62	103.62	105.54	2015	103.89	0800	F	103.65	25.08.20	0800	F
Ganga	Garhmukteshwar	Ghaziabad	U.P	199.33	198.33	199.9	2010	198.61	0800	F	198.45	25.08.20	0800	F
Ganga	Fatehgarh	Farukhabad	U.P	137.6	136.60	138.14	2010	137.41	0800	S	137.35	25.08.20	0800	F
Ganga	Ankinghat	Kanpur Dehat	U.P	124.0	123.0	124.49	2010	123.20	0800	S	123.15	25.08.20	0800	F
Ganga	Kanpur	Kanpur	U.P	113.0	112.0	114.075	2010	112.03	0800	F	111.92	25.08.20	0800	F
Ram Ganga	Moradabad	Moradabad	U.P	190.60	189.60	192.88	2010	190.40	0800	S	190.35	25.08.20	0800	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	64.99	0800	S	64.90	25.08.20	0800	F
Ghaghra	Elgin Bridge	Barabanki	U.P	106.07	105.07	107.616	2014	106.296	0800	F	106.10	25.08.20	0800	F
Ghaghra	Ayodhya	Faizabad	U.P	92.73	91.73	94.01	2009	93.22	0800	F	93.00	25.08.20	0800	F
Ganga	Kachhla bridge	Budaun	U.P	161.00	162.00	162.79	2010	162.66	0800	S	162.50	25.08.20	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 24.08.2020

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			3816.213	0800	S	3600.00	25.08.20	0800	S
Sharda	Narora Barrage	Bulandshahr	U.P					4580.00	0800	S	4304.60	25.08.20	0800	F
Sone	Bansagar Dam	Harda	M.P.		341.64				0800	R	1551.00	25.08.20	0800	R

Advisory on Hydro Meteorological Situation Expected from 25-08-2020 to 26-08-2020

As per rainfall pattern given in section II, Alaknanda, Bhagirathi, rivers are expected to receive moderate to heavy rain at scattered to widespread areas in next 48 hrs. Ganga river is expected to receive light to moderate rain at scattered areas in next 48 hrs. Ghaghra, Ramganga, Sharda & Rapti river basins are expected to receive moderate to heavy rain at scattered to widespread areas in next 48 hours. Water level at most of CWC stations are expected to fall 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