



Wednesday, August 23, 2023  
Time of Issue: 0800 hours IST  
(MORNING)

## ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

### Significant Weather Features

#### **Significant Weather features:**

- ❖ A cyclonic circulation lies over central Madhya Pradesh & neighbourhood in middle tropospheric levels.
- ❖ Monsoon Trough lies to the north of its normal position. It is likely to remain north of its normal position during next 7 days.
- ❖ The Western Disturbance as a trough in middle tropospheric westerlies runs roughly along Long. 62°E to the north of Lat. 30°N.

#### **Weather Forecast and Warnings:**

**Northwest India:** Light/moderate fairly widespread to widespread rainfall/thunderstorm & lightning with isolated **heavy rainfall** likely over Himachal Pradesh, Uttarakhand and Uttar Pradesh during 23<sup>rd</sup>-25<sup>th</sup> August, 2023.

**Isolated very heavy rainfall also likely over north Uttar Pradesh, Himachal Pradesh & Uttarakhand during 23<sup>rd</sup>-24<sup>th</sup> August, 2023.**

**Isolated extremely heavy rainfall also likely over Uttarakhand on 23<sup>rd</sup> & 24<sup>th</sup> August, 2023.**

**Central India:** Light/moderate fairly widespread to widespread rainfall with isolated thunderstorm & lightning very likely over the region during next 2 days.

**East India:** Light/moderate fairly widespread to widespread rainfall/thunderstorm & lightning with **isolated heavy rainfall** activity very likely over Sub-Himalayan West Bengal & Sikkim during next 5 days; Gangetic West Bengal and Odisha during 23<sup>rd</sup>-25<sup>th</sup>; Jharkhand during 23<sup>rd</sup> -24<sup>th</sup> and over Bihar during 23<sup>rd</sup>- 27<sup>th</sup> August, 2023.

**Isolated very heavy rainfall also likely over Sub-Himalayan West Bengal & Sikkim on 24<sup>th</sup> & 25<sup>th</sup>; over Bihar during 23<sup>rd</sup> & 25<sup>th</sup> August.**

**Isolated extremely heavy rainfall also likely over Sub-Himalayan West Bengal-Sikkim on 23<sup>rd</sup> and over Bihar on 23<sup>rd</sup> & 24<sup>th</sup> August, 2023.**

**Northeast India:** Light/moderate fairly widespread to widespread rainfall/thunderstorm & lightning with isolated **heavy rainfall** activity very likely over the region during next 5 days.

**Isolated very heavy rainfall also likely over Assam & Meghalaya and Arunachal Pradesh during 23<sup>rd</sup>-27<sup>th</sup> August, 2023.**

**South India:** Light/moderate scattered to fairly widespread rainfall/thunderstorm & lightning activity very likely over north Tamil Nadu and Coastal Andhra Pradesh & Yanam on 23<sup>rd</sup> August, 2023.

**No significant weather over rest parts of the country during next 5 days.**



### Main Weather Observations:

- ❖ **Heavy rainfall** at isolated places over Uttar Pradesh, East Rajasthan, Himachal Pradesh, Uttarakhand, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura.
- ❖ **Significant rainfall recorded** (from 0830 hours IST to 1730 hours IST of yesterday): **(in cm)**: East Rajasthan: Dholpur-11; Uttarakhand: Bilaspur-10, Bajpur-8; West Uttar Pradesh: Agra-9, Mainpuri-8, Tundla-7; East Uttar Pradesh: Kanpur-9; Assam & Meghalaya: Barpeta-9; Nagaland, Manipur, Mizoram & Tripura: Amarpur-7; Jharkhand: Giridih-4; Bihar: Banka-2
- ❖ **Thunderstorm observed recorded** (from 0830 hours IST of yesterday to 0530 hours IST of today): at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Uttarakhand, Bihar, Assam & Meghalaya, Punjab, East Uttar Pradesh, East Rajasthan, Odisha.
- ❖ **Minimum Temperature Departures (as on 22-08-2023)**: Minimum temperatures were **appreciably above normal (3.1°C to 5.0°C)** at most places over Himachal Pradesh; at a few places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad; **above normal (1.6°C to 3.0°C)** at most places over Punjab, Haryana-Chandigarh-Delhi, Kerala & Mahe; at many places over Jharkhand, Chhattisgarh; at a few places over East Madhya Pradesh, Gangetic West Bengal, Odisha, Rayalaseema, Telangana, Tamil Nadu, Puducherry & Karaikal; at isolated places over West Rajasthan, West Madhya Pradesh, Coastal Andhra Pradesh & Yanam. They were **below normal (-1.6°C to -3.0°C)** at isolated places over Assam & Meghalaya and Bihar and **near normal** over rest parts of the country. Yesterday, **the lowest minimum temperature of 20.0°C** was reported at **Khandwa (West Madhya Pradesh)** over the plains of the country.
- ❖ **Maximum Temperature Departures (as on 22-08-2023)**: Maximum temperatures were **above normal (1.6°C to 3.0°C)** at most places over Karnataka, Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe; at a few places over Chhattisgarh, Telangana and at isolated places over Punjab, Haryana-Chandigarh-Delhi, Odisha, Gangetic West Bengal, Coastal Andhra Pradesh & Yanam, Konkan & Goa, Madhya Maharashtra, Marathwada. They were **below normal (-1.6°C to -3.0°C)** at a few places over Himachal Pradesh and Sub-Himalaya West Bengal & Sikkim and **near normal** over rest parts of the country. Yesterday, **the highest maximum temperature of 41.5°C** was reported at **Ganganagar (West Rajasthan)**.

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

- ❖ The **Monsoon Trough** at mean sea level continues to pass through Amritsar, Patiala, Meerut, Lucknow, Gaya, Balurghat and thence eastwards to Nagaland across Assam.
- ❖ The **Western Disturbance** as a trough in middle tropospheric westerlies with its axis at 5.8 km above mean sea level now runs roughly along Long. 62°E to the north of Lat. 30°N.
- ❖ The cyclonic circulation over central parts of Madhya Pradesh between 3.1 & 4.5 km above mean sea level persists.
- ❖ The north-south trough from South Interior Karnataka to Comorin area across interior Tamil Nadu at 0.9 km above mean sea level persists.
- ❖ The cyclonic circulation over north Tamil Nadu & adjoining Rayalaseema at 1.5 km above mean sea level persists.

### Weather Forecast for next 5 days (Upto 0830 hours IST of 27<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 along the foothills of the Himalayas, parts of east & northeast India, along the west coasts and islands.
- ❖ Scattered to fairly widespread light/moderate rainfall likely over Central India.
- ❖ Subdued rainfall activity with isolated to scattered rainfall likely over rest parts of the country.



Table-1

7 Days Rainfall Forecast

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

\* 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. 1: Maximum Temperatures Dated 22.08.2023

Fig. 2: Departure of Maximum Temp. Dated 22.08.2023

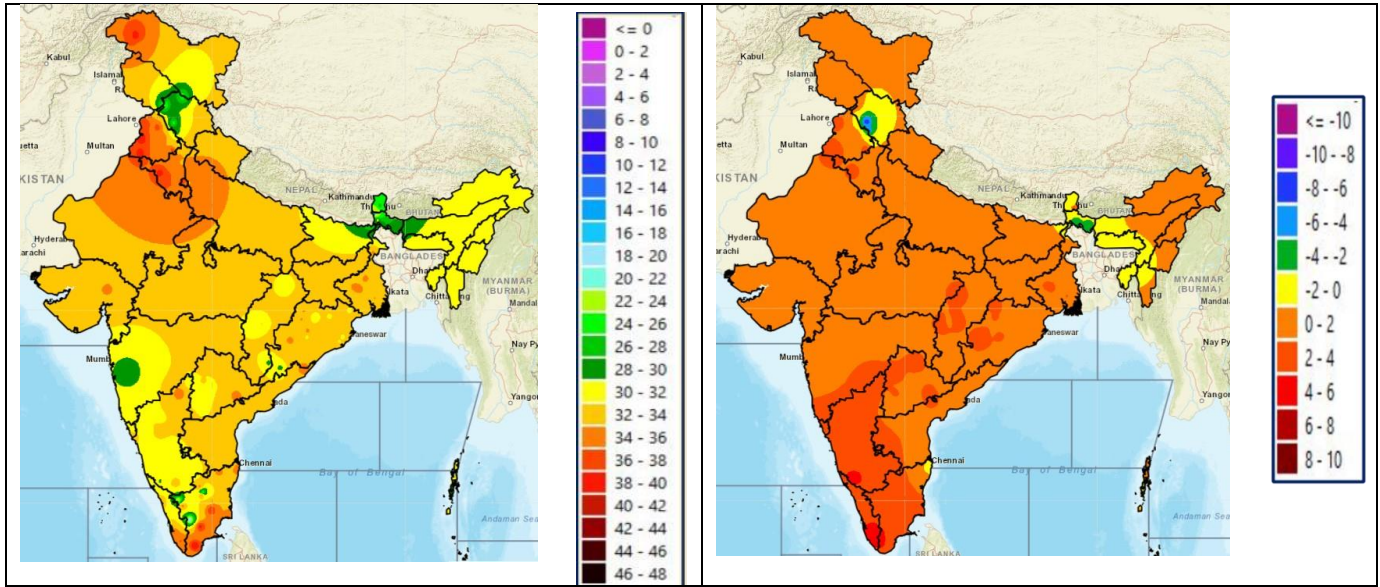


Fig. 3: Minimum Temperatures Dated 22.08.2023

Fig. 4: Departure of Minimum Temp. Dated 22.08.2023

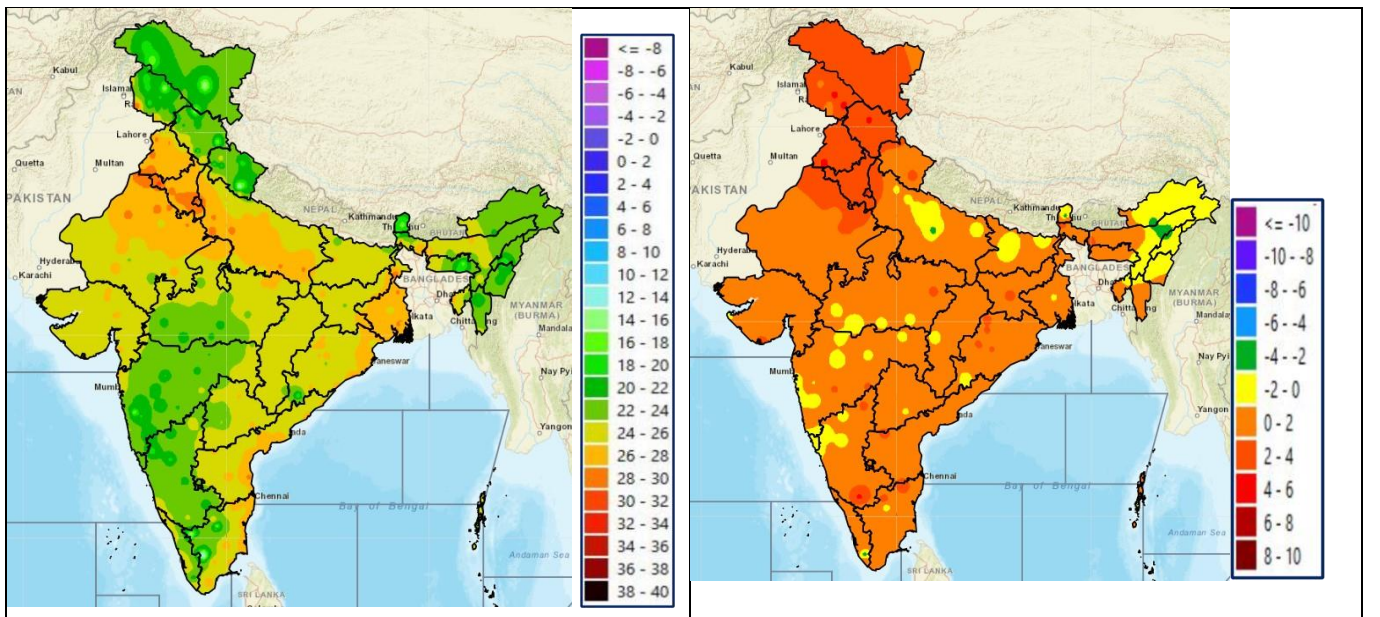
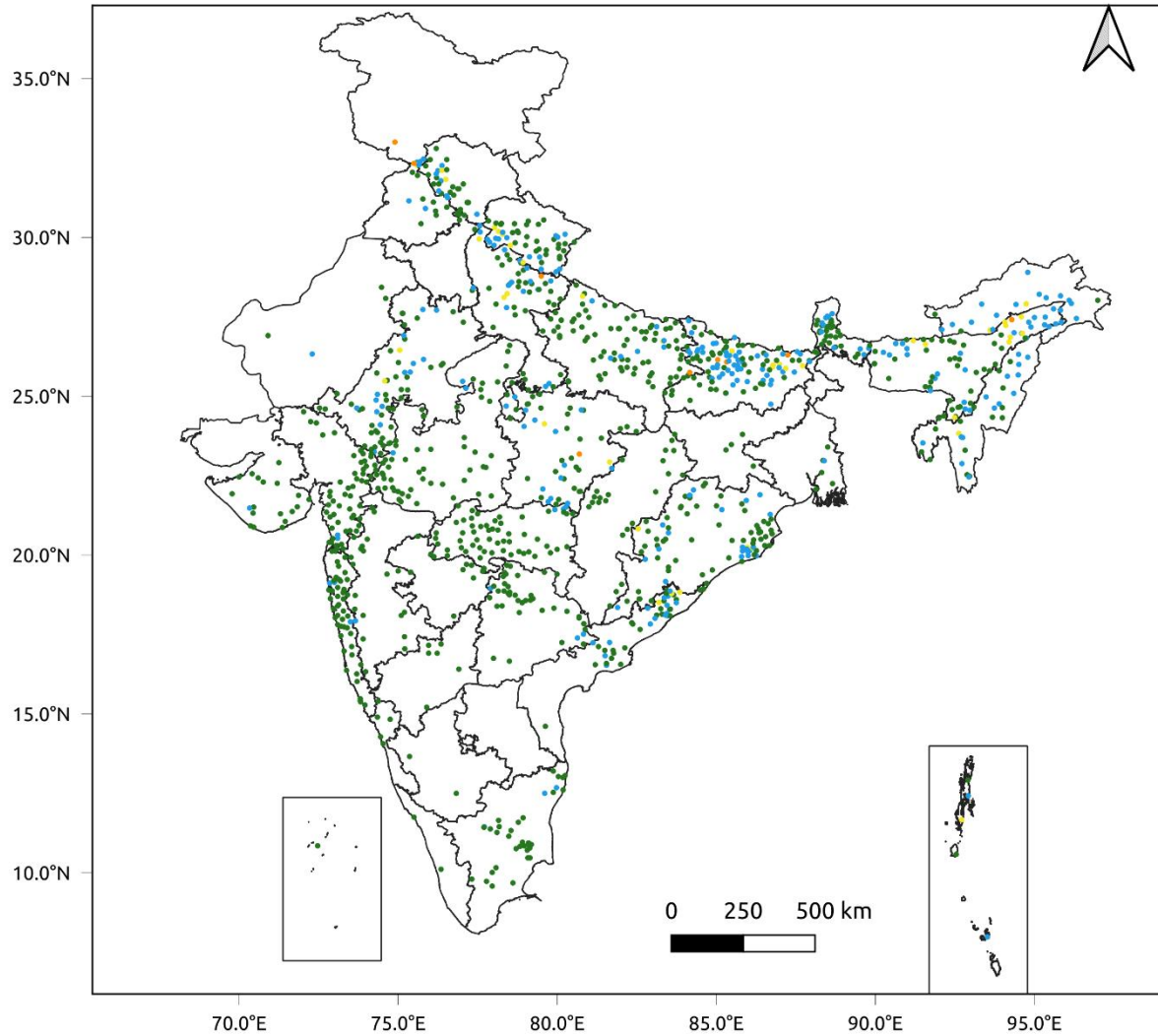


Fig. 5: Accumulated Rainfall (mm) during past 24 hours

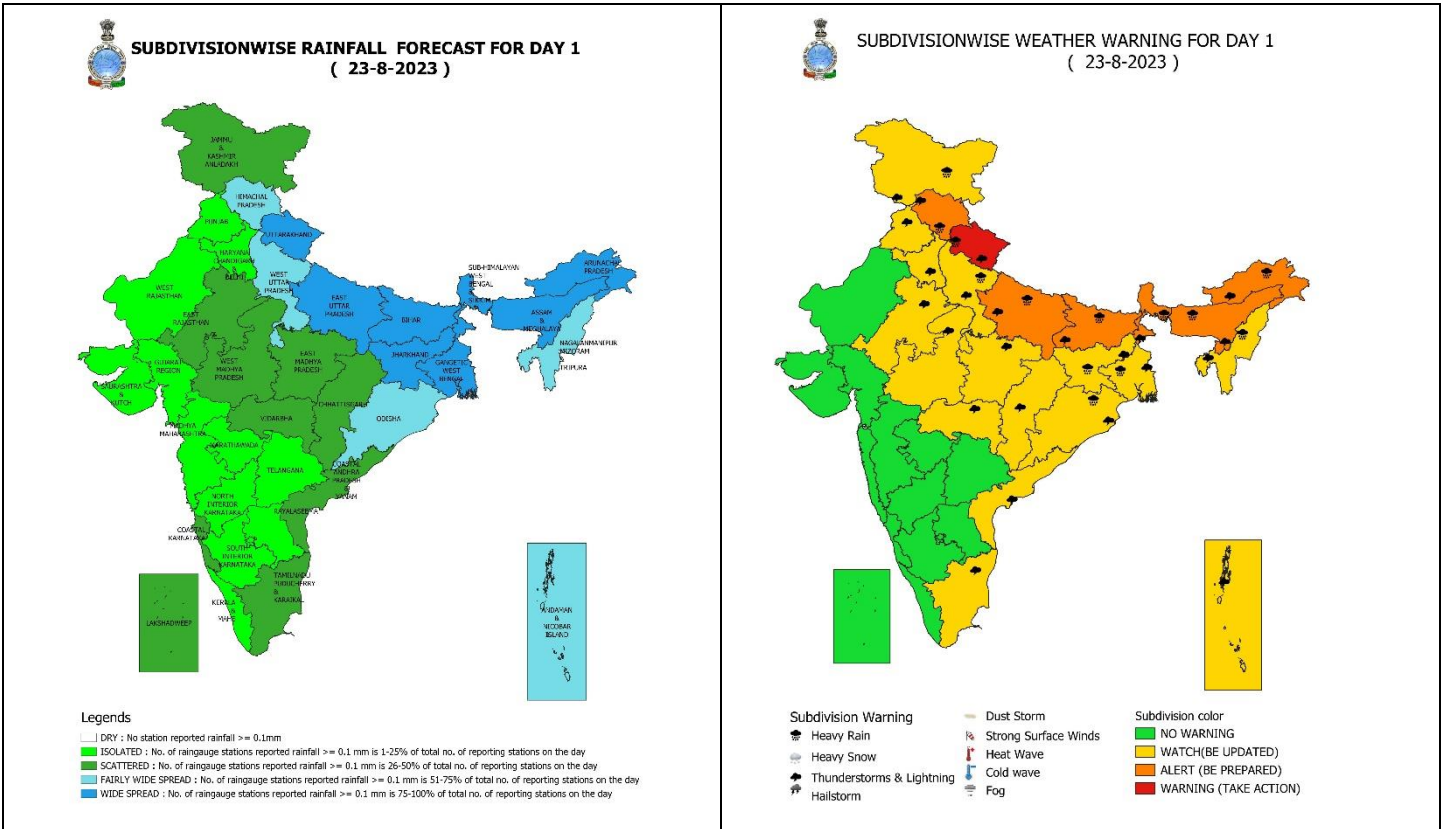


24 Hr cumulative rainfall recorded over different stations during 0830 IST of 21-8-2023 to 0830 IST of 22-8-2023



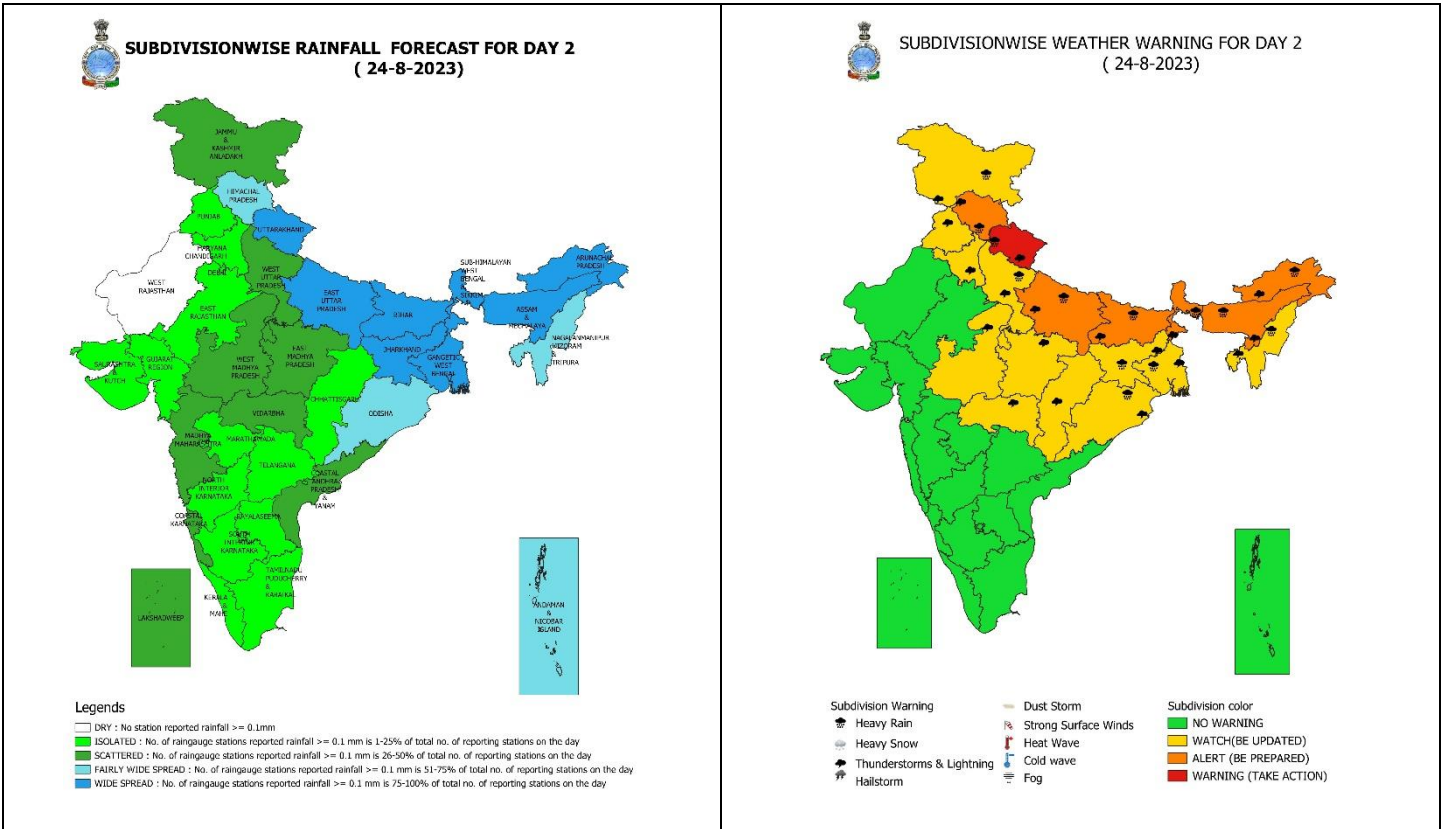
## Legends

- 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)



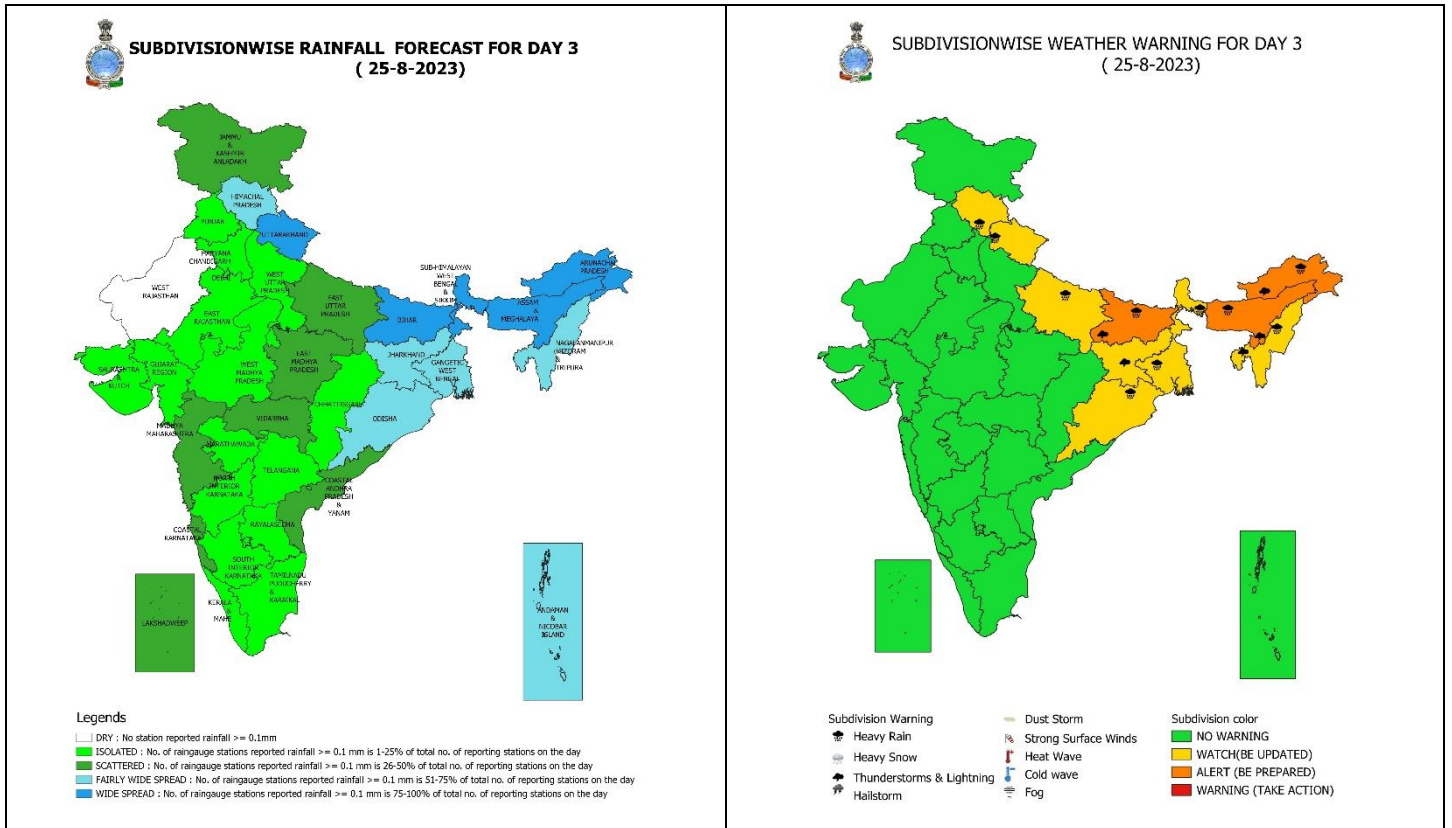
**23 August (Day 1): -**

- ❖ **Heavy to very heavy rainfall with extremely heavy falls** very likely at isolated places over Uttarakhand, Bihar and Sub-Himalayan West Bengal & Sikkim; **Heavy to very heavy rainfall** at isolated places over Himachal Pradesh, East Uttar Pradesh, Arunachal Pradesh, Assam & Meghalaya and **Heavy rainfall** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, West Uttar Pradesh, Gangetic West Bengal, Jharkhand, Odisha, Nagaland, Manipur, Mizoram & Tripura.
- ❖ **Thunderstorm with lightning** very likely at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand, Punjab, Haryana-Chandigarh-Delhi, Uttar Pradesh, East Rajasthan, Madhya Pradesh, Vidarbha, Chhattisgarh, Andaman & Nicobar Islands, West Bengal & Sikkim, Bihar, Jharkhand, Odisha, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Coastal Andhra Pradesh & Yanam, Tamil Nadu, Puducherry & Karaikal.
- ❖ **Squally wind speed of 45-55 kmph gusting to 65 kmph** likely over Westcentral & adjoining Southwest and Northwest Arabian Sea. **Fishermen are advised not to venture into these areas.**



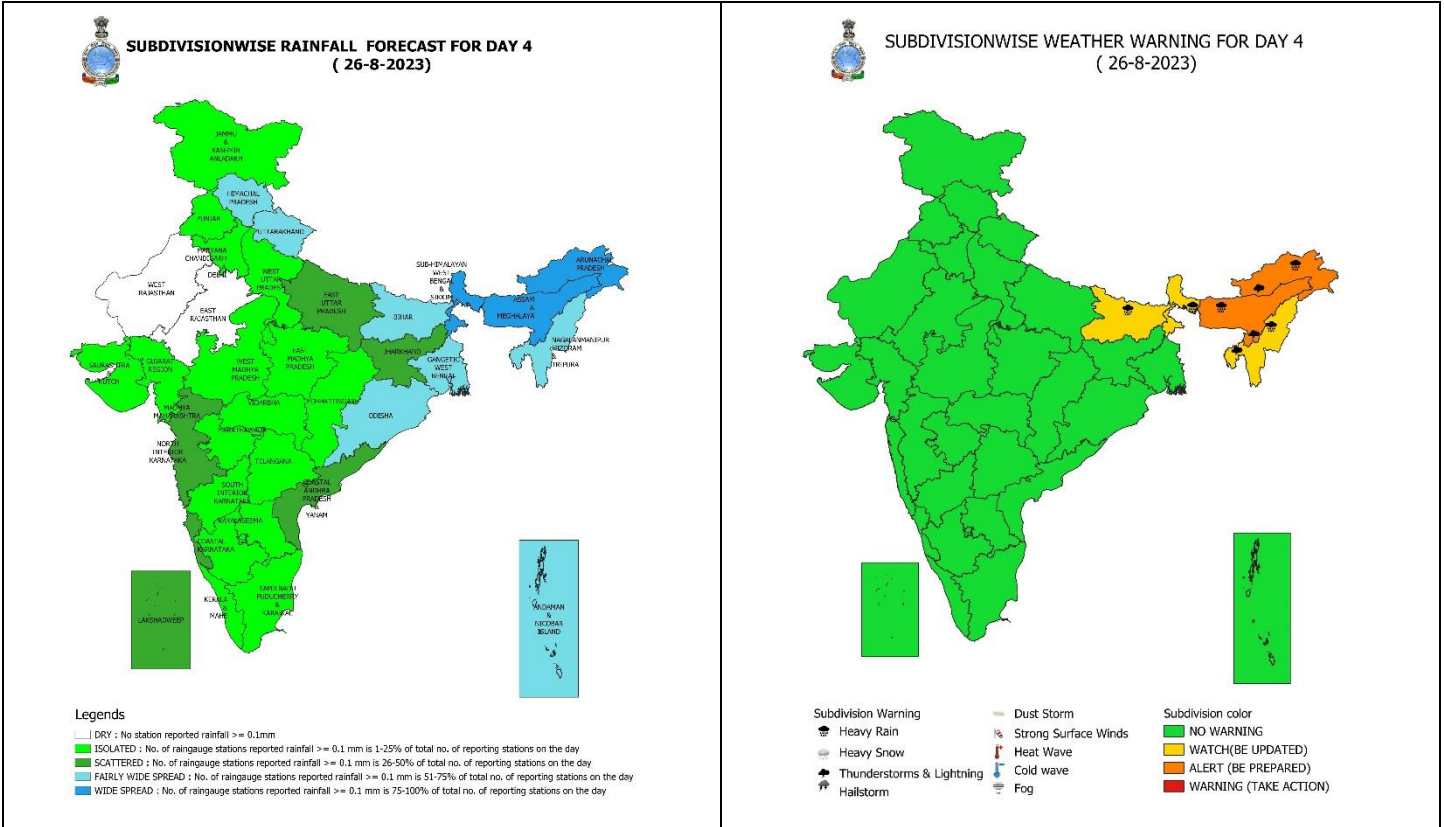
**24 August (Day 2): -**

- ❖ **Heavy to very heavy rainfall with extremely heavy falls** very likely at isolated places over Uttarakhand, Bihar; **Heavy to very heavy rainfall** at isolated places over Himachal Pradesh, East Uttar Pradesh, Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh, Assam & Meghalaya and **Heavy rainfall** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, West Uttar Pradesh, Gangetic West Bengal, Jharkhand, Odisha, Nagaland, Manipur, Mizoram & Tripura.
- ❖ **Thunderstorm with lightning** very likely at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand, Punjab, Haryana-Chandigarh-Delhi, Uttar Pradesh, Madhya Pradesh, Vidarbha, Chhattisgarh, West Bengal & Sikkim, Bihar, Jharkhand, Odisha, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura.
- ❖ **Squally wind speed of 45-55 kmph gusting to 65 kmph** likely over Westcentral & adjoining Eastcentral, Southwest and Northwest Arabian Sea. **Fishermen are advised not to venture into these areas.**



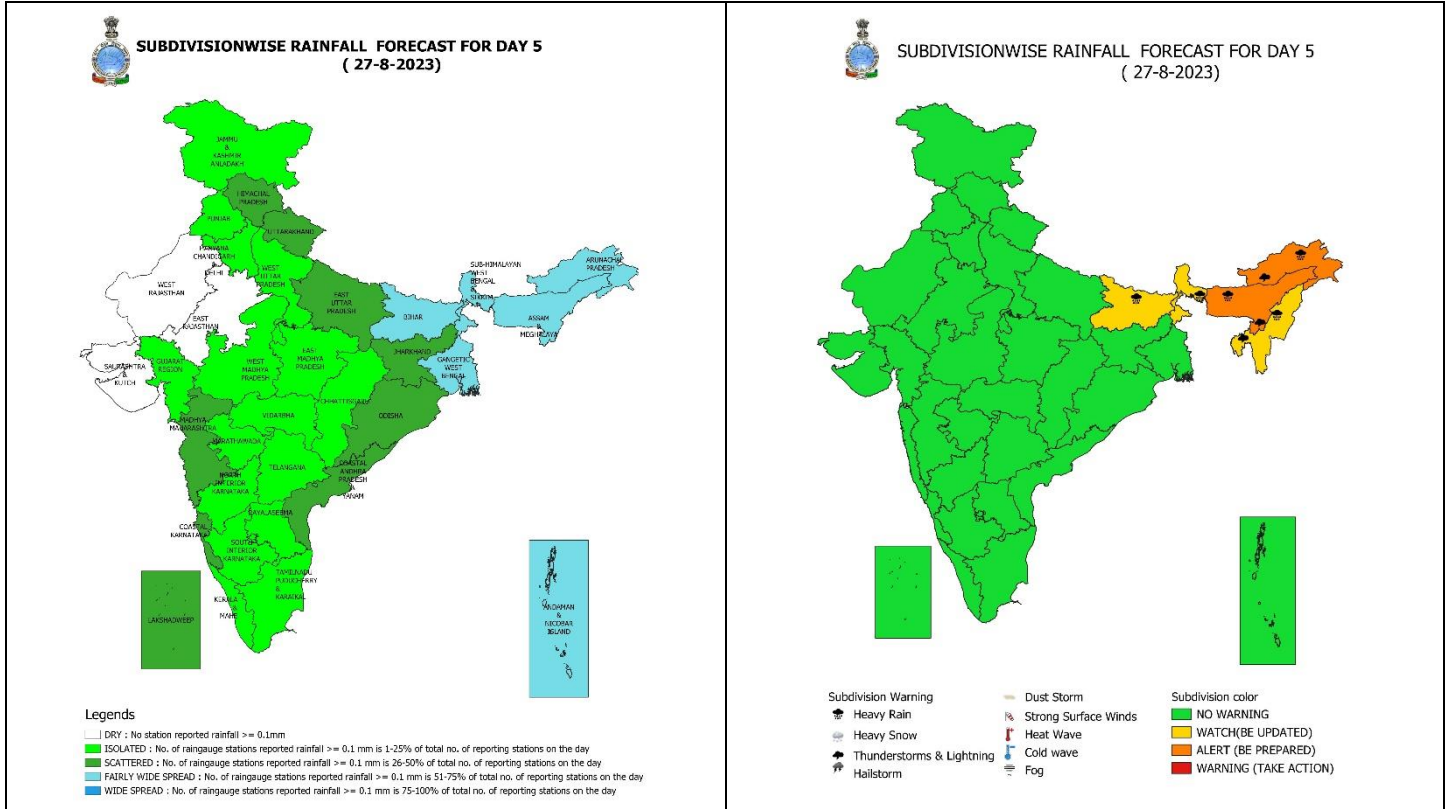
### 25 August (Day 3): -

- ❖ **Heavy to very heavy rainfall** likely at isolated places over Bihar, Arunachal Pradesh, Assam & Meghalaya and **Heavy rainfall** at isolated places over Himachal Pradesh, Uttarakhand, East Uttar Pradesh, West Bengal & Sikkim, Odisha, Nagaland, Manipur, Mizoram & Tripura.
- ❖ **Thunderstorm with lightning** likely at isolated places over Bihar, Jharkhand, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura.
- ❖ **Squally wind speed of 45-55 kmph gusting to 65 kmph** likely over Westcentral & adjoining Eastcentral, Southwest and North Arabian Sea. **Fishermen are advised not to venture into these areas.**



**26 August (Day 4): -**

- ❖ **Heavy to very heavy rainfall** likely at isolated places over Arunachal Pradesh, Assam & Meghalaya and **Heavy rainfall** at isolated places over Sub-Himalayan West Bengal & Sikkim, Bihar, Nagaland, Manipur, Mizoram & Tripura.
- ❖ **Thunderstorm with lightning** likely at isolated places over Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura.
- ❖ **Squally wind speed of 45-55 kmph gusting to 65 kmph** likely over Westcentral & adjoining Eastcentral, Southwest and North Arabian Sea. **Fishermen are advised not to venture into these areas.**



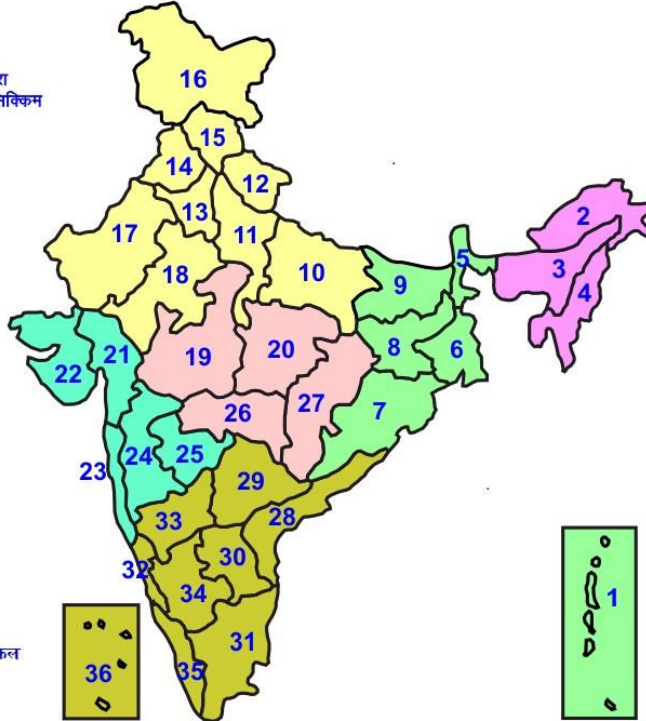
**27 August (Day 5): -**

- ❖ **Heavy to very heavy rainfall** likely at isolated places over Arunachal Pradesh, Assam & Meghalaya and **Heavy rainfall** at isolated places over Sub-Himalayan West Bengal & Sikkim, Bihar, Nagaland, Manipur, Mizoram & Tripura.
- ❖ **Thunderstorm with lightning** likely at isolated places over Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura.
- ❖ **Squally wind speed of 45-55 kmph gusting to 65 kmph** likely over Westcentral & adjoining Eastcentral, Southwest and North Arabian Sea. **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 ओडिसा
- 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 रायलसेमा
- 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. Marathwada
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

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

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(Service to the Nation since 1875)

## LEGENDS

### WARNING

WARNING (TAKE ACTION)
ALERT ( BE PREPARED)
WATCH (BE UPDATED)
NO WARNING ( NO ACTION)

### 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 < 1km

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 Storm: 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

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