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

FSR No.87 **Dated 17-09-2020**

1.Weather forecast by IMD

I. SYNOPTIC SITUATION:

♦ Western end of the monsoon trough close to foothills of Himalayas. The Eastern end now passes through Bareilly, Sultanpur Patna, Malda and thence east-northeastwards to Nagaland across Assam.
♦ A trough extending upto 3.6 km above mean sea level runs from northwest Uttar Pradesh to central parts of East Rajasthan.
♦ A Low Pressure Area is likely to develop over Northeast Bay of Bengal & neighbourhood around 20th September, 2020.
♦ The cyclonic circulation over central parts of Rajasthan & neighbourhood extending upto 0.9 km above mean sea level has become less marked.
♦ The north-south trough from northeast Uttar Pradesh to southwest Madhya Pradesh now runs from northeast Uttar Pradesh to Northeast Madhya Pradesh at 0.9 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	**0.1-10**	**0.1-10**	**0.1-10**
2	Bhagirathi	Bhagirathi	**0**	**0.1-10**	**0.1-10**
3	Ganga	Chhatnag to Mirzapur	**0.1-10**	**0.1-10**	**0.1-10**
		Narora to Phaphamau	**0**	**0.1-10**	**0.1-10**
		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	**0**	**0.1-10**	**0.1-10**
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**	**0.1-10**
5	Ramganga	Ramganga	**0.1-10**	**0.1-10**	**0.1-10**
6	Rapti	Rapti	**0.1-10**	**0.1-10**	**0.1-10**
7.	Sharda	Sharda	**0.1-10**	**0.1-10**	**0.1-10**

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	VL	ISOL	VL	ISOL	L	ISOL
2	Bhagirathi	Bhagirathi	M.Dry	DRY	VL	ISOL	L	ISOL
3	Ganga	Chhatnag to Mirzapur	L	ISOL	L	ISOL	L	ISOL
		Narora to Phaphamau	M.Dry	DRY	VL	ISOL	VL	ISOL
		Phaphamau to Ballia	M	ISOL	L	ISOL	L	SCT
		Gomti	L	ISOL	L	ISOL	L	ISOL
		Sai	L	ISOL	VL	ISOL	L	ISOL
		Upper Ganga	M.Dry	DRY	VL	ISOL	VL	ISOL
4	Ghaghra	Lower Ghaghra	L	ISOL	L	ISOL	L	ISOL
		Middle Ghaghra	L	ISOL	L	ISOL	L	ISOL
		Upper Ghaghra	L	ISOL	L	ISOL	L	ISOL
5	Ramganga	Ramganga	L	ISOL	L	ISOL	L	ISOL
6	Rapti	Rapti	M	SCT	L	SCT	L	SCT
7.	Sharda	Sharda	L	ISOL	L	ISOL	L	ISOL

QPF in Ranges (mm)	UNLISTED	0	0.1-10	11-25	26-50	51-100	>100

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						
	Narora to Phaphamau						
	Phaphamau to Ballia						
	Gomti						
	Sai						
	Upper Ganga						
Ghaghra	Lower Ghaghra						
	Middle Ghaghra						
	Upper Ghaghra						
Ramganga	Ramganga						
Rapti	Rapti	H	ISOL				
Sharda	Sharda						

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					
M.Dry	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

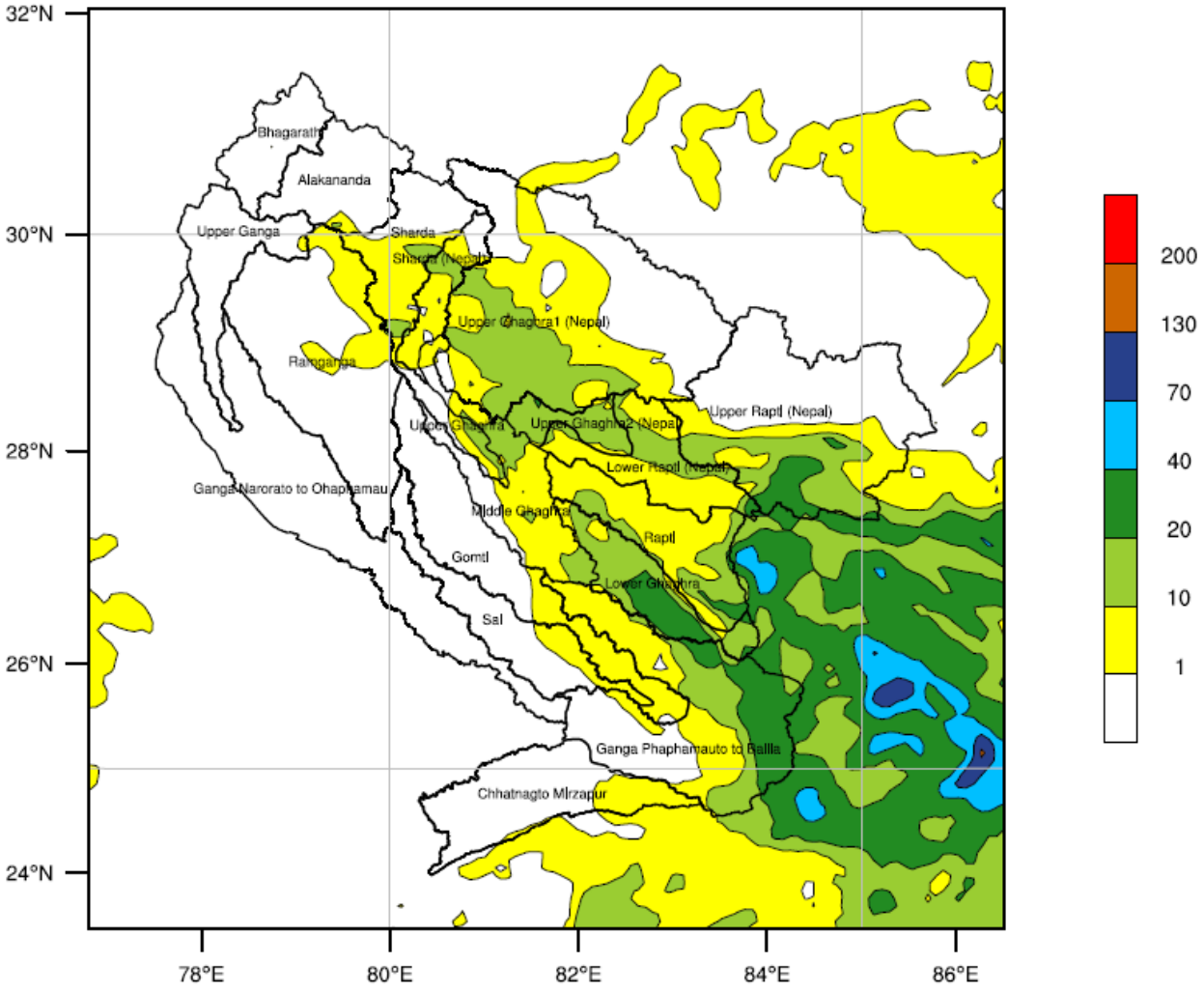
S. No.	BASIN NAME	SUBBASIN CODE/NAME	Day-1						Day-2						Day-3					
			0 mm	0.1-10 mm	11-25 mm	26-50 mm	51-100 mm	>100 mm	0 mm	0.1-10 mm	11-25 mm	26-50 mm	51-100 mm	>100 mm	0 mm	0.1-10 mm	11-25 mm	26-50 mm	51-100 mm	>100 mm
1	**Alaknanda**	Alaknanda	25-50	50-75					25-50	50-75					25-50	50-75				
2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

Probability of occurrence (%)	0-5	5-25	25-50	50-75	75-100

Init: 2020-09-17_00:00:00
Valid: 2020-09-18_03:00:00

FLOOD MET OFFICE LUCKNOW

IMD WRF Rainfall (mm) Forecast(24hr)



Sub basin wise Average Rainfall Estimation

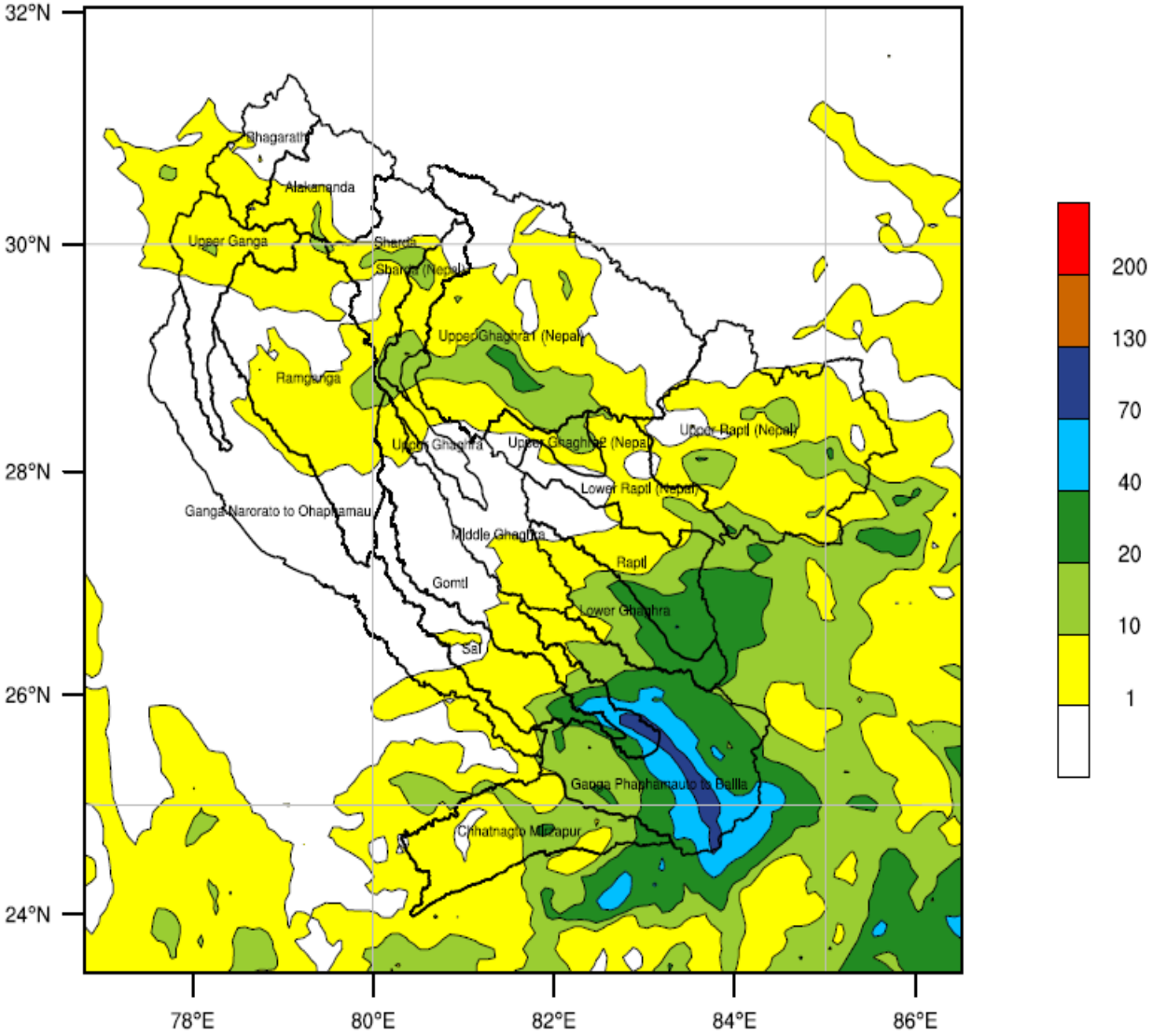
Alaknanda =	0 mm	Raptl =	9 mm
Bhaglrathl =	0 mm	Sai =	1 mm
Chhatnagto Mlrzapur =	1 mm	Sharda =	5 mm
Ganga Narorato Ohaphamau =	0 mm	Sharda (Nepal) =	3 mm
Ganga Phaphamauto Balia =	10 mm	Upper Ganga =	0 mm
Gomtl =	1 mm	Upper Ghaghra =	5 mm
Lower Ghaghara =	17 mm	Upper Ghaghra1 (Nepal) =	14 mm
Lower Raptl (Nepal) =	9 mm	Upper Ghaghra2 (Nepal) =	9 mm
Middle Ghaghara =	5 mm	Upper Raptl (Nepal) =	6 mm
Ramganga =	1 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: 2020-09-17_00:00:00
Valid: 2020-09-19_03:00:00

FLOOD MET OFFICE LUCKNOW

IMD WRF Rainfall (mm) Forecast(48hr)



Sub basin wise Average Rainfall Estimation

Alaknanda =	2 mm	Raptl =	13 mm
Bhagirathi =	2 mm	Sai =	6 mm
Chhatnagto Mirzapur =	8 mm	Sharda =	7 mm
Ganga Narorato Ohaphamau =	1 mm	Sharda (Nepal) =	3 mm
Ganga Phaphamauto Balia =	32 mm	Upper Ganga =	3 mm
Gomtl =	9 mm	Upper Ghaghra =	5 mm
Lower Ghaghara =	15 mm	Upper Ghaghra1 (Nepal) =	5 mm
Lower Raptl (Nepal) =	5 mm	Upper Ghaghra2 (Nepal) =	1 mm
Middle Ghaghara =	1 mm	Upper Raptl (Nepal) =	6 mm
Ramganga =	3 mm		

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

Flood Situation on 17 SEPTEMBER, 2020

Note - No station is in flood situation Dated 17.09.2020.

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)
Maniram (U.P)	65.0
Kukea (U.K)	82.0

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)	0
C.	**Above Normal Flood Situation:**	
	(Site (s) where water level touching or exceeding the warning Level but below Danger Level)	0
Total Numbers of Sites above Warning Level (A+B+C)		0
INFLOW FORECAST		
Number of Sites for which inflow forecasts issued:		0
(Where inflow are equal or exceed the specified Threshold Limit for a particular reservoir/ barrage)		0

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

Note - No Station is in this situation Dated 17.09.2020

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

Note - No Station is in this situation Dated 17.09.2020

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 17.09.2020

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

Note - No Station is in this situation Dated 17.09.2020

Advisory on Hydro Meteorological Situation Expected from 18-09-2020 to 19-09-2020

As per rainfall pattern given in section II, Alaknanda, Bhagirathi & Ganga rivers are expected to receive very light to light rain at isolated areas in next 48 hrs. Ghaghra, Ramganga, Sharda & Rapti river basins are expected to receive light rain at isolated areas in next 48 hours. Water level at most of CWC stations are expected to steady/slightly 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, Normal situation is expected in Ganga, Ghaghra, Rapti & Sharda river basins.

अधिशासीअभियंता

मध्य गंगा मण्डल -1 लखनऊ