



Thursday, August 10, 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 northeast Bihar & neighbourhood extends upto middle tropospheric levels.
- ❖ The Monsoon Trough lies north of its normal position. It is likely to be north of its normal position or along the foothills of Himalayas during next 4 days.
- ❖ A Western Disturbance as a trough in middle tropospheric westerlies runs roughly along Long. 62°E to the north of 32°N.

Weather Forecast and Warnings:

Northwest India: Light/moderate scattered to fairly widespread rainfall with isolated **heavy to very heavy rainfall** activity very likely over Uttarakhand during 10th-14th August and isolated **heavy rainfall** likely over Himachal Pradesh, Punjab, Haryana on 10th & 13th; West Uttar Pradesh on 13th & 14th; East Uttar Pradesh on 10th, 13th & 14th August, 2023.

Subdued rainfall activity likely over rest parts of northwest India during next 7 days.

East India: Light/moderate fairly widespread to widespread rainfall with **isolated heavy rainfall** activity very likely over Bihar, Sub-Himalayan West Bengal & Sikkim during 10th-14th August and Jharkhand on 12th & 13th August. Isolated **very heavy rainfall** likely over Bihar on 13th & 14th; and Sikkim on 12th & 13th August.

Northeast India: Light/moderate fairly widespread to widespread rainfall with isolated **heavy to very heavy rainfall** activity very likely over Arunachal Pradesh, Assam, Meghalaya and Nagaland, Manipur, Mizoram & Tripura during next 5 days.

Central, West & South India: Subdued rainfall activity likely over these regions during next 7 days.

Main Weather Observations

- ❖ **Rainfall/thundershowers observed** (from 0830 hours IST to 1730 hours IST of yesterday): **at many places** over Sub-Himalaya West Bengal & Sikkim, Bihar, Madhya Maharashtra and North Interior Karnataka; **at a few places** over Chhattisgarh and at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Uttarakhand, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Gangetic West Bengal, East Madhya Pradesh, Odisha, Jharkhand, Coastal Andhra Pradesh & Yanam, Rayalaseema, Konkan & Goa and Andaman & Nicobar Islands.
- ❖ **Yesterday's heavy rainfall** at isolated places observed over Odisha;
- ❖ **Significant rainfall recorded** (from 0830 hours IST to 1730 hours IST of yesterday): (in cm): **Odisha:** Balasore -9; **Sub-Himalaya West Bengal & Sikkim:** Gangtok -2; Kalim pong and Cooch Behar -1 each; **Gangetic West Bengal:** Canning -1; **Bihar:** Darbhanga, Motahari, Muzaffarpur -2 each; Patna and Gaya -1 each; **Madhya Maharashtra:** Mahabaleshwar -1; **North Interior Karnataka:** Gadag-1. **Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad:** Katra -4.
- ❖ **Thunderstorm observed** (from 0830 hours IST of yesterday to 0530 hours IST of today): at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Uttarakhand, East Uttar Pradesh, Tamil Nadu, Puducherry & Karaikal, Coastal Andhra Pradesh & Yanam and North Interior Karnataka.
- ❖ **Minimum Temperature Departures (as on 09-08-2023):** Minimum temperatures were **above normal (1.6°C to 3.0°C)** at many places over Himachal Pradesh, Coastal Andhra Pradesh & Yanam and Gujarat Region; at a few places over Odisha, Andaman & Nicobar Islands, Telangana, Rayalaseema, Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe; at isolated places over Madhya Maharashtra and Konkan & Goa. They were **below normal (-1.6°C to -3.0°C)** at a few places over Bihar; at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Gangetic West Bengal and East Rajasthan and **near normal** over rest parts of the country. Yesterday, **the lowest minimum temperature of 19.0°C** was reported at **Koraput (Odisha)** over the plains of the country.
- ❖ **Maximum Temperature Departures (as on 09-08-2023):** Maximum temperatures were **appreciably above normal (3.1°C to 5.0°C)** at most places over Himachal Pradesh; at many places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Telangana, Madhya Maharashtra and Konkan & Goa; at a few places over Gujarat Region, Chhattisgarh, Gangetic West Bengal and North Interior Karnataka and at isolated places over East Rajasthan, West Madhya Pradesh and Vidarbha. They were **markedly below normal (-5.1°C or less)** at many places over Bihar; **below normal (-1.6°C to -3.0°C)** at a few places over Nagaland, Manipur, Mizoram & Tripura and East Uttar Pradesh and at isolated places over West Rajasthan and **near normal** over rest parts of the country. Yesterday, **the highest maximum temperature of 39.2°C** was reported at **Tiruttani (Tamil Nadu)**.

* 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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Meteorological Analysis (Based on 0530 hours IST)

- ❖ The **cyclonic circulation** over northeast Bihar & neighbourhood extending upto 7.6 km above mean sea level tilting southwards with height persists.
- ❖ The **Monsoon Trough** at mean sea level now passes through Amritsar, Ambala, Bareilly, Sultanpur, Patna, Malda and thence eastwards towards Manipur.
- ❖ 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. 32°N.

Weather Forecast for next 5 days (Upto 0830 hours IST of 15th August, 2023)

- ❖ Meteorological sub-division wise detailed 5 days rainfall forecast is given in Table-1.
- ❖ Isolated light to moderate thunderstorm likely over northwest India.
- ❖ 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	10-Aug	11-Aug	12-Aug	13-Aug	14-Aug	15-Aug	16-Aug
		Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
1	ANDAMAN & NICOBAR ISLANDS	FWS	WS	WS	WS	WS	WS	FWS
2	ARUNACHAL PRADESH	FWS	WS	WS	FWS	FWS	FWS	FWS
3	ASSAM & MEGHALAYA	FWS	WS	WS	FWS	FWS	FWS	FWS
4	NAGALAND, MANIPUR, MIZORAM & TRIPURA	FWS	WS	WS	WS	WS	WS	WS
5	SUB-HIMALAYAN WEST BENGAL & SIKKIM	WS	WS	WS	WS	WS	FWS	FWS
6	GANGETIC WEST BENGAL	FWS	FWS	FWS	FWS	FWS	FWS	FWS
7	ODISHA	ISOL	SCT	SCT	SCT	SCT	SCT	FWS
8	JHARKHAND	FWS	SCT	FWS	FWS	FWS	FWS	FWS
9	BIHAR	FWS	FWS	FWS	FWS	SCT	SCT	FWS
10	EAST UTTAR PRADESH	FWS	SCT	SCT	FWS	SCT	SCT	SCT
11	WEST UTTAR PRADESH	SCT	ISOL	ISOL	SCT	SCT	ISOL	SCT
12	UTTARAKHAND	WS	WS	WS	WS	WS	FWS	FWS
13	HARYANA CHANDIGARH & DELHI	SCT	ISOL	ISOL	SCT	ISOL	ISOL	ISOL
14	PUNJAB	SCT	ISOL	ISOL	SCT	ISOL	ISOL	ISOL
15	HIMACHAL PRADESH	FWS	FWS	FWS	FWS	FWS	SCT	ISOL
16	JAMMU & KASHMIR AND LADAKH	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
17	WEST RAJASTHAN	ISOL	ISOL	ISOL	DRY	DRY	DRY	DRY
18	EAST RAJASTHAN	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
19	WEST MADHYA PRADESH	ISOL	ISOL	ISOL	ISOL	ISOL	SCT	SCT
20	EAST MADHYA PRADESH	ISOL	ISOL	ISOL	ISOL	SCT	SCT	SCT
21	GUJARAT REGION	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL	SCT
22	SAURASHTRA & KUTCH	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
23	KONKAN & GOA	WS	WS	WS	WS	WS	WS	WS
24	MADHYA MAHARASHTRA	SCT	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
25	MARATHAWADA	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
26	VIDARBHA	ISOL	ISOL	ISOL	SCT	SCT	SCT	SCT
27	CHHATTISGARH	ISOL	ISOL	ISOL	ISOL	SCT	SCT	SCT
28	COASTAL ANDHRA PRADESH & YANAM	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
29	TELANGANA	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
30	RAYALASEEMA	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL	DRY
31	TAMILNADU PUDUCHERRY & KARAIKAL	SCT	SCT	ISOL	ISOL	ISOL	ISOL	ISOL
32	COASTAL KARNATAKA	FWS	FWS	FWS	FWS	FWS	FWS	FWS
33	NORTH INTERIOR KARNATAKA	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
34	SOUTH INTERIOR KARNATAKA	SCT	SCT	ISOL	ISOL	ISOL	ISOL	ISOL
35	KERALA & MAHE	SCT	SCT	SCT	SCT	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

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Fig. 1: Maximum Temperatures Dated 09.08.2023

Fig. 2: Departure of Maximum Temp. Dated 09.08.2023

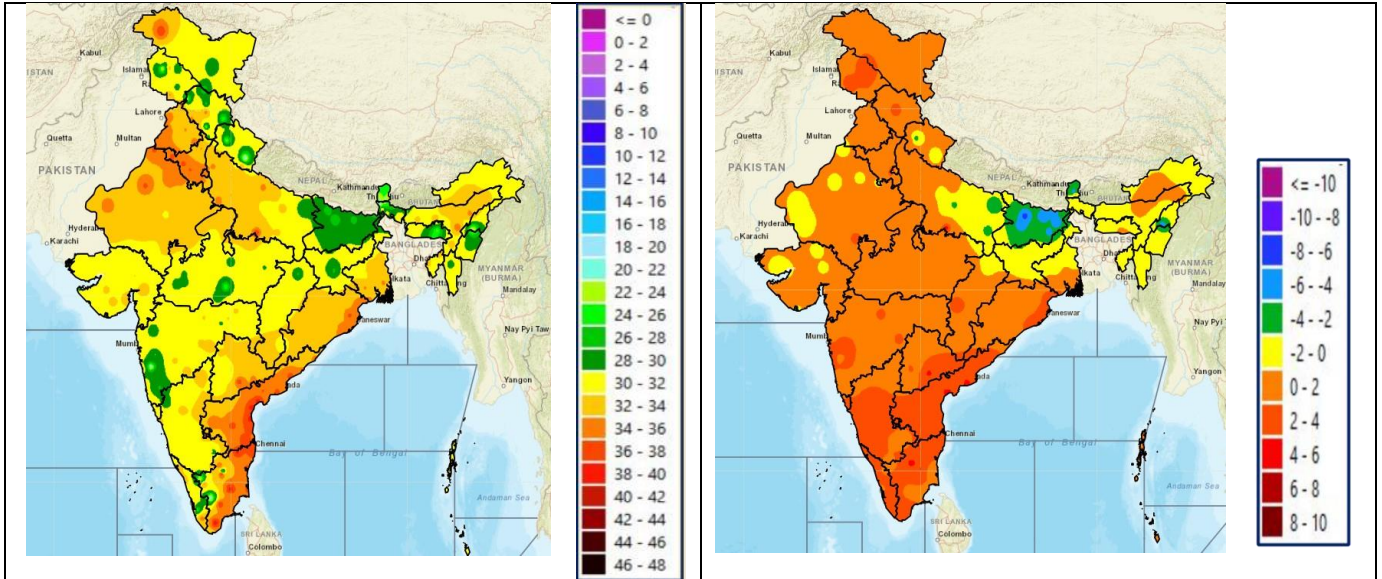


Fig. 3: Minimum Temperatures Dated 09.08.2023

Fig. 4: Departure of Minimum Temp. Dated 09.08.2023

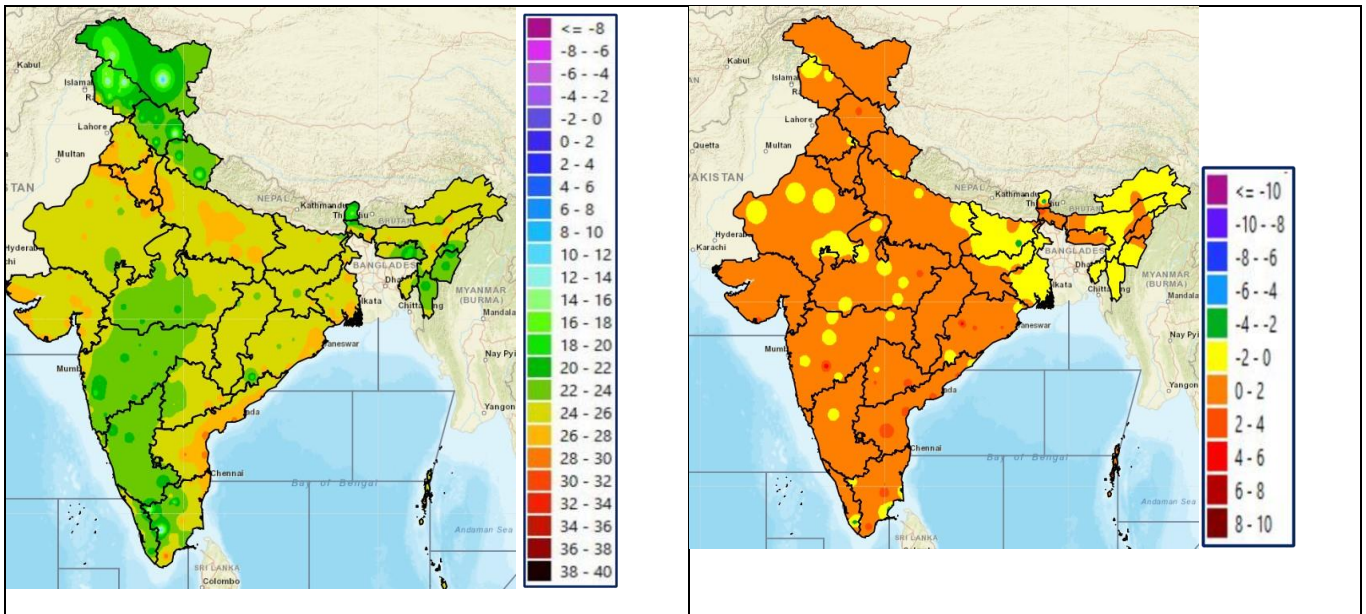
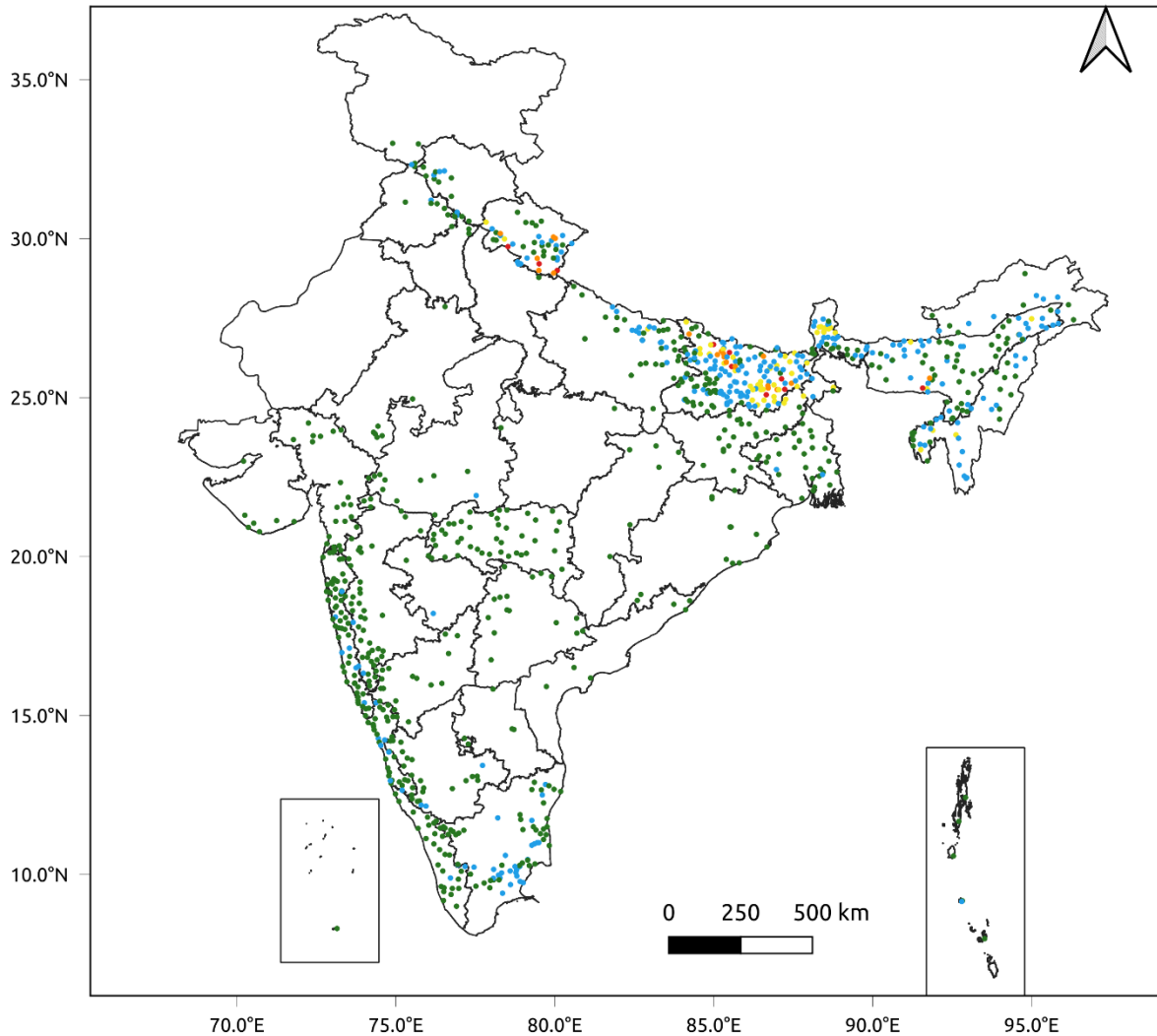


Fig. 5: Accumulated Rainfall (mm) during past 24 hours



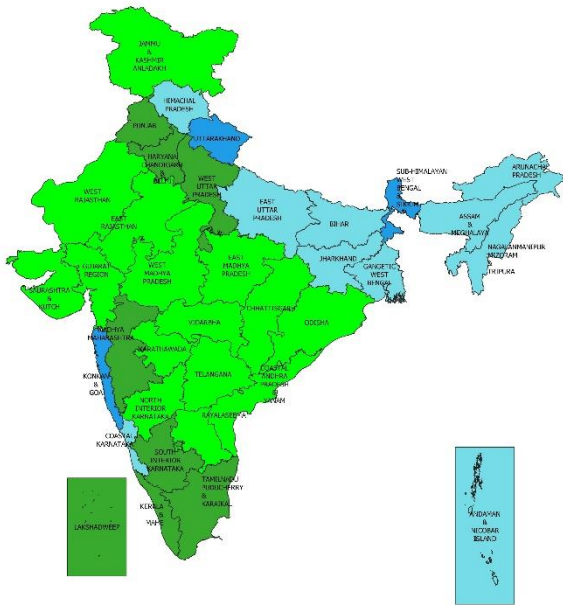
24 Hr cumulative rainfall recorded over different stations during 0830 IST of 8-8-2023 to 0830 IST of 9-8-2023



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 (≥ 204.5 mm)

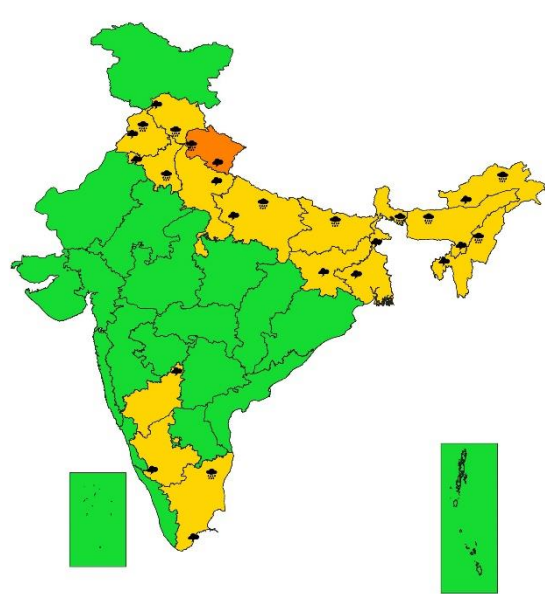
**SUBDIVISIONWISE RAINFALL FORECAST FOR DAY 1
(10-8-2023)**



Legends

- DRY : No station reported rainfall ≥ 0.1 mm
- ISOLATED : No. of rain gauge stations reported rainfall ≥ 0.1 mm is 1-25% of total no. of reporting stations on the day
- SCATTERED : No. of rain gauge stations reported rainfall ≥ 0.1 mm is 26-50% of total no. of reporting stations on the day
- FAIRLY WIDE SPREAD : No. of rain gauge stations reported rainfall ≥ 0.1 mm is 51-75% of total no. of reporting stations on the day
- WIDE SPREAD : No. of rain gauge stations reported rainfall ≥ 0.1 mm is 75-100% of total no. of reporting stations on the day

**SUBDIVISIONWISE WEATHER WARNING FOR DAY 1
(10-8-2023)**



Subdivision Warning

- ☁ Heavy Rain
- ❄ Heavy Snow
- ⚡ Thunderstorms & Lightning
- ⚡ Hailstorm
- ☁ Dust Storm
- 🌪 Strong Surface Winds
- 🔥 Heat Wave
- ❄ Cold wave
- 🌫 Fog

Subdivision color

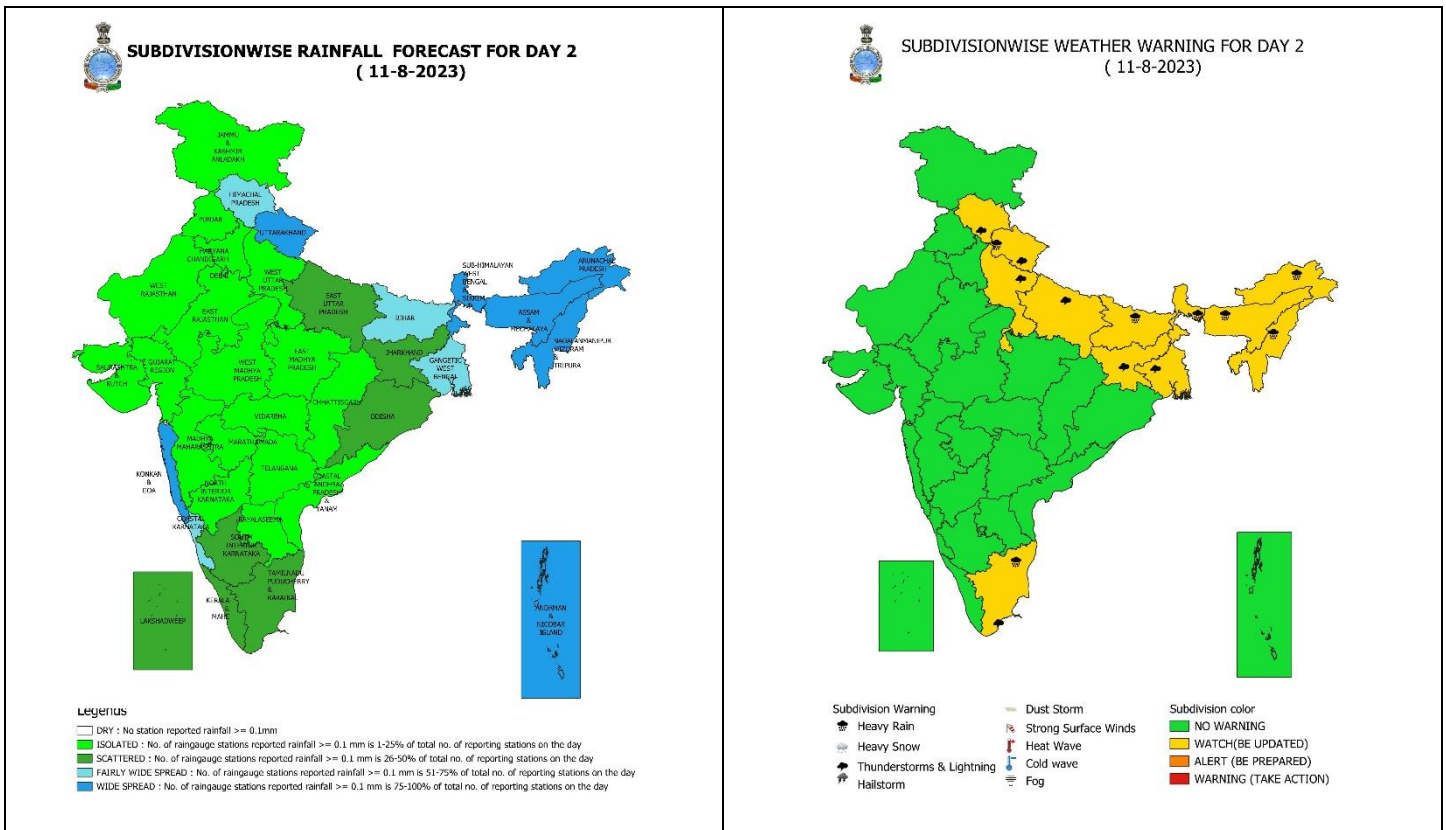
- NO WARNING
- WATCH (BE UPDATED)
- ALERT (BE PREPARED)
- WARNING (TAKE ACTION)

10 August (Day 1): -

- ❖ **Heavy to very heavy rainfall** very likely at isolated places over Uttarakhand; **Heavy rainfall** at isolated places over Himachal Pradesh, Punjab, Haryana-Chandigarh, East Uttar Pradesh, Sub-Himalaya West Bengal & Sikkim, Bihar, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura and Tamil Nadu, Puducherry & Karaikal.
- ❖ **Thunderstorm with lightning** likely at isolated places over Himachal Pradesh, Uttarakhand, Punjab, Haryana-Chandigarh-Delhi, Uttar Pradesh, West Bengal & Sikkim, Jharkhand, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Interior Karnataka and Tamil Nadu, Puducherry & Karaikal.
- ❖ **Squally wind speed of 45-55 kmph gusting to 65 kmph** very likely over Southwest & adjoining Westcentral Arabian Sea, Comorin Area. **Fishermen are advised not to venture into these areas.**
- ❖ **24 hours Outlook for the Flash Flood Risk (FFR) till 1130 IST of 10-08-2023:**
 - **Moderate flash flood risk** likely over few watersheds & neighborhoods of Uttarakhand adjoining Himachal Pradesh Met Sub-divisions during next 24 hours.
 - **Low to Moderate flash flood risk** likely over few watersheds & neighborhoods of East Uttar Pradesh and Bihar Met Sub-divisions during next 24 hours

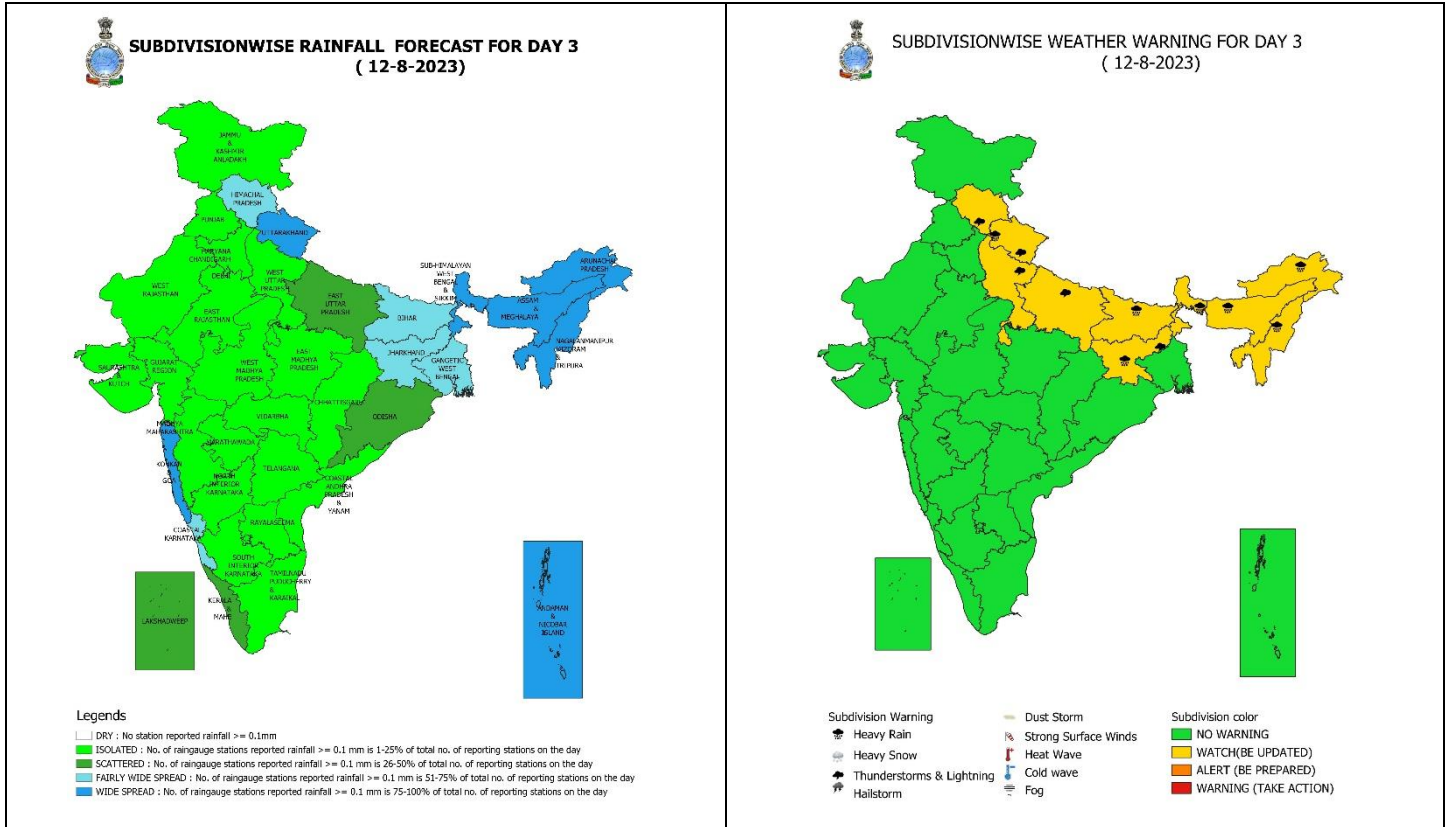
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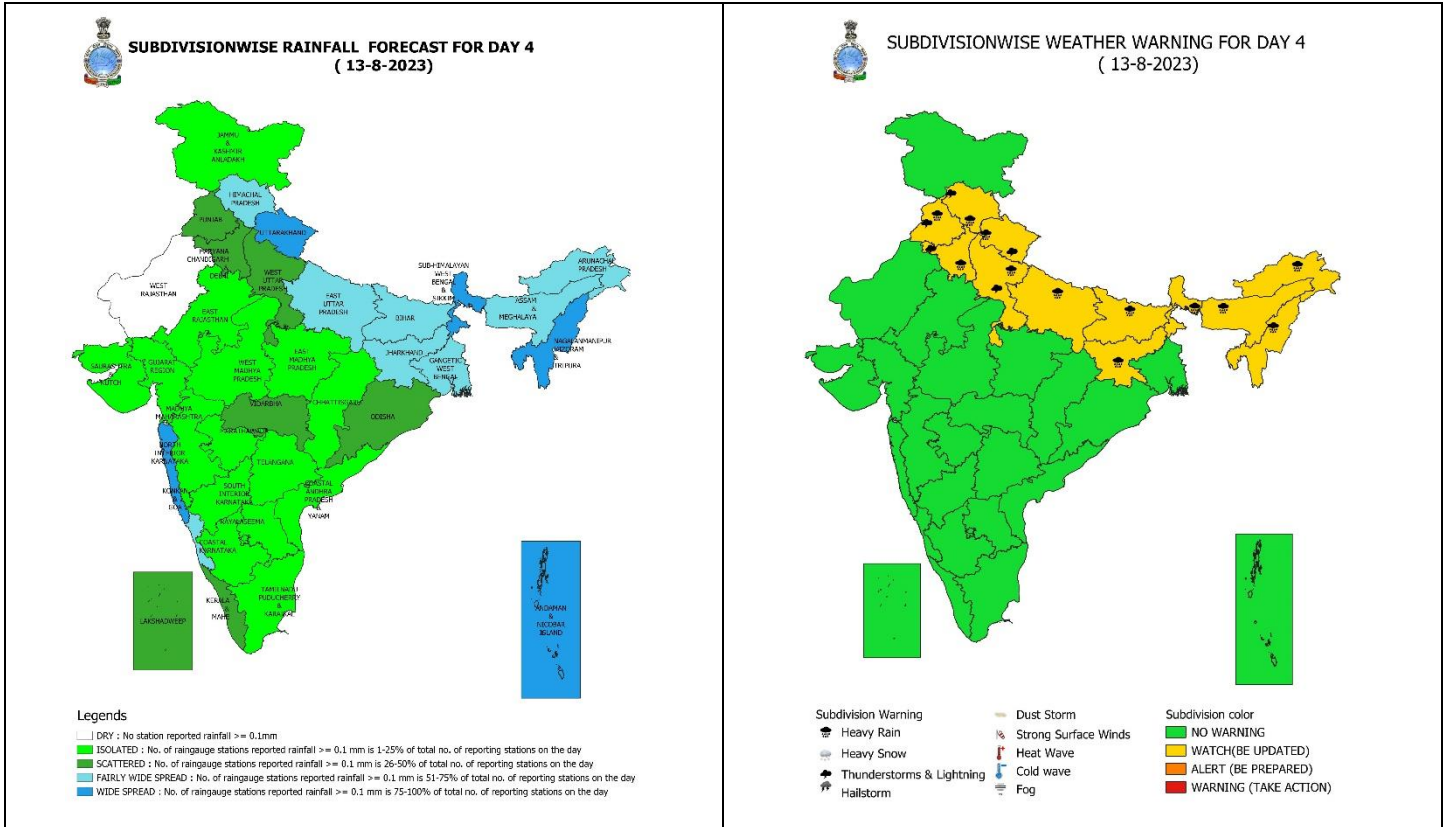
11 August (Day 2): -

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



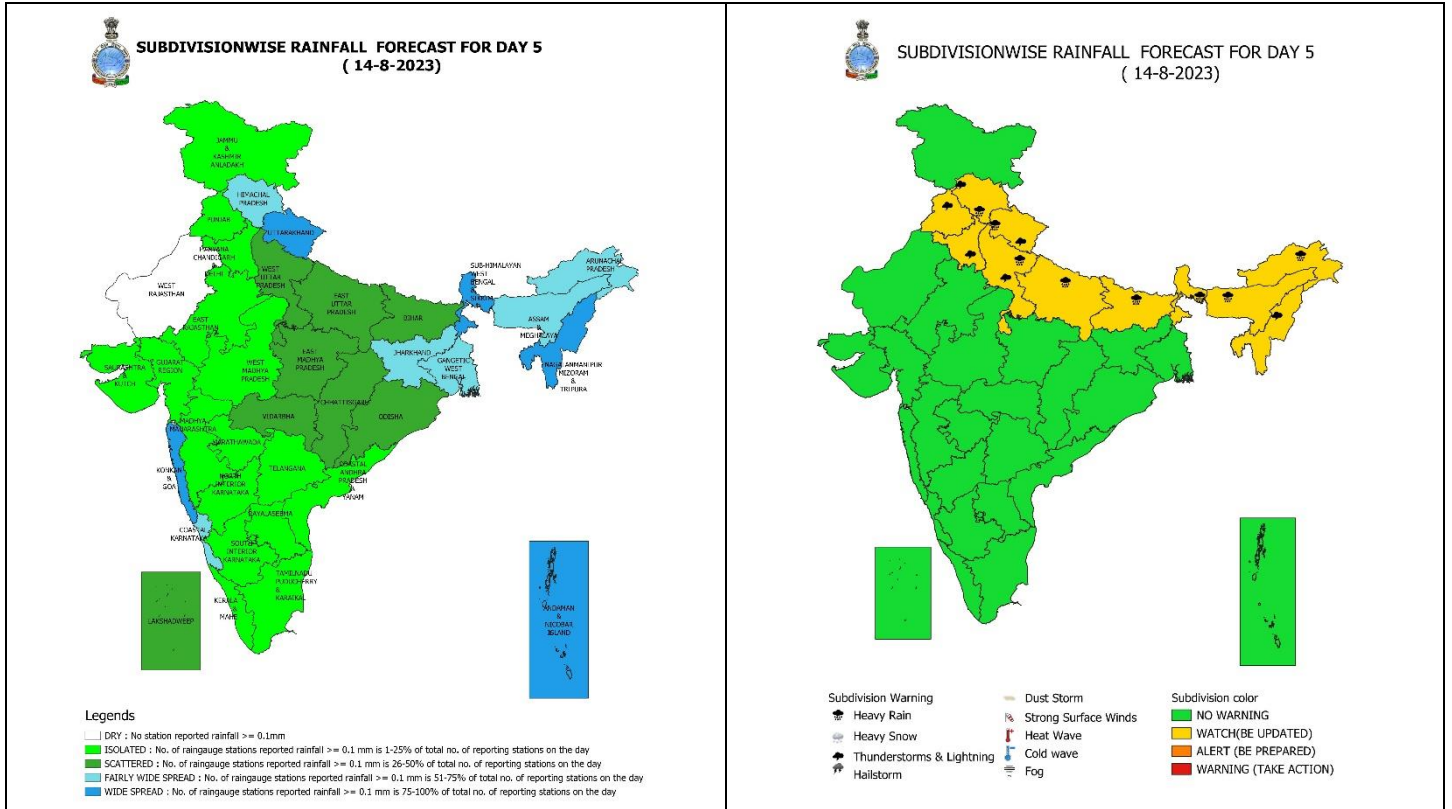
12 August (Day 3): -

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



13 August (Day 4): -

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



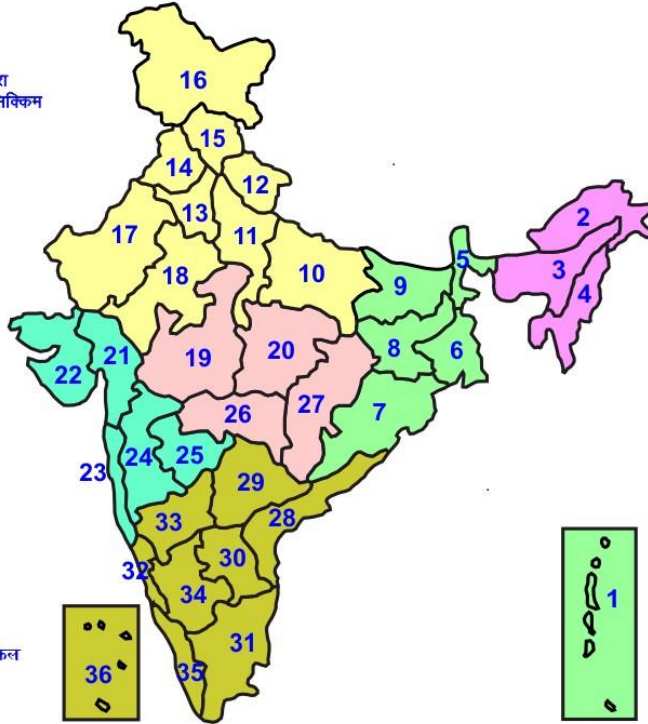
14 August (Day 5): -

- ❖ **Heavy to very heavy rainfall** likely at isolated places over Uttarakhand, Bihar and Assam & Meghalaya; **Heavy rainfall** at isolated places over Himachal Pradesh, Uttar Pradesh, Arunachal Pradesh and Sub-Himalaya West Bengal & Sikkim.
- ❖ **Thunderstorm with lightning** likely at isolated places over Himachal Pradesh, Uttarakhand, Punjab, Haryana-Chandigarh-Delhi, Nagaland, Manipur, Mizoram & Tripura and West Uttar Pradesh.
- ❖ **Squally wind speed of 45-55 kmph gusting to 65 kmph** likely over Central & adjoining 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 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

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



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

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°C to 6.4°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°C

Warm Night: When minimum temperature departure 4.5°C to 6.4°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°C to -6.4°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°C to -6.4°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)