



Thursday, August 24, 2023  
Time of Issue: 0800 hours IST  
(MORNING)

## ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

### Significant Weather Features

#### Significant Weather features:

- ❖ The western end of the Monsoon Trough lies to the north of its normal position and it is likely to remain so during next 6-7 days. However, eastern end of the monsoon trough runs near its normal position and it is likely to remain so during next 4-5 days.
- ❖ A trough runs from northwest Uttar Pradesh to south Assam with embedded cyclonic circulation over northwest Uttar Pradesh in lower tropospheric levels.
- ❖ The Western Disturbance as a trough in middle tropospheric westerlies runs roughly along Long. 65°E to the north of Lat. 28°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, Uttar Pradesh during 24<sup>TH</sup>-25<sup>th</sup> August, 2023.
- ❖ **Isolated very heavy rainfall also likely over East Uttar Pradesh, Himachal Pradesh & Uttarakhand on 24<sup>th</sup> August, 2023.**
- ❖ **Central India:** Light/moderate scattered rainfall/thunderstorm & lightning likely over Chhattisgarh, Vidarbha and Madhya Pradesh on 24<sup>th</sup> August.
- ❖ **East India:** Light/moderate fairly widespread to widespread rainfall/thunderstorm & lightning with **isolated heavy rainfall** activity very likely over Sub-Himalayan West Bengal & Sikkim and Bihar during 24<sup>th</sup> to 26<sup>th</sup>; over Gangetic West Bengal, Jharkhand and Odisha during 24<sup>th</sup>-25<sup>th</sup> August, 2023.
- ❖ **Isolated very heavy rainfall also likely over Sub-Himalayan West Bengal & Sikkim and Bihar during 24<sup>th</sup> to 25<sup>th</sup> August.**
- ❖ **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 24<sup>th</sup> -26<sup>th</sup> August, 2023.**
- ❖ **Isolated extremely heavy rainfall likely over Assam & Meghalaya on 24<sup>th</sup> August, 2023**
- ❖ **South India:** Light/moderate isolated to scattered rainfall/thunderstorm & lightning very likely over Coastal Andhra Pradesh & Yanam, Rayalaseema, Telangana and Tamil Nadu, Puducherry & Karaikal on 24<sup>th</sup> August, 2023.
  
- ❖ **No significant weather over rest parts of the country during next 5 days.**



### Main Weather Observations:

- ❖ **Rainfall/thundershowers observed** (from 0830 hours IST to 1730 hours IST of yesterday): **at most places** over Uttarakhand; **at many places** over Uttar Pradesh, Bihar, Sub-Himalaya West Bengal & Sikkim, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Chhattisgarh, Coastal Andhra Pradesh & Yanam and Konkan & Goa; **at a few places** over Himachal Pradesh, Haryana-Chandigarh-Delhi, Gangetic West Bengal, Jharkhand, Odisha, Madhya Pradesh and Vidarbha and **at isolated places** over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Punjab, East Rajasthan, Telangana, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe, Saurashtra & Kutch, Madhya Maharashtra, Marathwada and Gujarat Region.
- ❖ **Heavy rainfall occurred** (from 0830 hours IST to 1730 hours IST of yesterday): **Heavy rainfall** at isolated places over Uttar Pradesh.
- ❖ **Significant rainfall recorded** (from 0830 hours IST to 1730 hours IST of yesterday): **(in cm)**: Agra-9; Salempur-8; Shimla and Jalesar-6; Malihalbad, Dhamtari, Saraiya, Thodupuzha, Sarahan-5 each.
- ❖ **Minimum Temperature Departures (as on 23-08-2023)**: Minimum temperatures were **above normal (1.6°C to 3.0°C)** at isolated places over Chhattisgarh, Telangana and Kerala & Mahe. They were **below normal (-1.6°C to -3.0°C)** at isolated places over Sub-Himalaya West Bengal & Sikkim 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 23-08-2023)**: Maximum temperatures were **Markedly above normal (5.1°C or more)** at isolated places over Kerala & Mahe; **appreciably above normal (3.1°C to 1.6°C)** at most places over Odisha; at many places over Vidarbha, Telangana, Coastal & South Interior Karnataka; at a few places over Gujarat Region, Konkan & Goa, Madhya Maharashtra, Chhattisgarh and Rayalaseema and at isolated places over Lakshadweep and East Madhya Pradesh. They were **Markedly below normal (-5.1°C or less)** at a few places over Himachal Pradesh and West Uttar Pradesh; **appreciably below normal (-3.1°C to -1.6°C)** at a few places over Uttarakhand, Sub-Himalaya West Bengal & Sikkim and at isolated places over East Uttar Pradesh; **below normal (-1.6°C to -3.0°C)** at a few places over Rajasthan, West Madhya Pradesh and Bihar and at isolated places over Assam & Meghalaya and Punjab and **near normal** over rest parts of the country. Yesterday, **the highest maximum temperature of 40.3°C** was reported at **Palayankottai (Tamil Nadu, Puducherry & Karaikal)**.



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

- ❖ The **Monsoon Trough** at mean sea level continues to pass through Firozpur, Ambala, Bareilly, Gorakhpur, Gaya, Dhanbad, Diamond Harbour and thence southeastwards to east-central Bay of Bengal.
- ❖ The cyclonic circulation over northwest Uttar Pradesh at 0.9 km above mean sea level persists.
- ❖ The trough from northwest Uttar Pradesh to south Assam across Bihar, Sub-Himalayan West Bengal & Sikkim extending upto 1.5 km above mean sea level with embedded cyclonic circulation over northwest Uttar Pradesh at 0.9 km above mean sea level persists.
- ❖ The cyclonic circulation over central parts of south Uttar Pradesh between 3.1 & 5.8 km above mean sea level tilting southwards with height persists.
- ❖ The **Western Disturbance** as a trough in middle tropospheric westerlies with its axis at 5.8 km above mean sea level roughly along Long. 65°E to the north of Lat. 28°N persists.
- ❖ The cyclonic circulation over South Gujarat between 4.5 & 5.8 km above mean sea level persists.
- ❖ The north-south trough from south Chhattisgarh to Comorin area across Telangana, Rayalaseema and Tamil Nadu at 0.9 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.
- ❖ Subdued rainfall activity with isolated to scattered rainfall likely over rest parts of the country.



Table-1

7 Days Rainfall Forecast

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

\* 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)

Fig. 1: Maximum Temperatures Dated 23.08.2023

Fig. 2: Departure of Maximum Temp. Dated 23.08.2023

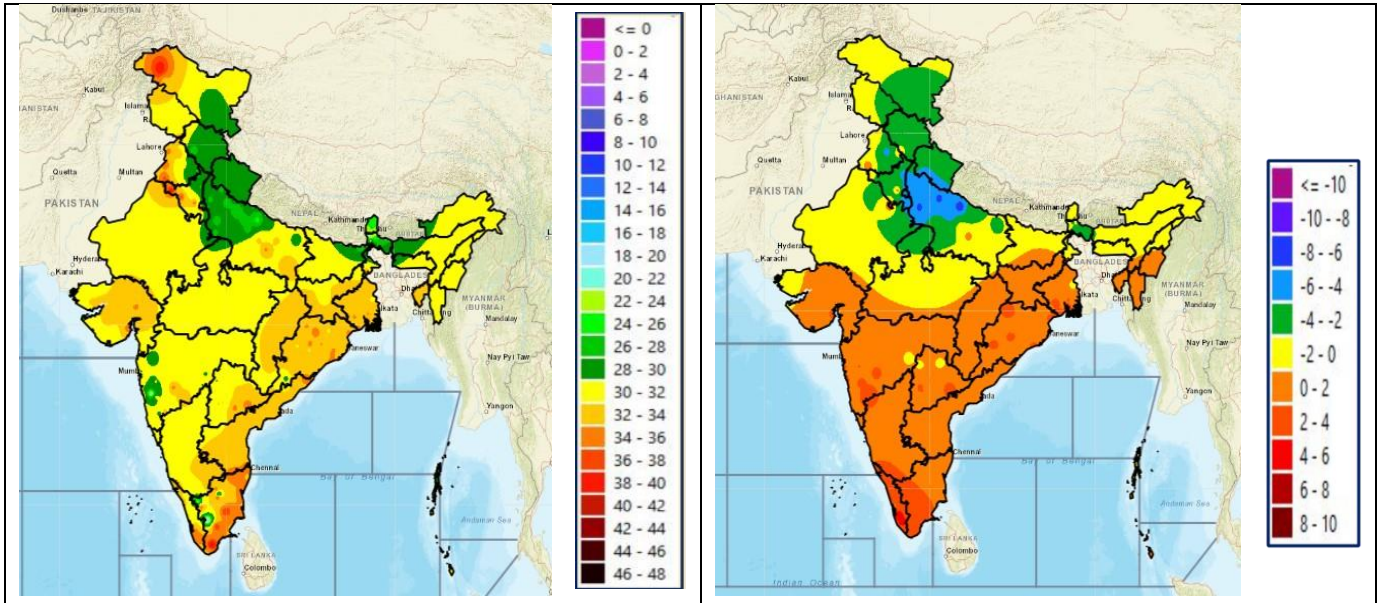
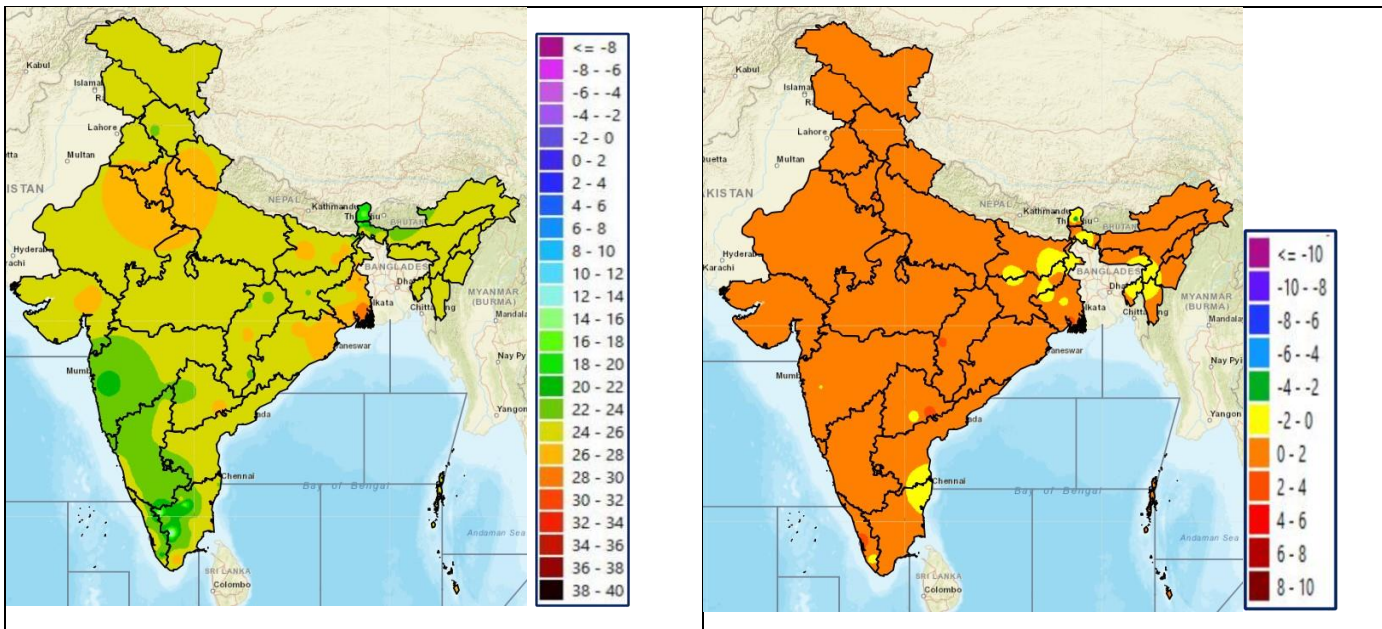


Fig. 3: Minimum Temperatures Dated 23.08.2023

Fig. 4: Departure of Minimum Temp. Dated 23.08.2023

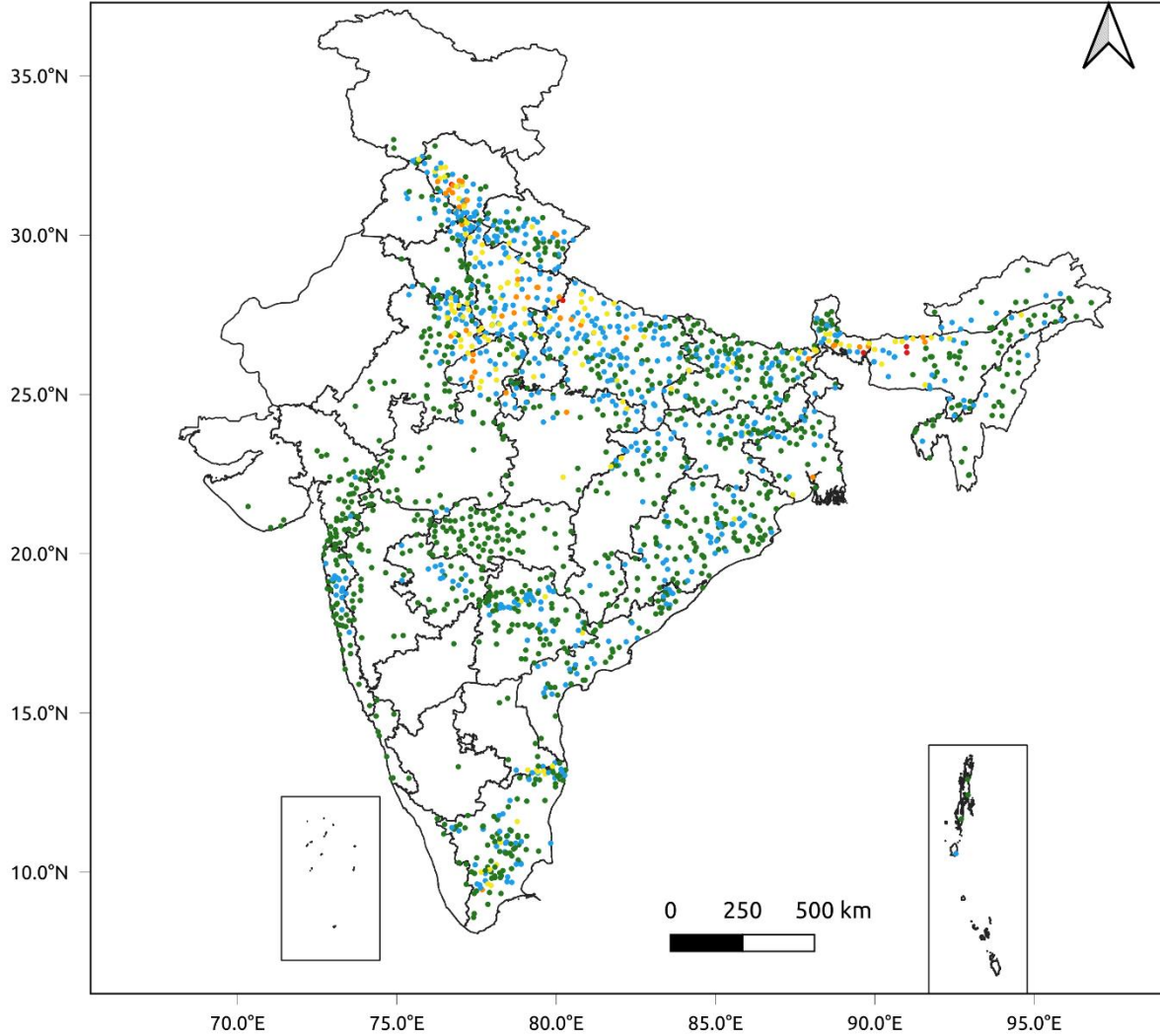


**\* Red color warning does not mean "Red Alert" Red color warning means "Take Action".**  
Forecast and Warning for any day is valid from 0830 hours IST of day till 0830 hours IST of next day For  
more details kindly visit <https://mausam.imd.gov.in> or contact : 011-2434-4599  
(Service to the Nation since 1875)

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

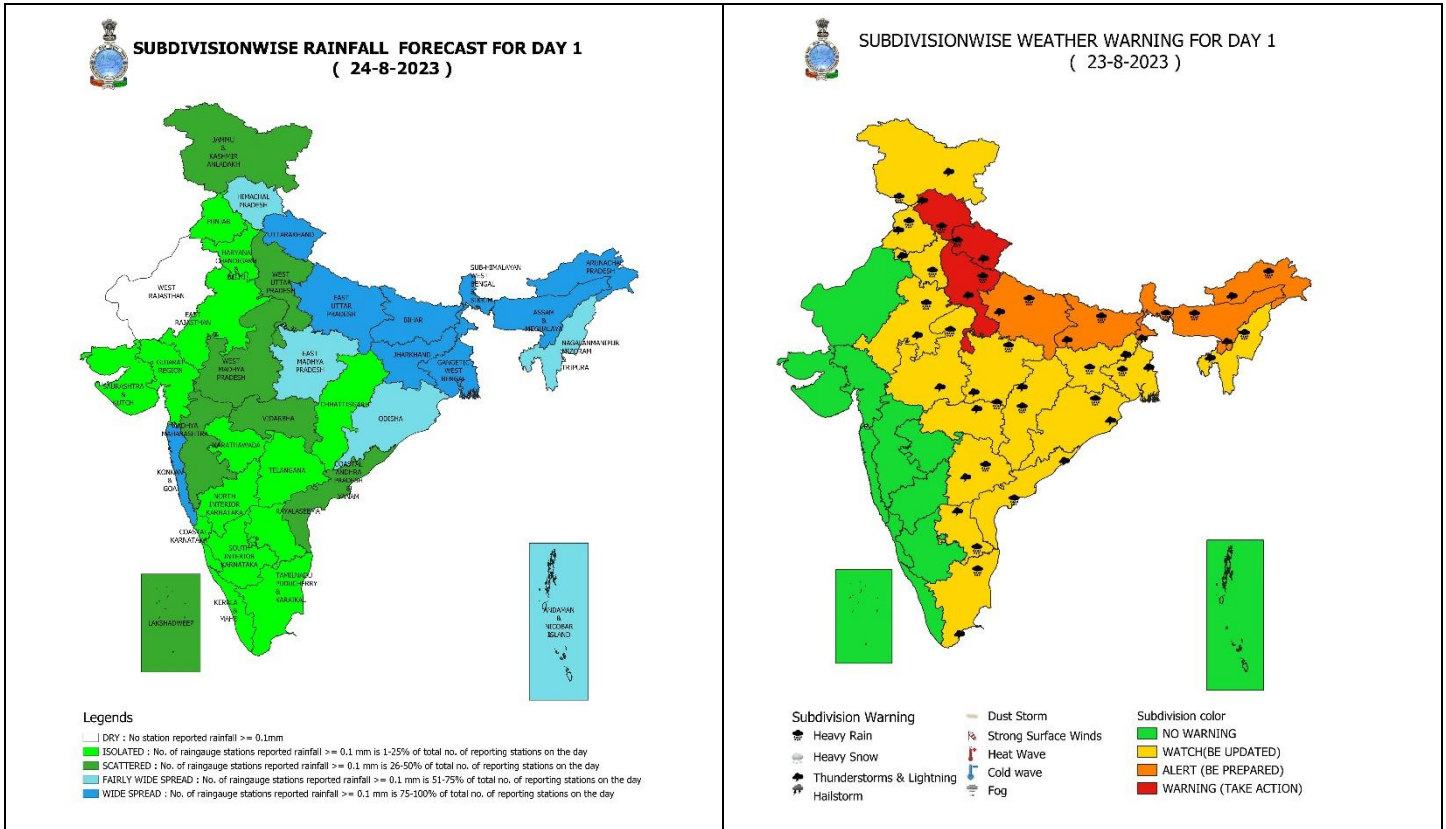


24 Hr cumulative rainfall recorded over different stations during 0830 IST of 22-8-2023 to 0830 IST of 23-8-2023



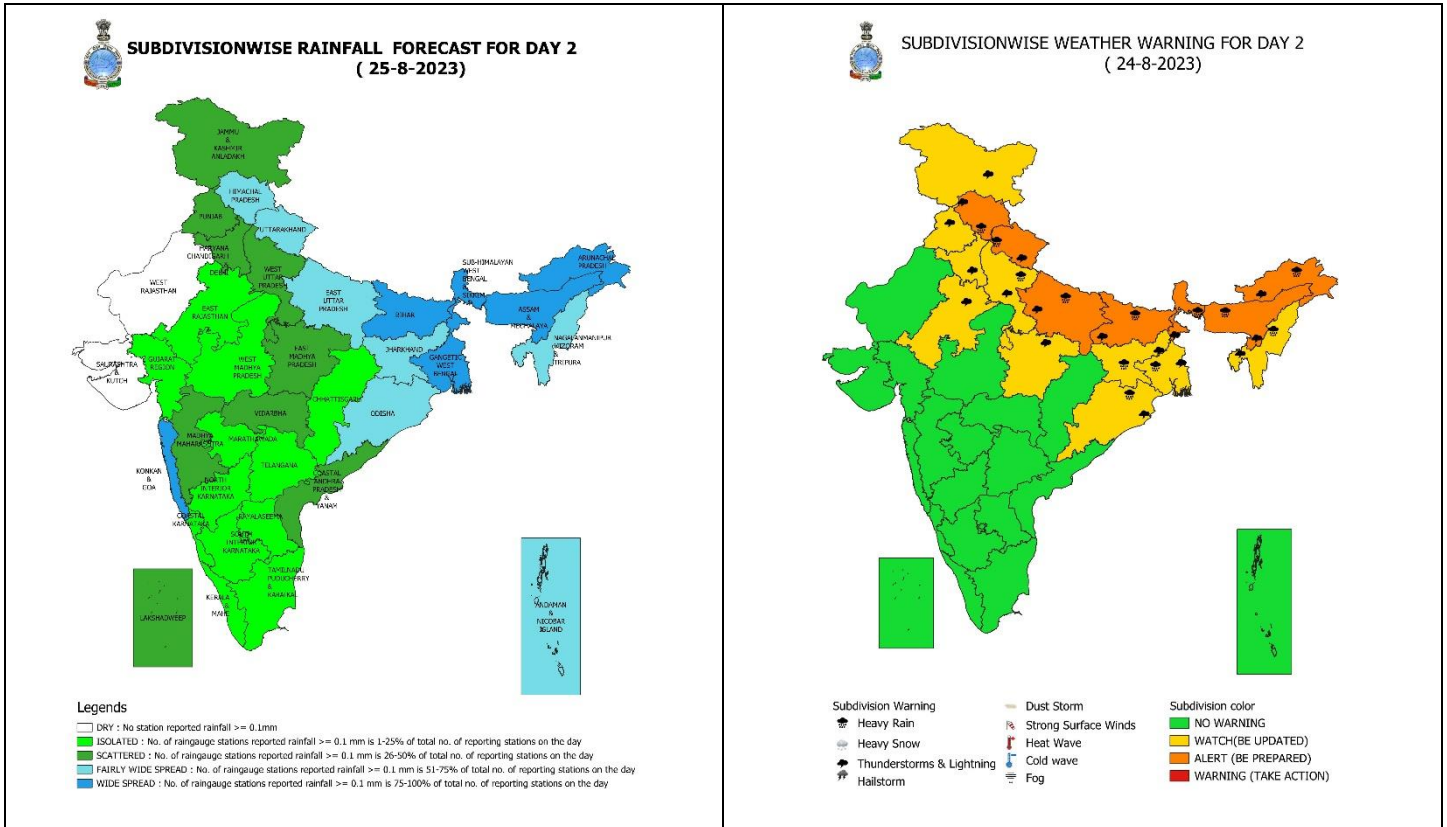
## Legends

- 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)



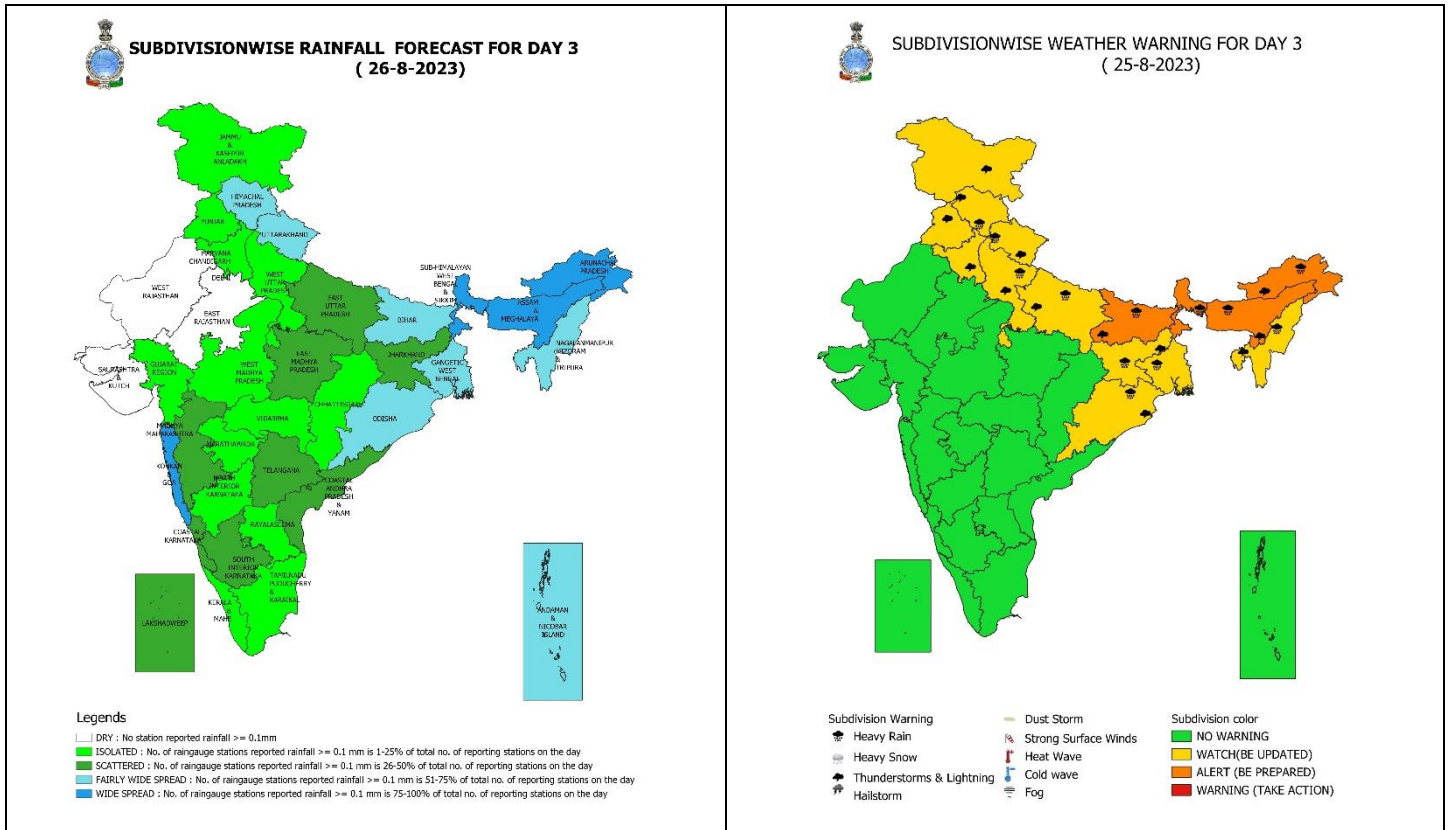
**24 August (Day 1): -**

- ❖ **Heavy to very heavy rainfall with extremely heavy falls** very likely at isolated places over Bihar, Assam & Meghalaya; **Heavy to very heavy rainfall** at isolated places over Himachal Pradesh, Uttarakhand, East Uttar Pradesh, Sub-Himalaya West Bengal & Sikkim, Arunachal Pradesh and **Heavy rainfall** at isolated places over West Uttar Pradesh, Gangetic West Bengal, Jharkhand, Odisha, Nagaland.
- ❖ **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, East Madhya Pradesh, 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 & Southwest Arabian Sea. **Fishermen are advised not to venture into these areas.**



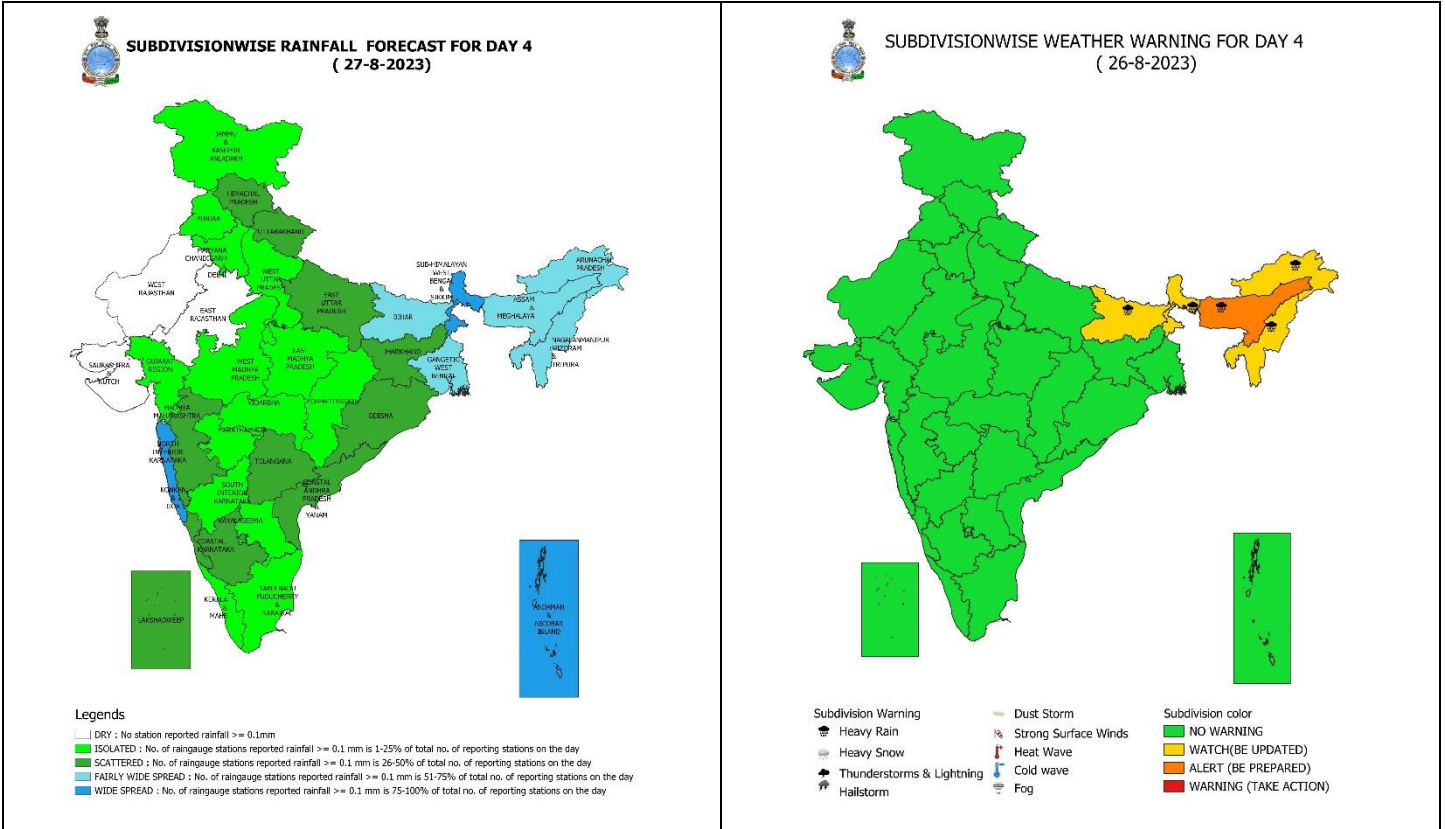
## 25 August (Day 2): -

- ❖ **Heavy to very heavy rainfall** very likely at isolated places over Sub-Himalaya West Bengal & Sikkim, Bihar, Arunachal Pradesh, Assam & Meghalaya and **Heavy rainfall** at isolated places over Himachal Pradesh, Uttarakhand, 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, 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 & Southwest and adjoining North & Eastcentral Arabian Sea. **Fishermen are advised not to venture into these areas.**



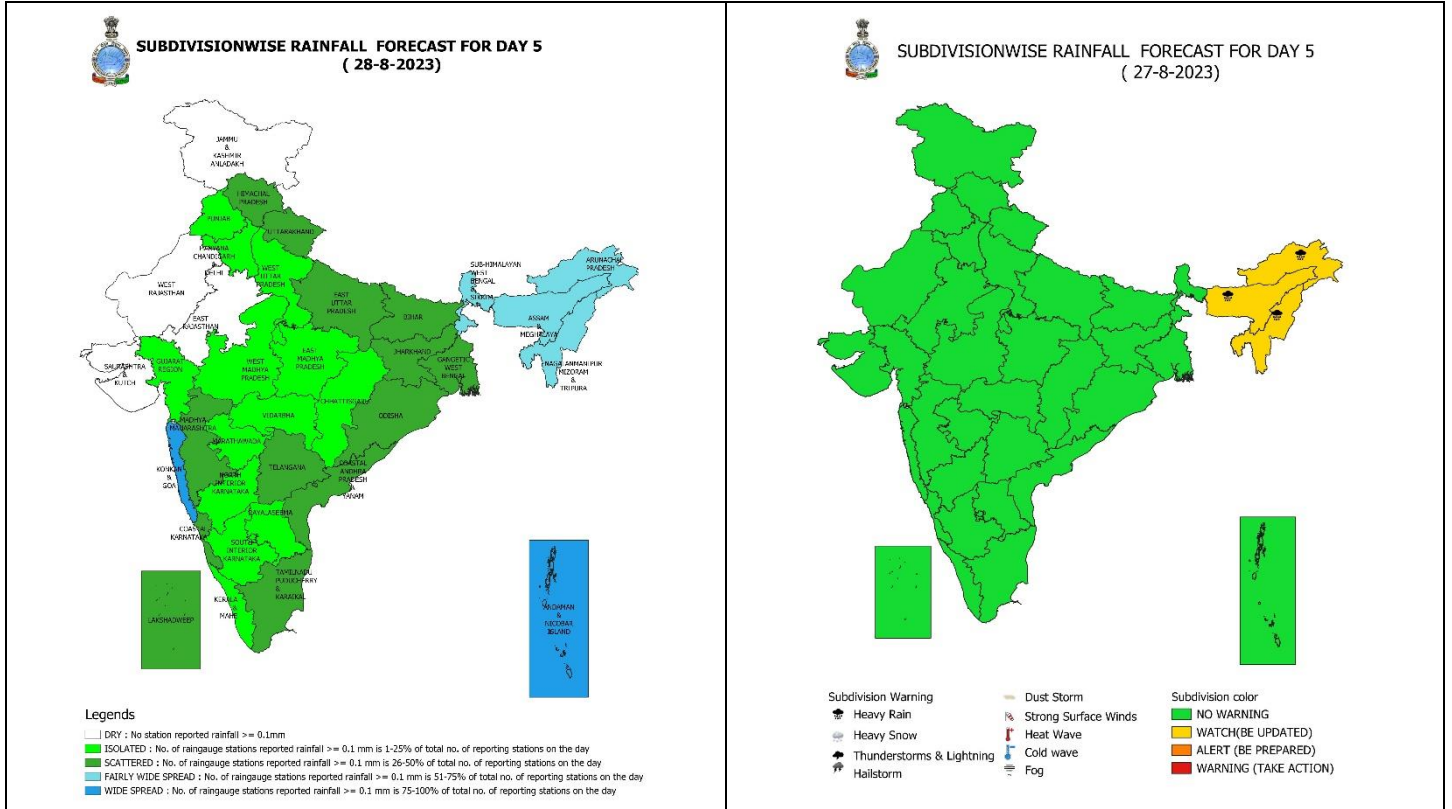
## 26 August (Day 3): -

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



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

- ❖ **Heavy rainfall** 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 & Southwest and adjoining North & Eastcentral Arabian Sea. **Fishermen are advised not to venture into these areas.**



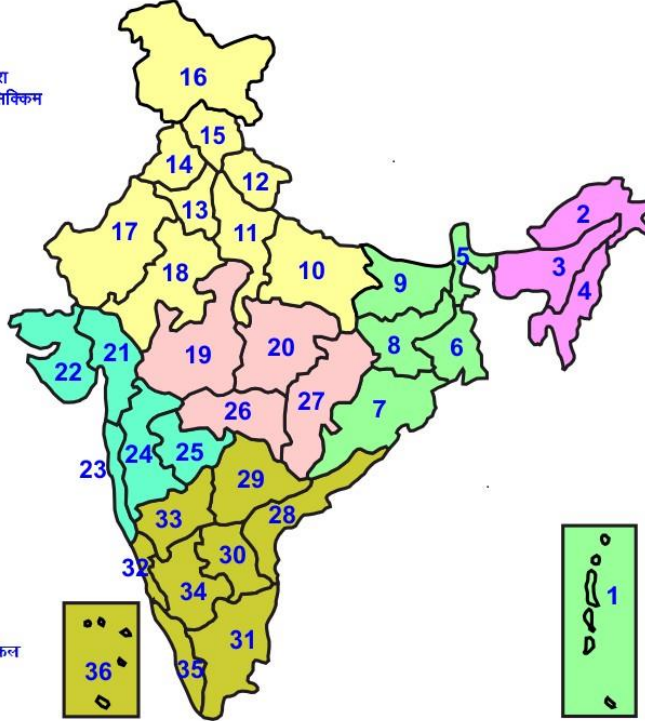
## 28 August (Day 5): -

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



## LEGENDS

- 1 अंडमान और निकोबार द्वीप समूह
- 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 माले
- 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".

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)

## 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

(Service to the Nation since 1875)