



Friday, August 04, 2023  
Time of Issue: 0830 hours IST  
(MORNING)

## ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

### Significant Weather Features

#### Significant Weather features:

- ❖ The **Well-Marked Low-Pressure Area** over north Chhattisgarh & neighbourhood now lies over north Chhattisgarh adjoining northeast Madhya Pradesh-southeast Uttar Pradesh. It is likely to move slowly west-northwestwards across north Madhya Pradesh and weaken into a Low Pressure Area during next 12 hours.
- ❖ The Monsoon Trough at mean sea level now passes through Firozpur, Kaithal, Delhi, Hathras, Prayagraj, center of Well Marked Low Pressure Area over north Chhattisgarh adjoining northeast Madhya Pradesh-southeast Uttar Pradesh, Jamshedpur, Digha and thence east-southeastwards to Northeast Bay of Bengal.

#### Weather Forecast and Warning associated with Well Marked Low Pressure Area:

##### Rainfall warning:

- ❖ **East Madhya Pradesh:** Light to moderate rainfall at most places with **heavy to very heavy rainfall at a few places on 4<sup>th</sup> August**. Heavy rainfall at isolated places is likely on 5<sup>th</sup> August.
- ❖ **West Madhya Pradesh:** Light to moderate rainfall at most places with heavy rainfall at isolated places is likely on 4<sup>th</sup> August.
- ❖ **Chhattisgarh:** Light to moderate rainfall at most places with isolated heavy rainfall at isolated places on 4<sup>th</sup> August.
- ❖ **South Uttar Pradesh:** Light to moderate rainfall at most places with isolated heavy rainfall during 4<sup>th</sup> to 6<sup>th</sup> August.

#### Weather Forecast and Warning for remaining parts of the country:

**Northwest India:** Light/moderate scattered to fairly widespread rainfall with isolated **heavy rainfall** is very likely over Uttarakhand, Himachal Pradesh, Uttar Pradesh during 04<sup>th</sup>-08<sup>th</sup> and Punjab, Haryana and East Rajasthan on 04<sup>th</sup> & 05<sup>th</sup> August, 2023.

**Isolated very heavy rainfall also likely over West Uttar Pradesh on 05<sup>th</sup> and over Uttarakhand on 06<sup>th</sup> August.**

**Northeast India:** Light/moderate fairly widespread to widespread rainfall with **isolated heavy rainfall** very likely over Arunachal Pradesh, Assam & Meghalaya during next 5 days and over Tripura on 04<sup>th</sup> August.

**West India:** Light/moderate fairly widespread to widespread rainfall with **isolated heavy rainfall** very likely to continue over Konkan & Goa and ghat areas of Madhya Maharashtra during next 24 hours.

**South India:** Subdued rainfall activity over the region during next 5 days.

**Hot and humid weather conditions very likely to prevail over Tamil Nadu on 04<sup>th</sup> August.**



## Main Weather Observations

- ❖ **Rainfall/thundershowers observed** (from 0830-1730 hours IST of yesterday): **at most places** over East Madhya Pradesh, Vidarbha, Chhattisgarh, Konkan & Goa, Madhya Maharashtra; **at many places** over West Madhya Pradesh, Odisha, Sub-Himalayan West Bengal & Sikkim; **at a few places** over Uttarakhand, East Uttar Pradesh, Bihar, Assam & Meghalaya, Coastal & North Interior Karnataka and **at isolated places** over Punjab, Himachal Pradesh, West Uttar Pradesh, Jharkhand, Arunachal Pradesh, Tripura, Gujarat, Marathwada, Kerala, Lakshadweep.
- ❖ **Heavy rainfall observed** (from 0830-1730 hours IST of yesterday): **Heavy to very heavy rainfall** at isolated places over occurred at East Madhya Pradesh.
- ❖ **Significant rainfall recorded** (from 0830-1730 hours IST of yesterday): (in cm): Narsingpur-14; Pachmarhi, Ashoknagar-7; Seoni, Pendra Road, Jhansi-6 each; Umaria-5 each
- ❖ **Thunderstorm observed** (from 0830 hours IST of yesterday to 0530 hours IST of today): at isolated places over Uttarakhand, Punjab, West Uttar Pradesh, West Madhya Pradesh, Himachal Pradesh, Uttarakhand, Assam & Meghalaya.
- ❖ **Minimum Temperature Departures (as on 03-08-2023)**: Minimum temperatures were **above normal (1.6°C to 3.0°C)** at many places over Coastal Karnataka, Kerala & Mahe, Coastal Andhra Pradesh & Yanam, Andaman & Nicobar Islands; at a few places over Bihar, Sub-Himalaya West Bengal & Sikkim, Assam & Meghalaya, North Interior Karnataka, Telangana, Rayalaseema, Tamil Nadu, Puducherry & Karaikal and at isolated places over Himachal Pradesh, Madhya Maharashtra. They were **below normal (-1.6°C to -3.0°C)** at a few places over East Madhya Pradesh, Lakshadweep; at isolated places over Gangetic West Bengal, Haryana-Chandigarh-Delhi and **near normal** over rest parts of the country. Yesterday, **the lowest minimum temperature of 18.0°C** was reported at **Narsinghpur (East Madhya Pradesh)** over the plains of the country.
- ❖ **Maximum Temperature Departures (as on 03-08-2023)**: Maximum temperatures were **appreciably above normal (3.1°C to 5.0°C)** at many places over Tamil Nadu; at a few places over Kerala; at isolated places over Coastal Andhra Pradesh, Coastal Karnataka; **above normal (1.6°C to 3.0°C)** at many places over Jammu & Kashmir, Himachal Pradesh, Uttarakhand; at a few places over Punjab, Uttar Pradesh; at isolated places over Gangetic West Bengal, Gujarat Region. They were **markedly below normal (-5.0°C or less)** at isolated places over East Madhya Pradesh, Vidarbha, Jharkhand; **appreciably below normal (-3.1°C to -5.0°C)** at many places over West Madhya Pradesh; at a few places over Odisha; at isolated places over Chhattisgarh; **below normal (-1.6°C to -3.0°C)** at many places over Marathwada, Telangana; at a few places over Bihar, Mizoram & Tripura and **near normal** over rest parts of the country. Yesterday, **the highest maximum temperature of 41.6°C** was reported at **Madurai (Tamil Nadu)**.



### Meteorological Analysis (Based on 0530 hours IST)

- ❖ The **Well-Marked Low-Pressure Area** over north Chhattisgarh & neighbourhood now lies over north Chhattisgarh adjoining northeast Madhya Pradesh-southeast Uttar Pradesh. It is likely to move slowly west-northwestwards across north Madhya Pradesh and weaken into Low Pressure Area during next 12 hours.
- ❖ The Monsoon Trough at mean sea level now passes through Ferozpur, Kaithal, Delhi, Hathras, Prayagraj, center of Well Marked Low Pressure Area over north Chhattisgarh adjoining northeast Madhya Pradesh-southeast Uttar Pradesh, Jamshedpur, Digha and thence east-southeastwards to Northeast Bay of Bengal.
- ❖ The Western Disturbance as a trough in mid-tropospheric westerlies with its axis at 5.8 km above mean sea level roughly along Long. 70°E to the north of Lat. 30°N persists.

### Weather Forecast for next 5 days (Upto 0830 hours IST of 09<sup>th</sup> August, 2023)

- ❖ Meteorological sub-division wise detailed 5 days rainfall forecast is given in Table-1.
- ❖ No significant change in maximum temperatures likely over most parts of country during next 5 days.

### Weather Outlook for subsequent 2 days

- ❖ Fairly widespread to widespread light/moderate rainfall likely over parts of northwest, central, east & northeast India, along the west coasts and islands and isolated to scattered rainfall over rest parts of the country.



Table-1

7 Days Rainfall Forecast

S. No.	Subdivision	4-Aug	5-Aug	6-Aug	7-Aug	8-Aug	9-Aug	10-Aug
		Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
1	ANDAMAN & NICOBAR ISLANDS	FWS	SCT	FWS	FWS	WS	WS	FWS
2	ARUNACHAL PRADESH	WS	FWS	SCT	SCT	FWS	FWS	FWS
3	ASSAM & MEGHALAYA	WS	FWS	FWS	FWS	FWS	FWS	FWS
4	NAGALAND, MANIPUR, MIZORAM & TRIPURA	FWS	FWS	FWS	WS	WS	FWS	FWS
5	SUB-HIMALAYAN WEST BENGAL & SIKKIM	WS	WS	WS	WS	WS	WS	WS
6	GANGETIC WEST BENGAL	SCT	SCT	FWS	WS	WS	WS	FWS
7	ODISHA	SCT	SCT	SCT	FWS	FWS	FWS	FWS
8	JHARKHAND	SCT	SCT	FWS	FWS	FWS	FWS	FWS
9	BIHAR	SCT	FWS	FWS	WS	WS	WS	WS
10	EAST UTTAR PRADESH	SCT	FWS	WS	FWS	FWS	FWS	FWS
11	WEST UTTAR PRADESH	FWS	WS	FWS	SCT	SCT	SCT	FWS
12	UTTARAKHAND	WS	WS	WS	WS	WS	FWS	FWS
13	HARYANA CHANDIGARH & DELHI	FWS	WS	FWS	ISOL	ISOL	ISOL	SCT
14	PUNJAB	FWS	FWS	SCT	ISOL	ISOL	ISOL	ISOL
15	HIMACHAL PRADESH	FWS	WS	WS	FWS	FWS	FWS	FWS
16	JAMMU & KASHMIR AND LADAKH	SCT	SCT	SCT	ISOL	ISOL	ISOL	ISOL
17	WEST RAJASTHAN	ISOL	ISOL	ISOL	DRY	DRY	DRY	ISOL
18	EAST RAJASTHAN	FWS	FWS	ISOL	ISOL	ISOL	ISOL	ISOL
19	WEST MADHYA PRADESH	WS	FWS	SCT	SCT	SCT	SCT	SCT
20	EAST MADHYA PRADESH	WS	FWS	FWS	FWS	FWS	SCT	SCT
21	GUJARAT REGION	FWS	FWS	FWS	ISOL	ISOL	ISOL	ISOL
22	SAURASHTRA & KUTCH	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
23	KONKAN & GOA	WS	WS	WS	WS	WS	WS	WS
24	MADHYA MAHARASHTRA	SCT	SCT	SCT	ISOL	ISOL	ISOL	ISOL
25	MARATHAWADA	SCT	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
26	VIDARBHA	WS	FWS	FWS	SCT	SCT	SCT	FWS
27	CHHATTISGARH	FWS	FWS	SCT	SCT	SCT	SCT	FWS
28	COASTAL ANDHRA PRADESH & YANAM	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
29	TELANGANA	ISOL	ISOL	ISOL	ISOL	ISOL	SCT	SCT
30	RAYALASEEMA	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
31	TAMILNADU PUDUCHERRY & KARAIKAL	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
32	COASTAL KARNATAKA	WS	WS	WS	WS	WS	WS	WS
33	NORTH INTERIOR KARNATAKA	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
34	SOUTH INTERIOR KARNATAKA	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
35	KERALA & MAHE	SCT	SCT	SCT	SCT	SCT	SCT	SCT
36	LAKSHADWEEP	SCT	SCT	SCT	SCT	SCT	SCT	SCT

Legend	Category	% Stations
WS	Widespread/Most Places	76-100
FWS	Fairly Widespread/Many places	51-75
SCT	Scattered/ A Few Places	26-50
ISOL	Isolated Places	1-25
DRY	No Rain	0

Fig. 1: Maximum Temperatures Dated 03.08.2023

Fig. 2: Departure of Maximum Temp. Dated 03.08.2023

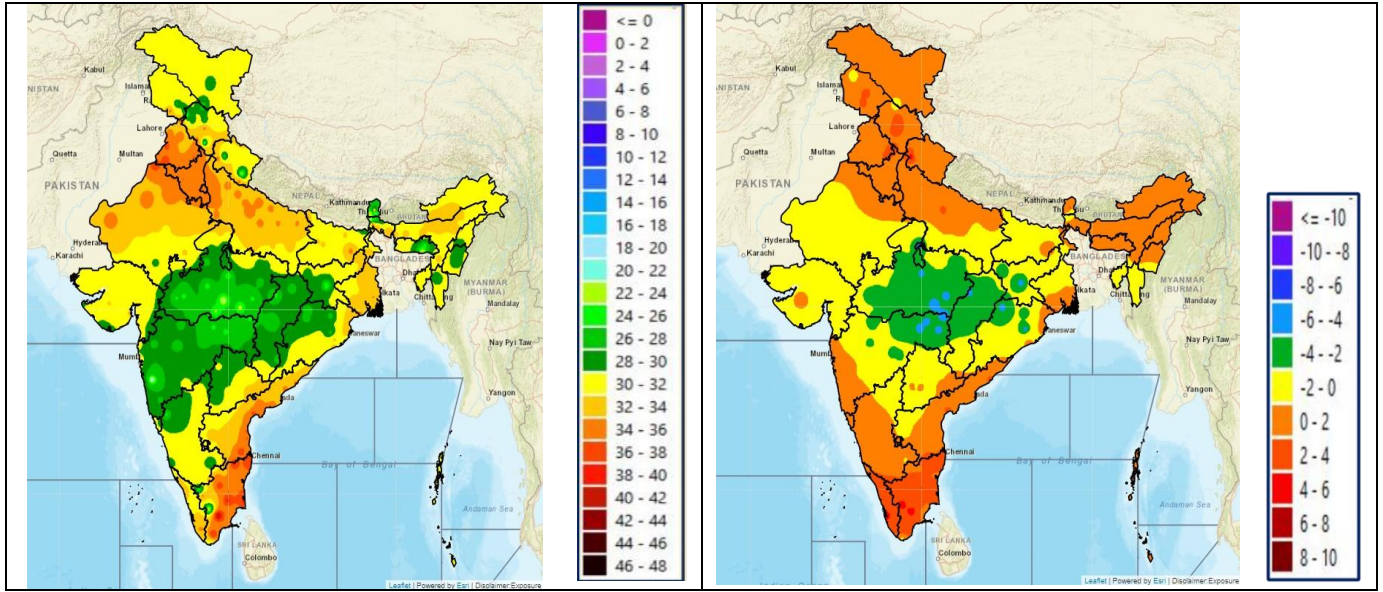
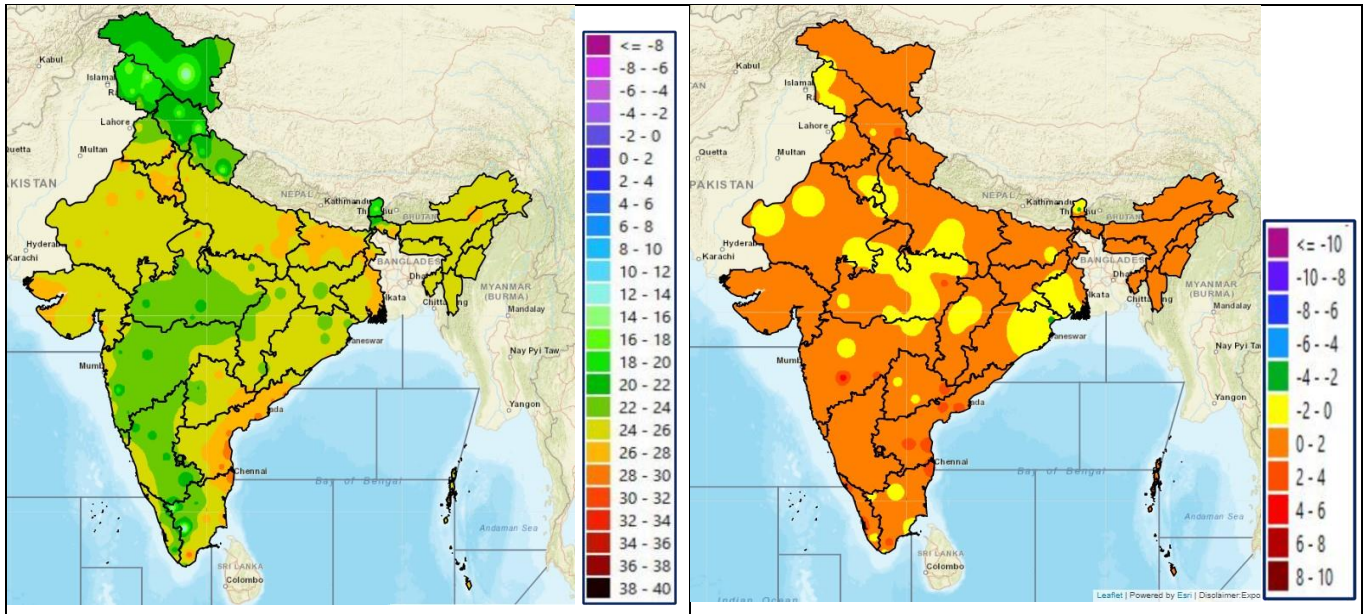


Fig. 3: Minimum Temperatures Dated 03.08.2023

Fig. 4: Departure of Minimum Temp. Dated 03.08.2023

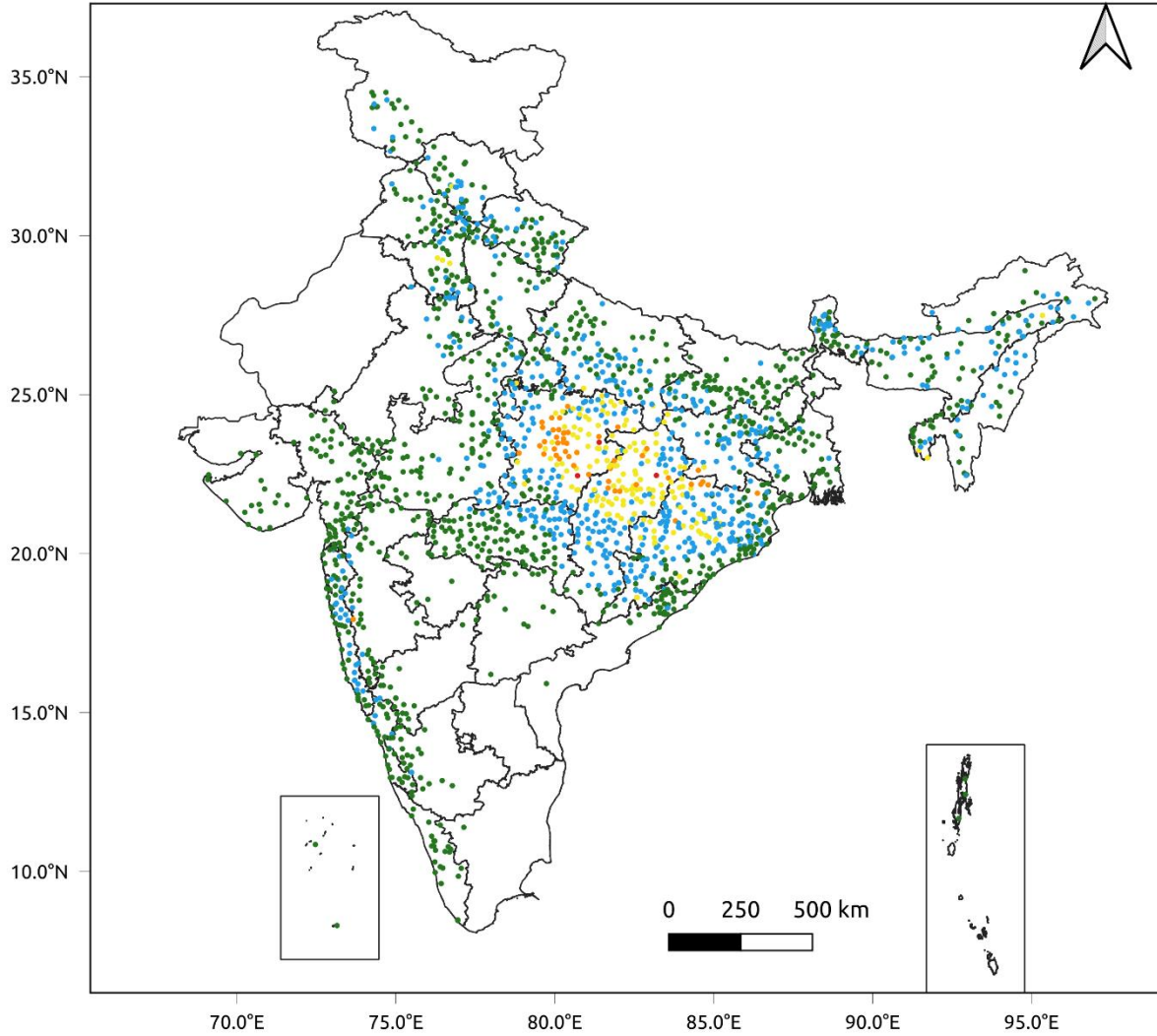


**\* Red color warning does not mean "Red Alert" Red color warning means "Take Action".**  
Forecast and Warning for any day is valid from 0830 hours IST of day till 0830 hours IST of next day For  
more details kindly visit <https://mausam.imd.gov.in> or contact : 011-2434-4599  
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**Fig. 5: Accumulated Rainfall (mm) during past 24 hours**

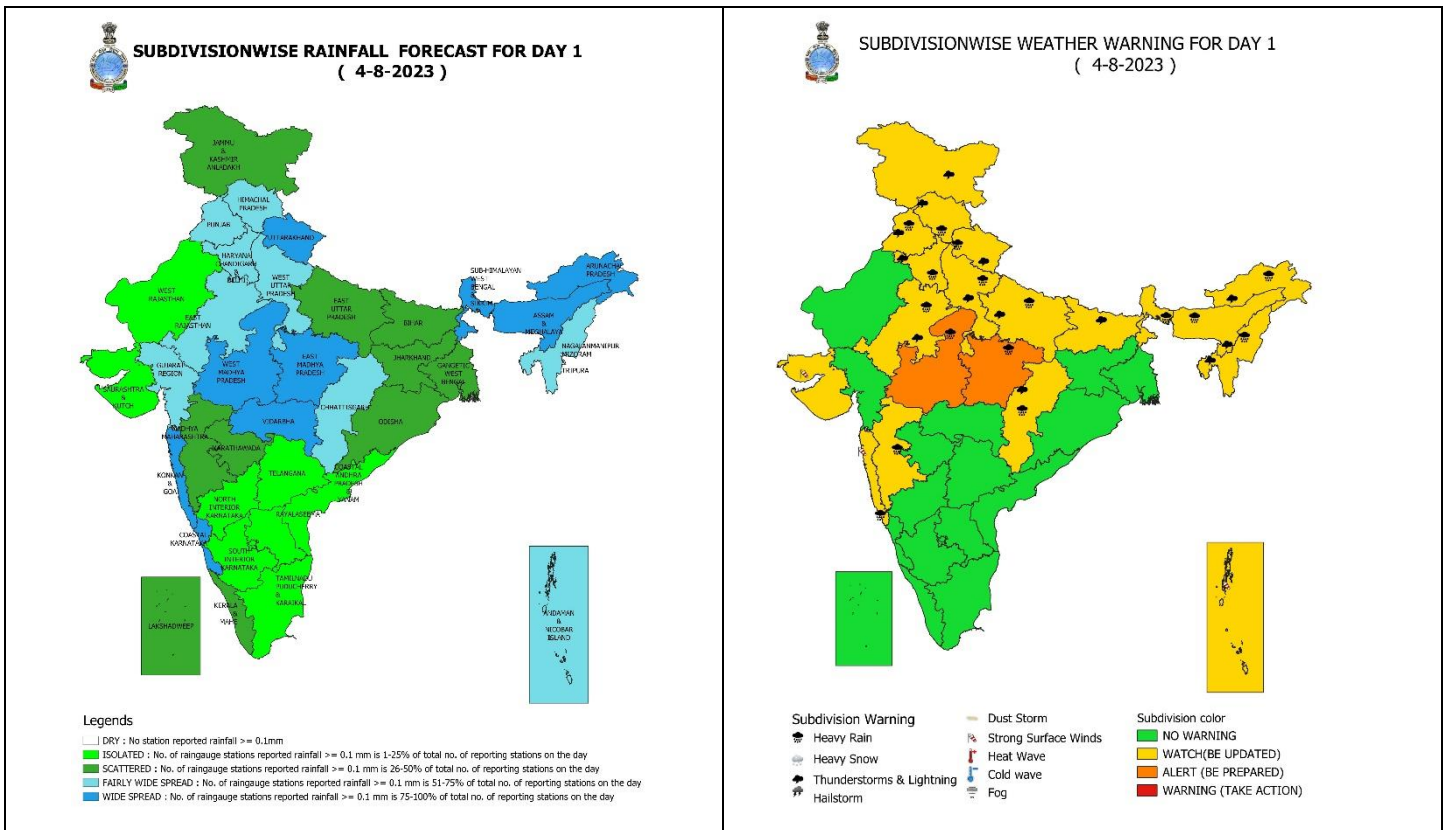


24 Hr cumulative rainfall recorded over different stations during 0830 IST of 2-8-2023 to 0830 IST of 3-8-2023



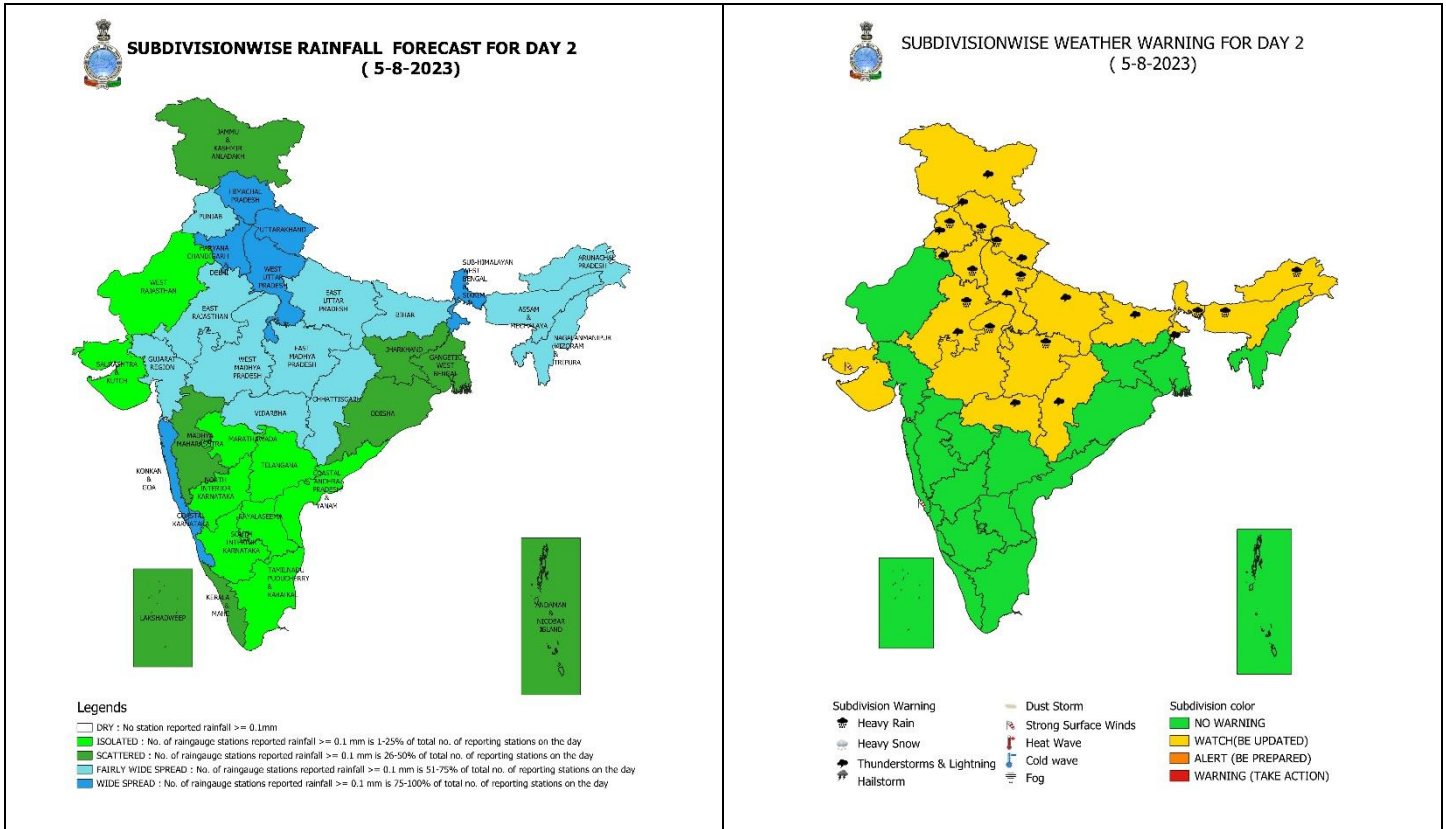
## Legends

- Very Light to Light Rainfall (0.1 - 15.5 mm)
- Moderate Rainfall (15.6 - 64.4 mm)
- Heavy Rainfall (64.5 - 115.5 mm)
- Very Heavy Rainfall (115.6 - 204.4 mm)
- Extremely Heavy Rainfall ( $\geq 204.5$  mm)



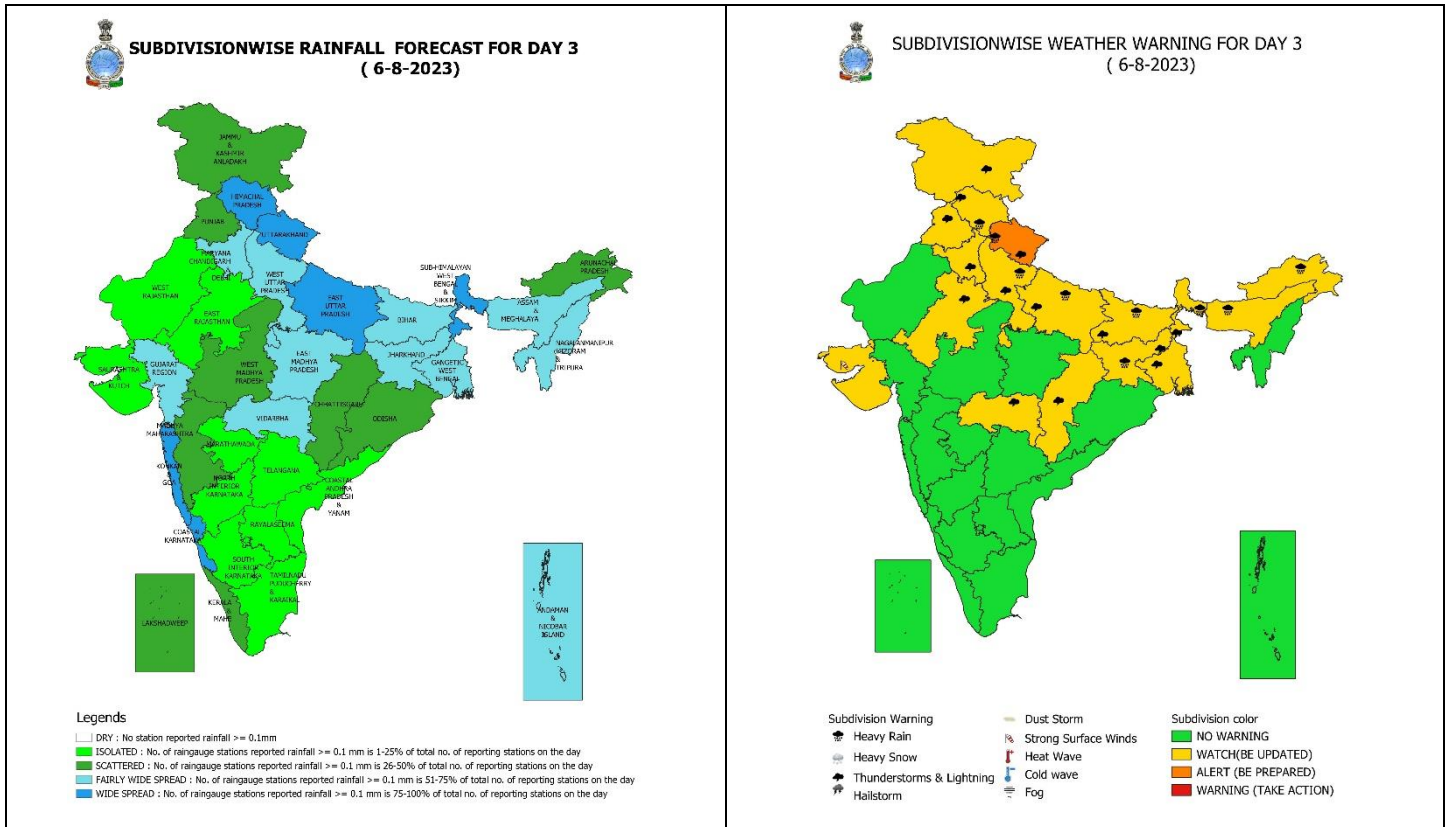
### 04 August (Day 1):

- ❖ **Heavy to very heavy rainfall** very likely at isolated places over Madhya Pradesh, northeast Rajasthan-southeast Haryana-southwest Uttar Pradesh, Arunachal Pradesh, Assam & Meghalaya; **Heavy rainfall** likely at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand, Punjab, rest parts of East Rajasthan-Haryana-West Uttar Pradesh, East Uttar Pradesh, Chhattisgarh, Nagaland, Manipur, Mizoram & Tripura, Konkan & Goa, Madhya Maharashtra.
- ❖ **Thunderstorm with lightning** very likely at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand, Punjab, Haryana-Chandigarh-Delhi, East Rajasthan, Uttar Pradesh, Chhattisgarh, Bihar, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura.
- ❖ **Squally wind speed of 45-55 kmph gusting to 65 kmph** very likely over Southwest, Central & North Arabian Sea, along & off Gujarat-north Maharashtra coasts and Comorin area; **Squally weather with wind speed reaching 40-45 kmph gusting to 55 kmph** over Central & adjoining South Bay of Bengal and north Andaman Sea. **Fishermen are advised not to venture into these areas.**
- ❖ **24 hours Outlook for the Flash Flood Risk (FFR) till 0530 IST of 05-08-2023:**
  - **Moderate flash flood risk** likely over few watersheds & neighbourhood of **Uttarakhand adjoining Himachal Pradesh** Met Sub-divisions during next 24 hours.
  - **Low to Moderate flash flood risk** likely over few watersheds & neighbourhood of **south Madhya Pradesh** during next 24 hours.



**05 August (Day 2):**

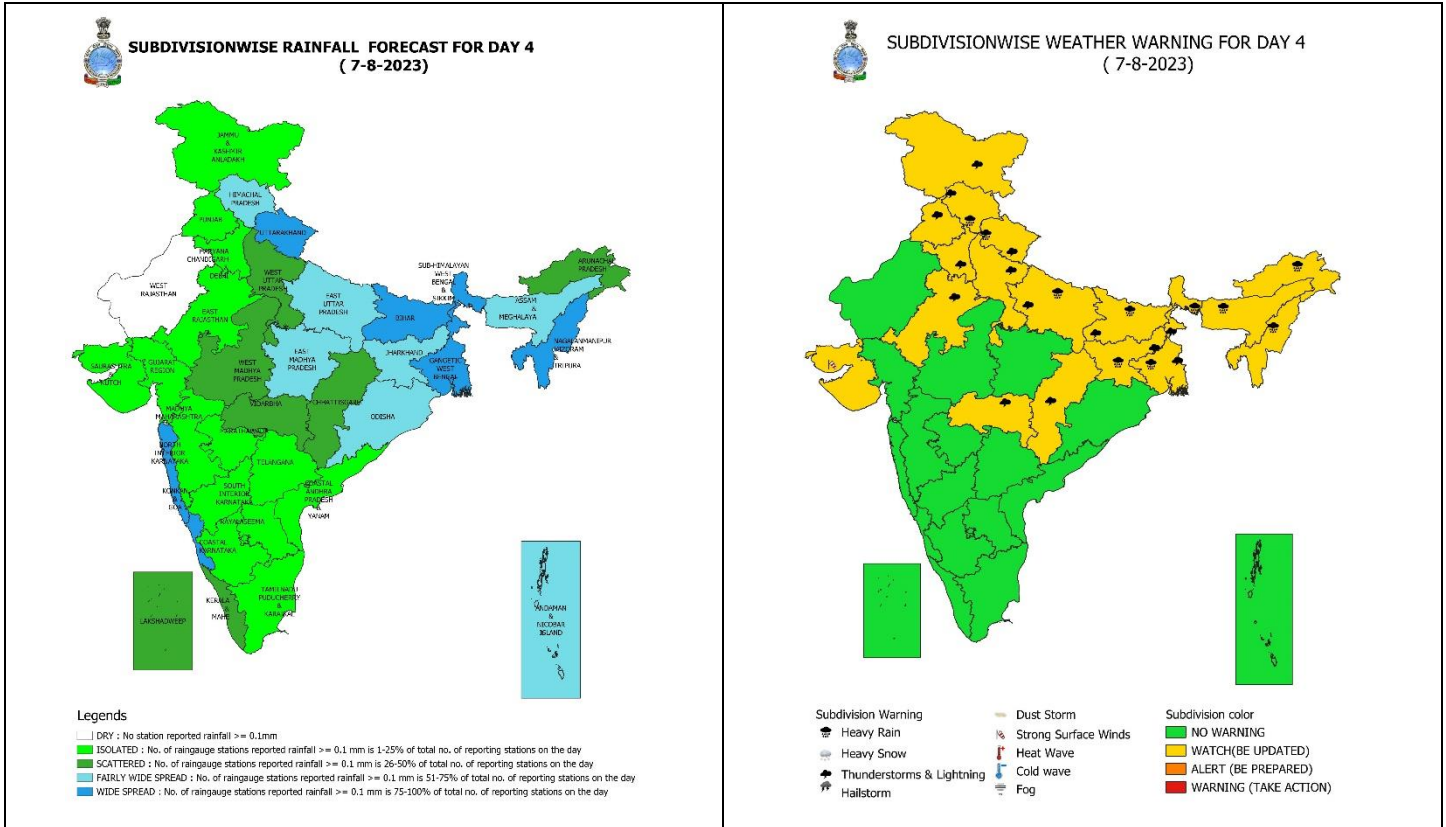
- ❖ **Heavy to very heavy rainfall** very likely at isolated places over West Uttar Pradesh; **Heavy rainfall** likely at isolated places over Himachal Pradesh, Uttarakhand, Punjab, Haryana, East Rajasthan, Madhya Pradesh, Arunachal Pradesh and Assam & Meghalaya.
- ❖ **Thunderstorm with lightning** very likely at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand, Punjab, Haryana-Chandigarh-Delhi, East Rajasthan, Uttar Pradesh, Vidarbha, Chhattisgarh, Bihar.
- ❖ **Squally wind speed of 45-55 kmph gusting to 65 kmph** very likely over Southwest, Central & North Arabian Sea, along & off Gujarat coast and Comorin area; **Squally weather with wind speed reaching 40-45 kmph gusting to 55 kmph** over Central & adjoining South Bay of Bengal. Fishermen are advised not to venture into these areas.



### 06 August (Day 3):

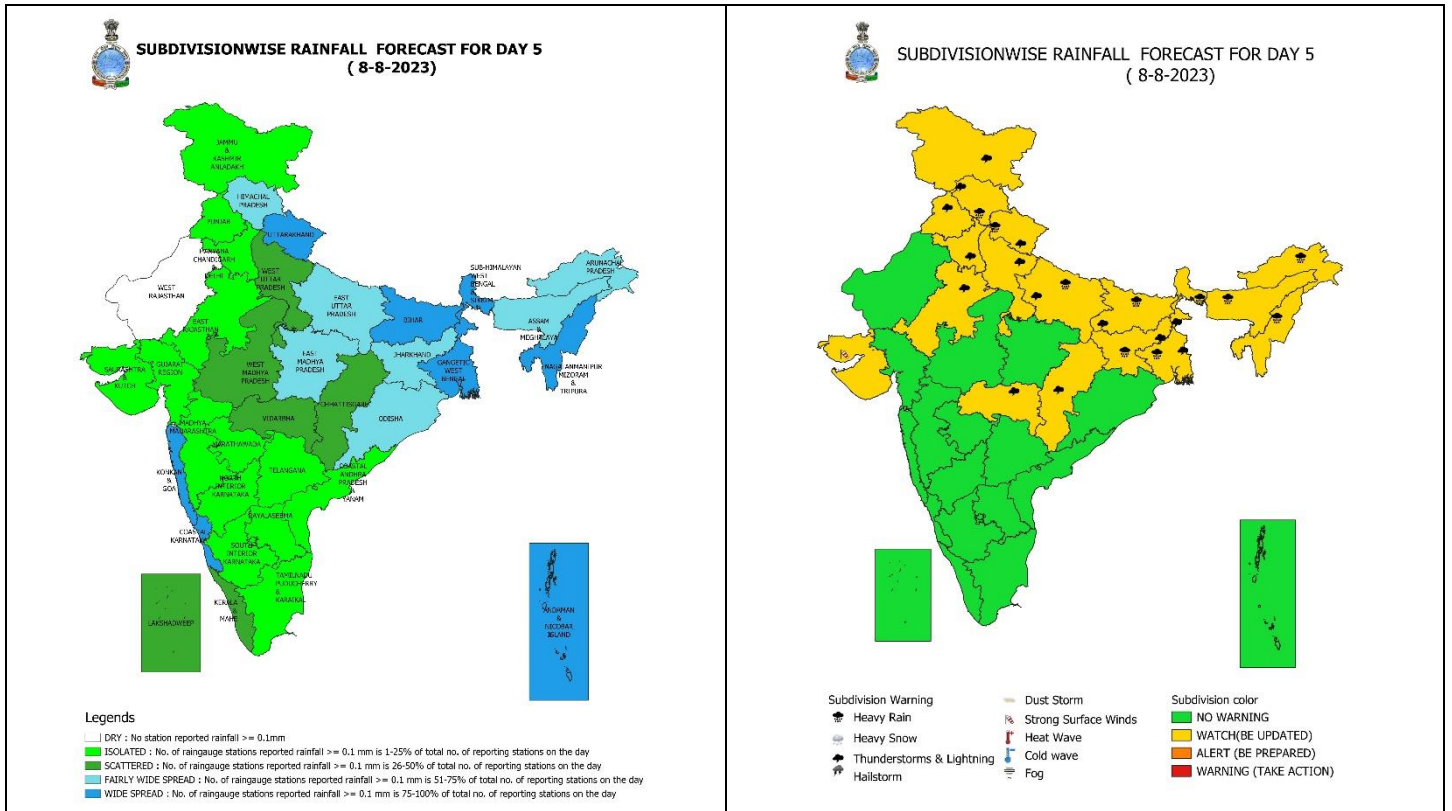
- ❖ **Heavy to very heavy rainfall** very likely at isolated places over Uttarakhand; **Heavy rainfall** likely at isolated places over Himachal Pradesh, Uttar Pradesh, Bihar, Jharkhand, Arunachal Pradesh and Assam & Meghalaya.
- ❖ **Thunderstorm with lightning** very likely at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand, Punjab, Haryana-Chandigarh-Delhi, East Rajasthan, Uttar Pradesh, Vidarbha, Chhattisgarh, Bihar, Jharkhand, Gangetic West Bengal.

**Squally wind speed of 45-55 kmph gusting to 65 kmph** very likely over Southwest, Central & North Arabian Sea, along & off Gujarat coast and Comorin area; **Squally weather with wind speed reaching 40-45 kmph gusting to 55 kmph** over Central & adjoining South Bay of Bengal. **Fishermen are advised not to venture into these areas.**



**07 August (Day 4):**

- ❖ **Heavy rainfall** likely at isolated places over Himachal Pradesh, Uttarakhand, East Uttar Pradesh, Gangetic West Bengal, Bihar, Jharkhand, Arunachal Pradesh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.
- ❖ **Thunderstorm with lightning** likely at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand, Punjab, Haryana-Chandigarh-Delhi, East Rajasthan, Uttar Pradesh, Vidarbha, Chhattisgarh, Bihar, Jharkhand, Gangetic West Bengal.
- ❖ **Squally wind speed of 45-55 kmph gusting to 65 kmph** likely over Southwest, Central & North Arabian Sea, along & off Gujarat coast and Comorin area; **Squally weather with wind speed reaching 40-45 kmph gusting to 55 kmph** over Central & adjoining South Bay of Bengal. **Fishermen are advised not to venture into these areas.**



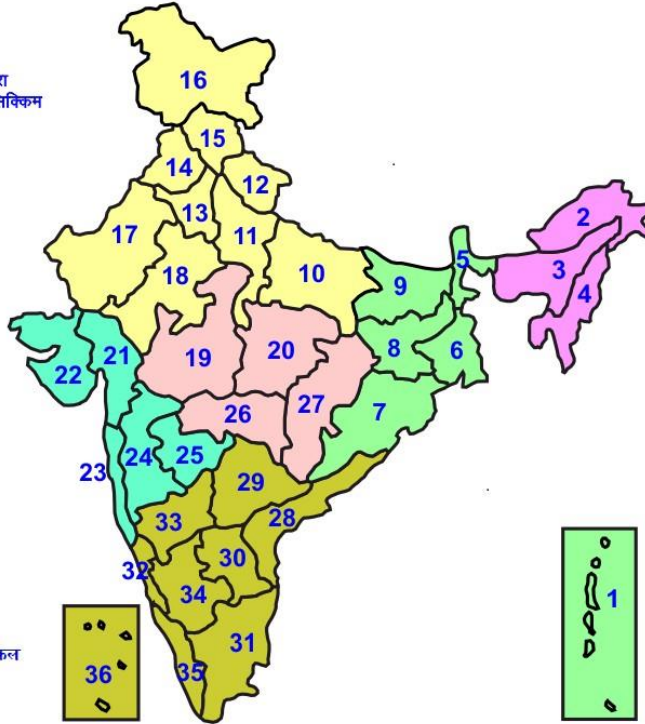
## 08 August (Day 5):

- ❖ **Heavy rainfall** likely at isolated places over Himachal Pradesh, Uttarakhand, East Uttar Pradesh, Gangetic West Bengal, Bihar, Jharkhand, Arunachal Pradesh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.
- ❖ **Thunderstorm with lightning** likely at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand, Punjab, Haryana-Chandigarh-Delhi, East Rajasthan, Uttar Pradesh, Vidarbha, Chhattisgarh, Bihar, Jharkhand, Gangetic West Bengal.
- ❖ **Squally wind speed of 45-55 kmph gusting to 65 kmph** likely over Southwest, Central & North Arabian Sea, along & off Gujarat coast and Comorin area; **Squally weather with wind speed reaching 40-45 kmph gusting to 55 kmph** over Central & adjoining South Bay of Bengal. **Fishermen are advised not to venture into these areas.**



## LEGENDS

- 1 अंडमान और निकोबार द्वीप समुह
- 2 अरुणाचल प्रदेश
- 3 असम और मेघालय
- 4 नागालैंड मनीपुर मीजोरम और त्रिपुरा
- 5 उप हिमालय पश्चिम बंगाल एवं सिक्किम
- 6 पश्चिम गंगेय बंगाल
- 7 ओडिशा
- 8 झारखंड
- 9 बिहार
- 10 पूर्वी उत्तर प्रदेश
- 11 पश्चिम उत्तर प्रदेश
- 12 उत्तराखंड
- 13 हरियाणा चंडिगढ़ एवं दिल्ली
- 14 पंजाब
- 15 हिमाचल प्रदेश
- 16 जम्मू एवं कश्मीर एवं लद्दाख
- 17 पश्चिम राजस्थान
- 18 पूर्वी राजस्थान
- 19 पश्चिम मध्य प्रदेश
- 20 पूर्वी मध्य प्रदेश
- 21 गुजरात क्षेत्र
- 22 सौराष्ट्र एवं कच्छ
- 23 कोंकण एवं गोवा
- 24 मध्य महाराष्ट्र
- 25 मराठावाड़ा
- 26 विदर्भ
- 27 छत्तीसगढ़
- 28 तटीय आंध्र प्रदेश एवं यनम
- 29 तेलंगाना
- 30 रायलसीमा
- 31 तमिलनाडु, पुदुचेरी एवं कराईकल
- 32 तटिय कर्नाटक
- 33 आंतरिक उत्तरी कर्नाटक
- 34 आंतरिक दक्षिणी कर्नाटक
- 35 केरल एवं माहे
- 36 लक्षद्वीप



1. Andaman & Nicobar Islands
2. Arunachal Pradesh
3. Assam & Meghalaya
4. Nagaland, Manipur, Mizoram & Tripura
5. Sub-Himalayan West Bengal & Sikkim
6. Gangetic West Bengal
7. Orissa
8. Jharkhand
9. Bihar
10. East Uttar Pradesh
11. West Uttar Pradesh
12. Uttarakhand
13. Haryana, Chd & Delhi
14. Punjab
15. Himachal Pradesh
16. Jammu & Kashmir and Ladakh
17. West Rajasthan
18. East Rajasthan
19. West Madhya Pradesh
20. East Madhya Pradesh
21. Gujarat
22. Saurashtra
23. Konkan & Goa
24. Madhya Maharashtra
25. Marathawada
26. Vidharbha
27. Chhattisgarh
28. Coastal Andhra Pradesh & Yanam
29. Telangana
30. Rayalaseema
31. Tamilnadu, Puducherry & Karaikal
32. Coastal Karnataka
33. North Interior Karnataka
34. South Interior Karnataka
35. Kerala & Mahe
36. Lakshadweep

## SPATIAL DISTRIBUTION (% of Stations reporting)

% Stations	Category	% Stations	Category
76-100	Widespread (WS/ Most Places)	26-50	Scattered (SCT/ A Few Places)
51-75	Fairly Widespread (FWS/ Many Places)	1-25	Isolated (ISOL)

## WARNING

<b>WARNING (TAKE ACTION)</b>
<b>ALERT ( BE PREPARED)</b>
<b>WATCH (BE UPDATED)</b>
<b>NO WARNING ( NO ACTION)</b>

## Probabilistic Forecast

Terms	Probability of Occurrence (%)
Unlikely	< 25
Likely	25 - 50
Very Likely	50 - 75
Most Likely	> 75



Heavy Rain



Heavy Snow



Thunderstorm



Dust Storm



Strong Winds



Visibility



Cyclone



Squall/ Hail



Frost



Cold Wave



Heat Wave



Sea State

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## LEGENDS

### WARNING

<b>WARNING (TAKE ACTION)</b>
<b>ALERT ( BE PREPARED)</b>
<b>WATCH (BE UPDATED)</b>
<b>NO WARNING ( NO ACTION)</b>

### Probabilistic Forecast

Terms	Probability of Occurrence (%)
Unlikely	< 25
Likely	25 - 50
Very Likely	50 - 75
Most Likely	> 75



Rain/ Snow \*

Heavy: 64.5 to 115.5 mm/cm \*  
Very Heavy: 115.6 to 204.4 mm/cm\*  
Extremely Heavy: > 204.4 mm/cm \*



Heat Wave

When maximum temperature of a station reaches  $\geq 40^{\circ}\text{C}$  for plains and  $\geq 30^{\circ}\text{C}$  for hilly regions  
(a) Based on Departure from normal

Heat Wave: Maximum Temperature Departure from normal  $4.5^{\circ}\text{C}$  to  $6.4^{\circ}\text{C}$ .  
Severe Heat Wave: Maximum Temperature Departure from normal  $\geq 6.5^{\circ}\text{C}$

(b). Based on Actual maximum temperature

Heat Wave: When actual maximum temperature  $\geq 45^{\circ}\text{C}$ .  
Severe Heat Wave: When actual maximum temperature  $\geq 47^{\circ}\text{C}$

(c). Criteria for heat wave for coastal stations

When maximum temperature departure is  $> 4.5^{\circ}\text{C}$  from normal. Heat Wave may be described provided maximum temperature  $\geq 37^{\circ}\text{C}$



Warm Night

When maximum temperature remains  $40^{\circ}\text{C}$

Warm Night: When minimum temperature departure  $4.5^{\circ}\text{C}$  to  $6.4^{\circ}\text{C}$ .  
Severe Warm Night: When minimum temperature departure  $> 6.4^{\circ}\text{C}$ .



Cold Wave

When minimum temperature of a station  $\leq 10^{\circ}\text{C}$  for plains and  $\leq 0^{\circ}\text{C}$  for hilly regions.

(a). Based on departure

Cold Wave: Minimum Temperature Departure from normal  $-4.5^{\circ}\text{C}$  to  $-6.4^{\circ}\text{C}$ .  
Severe Cold Wave: Minimum Temperature Departure from normal  $\leq -6.5^{\circ}\text{C}$

(b) Based on actual Minimum Temperature (for Plains only)

Cold Wave : When Minimum Temperature is  $\leq 4.0^{\circ}\text{C}$   
Severe Cold Wave: When Minimum Temperature is  $\leq 2.0^{\circ}\text{C}$

(c) For Coastal Stations

When Minimum Temperature departure is  $\leq -4.5^{\circ}\text{C}$  & actual Minimum Temperature is  $\leq 15^{\circ}\text{C}$



Cold Day

When minimum temperature of a station  $\leq 10^{\circ}\text{C}$  for plains and  $\leq 0^{\circ}\text{C}$  for hilly regions  
Based on departure

Cold Day: Maximum Temperature Departure from normal  $-4.5^{\circ}\text{C}$  to  $-6.4^{\circ}\text{C}$ .  
Severe Cold Day: Maximum Temperature Departure from normal  $\leq -6.5^{\circ}\text{C}$



Fog

Phenomenon of small droplets suspended in air and the horizontal visibility  $< 1\text{km}$

Moderate Fog: When the visibility between 500-200 metres  
Dense Fog: when the visibility between 50- 200 metres  
Very Dense Fog: when the visibility  $< 50$  metres



Thunderstorm

Sudden electrical discharges manifested by a flash of light (Lightning) and a sharp rumbling sound (thunder)



Dust/Sand Storm

An ensemble of particles of dust or sand energetically lifted to great heights by a strong and turbulent wind.



Frost

Ice deposits on ground

Air temperature  $\leq 4^{\circ}\text{C}$  ( over Plains)



Squall

A strong wind that rises suddenly, lasts for atleast 1 minute.

Moderate: Wind speed 52-61 kmph  
Severe: Wind speed 62-87 kmph  
Very Severe: Wind speed  $> 87$  kmph



Sea State

Effect of various waves in the sea over specific area

Rough to very rough: Wind speed 41-62 kmph (22-33 knots) & Wave height 2.5-6 metre  
High to very high: Wind speed 63-117 kmph ( 34-63 knots) & Wave height 6-14 metre  
Phenomenal: Wind speed  $> 117$  kmph ( $> 63$  knots) & Wave height  $> 14$  metre



Cyclone

Cyclonic Storm: Wind speed 62-87 kmph (34-47 knots)  
Severe Cyclonic Storm: Wind speed 88-117 kmph (48-63 knots)  
Very Severe Cyclonic Storm: Wind speed 118-165 kmph (64 - 89 knots)  
Extremely Severe Cyclonic Storm: Wind speed 166-220 kmph (90 -119 knots)  
Super Cyclone Strom: Wind speed  $> 220$  kmph ( $> 119$  knots)

\* Red color warning does not mean "Red Alert" Red color warning means "Take Action".

Forecast and Warning for any day is valid from 0830 hours IST of day till 0830 hours IST of next day For more details kindly visit <https://mausam.imd.gov.in> or contact : 011-2434-4599

(Service to the Nation since 1875)