



Central Water Commission
Upper Ganga Basin Organisation, Lucknow
Daily Flood Situation Report Cum Advisories
Date: 02 SEPTEMBER, 2020

FSR No.72

Dated 02-09-2020

1. Weather forecast by IMD

I. SYNOPTIC SITUATION:

- ♦ The Low Pressure Area over Pakistan & adjoining West Rajasthan has merged with heat low and the cyclonic circulation extends upto 3.1 km above mean sea level over Pakistan & adjoining Punjab now lies over Punjab & adjoining Pakistan.
- ♦ The western end of the Monsoon Trough at mean sea level runs close to the foothills of Himalayas and the eastern end now passes through Bahraich, Gaya, Shantiniketan and thence eastwards to Manipur across Bangladesh & south Assam.
- ♦ The trough in the mid & upper tropospheric westerlies with its axis at 5.8 km above mean sea level roughly along Long. 62°E to the north of Lat. 28°N persists.
- ♦ The cyclonic circulation over Gangetic West Bengal & neighbourhood now lies over Gangetic West Bengal & adjoining Jharkhand 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	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	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	11-25	0.1-10	0.1-10
		Upper Ganga	0.1-10	11-25	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	11-25	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	M	FWS	M	SCT
2	Bhagirathi	Bhagirathi	VL	ISOL	L	SCT	L	SCT
3	Ganga	Chhatnag to Mirzapur	M	SCT	VL	ISOL	VL	ISOL
		Narora to Phaphamau	L	ISOL	VL	ISOL	VL	ISOL
		Phaphamau to Ballia	M	SCT	VL	ISOL	VL	ISOL
		Gomti	M	FWS	VL	ISOL	VL	ISOL
		Sai	M	WS	VL	ISOL	VL	ISOL
		Upper Ganga	M	SCT	M	WS	M	SCT
4	Ghaghra	Lower Ghaghra	M	SCT	VL	ISOL	VL	ISOL
		Middle Ghaghra	M	SCT	VL	ISOL	VL	ISOL
		Upper Ghaghra	M	SCT	VL	ISOL	VL	ISOL
5	Ramganga	Ramganga	L	SCT	M	FWS	M	SCT
6	Rapti	Rapti	M	SCT	VL	ISOL	VL	ISOL
7.	Sharda	Sharda	L	SCT	M	WS	VL	SCT

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		
Bhagirathi	Bhagirathi						
Ganga	Chhatnag to Mirzapur						
	Narora to Phaphamau						
	Phaphamau to Ballia						
	Gomti	H	ISOL				
	Sai	H	ISOL				
	Upper Ganga			H	ISOL		
Ghaghra	Lower Ghaghra						
	Middle Ghaghra						
	Upper Ghaghra						
Ramganga	Ramganga			H	ISOL	H	ISOL
Rapti	Rapti						
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					
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						25-50	50-75					75-100				
2	Bhagirathi	Bhagirathi		75-100						75-100						75-100				
3	Ganga	Chhatnag to Mirzapur		75-100						75-100						75-100				
		Narora to Phaphamau		75-100						75-100						75-100				
		Phaphamau to Ballia		75-100						75-100						75-100				
		Gomti		50-75	25-50					75-100						75-100				
		Sai			75-100					75-100						75-100				
		Upper Ganga		75-100							75-100					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						75-100				
5	Ramganga	Ramganga		75-100						75-100						75-100				
6	Rapti	Rapti		75-100						75-100						75-100				
7.	Sharda	Sharda		75-100							75-100					50-75	25-50			

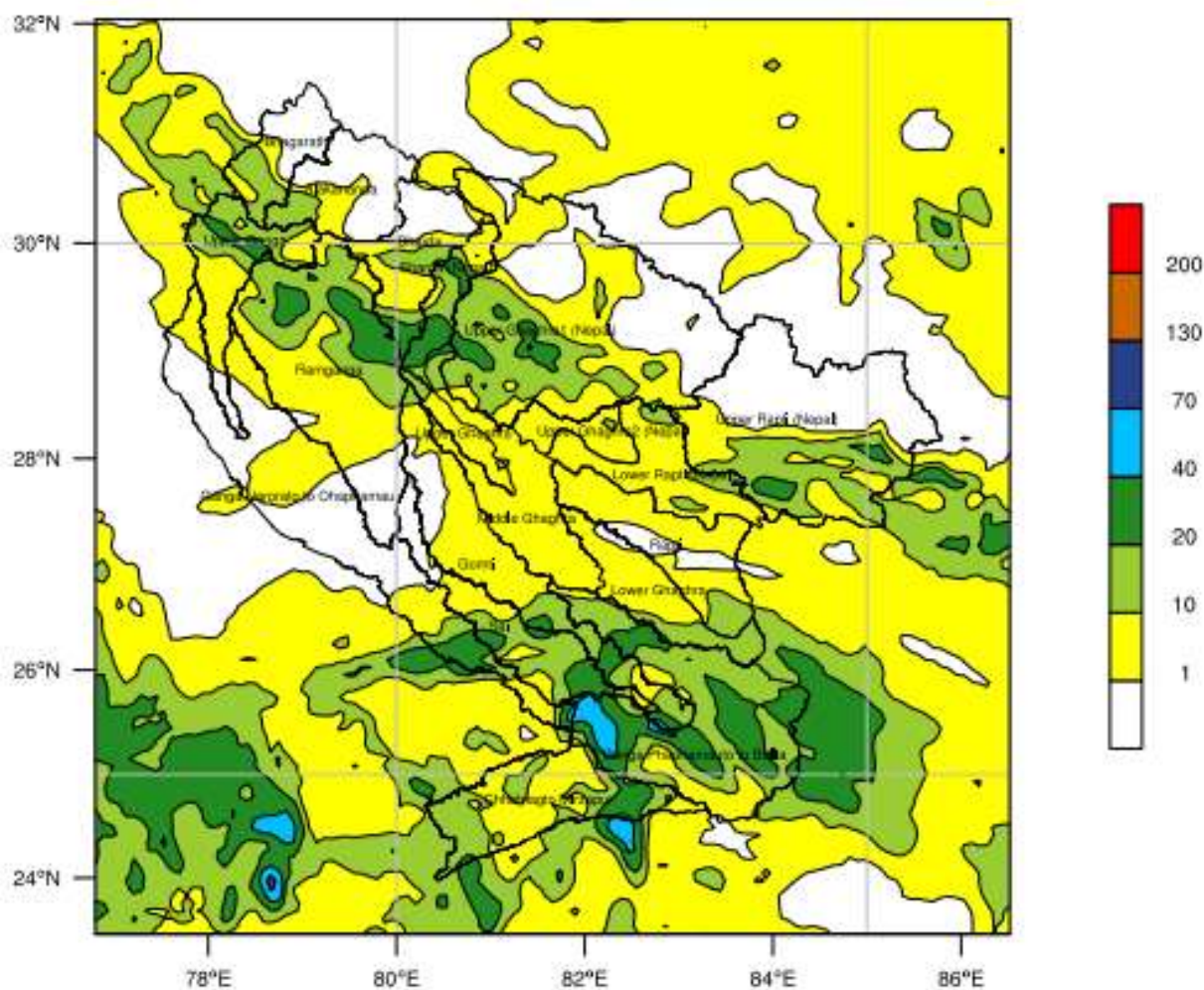
Probability of occurrence (%)	0-5	5-25	25-50	50-75	75-100
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FLOOD MET OFFICE LUCKNOW

Init: 2020-09-02_00:00:00

Valid: 2020-09-03_03:00:00

IMD WRF Rainfall (mm) Forecast(24hr)



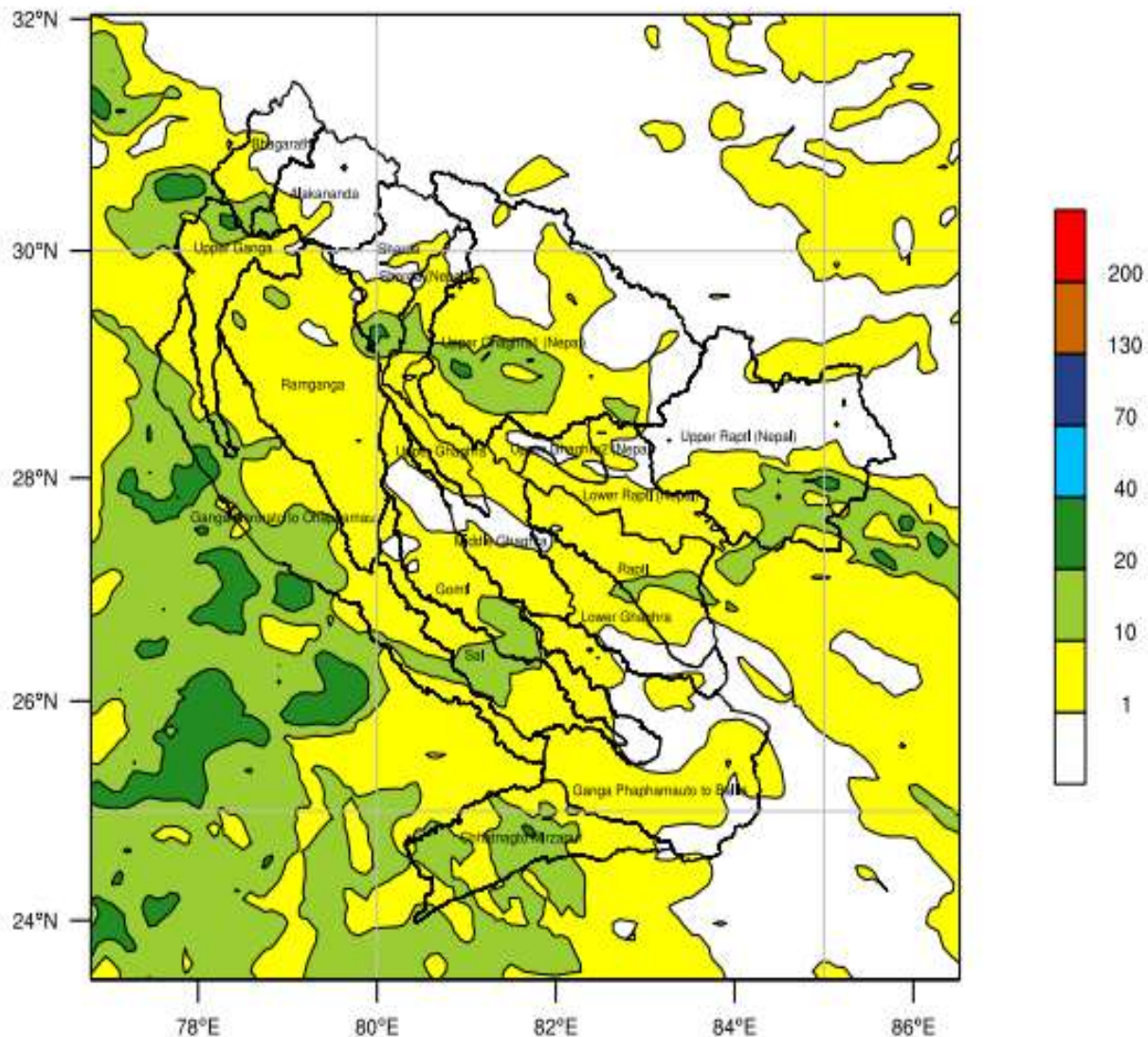
Sub basin wise Average Rainfall Estimation

Alaknanda = 3 mm	Rapti = 5 mm
Bhagirathi = 5 mm	Sal = 12 mm
Chhatnagto Mirzapur = 12 mm	Sharda = 15 mm
Ganga Narorato Chaphamau = 4 mm	Sharda (Nepal) = 7 mm
Ganga Phaphamauto Balla = 19 mm	Upper Ganga = 10 mm
Gomti = 7 mm	Upper Ghaghara = 8 mm
Lower Ghaghara = 7 mm	Upper Ghaghara1 (Nepal) = 5 mm
Lower Rapti (Nepal) = 7 mm	Upper Ghaghara2 (Nepal) = 6 mm
Middle Ghaghara = 5 mm	Upper Rapti (Nepal) = 6 mm
Ramganga = 10 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

IMD WRF Rainfall (mm) Forecast(48hr)



Sub basin wise Average Rainfall Estimation

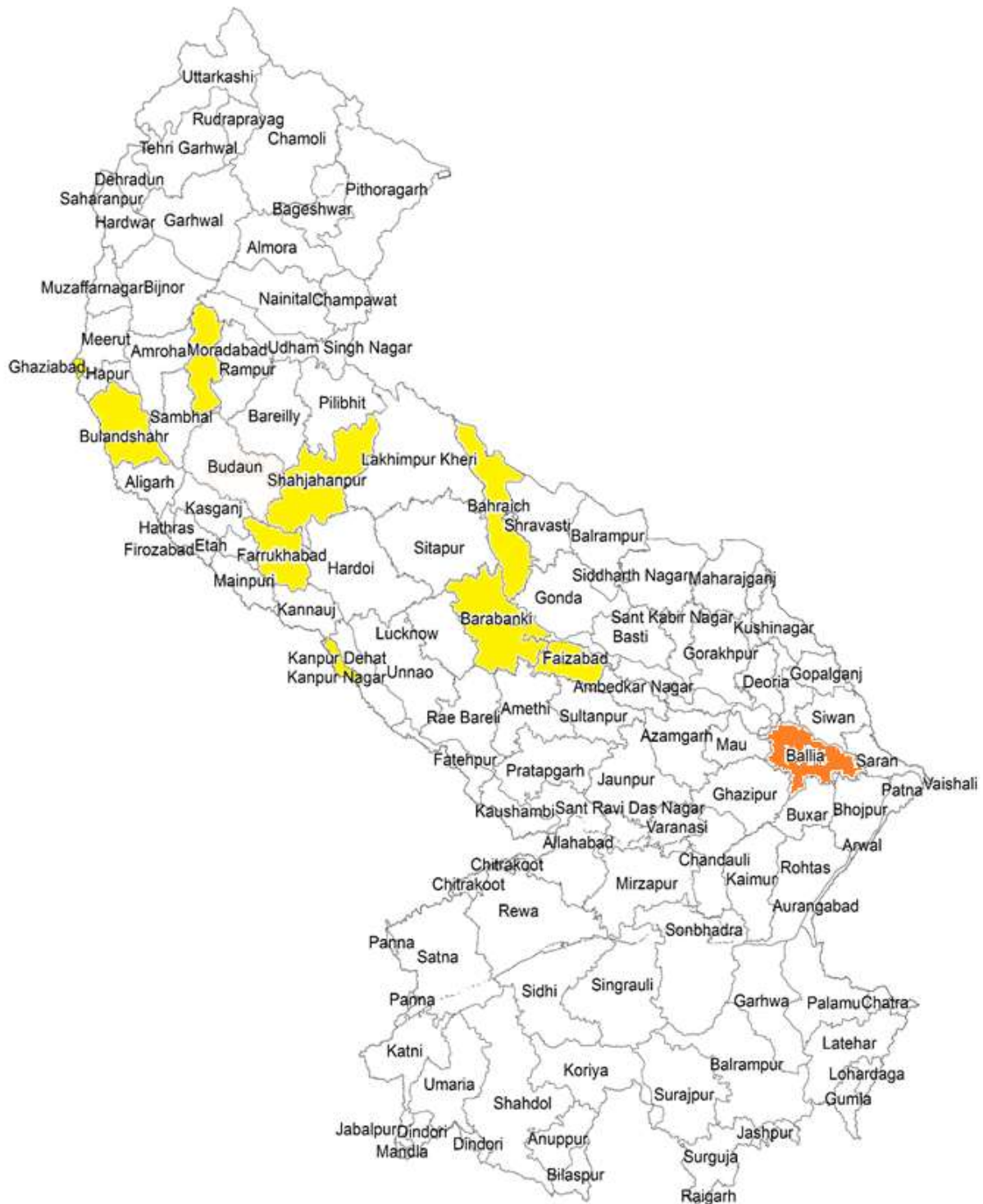
Alaknanda =	1 mm	Rapti =	5 mm
Bhagirathi =	3 mm	Sal =	7 mm
Chhatnagto Mirzapur =	10 mm	Sharda =	6 mm
Ganga Narorato Ohaphamau =	9 mm	Sharda (Nepal) =	3 mm
Ganga Phaphamauto Ballia =	2 mm	Upper Ganga =	8 mm
Gomti =	4 mm	Upper Ghaghra =	4 mm
Lower Ghaghra =	3 mm	Upper Ghaghra1 (Nepal) =	2 mm
Lower Rapti (Nepal) =	3 mm	Upper Ghaghra2 (Nepal) =	4 mm
Middle Ghaghra =	2 mm	Upper Rapti (Nepal) =	4 mm
Ramganga =	5 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 2 AUGUST, 2020



1. River Ganga at BALLIA in BALLIA district of Uttar Pradesh continues to flow in SEVERE SITUATION at 16:00 hrs today. At 16:00 hrs, it was flowing at a level of 57.95 m with Rising trend which is 0.34 m above its Danger Level of 57.615 m and 2.44 m below its previous HFL of 60.39 m (2016-08-25).

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)

Note - No Station is in this situation Dated 31.08.2020

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))	03
C.	Above Normal Flood Situation:	
	(Site (s) where water level touching or exceeding the warning Level but below Danger Level)	07
Total Numbers of Sites above Warning Level (A+B+C)		10
INFLOW FORECAST		
Number of Sites for which inflow forecasts issued:		03
(Where inflow are equal or exceed the specified Threshold Limit for a particular reservoir/ barrage)		03

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
Ganga	Fatehgarh	Farukhabad	U.P	137.6	136.60	138.14	2010	137.33	0800	S	137.22	03.09.20	0800	F
Ganga	Ankinghat	Kanpur Dehat	U.P	124.0	123.0	124.49	2010	123.08	0800	S	123.05	03.09.20	0800	F
Ram Ganga	Moradabad	Moradabad	U.P	190.60	189.60	192.88	2010	189.59	0800	F	189.70	03.08.20	2000	F
Ram Ganga	Dabri	Shahjahanpur	U.P	137.30	136.30	139.695	1983	136.66	0800	R	136.55	03.09.20	0800	F
Ghaghra	Elgin Bridge	Barabanki	U.P	106.07	105.07	107.616	2014	105.546	0800	F	105.35	03.09.20	0800	F
Ghaghra	Ayodhya	Faizabad	U.P	92.73	91.73	94.01	2009	92.15	0800	F	91.95	03.09.20	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
Ghaghra	Turtipar	Ballia	U.P	64.01	63.01	66.00	1998	63.98	0800	S	63.75	03.09.20	0800	F
Ganga	Ballia	Ballia	U.P	57.615	56.615	60.39	2016	57.79	0800	S	58.05	03.09.20	0800	R
Ganga	Kachhla bridge	Budaun	U.P	161.00	162.00	162.79	2010	161.92	0800	F	161.85	03.09.20	0800	F

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

[illegible]

Note - No Station is in this situation Dated 02.08.2020

2.6 Inflow Forecast

[illegible]

Advisory on Hydro Meteorological Situation Expected from 03-09-2020 to 04-09-2020

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

अधिशालीअभियंता

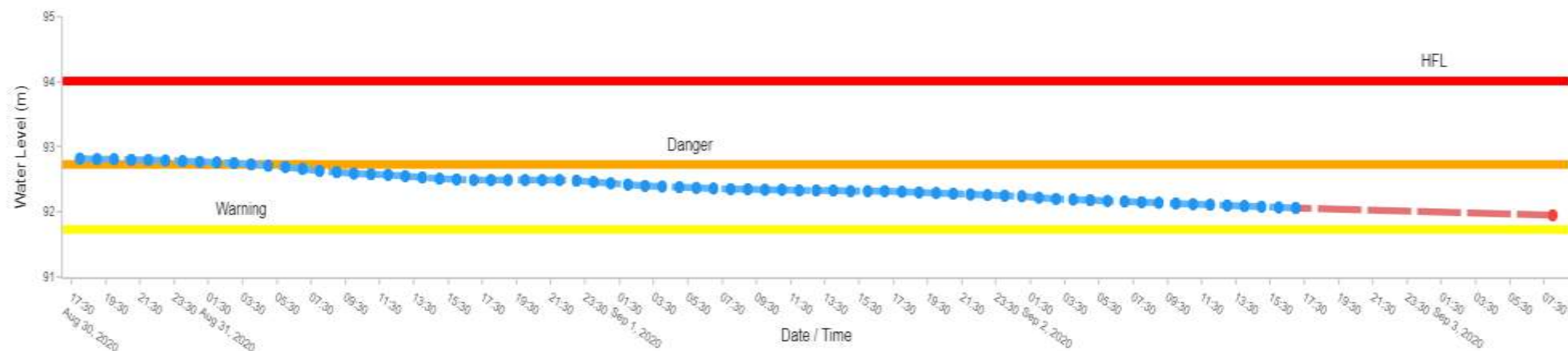
मध्य गंगा मण्डल -1 लखनऊ

Hydrograph view of - Ayodhya



District	Basin	River	Division
FAIZABAD	Ganga	Ghagra	Middle Ganga Division-I(MGD-I), Lucknow

● Forecasted Water Level
 ● Measured Water Level

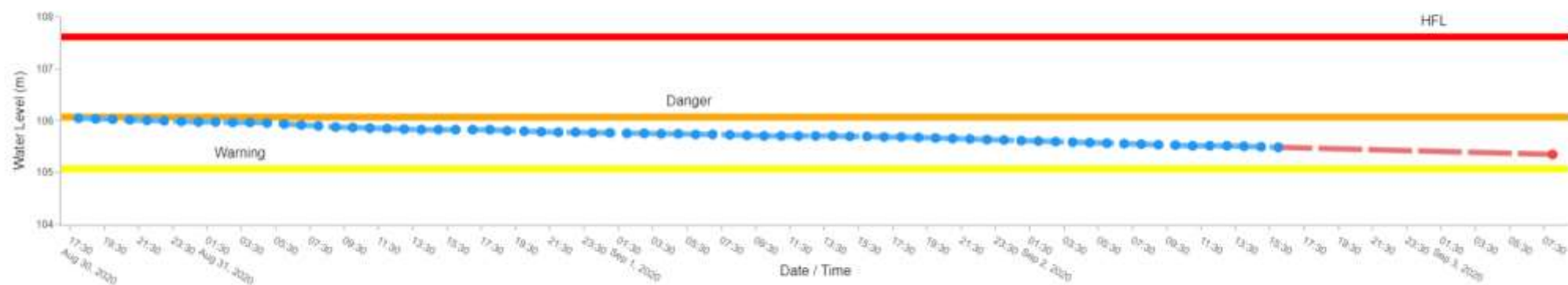


Hydrograph view of - Elginbridge



District	Basin	River	Division
BARABANKI	Ganga	Ghagra	Middle Ganga Division-I(MGD-I), Lucknow

◆ Forecasted Water Level
 ◆ Measured Water Level



Hydrograph view of - Turtipar



District	Basin	River	Division
BALLIA	Ganga	Ghagra	Middle Ganga Division-I(MGD-I), Lucknow

● Forecasted Water Level
 ● Measured Water Level

