



Monday, August 28, 2023
Time of Issue: 0800 hours IST
(MORNING)

ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

Significant Weather Features

Significant Weather features:

- ❖ The **Monsoon Trough** at mean sea level runs along the foothills of the Himalayas. It is likely to remain to the north of its normal position during next 5 days. Its eastern end is likely to shift southwards to its normal position by around 01st September, 2023.
- ❖ A **cyclonic circulation** lies over west Assam in lower tropospheric levels.

Weather Forecast and Warnings:

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 on 28th August, 2023.

East India: Light/moderate fairly widespread to widespread rainfall/thunderstorm & lightning with **isolated heavy rainfall** activity very likely over Andaman & Nicobar Islands on 28th & 29th August 2023.

Subdued rainfall activity likely over rest parts of the country during next 5 days.

Hot and Humid weather likely to prevail over Kerala and adjoining Tamil Nadu during next 3 days.

For more details kindly refer:

https://mausam.imd.gov.in/responsive/all_india_forecast_bulletin.php

Main Weather Observations:

- ❖ **Rainfall/thundershowers observed** (from 0830 hours IST to 1730 hours IST of yesterday): **at most places** over Arunachal Pradesh, Assam & Meghalaya and Konkan & Goa; **at many places** over Sub-Himalaya West Bengal & Sikkim, Nagaland, Manipur, Mizoram & Tripura and Uttarakhand; **at a few places** over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Chhattisgarh, Jharkhand, Odisha, Coastal Andhra Pradesh & Yanam, Madhya Maharashtra and Marathwada and **at isolated places** over Himachal Pradesh, Haryana-Chandigarh-Delhi, East Rajasthan, East Uttar Pradesh, Madhya Pradesh, Bihar, Gangetic West Bengal, Telangana, Karnataka, Kerala & Mahe and Tamil Nadu, Puducherry & Karaikal.
- ❖ **Yesterday, heavy rainfall** occurred at isolated places over Assam & Meghalaya.
- ❖ **Significant rainfall recorded** (from 0830 hours IST to 1730 hours IST of yesterday) **(in cm): Assam & Meghalaya:** Barpeta_ARG-9, Barpeta_KVK-7, Mawkyrwat-5, Sohra, Shillong & Dibrugarh-4 each, Tihu, Tangla, Cachar & Kakopather-3 each, Hangrabari, Guwahati & Lala-2 each, Kalakshetra & Khleriat-1 each; **Bihar:** Muzaffarpur-3; **Arunachal Pradesh:** Namsai-2, Sijon, Kaying, Nacho, Palin & Yupia-1 each; **Nagaland, Manipur, Mizoram & Tripura:** Saiha-6, Khowai-4, Gandachara, Chawnhu, Ashapara & Kolasib-3 each, Serchip, Lengpui, Aizawl & Bagafa-2 each, Khawzawl, Champhai, Hnathial-1 each; **Sub-Himalaya West Bengal & Sikkim:** Mangan-3, Toofanganj-2, Ravangla & Pedong-1 each; **Maharashtra:** New Panvel & Mahabaleshwar-3 each, Parbhani, Dahisar, Pune, Bandra, CSMT_Mumbai, Koparkhairane-2 each, Nashik & Rahuri-1 each; **Gangetic West Bengal:** Purulia & Shekhampore-1 each; **Jharkhand:** Latehar-3; **Uttarakhand:** Kalsi-4, Mori-2, Dehradun-1; **Himachal Pradesh:** Mandi-1; **Karnataka:** Mandya-2; **East Uttar Pradesh:** Fatehpur-1.
- ❖ **Minimum Temperature Departures (as on 27-08-2023):** Minimum temperatures were **appreciable above normal (3.1°C to 5.0°C)** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad; **above normal (1.6°C to 3.0°C)** at Uttarakhand, Madhya Pradesh, West Bengal & Sikkim, Madhya Maharashtra, Coastal Andhra Pradesh & Yanam. They were **below normal (-1.6°C to -3.0°C)** at many places over Kerala & Mahe; at a few places over Odisha; at isolated places over Chhattisgarh, Marathwada, Telangana, Rayalaseema, South Interior Karnataka, Tamil Nadu, Puducherry & Karaikal and West Bengal & Sikkim and **near normal** over rest parts of the country. yesterday, **the lowest minimum temperature of 17.0°C** was reported at **Chikmangaluru (South Interior Karnataka)** over the plains of the country.
- ❖ **Maximum Temperature Departures (as on 27-08-2023):** Maximum temperatures were **appreciably above normal (3.1°C to 5.0°C)** at isolated places over Kerala & Mahe; **above normal (1.6°C to 3.0°C)** at most places over Karnataka; at many places over Vidarbha, Telangana and Rayalaseema; at a few places over Gujarat Region, Chhattisgarh, Odisha, Marathwada, Coastal Andhra Pradesh & Yanam, Tamil Nadu, Puducherry & Karaikal and Andaman & Nicobar Islands and at isolated places over Uttarakhand, East Uttar Pradesh, Saurashtra & Kutch, East Madhya Pradesh, Gangetic West Bengal and Jharkhand. They were **below normal (-1.6°C to -3.0°C)** at a few places over Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura; at isolated places over Sub-Himalayan West Bengal & Sikkim and **near normal** over rest parts of the country. Yesterday, **the highest maximum temperature of 40.5°C** was reported at **Palayankottai (Tamil Nadu)**.



Meteorological Analysis (Based on 0530 hours IST)

- ❖ The **Monsoon Trough** at mean sea level runs along the foothills of the Himalayas.
- ❖ The cyclonic circulation over west Assam & neighbourhood extending upto 1.5 km above mean sea level 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. 70°E to the north of Lat. 30°N persists.
- ❖ The cyclonic circulation over north Tamil Nadu coast at 1.5 km above mean sea level persists.
- ❖ The trough from South Interior Karnataka to Comorin area across western Parts of Tamil Nadu extending upto 1.5 km above mean sea level persists.

Weather Forecast for next 5 days (Upto 0830 hours IST of 02nd September, 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	28-Aug	29-Aug	30-Aug	31-Aug	1-Sep	2-Sep	3-Sep
		Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
1	ANDAMAN & NICOBAR ISLANDS	WS	WS	WS	WS	WS	WS	WS
2	ARUNACHAL PRADESH	FWS	SCT	SCT	SCT	SCT	SCT	SCT
3	ASSAM & MEGHALAYA	FWS	FWS	FWS	FWS	WS	WS	WS
4	NAGALAND, MANIPUR, MIZORAM & TRIPURA	FWS	FWS	WS	WS	FWS	FWS	FWS
5	SUB-HIMALAYAN WEST BENGAL & SIKKIM	FWS	FWS	FWS	FWS	FWS	FWS	FWS
6	GANGETIC WEST BENGAL	ISOL	ISOL	ISOL	ISOL	SCT	FWS	FWS
7	ODISHA	ISOL	ISOL	SCT	SCT	FWS	FWS	FWS
8	JHARKHAND	ISOL	ISOL	ISOL	ISOL	SCT	FWS	FWS
9	BIHAR	SCT	ISOL	ISOL	ISOL	ISOL	SCT	SCT
10	EAST UTTAR PRADESH	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
11	WEST UTTAR PRADESH	ISOL	DRY	DRY	DRY	DRY	DRY	DRY
12	UTTARAKHAND	SCT	ISOL	ISOL	ISOL	ISOL	SCT	SCT
13	HARYANA CHANDIGARH & DELHI	ISOL	DRY	DRY	DRY	DRY	DRY	DRY
14	PUNJAB	ISOL	DRY	DRY	DRY	DRY	DRY	DRY
15	HIMACHAL PRADESH	SCT	ISOL	DRY	DRY	ISOL	ISOL	ISOL
16	JAMMU & KASHMIR AND LADAKH	ISOL	DRY	DRY	DRY	DRY	ISOL	ISOL
17	WEST RAJASTHAN	DRY	DRY	DRY	DRY	DRY	DRY	DRY
18	EAST RAJASTHAN	DRY	DRY	DRY	DRY	DRY	DRY	DRY
19	WEST MADHYA PRADESH	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
20	EAST MADHYA PRADESH	ISOL	ISOL	ISOL	ISOL	ISOL	SCT	SCT
21	GUJARAT REGION	ISOL	ISOL	ISOL	ISOL	DRY	DRY	DRY
22	SAURASHTRA & KUTCH	DRY	DRY	DRY	DRY	DRY	DRY	DRY
23	KONKAN & GOA	WS	FWS	FWS	FWS	FWS	WS	WS
24	MADHYA MAHARASHTRA	SCT	ISOL	FWS	FWS	SCT	SCT	SCT
25	MARATHAWADA	ISOL	ISOL	ISOL	ISOL	ISOL	SCT	SCT
26	VIDARBHA	ISOL	ISOL	ISOL	ISOL	ISOL	SCT	SCT
27	CHHATTISGARH	ISOL	ISOL	ISOL	ISOL	ISOL	SCT	SCT
28	COASTAL ANDHRA PRADESH & YANAM	SCT	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
29	TELANGANA	ISOL	ISOL	ISOL	SCT	FWS	FWS	FWS
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	SCT	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
35	KERALA & MAHE	ISOL	ISOL	ISOL	SCT	SCT	SCT	SCT
36	LAKSHADWEEP	FWS	SCT	SCT	FWS	FWS	FWS	FWS

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 27.08.2023

Fig. 2: Departure of Maximum Temp. Dated 27.08.2023

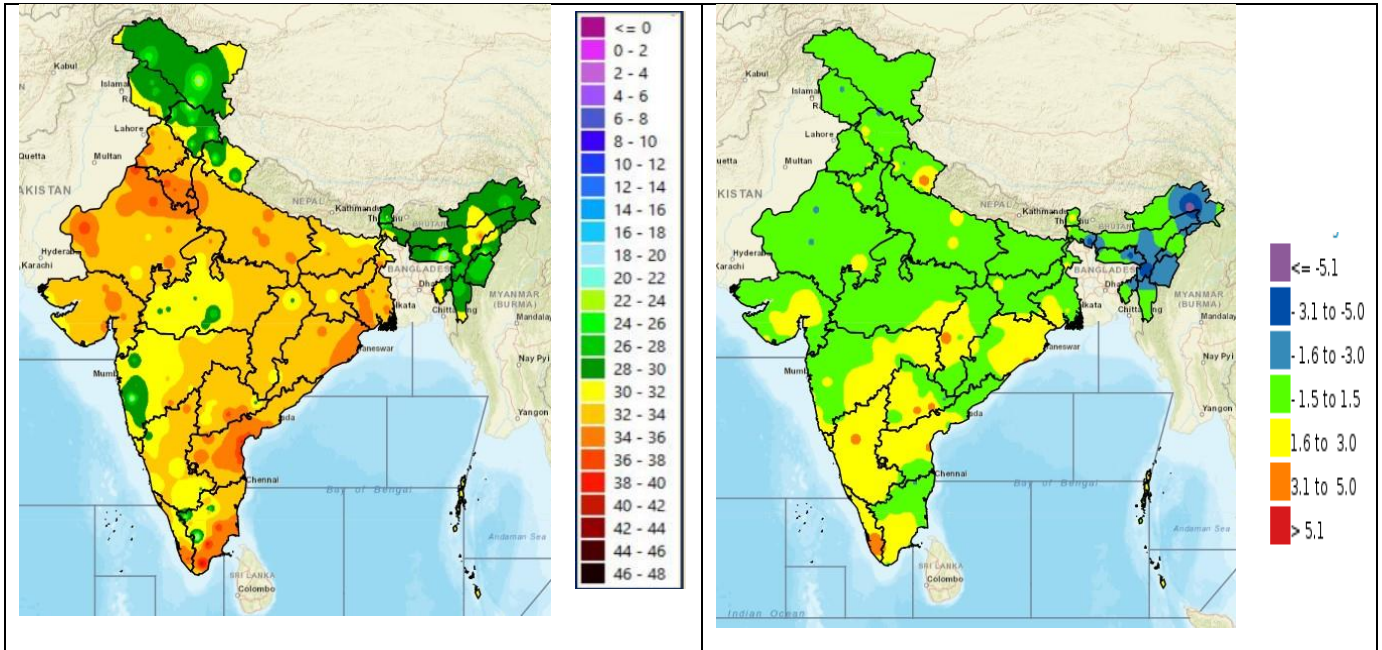
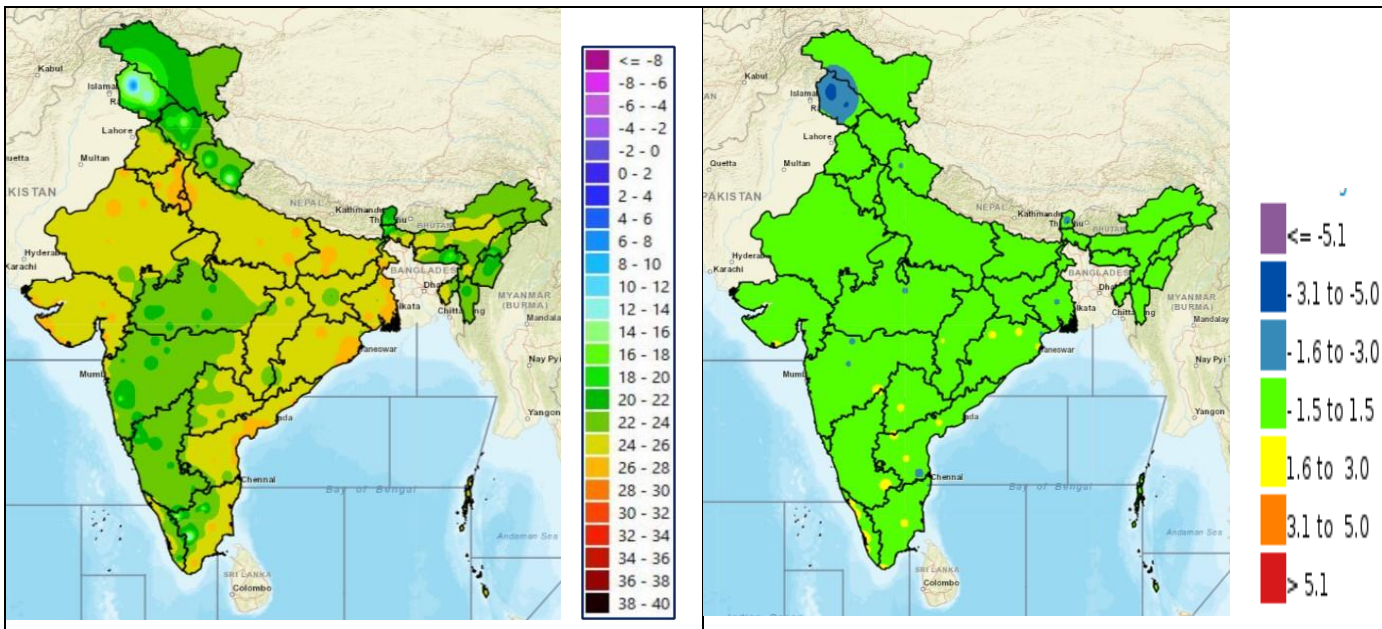


Fig. 3: Minimum Temperatures Dated 27.08.2023

Fig. 4: Departure of Minimum Temp. Dated 27.08.2023

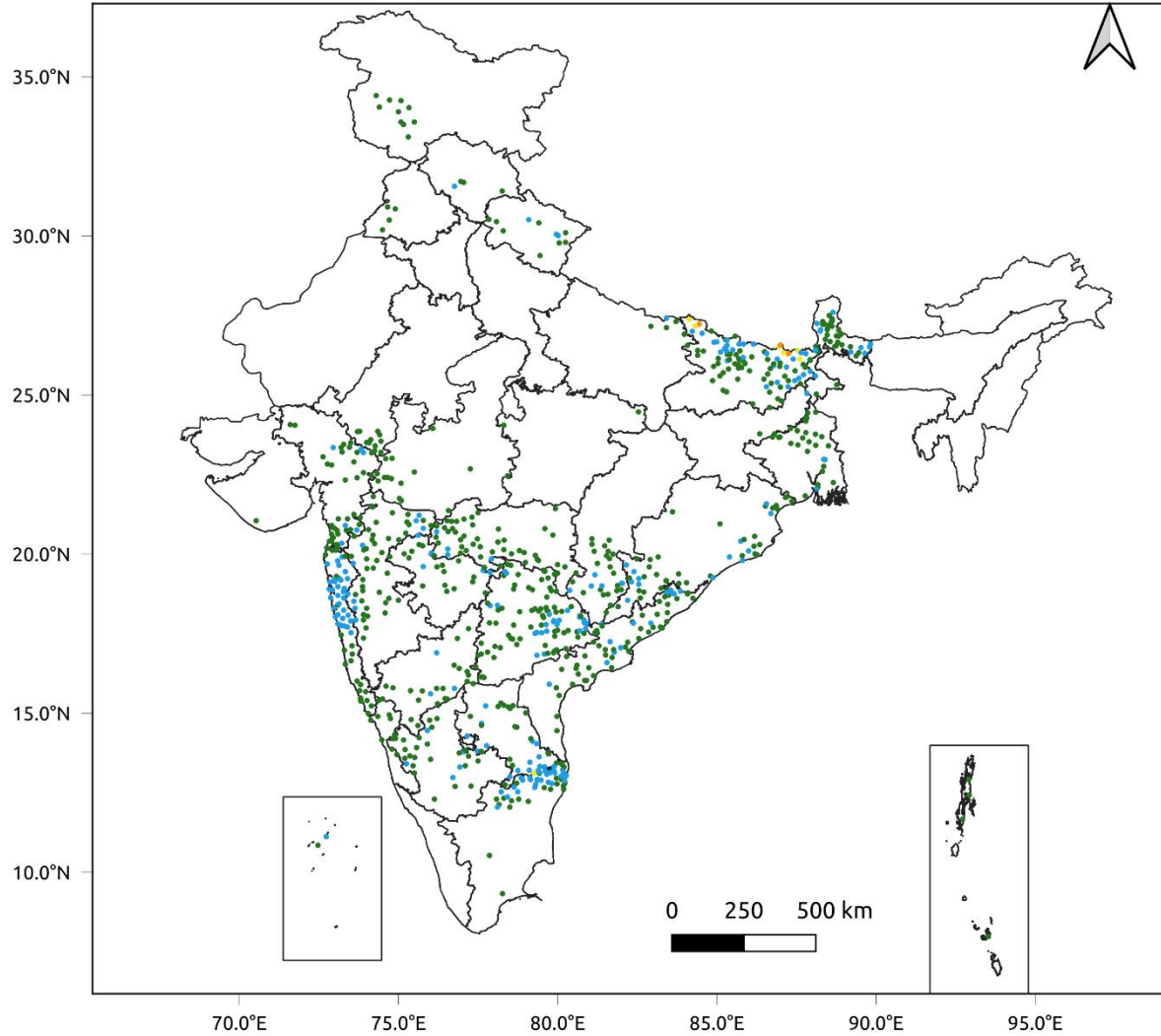


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Fig. 5: Accumulated Rainfall (mm) during past 24 hours

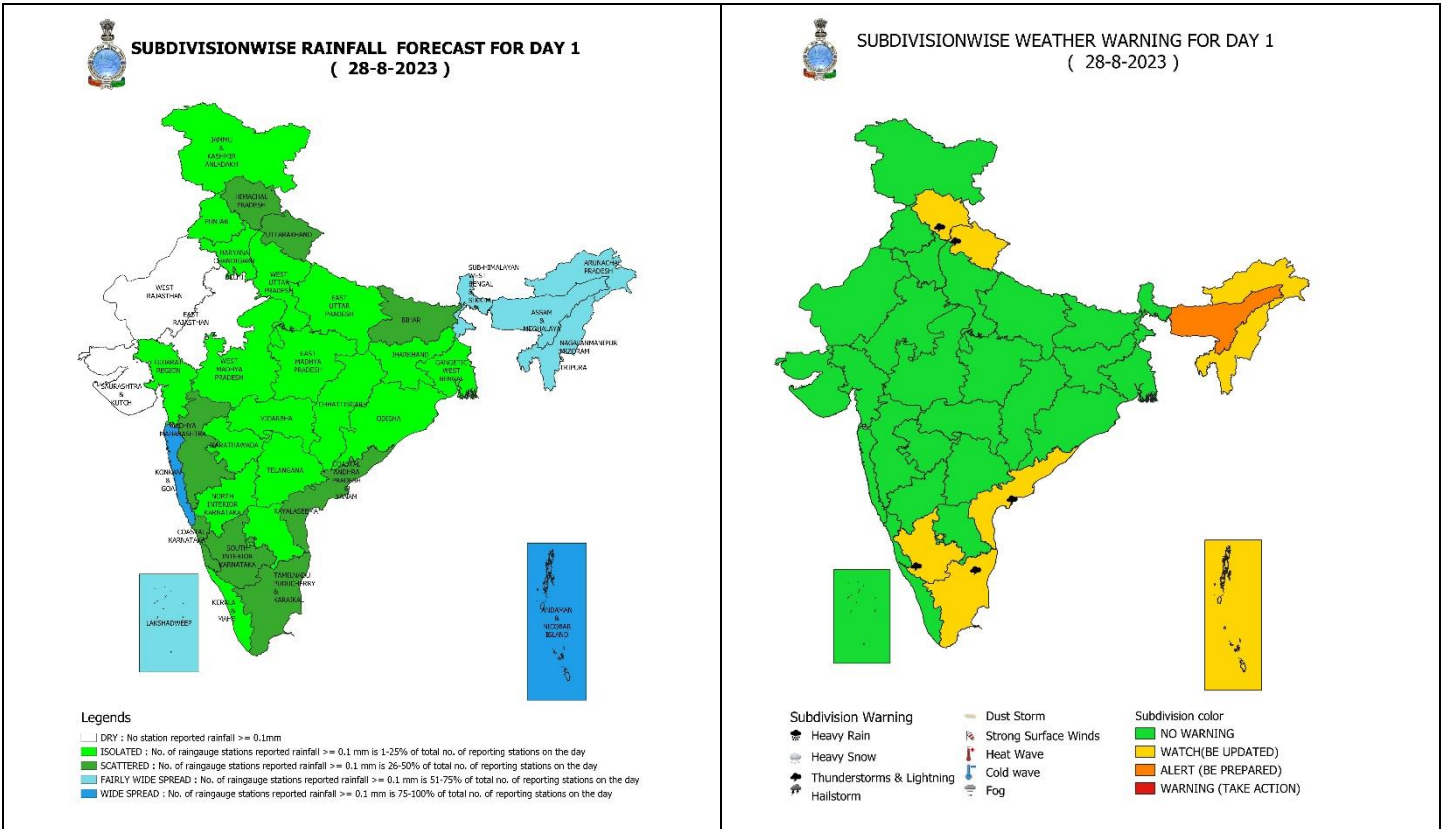


24 Hr cumulative rainfall recorded over different stations during 0830 IST of 26-8-2023 to 0830 IST of 27-8-2023



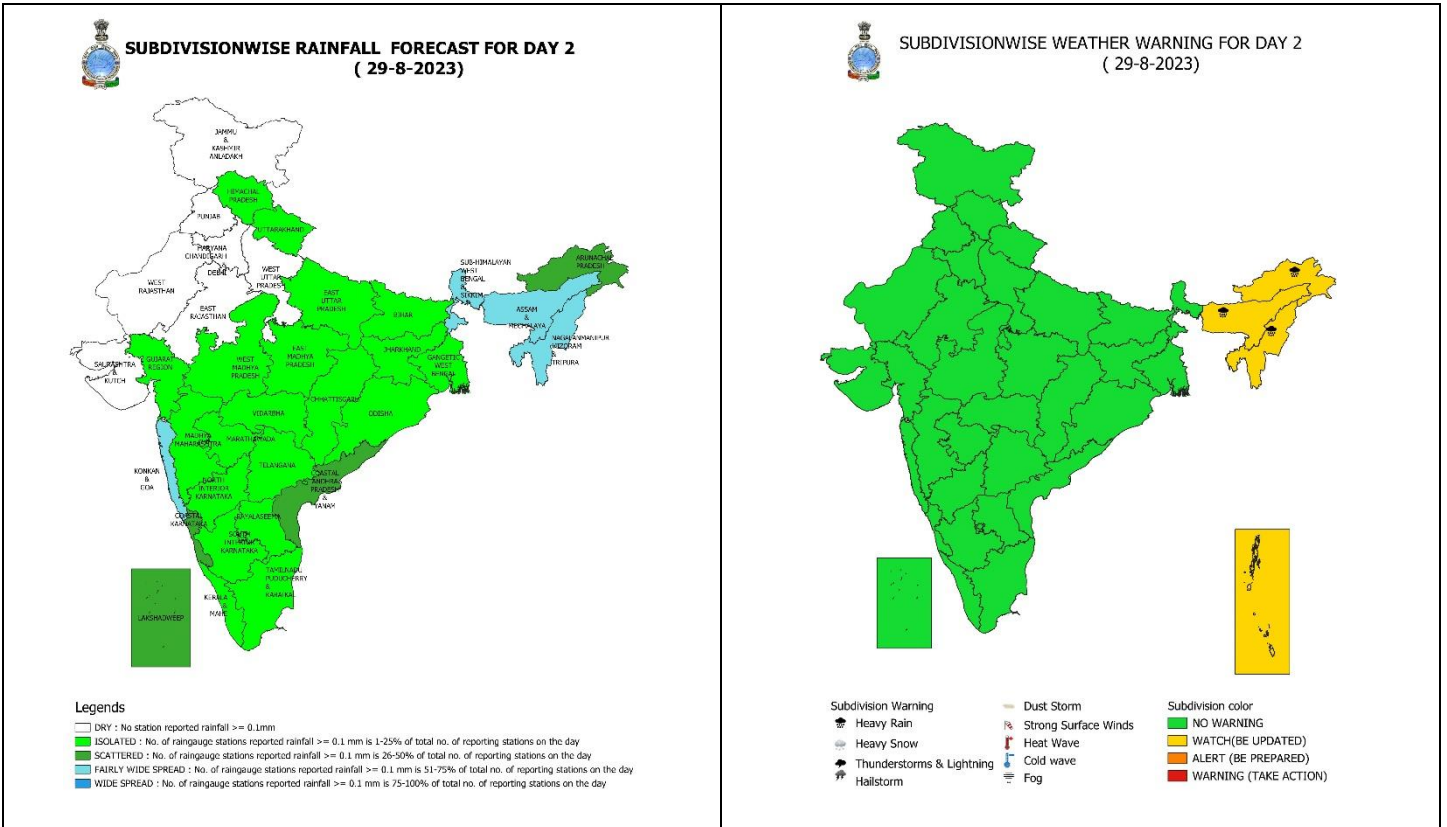
Legends

- 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)



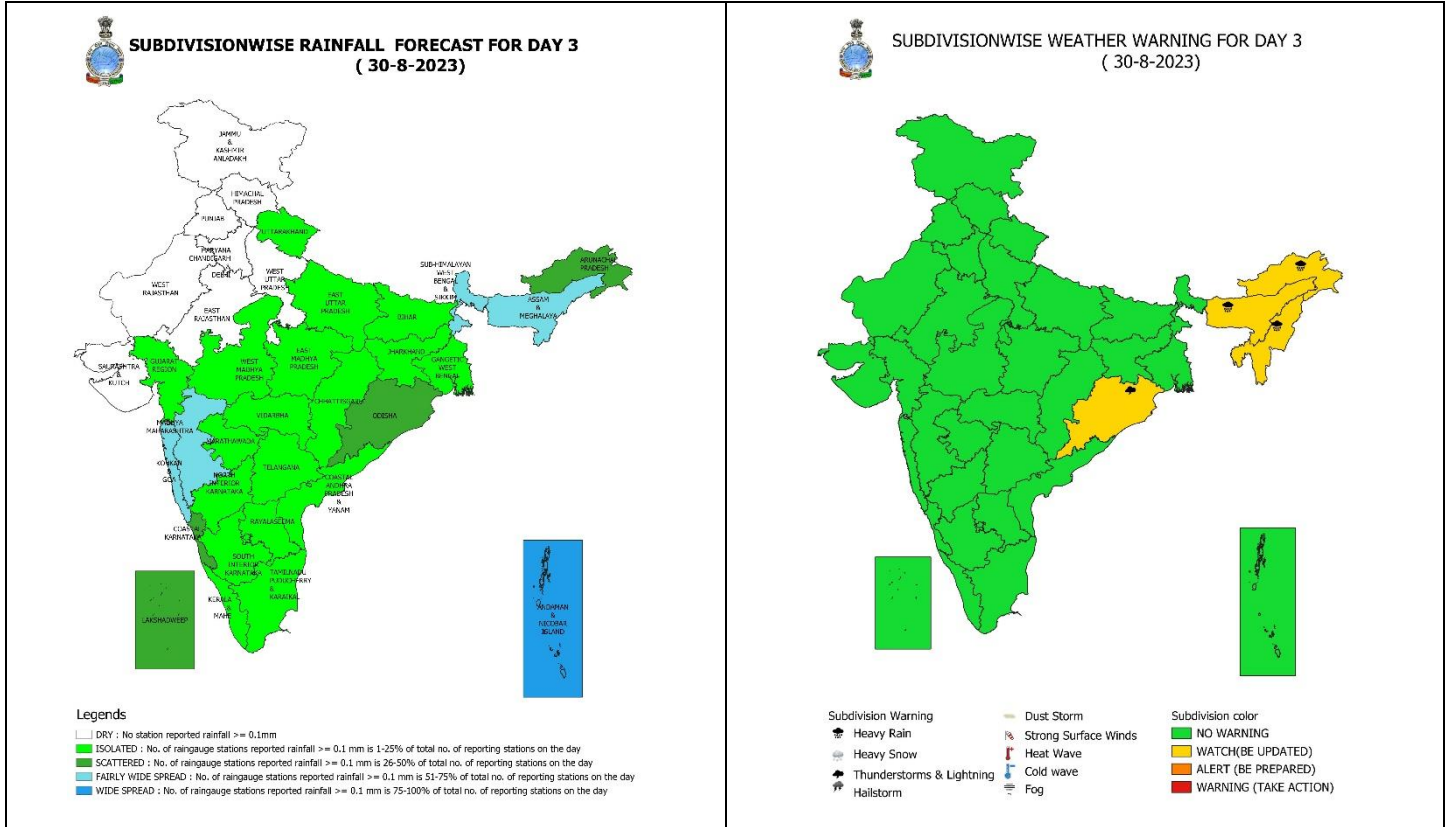
28 August (Day 1): -

- ❖ **Heavy to very heavy rainfall** very likely at isolated places over Assam & Meghalaya and **Heavy rainfall** at isolated places over Andaman & Nicobar Islands, Arunachal Pradesh, Nagaland, Manipur, Mizoram & Tripura.
- ❖ **Thunderstorm with lightning** very likely at isolated places over Himachal Pradesh, Uttarakhand, Andaman & Nicobar Islands, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Coastal Andhra Pradesh & Yanam, South Interior Karnataka, Tamil Nadu, Puducherry & Karaikal.
- ❖ **Squally wind speed of 45-55 kmph gusting to 65 kmph** likely over Westcentral and adjoining Southwest Arabian Sea. **Fishermen are advised not to venture into these areas.**



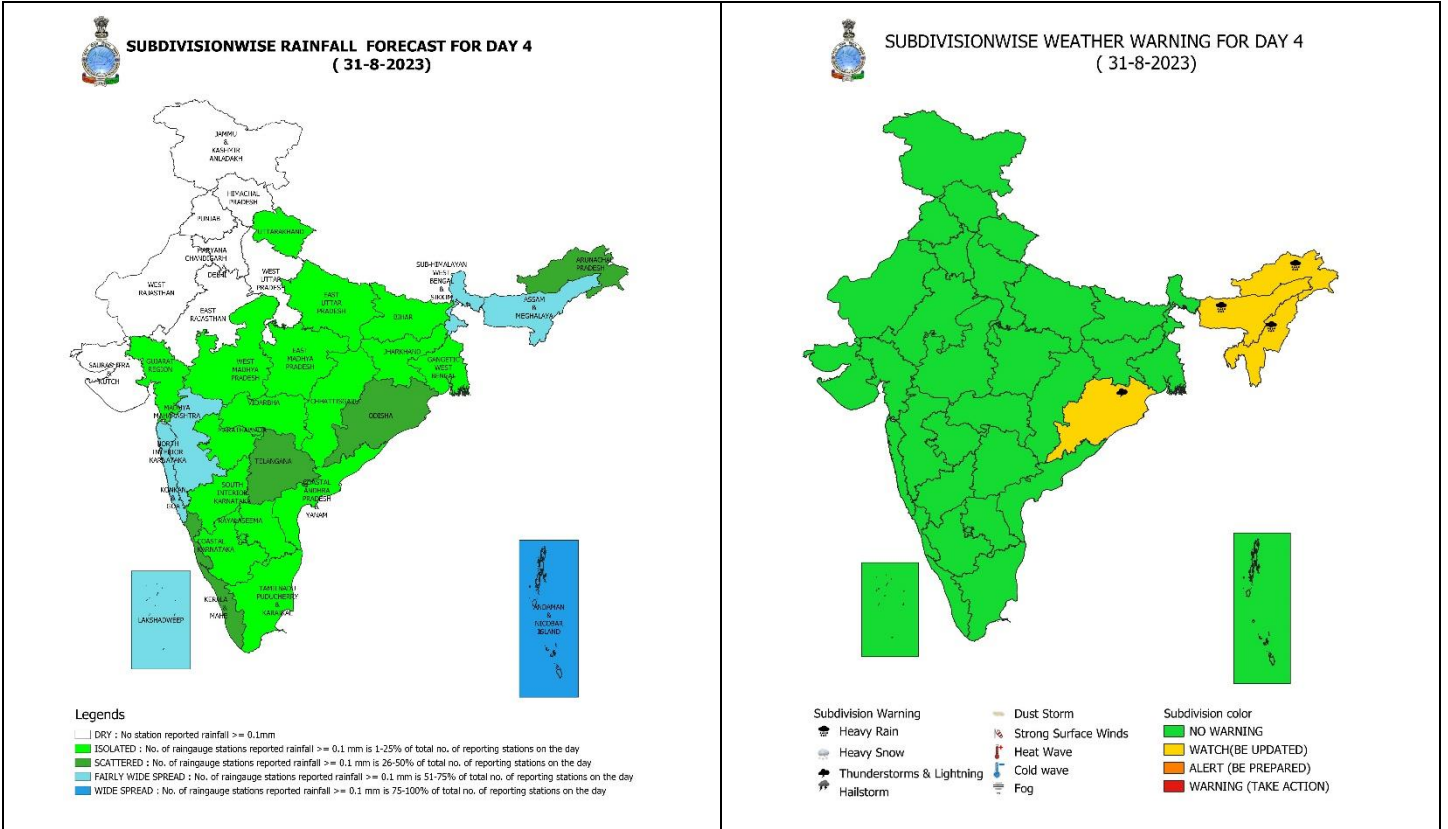
29 August (Day 2): -

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



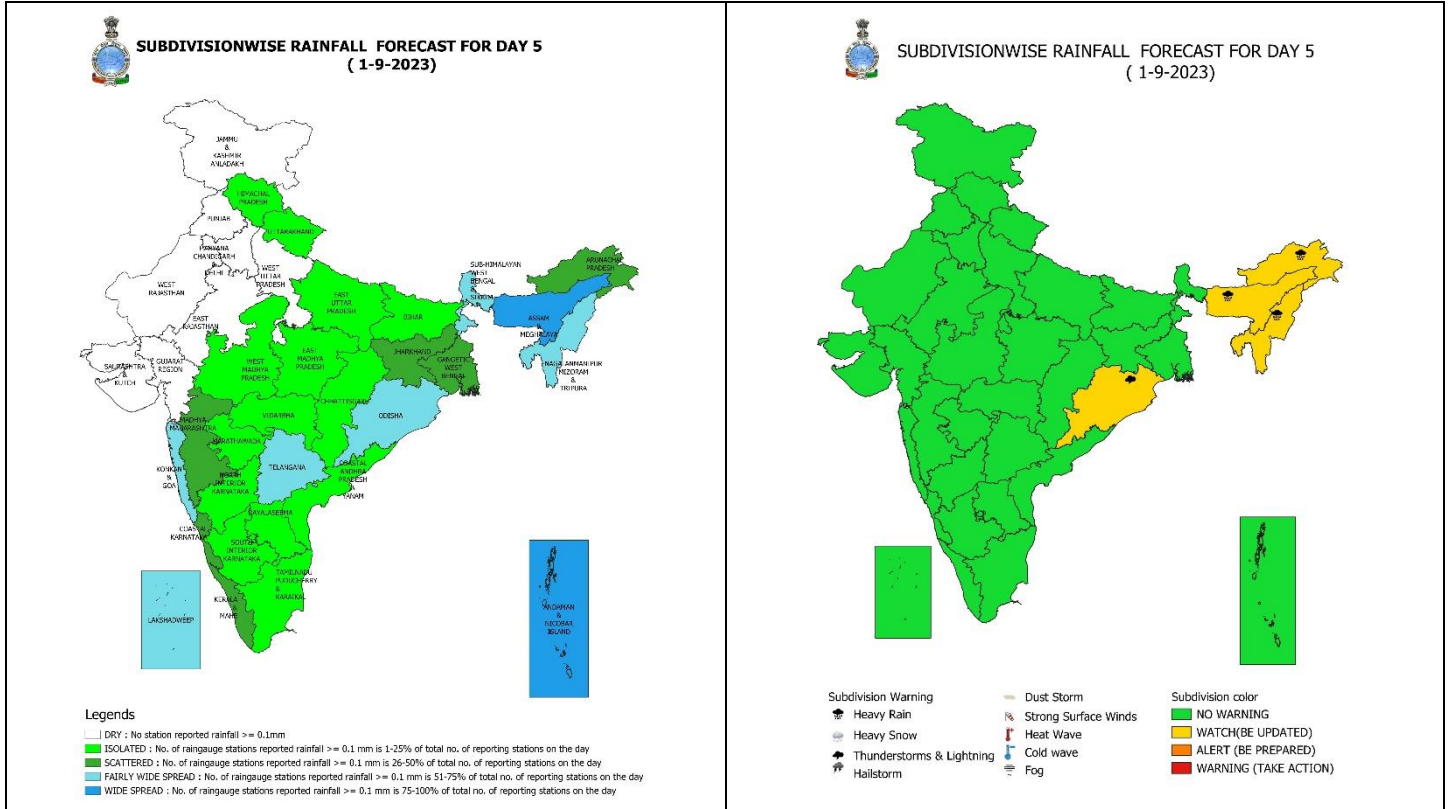
30 August (Day 3): -

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



31 August (Day 4): -

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



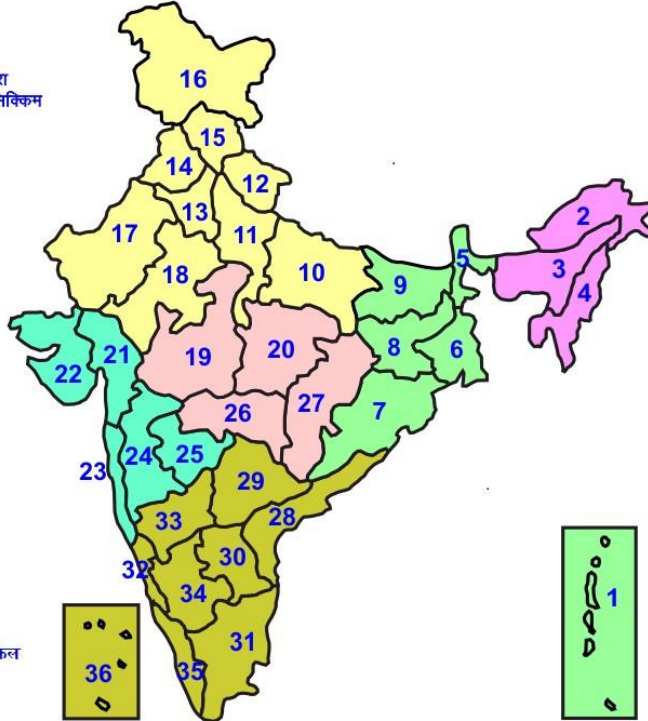
01 September (Day 5): -

- ❖ **Heavy rainfall** likely at isolated places over Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura.
- ❖ **Thunderstorm with lightning** likely at isolated Odisha.
- ❖ **Squally wind speed of 45-55 kmph gusting to 65 kmph** likely over Westcentral and adjoining Southwest, Northwest & Eastcentral 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

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 < 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)

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