Central Water Commission
Upper Ganga Basin Organisation, Lucknow
Daily Flood Situation Report Cum Advisories
Date: 14 SEPTEMBER, 2020

FSR No.84 **Dated 14-09-2020**

1.Weather forecast by IMD

I. SYNOPTIC SITUATION:

♦ The Monsoon Trough at mean sea level now passes through Bikaner, Jaipur, Sagar, Durg, Jagdalpur and then south-south-eastwards to the centre of well marked low pressure area over Westcentral Bay of Bengal & adjoining north Andhra Pradesh coast.

♦ The cyclonic circulation over south Afghanistan & neighbourhood now lies over north Pakistan & neighbourhood and extends upto 1.5 km above mean sea level.

♦ The trough from southwest Uttar Pradesh to the cyclonic circulation over northeast Arabian Sea & adjoining south Gujarat coast across East Rajasthan extending upto 2.1 km above mean sea level has become less marked.

♦ A cyclonic circulation lies over southwest Uttar Pradesh & neighbourhood and extends upto 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	**11-25**	**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**	**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	**11-25**	**0.1-10**	**0.1-10**
4	Ghaghra	Lower Ghaghra	**0.1-10**	**0.1-10**	**0.1-10**
		Middle Ghaghra	**11-25**	**0.1-10**	**0.1-10**
		Upper Ghaghra	**11-25**	**0.1-10**	**0.1-10**
5	Ramganga	Ramganga	**0.1-10**	**0.1-10**	**0.1-10**
6	Rapti	Rapti	**11-25**	**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	L	ISOL	L	ISOL	L	ISOL
2	Bhagirathi	Bhagirathi	M	SCT	L	ISOL	L	ISOL
3	Ganga	Chhatnag to Mirzapur	L	ISOL	L	ISOL	L	SCT
		Narora to Phaphamau	L	ISOL	L	ISOL	L	ISOL
		Phaphamau to Ballia	L	ISOL	M	SCT	L	SCT
		Gomti	M	ISOL	L	SCT	L	ISOL
		Sai	L	ISOL	L	ISOL	L	ISOL
		Upper Ganga	M	ISOL	L	ISOL	L	ISOL
4	Ghaghra	Lower Ghaghra	L	SCT	L	SCT	L	ISOL
		Middle Ghaghra	M	SCT	L	ISOL	L	ISOL
		Upper Ghaghra	M	SCT	L	ISOL	L	ISOL
5	Ramganga	Ramganga	L	ISOL	L	ISOL	L	ISOL
6	Rapti	Rapti	M	ISOL	M	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	H	ISOL				
Ghaghra	Lower Ghaghra	H	ISOL				
	Middle Ghaghra	H	ISOL				
	Upper Ghaghra						
Ramganga	Ramganga						
Rapti	Rapti	H	ISOL				
Sharda	Sharda	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					
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

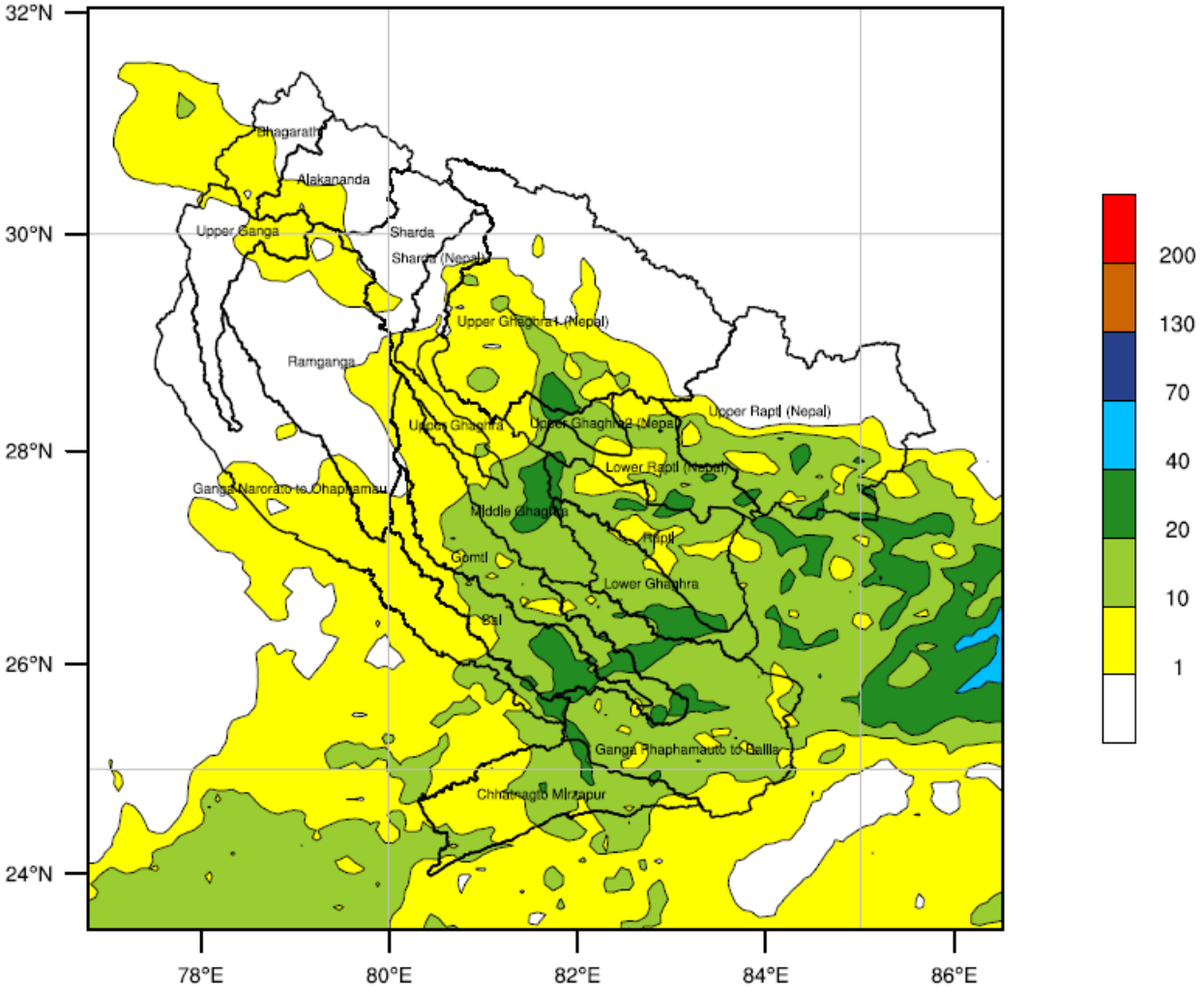
S. No.	BASIN NAME	SUBBASIN CODE/NAME	Day-1						Day-2						Day-3					
			0 mm	0.1-10 mm	11-25 mm	26-50 mm	51-100 mm	>100 mm	0 mm	0.1-10 mm	11-25 mm	26-50 mm	51-100 mm	>100 mm	0 mm	0.1-10 mm	11-25 mm	26-50 mm	51-100 mm	>100 mm
1	**Alaknanda**	Alaknanda		75-100	5-25				25-50	50-75					25-50	50-75				
2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

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

Init: 2020-09-14_00:00:00
Valid: 2020-09-15_03:00:00

FLOOD MET OFFICE LUCKNOW

IMD WRF Rainfall (mm) Forecast(24hr)



Sub basin wise Average Rainfall Estimation

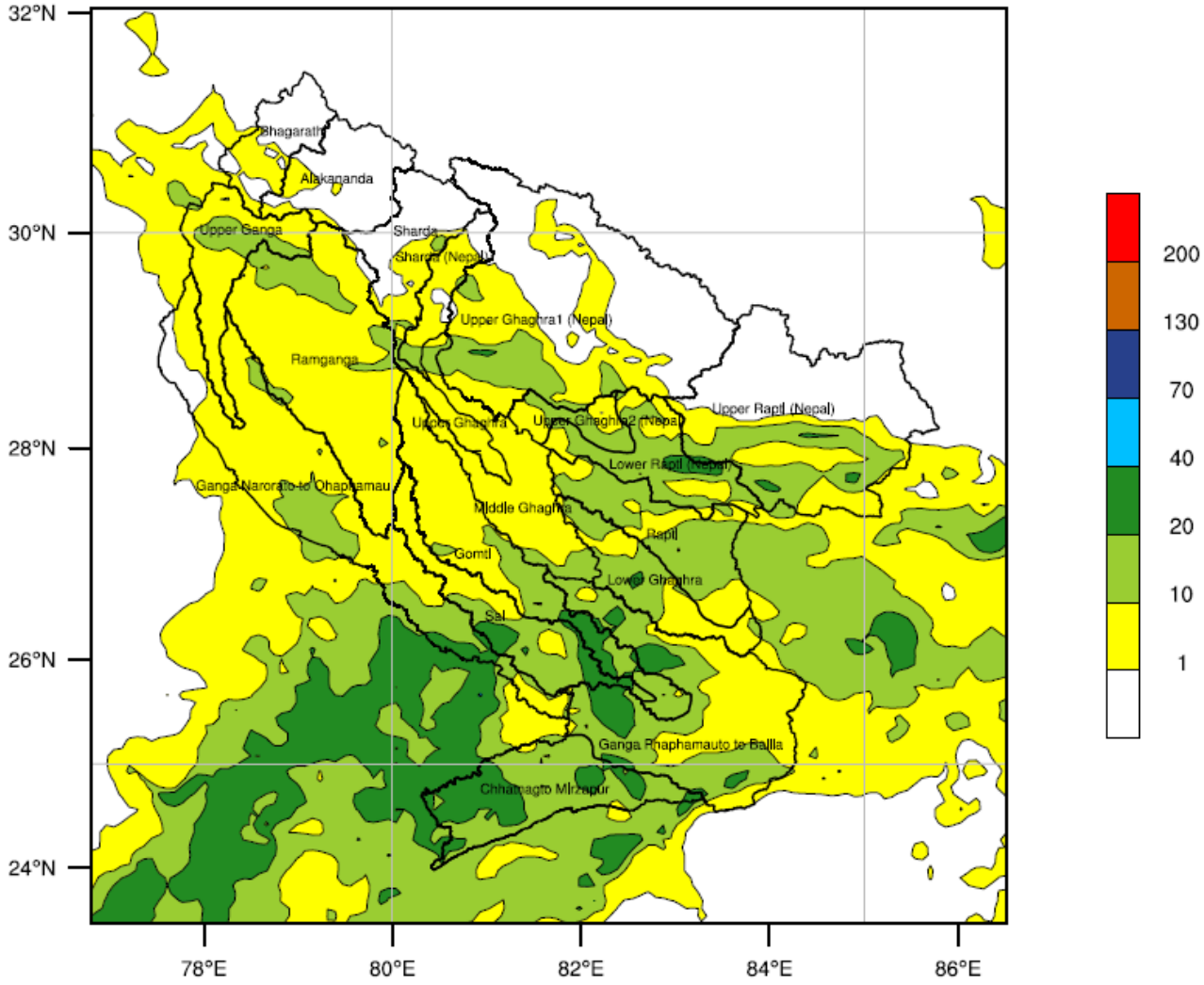
Alaknanda =	1 mm	Raptl =	14 mm
Bhaglrathl =	2 mm	Sai =	14 mm
Chhatnagto Mlrzapur =	11 mm	Sharda =	1 mm
Ganga Narorato Ohaphamau =	3 mm	Sharda (Nepal) =	2 mm
Ganga Phaphamauto Balia =	14 mm	Upper Ganga =	1 mm
Gomtl =	11 mm	Upper Ghaghra =	3 mm
Lower Ghaghara =	16 mm	Upper Ghaghra1 (Nepal) =	12 mm
Lower Raptl (Nepal) =	14 mm	Upper Ghaghra2 (Nepal) =	7 mm
Middle Ghaghara =	15 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: 2020-09-14_00:00:00
Valid: 2020-09-16_03:00:00

FLOOD MET OFFICE LUCKNOW

IMD WRF Rainfall (mm) Forecast(48hr)



Sub basin wise Average Rainfall Estimation

Alaknanda =	0 mm	Raptl =	11 mm
Bhagirathi =	1 mm	Sai =	13 mm
Chhatnagto Mirzapur =	19 mm	Sharda =	5 mm
Ganga Narorato Ohaphamau =	8 mm	Sharda (Nepal) =	3 mm
Ganga Phaphamauto Balia =	12 mm	Upper Ganga =	8 mm
Gomtl =	9 mm	Upper Ghaghra =	3 mm
Lower Ghaghara =	11 mm	Upper Ghaghra1 (Nepal) =	10 mm
Lower Raptl (Nepal) =	12 mm	Upper Ghaghra2 (Nepal) =	6 mm
Middle Ghaghara =	7 mm	Upper Raptl (Nepal) =	5 mm
Ramganga =	7 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 14 SEPTEMBER, 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)
Bangapani (U.K)	48.6

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)	01
Total Numbers of Sites above Warning Level (A+B+C)		01
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
Ghaghra	Turtipar	Ballia	U.P	64.01	63.01	66.00	1998	63.07	0800	S	63.00	15.09.20	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

Note - No Station is in this situation Dated 14.09.2020

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 14.09.2020

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 14.09.2020

Advisory on Hydro Meteorological Situation Expected from 15-09-2020 to 16-09-2020

As per rainfall pattern given in section II, Alaknanda, Bhagirathi & Ganga rivers are expected to receive light rain at isolated areas in next 48 hrs. Ghaghra, Ramganga, Sharda & Rapti river basins are expected to receive light to moderate rain at isolated to scattered 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, Normal flood like situation is expected in Ganga, Ghaghra, Rapti & Sharda river basins.

अधिशासीअभियंता

मध्य गंगा मण्डल -1 लखनऊ