



Central Water Commission
Upper Ganga Basin Organisation, Lucknow
Daily Flood Situation Report Cum Advisories
Date: 31 July, 2020

FSR No.39

Dated 31-07-2020

1. Weather forecast by IMD

I (a) SYNOPTIC SITUATION:-

- The monsoon trough at mean sea level now passes through Bikaner, Sikar, Agra, Fatehpur, Gaya, Dumka and thence eastwards to Manipur across Sub-Himalayan West Bengal and Assam.
- A north-south trough runs from northeast Uttar Pradesh to southeast Madhya Pradesh extending upto 0.9 km above mean sea level has become less marked.
- A cyclonic circulation lies over Punjab & 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	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	11-25	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	11-25	11-25
4	Ghaghra	Lower Ghaghra	11-25	11-25	11-25
		Middle Ghaghra	11-25	11-25	11-25
		Upper Ghaghra	11-25	11-25	11-25
5	Ramganga	Ramganga	0.1-10	11-25	11-25
6	Rapti	Rapti	0.1-10	0.1-10	0.1-10
7.	Sharda	Sharda	11-25	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	FWS	M	WS	M	FWS
2	Bhagirathi	Bhagirathi	M	FWS	M	WS	M	FWS
3	Ganga	Chhatnag to Mirzapur	VL	ISOL	L	ISOL	L	ISOL
		Narora to Phaphamau	L	SCT	L	SCT	L	SCT
		Phaphamau to Ballia	L	FWS	L	FWS	L	FWS
		Gomti	L	FWS	L	FWS	L	FWS
		Sai	L	FWS	L	FWS	L	FWS
		Upper Ganga	M	WS	M	WS	M	WS
4	Ghaghra	Lower Ghaghra	M	WS	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	FWS
6	Rapti	Rapti	M	FWS	M	FWS	M	WS
7.	Sharda	Sharda	M	WS	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		
Bhagirathi	Bhagirathi			H	ISOL		
Ganga	Chhatnag to Mirzapur						
	Narora to Phaphamau						
	Phaphamau to Ballia						
	Gomti						
	Sai						
	Upper Ganga	H	ISOL	H	ISOL	H	ISOL
Ghaghra	Lower Ghaghra						
	Middle Ghaghra	H	ISOL	H	ISOL	H	ISOL
	Upper Ghaghra	H	ISOL	H	ISOL	H	ISOL
Ramganga	Ramganga	H	ISOL	H	ISOL	H	ISOL
Rapti	Rapti	H	ISOL	H	ISOL	H	ISOL
Sharda	Sharda	H	ISOL	H	ISOL	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			

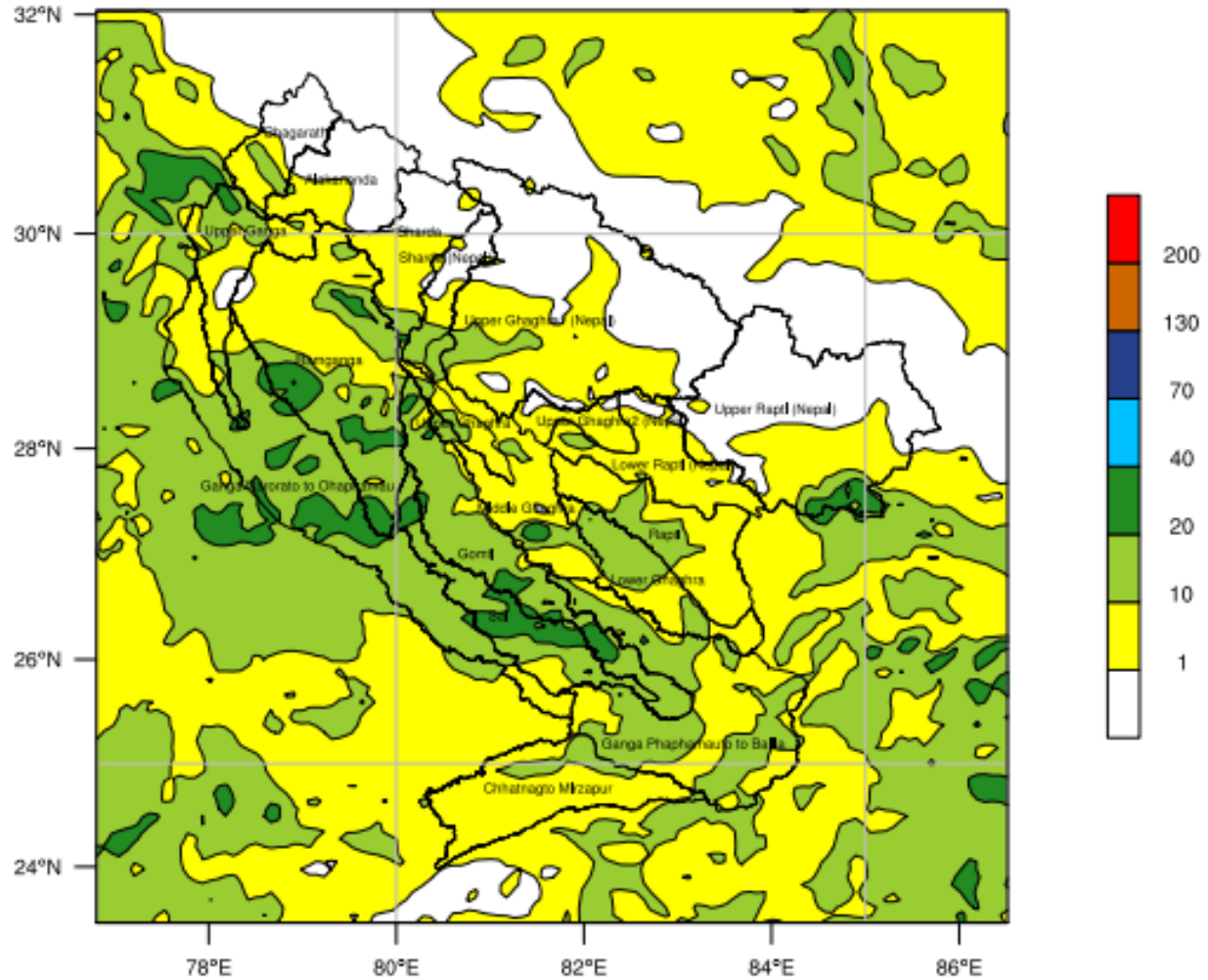
S. No.	BASIN NAME	SUBBASIN CODE/NAME	Day-1						Day-2						Day-3					
			0 mm	0.1-10 mm	11-25 mm	26-50 mm	51-100 mm	>100 mm	0 mm	0.1-10 mm	11-25 mm	26-50 mm	51-100 mm	>100 mm	0 mm	0.1-10 mm	11-25 mm	26-50 mm	51-100 mm	>100 mm
1	Alaknanda	Alaknanda		75-100						25-50	50-75					75-100				
2	Bhagirathi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

V. OUTLOOK FOR SUBSEQUENT FOUR DAYS:-

NAME OF BASIN	NAME OF SUB-BASIN	OUTLOOK			
		Day-4	Day-5	Day-6	Day-7
Alaknanda	Alaknanda	Light to moderate rain is likely to occur at many places.	Light to moderate rain is likely to occur at a few places.	Light to moderate rain is likely to occur at a few places.	Light rain is likely to occur at a few places.
Bhagirathi	Bhagirathi	Light to moderate rain is likely to occur at many places.	Light to moderate rain is likely to occur at a few places.	Light to moderate rain is likely to occur at a few places.	Light rain is likely to occur at a few places.
Ganga	Chhatnag to Mirzapur	Light to moderate rain is likely to occur at many places.	Moderate rain is likely to occur at many places.	Light to moderate rain is likely to occur at a few places.	Light rain is likely to occur at a few places.
	Narora to Phaphamau	Light to moderate rain is likely to occur at many places.	Moderate rain is likely to occur at many places.	Light to moderate rain is likely to occur at a few places.	Very light to light rain is likely to occur at isolated places.
	Phaphamau to Ballia	Light to moderate rain is likely to occur at many places.	Very light to light rain is likely to occur at isolated places.	Light to moderate rain is likely to occur at a few places.	Light rain is likely to occur at a few places.
	Gomti	Light to moderate rain is likely to occur at many places.	Very light to light rain is likely to occur at isolated places.	Light to moderate rain is likely to occur at a few places.	Very light to light rain is likely to occur at isolated places.
	Sai	Light to moderate rain is likely to occur at many places.	Very light to light rain is likely to occur at isolated places.	Light to moderate rain is likely to occur at a few places.	Very light to light rain is likely to occur at isolated places.
	Upper Ganga	Light to moderate rain is likely to occur at many places.	Light to moderate rain is likely to occur at a few places.	Light to moderate rain is likely to occur at a few places.	Light rain is likely to occur at a few places.
Ghaghra	Lower Ghaghra	Light to moderate rain is likely to occur at many places.	Very light to light rain is likely to occur at isolated places.	Light to moderate rain is likely to occur at a few places.	Very light to light rain is likely to occur at isolated places.
	Middle Ghaghra	Light to moderate rain is likely to occur at many places.	Very light to light rain is likely to occur at isolated places.	Light to moderate rain is likely to occur at a few places.	Very light to light rain is likely to occur at isolated places.
	Upper Ghaghra	Light to moderate rain is likely to occur at many places.	Very light to light rain is likely to occur at isolated places.	Light to moderate rain is likely to occur at a few places.	Very light to light rain is likely to occur at isolated places.
Ramganga	Ramganga	Light to moderate rain is likely to occur at many places.	Light to moderate rain is likely to occur at a few places.	Light to moderate rain is likely to occur at a few places.	Light rain is likely to occur at a few places.
Rapti	Rapti	Light to moderate rain is likely to occur at many places.	Very light to light rain is likely to occur at isolated places.	Light to moderate rain is likely to occur at a few places.	Light rain is likely to occur at a few places.
Sharda	Sharda	Moderate to heavy rain is likely to occur at most places.	Light to moderate rain is likely to occur at a few places.	Light to moderate rain is likely to occur at a few places.	Light rain is likely to occur at a few places.

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IMD WRF Rainfall (mm) Forecast(24hr)



Sub basin wise Average Rainfall Estimation

Alaknanda =	1 mm	Rapti =	8 mm
Bhagirathi =	4 mm	Sal =	17 mm
Chhatnagto Mirzapur =	8 mm	Sharda =	4 mm
Ganga Narorato Ohaphamau =	15 mm	Sharda (Nepal) =	5 mm
Ganga Phaphamauto Balia =	11 mm	Upper Ganga =	9 mm
Gomti =	16 mm	Upper Ghaghra =	2 mm
Lower Ghaghara =	11 mm	Upper Ghaghra1 (Nepal) =	4 mm
Lower Rapti (Nepal) =	4 mm	Upper Ghaghra2 (Nepal) =	6 mm
Middle Ghaghara =	8 mm	Upper Rapti (Nepal) =	3 mm
Ramganga =	12 mm		

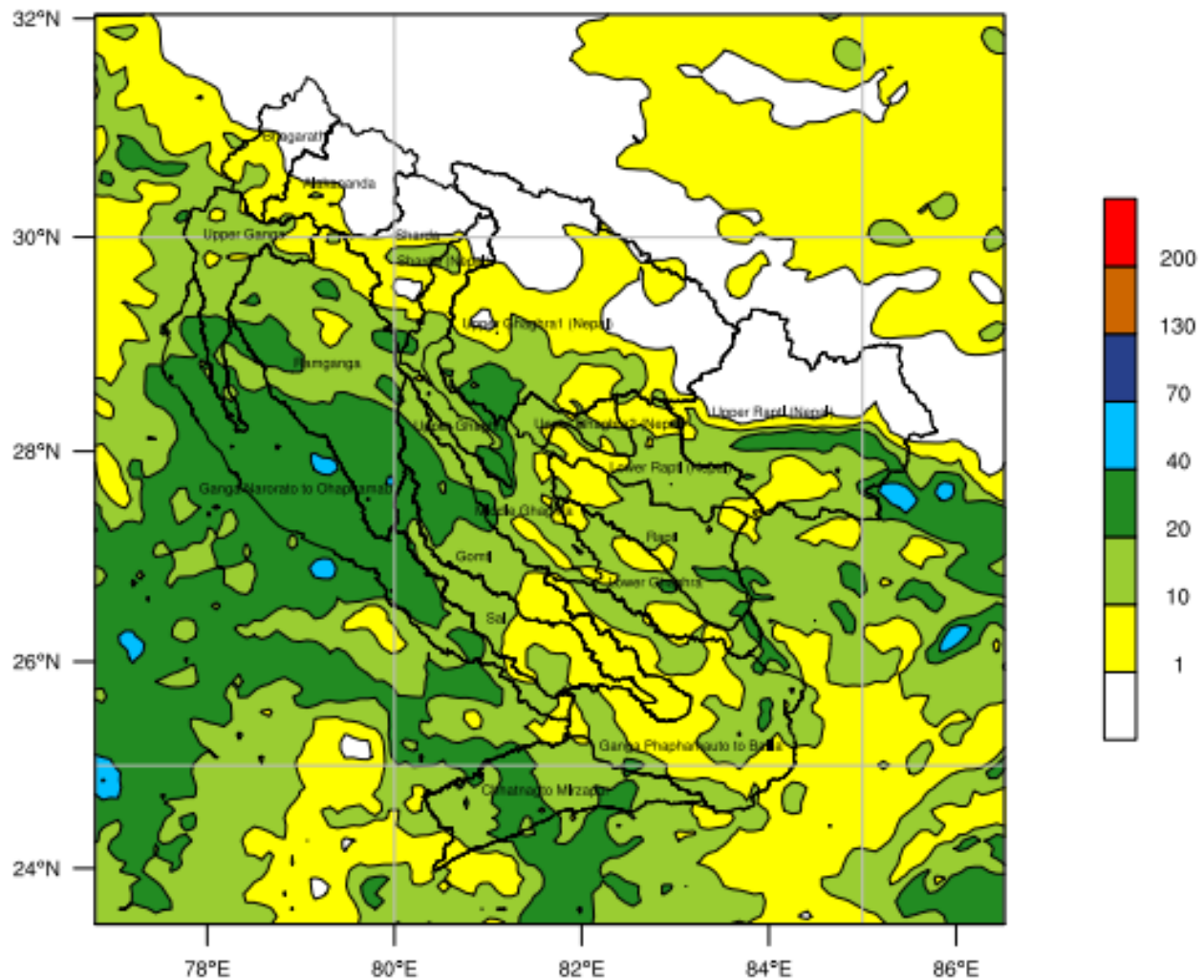
OUTPUT FROM WRF V3.6.1 MODEL

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

Init: 2020-07-31_00:00:00
Vald: 2020-08-02_03:00:00

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IMD WRF Rainfall (mm) Forecast(48hr)



Sub basin wise Average Rainfall Estimation

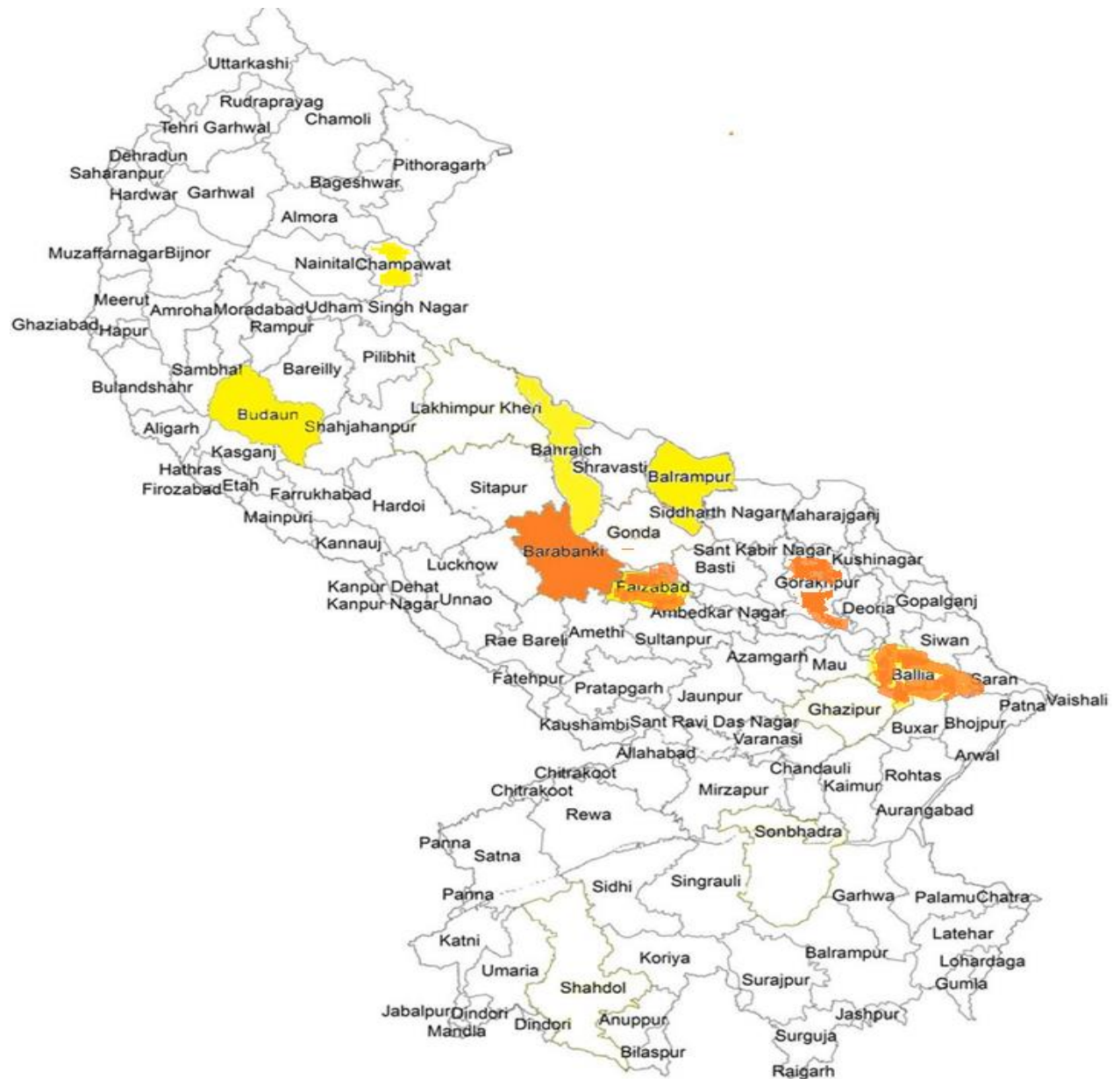
Alaknanda =	2 mm	Rapti =	13 mm
Bhagirathi =	4 mm	Sal =	13 mm
Chhatnagto Mirzapur =	18 mm	Sharda =	8 mm
Ganga Narorato Ohaphamau =	25 mm	Sharda (Nepal) =	7 mm
Ganga Phaphamauto Balia =	11 mm	Upper Ganga =	14 mm
Gomti =	15 mm	Upper Ghaghra =	5 mm
Lower Ghaghara =	12 mm	Upper Ghaghra1 (Nepal) =	12 mm
Lower Rapti (Nepal) =	12 mm	Upper Ghaghra2 (Nepal) =	18 mm
Middle Ghaghara =	14 mm	Upper Rapti (Nepal) =	7 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 31 JULY, 2020



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)
Uttarkashi	49
Rudraprayag (UT)	55.2
Chisapani (Nepal)	61
Narora	68.2
Bhatpurva ghat	56.2
Sultanpur(U.P)	69.4
Birdghat (U.P)	156.4
Gayghat (U.P)	67
Maniram (U.P)	125
Mukhlispur (U.P)	60

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)	4
Total Numbers of Sites above Warning Level (A+B+C)		8
INFLOW FORECAST		
Number of Sites for which inflow forecasts issued:		1
(Where inflow are equal or exceed the specified Threshold Limit for a particular reservoir/ barrage)		1

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	Kachhlabridge	Budaun	U.P.	162	161	162.79	2010	161.63	0800	R	162.35	01.08.2020	0800	R
Rapti	Balrampur	Balrampur	U.P.	104.62	103.62	105.54	2015	104.23	0800	S	104.15	01.08.2020	0800	F
Rapti	Bansi	Siddharth nagar	U.P.	84.90	83.90	85.88	2017	84.38	0800	F	84.55	01.08.2020	0800	R
Ganga	Garmukteshwar		U.P.	199.33	198.33	199.90	2010	198.58	0800	R	198.75	01.08.2020	0800	R

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	Elgin Bridge	Barabanki	U.P.	106.07	105.07	107.616	2014	107.046	0800	S	107.15	01.08.2020	0800	R
Ghaghra	Turitipar	Baliya	U.P.	64.01	63.01	66.00	1998	64.20	0800	R	64.45	01.08.2020	0800	R
Ghaghra	Ayodhya	Faizabad	U.P.	92.73	91.73	94.01	2009	93	0800	R	93.25	01.08.2020	0800	R
Rapti	Birdghat	Gorakhpur	U.P.	74.98	73.98	77.54	1998	75.80	0800	S	76.00	01.08.2020	0800	R

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

[illegible]

Note - No Station in this situation Dated 31.07.2020

2.6 Inflow Forecast

[illegible]

Advisory on Hydro Meteorological Situation Expected from 01-08-2020 to 02-08-2020

As per rainfall pattern given in section II, Alaknanda, Bhagirathi, Ganga, rivers are expected to receive light to moderate rain at most places in next 48 hrs. Ghaghra Ramganga, Sharda and Rapti river basins are expected to receive high to Moderate rain at many places in next 48 hours. Water level at most of CWC station is expected to Rise/Steady in next 48 hours. From the given QPF, above high flood like situation is expected in most of river basins. Level forecast will be issued if the level of river at stations is likely to touch or cross warning level.

अधिशालीअधियंता

मध्य गंगा मण्डल -1 लखनऊ