

Monday, January 1, 2024
Time of Issue: 0730 hours IST
(MORNING)

ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

Significant Weather Features:

- **Minimum temperatures:** Yesterday the Minimum temperatures were in the range of 6-9°C over most parts of Punjab, Haryana-Chandigarh, north Uttar Pradesh and north Rajasthan and in range of 10-12°C over Delhi, south Rajasthan and north Madhya Pradesh. **These were above normal by 2-4°C** over many parts of Punjab, Haryana-Chandigarh-Delhi, northwest Rajasthan, West Uttar Pradesh, West Madhya Pradesh and Gujarat.
- **Fog conditions observed (at 0530 hours IST of today):** Very dense fog in isolated pockets of East Uttar Pradesh; Dense fog in isolated places over Uttarakhand and Bihar and Moderate fog in isolated places over Haryana & Chandigarh, Southwest Uttar Pradesh and Northeast Rajasthan.
- **Visibility Recorded (at 0530 hours IST of today) (≤ 200 metres):** Uttarakhand: Dehradun-50; Haryana, Chandigarh: Ambala-200, Chandigarh-200, Northeast Rajasthan- Jaipur-200; East Uttar Pradesh: Varanasi-25, Sultanpur-200; West Uttar Pradesh- Jhansi-200; Bihar: Gaya-50 & Purnea- 200.
- **Yesterday, Cold day to severe cold day conditions** occurred in many places over Punjab, Haryana and northwest Rajasthan; in some parts of West Uttar Pradesh and in isolated pockets over East Uttar Pradesh and north Madhya Pradesh.

Weather Systems and Forecast & Warnings during next 5 days:

Weather Systems:

- The **Low Pressure Area** lies over West Equatorial Indian Ocean & adjoining Southeast Arabian Sea. It is likely to move west-northwestwards and become Well Marked Low Pressure Area over central parts of south Arabian Sea & adjoining West Equatorial Indian Ocean during next 24 hours.
- The **Western Disturbance** as a cyclonic circulation over north Haryana & neighbourhood between 1.5 & 3.1 km above mean sea level persists.

Dense fog and Cold day warning:

- **Dense to very dense fog conditions very likely to prevail in many parts over Punjab during night & morning hours on 01st & 02nd January 2024 and in some parts thereafter for subsequent 03 days.**
- **Dense to very dense fog conditions very likely to prevail in some parts over Haryana & Chandigarh and Uttar Pradesh during night & morning hours on 01 & 02nd January 2024 and in isolated pockets thereafter for subsequent 3 days.**
- **Dense to very dense fog conditions** very likely to prevail in isolated pockets over Rajasthan and Uttarakhand in mid night & morning hours on 01st-02nd January 2024 and dense fog in isolated pockets for subsequent 03 days.
- **Dense Fog** conditions very likely to prevail in isolated pockets for a few hours in early morning/morning hours over Jammu & Kashmir, Himachal Pradesh on 01st January 2024; over Madhya Pradesh, West Bengal & Sikkim, Bihar, Jharkhand, Odisha, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura on 01st & 02nd January, 2024.
- **Cold Day to Severe Cold Day** conditions very likely in some parts over Punjab on 01st January 2024.
- **Cold Day** conditions very likely in isolated pockets over Punjab during 02nd January-05th January; over Haryana during 01st-05th January, 2024; over Uttar Pradesh, Rajasthan and Madhya Pradesh on 01st January 2024.

Rainfall Forecast:

- ❖ Under the influence of a fresh easterly wave and the **Low Pressure Area** over West Equatorial Indian Ocean & adjoining Southeast Arabian Sea; light to moderate rainfall at some places very likely over south Tamil Nadu, south Kerala and Lakshadweep till 04th January, 2024 with isolated **heavy rainfall** over Lakshadweep on 02nd January, 2024.
- ❖ Light isolated rainfall very likely over Uttar Pradesh, Madhya Pradesh and Chhattisgarh during 02nd-04th January, 2024.

Temperatures Forecast:

- ❖ No significant change in minimum temperatures likely over most parts of north India during next 5 days.

Main Weather Observations:

- ❖ **Rainfall distribution** (from 0830 hours IST to 1730 hours IST of today): NIL.
- ❖ **Fog conditions observed** (at 0530 hours IST of today): Very dense fog in isolated pockets of East Uttar Pradesh; Dense fog in isolated places over Uttarakhand and Bihar and Moderate fog in isolated places over Haryana & Chandigarh, Southwest Uttar Pradesh and Northeast Rajasthan.
- ❖ **Visibility Recorded** (at 0530 hours IST of today) (**≤200 metres**): Uttarakhand: Dehradun-50; Haryana, Chandigarh: Ambala-200, Chandigarh-200, Northeast Rajasthan- Jaipur-200; East Uttar Pradesh: Varanasi-25, Sultanpur-200; West Uttar Pradesh- Jhansi-200; Bihar: Gaya-50 & Purnea- 200.
- ❖ **Yesterday, Cold day to severe cold day conditions** occurred in many places over Punjab, Haryana and northwest Rajasthan; in some parts of West Uttar Pradesh and in isolated pockets over East Uttar Pradesh and north Madhya Pradesh.
- ❖ **Minimum Temperature Departures (as on 31-12-2023)**: Minimum temperatures were **appreciably above normal (3.1°C to 5.0°C)** at many places over Gujarat Region, West Madhya Pradesh, West Uttar Pradesh; at a few places over Haryana-Chandigarh-Delhi, Uttarakhand, Saurashtra & Kutch, East Rajasthan; **above normal (1.6°C to 3.0°C)** at most places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Punjab, East Uttar Pradesh, Bihar, Jharkhand, Gangetic West Bengal, Odisha, Nagaland, Manipur, Mizoram & Tripura, Madhya Maharashtra, Marathwada, Konkan & Goa, West Rajasthan, East Madhya Pradesh, Kerala & Mahe, Chhattisgarh; at many places over Assam & Meghalaya, Arunachal Pradesh, Vidarbha; at a few places over Tamil Nadu, Puducherry & Karaikal; at isolated places over Telangana, Coastal Andhra Pradesh & Yanam, North Interior Karnataka and **near normal** over rest parts of the country. Yesterday, **the lowest minimum temperature** of 5.0 °C was reported at **Sikar (East Rajasthan)** over the plains of the country.
- ❖ **Maximum Temperature Departures (as on 31-12-2023)**: Maximum temperatures was **appreciably above normal (3.1°C to 5.0°C)** at a few places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad; at isolated places over Arunachal Pradesh and Assam & Meghalaya; **above normal (1.6°C to 3.0°C)** at many places over Konkan & Goa and Kerala & Mahe; at a few places over Kerala & Mahe, Madhya Maharashtra, Vidarbha and Tamil Nadu, Puducherry & Karaikal; at isolated places over Chhattisgarh, Gangetic West Bengal and North Interior Karnataka. They were **markedly below normal (-5.1°C or less)** at most places over Punjab; at many places over Haryana-Chandigarh-Delhi and West Uttar Pradesh; at a few places over Bihar and north Madhya Pradesh; at isolated places over West Rajasthan; **appreciably below normal (-3.1°C to -5.0)** at few places over East Uttar Pradesh; at isolated places over Himachal Pradesh; **below normal (-1.6°C to -3.0°C)** at a few places East Rajasthan and **near normal** over rest parts of the country. Yesterday, **the highest maximum temperature** of 36.6°C was reported at **Karwar (Coastal Karnataka)**.

Meteorological Analysis (Based on 0530 hours IST)

- ❖ The **Western Disturbance** as a cyclonic circulation over north Haryana & neighbourhood between 1.5 & 3.1 km above mean sea level persists.
- ❖ The **Low Pressure Area** over West Equatorial Indian Ocean & adjoining Southeast Arabian Sea with the associated cyclonic circulation extending upto mid-tropospheric levels persists. It is likely to move west-northwestwards and become Well Marked Low Pressure Area over central parts of south Arabian Sea & adjoining West Equatorial Indian Ocean during next 24 hours.
- ❖ The **Cyclonic Circulation** over Northeast Bay of Bengal & adjoining Bangladesh at 1.5 km above mean sea level persists.

Weather Forecast for next 7 days (Upto 0830 hours IST of 07th January, 2024)

- ❖ No significant change in minimum temperatures likely over most parts of north India during next 5 days.

Weather Outlook for subsequent 2 days

- ❖ Scattered to fairly widespread rainfall light to moderate rainfall likely over Tamil Nadu, Puducherry & Karaikal, Interior Karnataka, Kerala & Mahe, central & northwest India and Andaman & Nicobar Islands. Isolated to scattered light rainfall likely over parts of Bihar, Jharkhand, Marathwada and Chhattisgarh.
- ❖ Mainly dry weather likely to prevail over rest parts of the country.

Table-1

7 Days Rainfall Forecast								
S. No.	Subdivision	01-Jan	02-Jan	03-Jan	04-Jan	05-Jan	06-Jan	07-Jan
		Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
1	ANDAMAN & NICOBAR ISLANDS	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
2	ARUNACHAL PRADESH	ISOL	ISOL	ISOL	DRY	DRY	DRY	DRY
3	ASSAM & MEGHALAYA	DRY	DRY	DRY	DRY	DRY	DRY	DRY
4	NAGALAND, MANIPUR, MIZORAM & TRIPURA	DRY	DRY	DRY	DRY	DRY	DRY	DRY
5	SUB-HIMALAYAN WEST BENGAL & SIKKIM	ISOL	ISOL	ISOL	ISOL	DRY	DRY	DRY
6	GANGETIC WEST BENGAL	DRY	DRY	DRY	ISOL	ISOL	DRY	DRY
7	ODISHA	DRY	DRY	DRY	ISOL	ISOL	DRY	DRY
8	JHARKHAND	DRY	ISOL	ISOL	ISOL	ISOL	DRY	DRY
9	BIHAR	DRY	DRY	ISOL	ISOL	ISOL	DRY	DRY
10	EAST UTTAR PRADESH	DRY	ISOL	ISOL	ISOL	DRY	DRY	DRY
11	WEST UTTAR PRADESH	DRY	DRY	DRY	DRY	DRY	DRY	DRY
12	UTTARAKHAND	DRY	DRY	DRY	DRY	DRY	DRY	DRY
13	HARYANA CHANDIGARH & DELHI	DRY	DRY	DRY	DRY	DRY	DRY	DRY
14	PUNJAB	DRY	DRY	DRY	DRY	DRY	DRY	DRY
15	HIMACHAL PRADESH	DRY	DRY	DRY	DRY	DRY	DRY	DRY
16	JAMMU & KASHMIR AND LADAKH	DRY	DRY	DRY	DRY	DRY	DRY	DRY
17	WEST RAJASTHAN	DRY	DRY	DRY	DRY	DRY	DRY	DRY
18	EAST RAJASTHAN	DRY	DRY	DRY	DRY	DRY	DRY	DRY
19	WEST MADHYA PRADESH	DRY	DRY	ISOL	ISOL	ISOL	DRY	ISOL
20	EAST MADHYA PRADESH	DRY	ISOL	SCT	SCT	ISOL	ISOL	ISOL
21	GUJARAT REGION	DRY	DRY	DRY	DRY	DRY	DRY	ISOL
22	SAURASHTRA & KUTCH	DRY	DRY	DRY	DRY	DRY	DRY	DRY
23	KONKAN & GOA	DRY	DRY	ISOL	ISOL	ISOL	ISOL	ISOL
24	MADHYA MAHARASHTRA	DRY	DRY	DRY	ISOL	ISOL	ISOL	SCT
25	MARATHAWADA	DRY	DRY	DRY	DRY	DRY	DRY	ISOL
26	VIDARBHA	DRY	DRY	DRY	DRY	DRY	DRY	ISOL
27	CHHATTISGARH	DRY	ISOL	ISOL	ISOL	DRY	DRY	DRY
28	COASTAL ANDHRA PRADESH & YANAM	DRY	DRY	DRY	DRY	DRY	DRY	DRY
29	TELANGANA	DRY	DRY	DRY	ISOL	ISOL	ISOL	ISOL
30	RAYALASEEMA	DRY	DRY	DRY	DRY	DRY	DRY	DRY
31	TAMILNADU PUDUCHERRY & KARAIKAL	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL	SCT
32	COASTAL KARNATAKA	DRY	DRY	ISOL	ISOL	ISOL	ISOL	ISOL
33	NORTH INTERIOR KARNATAKA	DRY	DRY	DRY	ISOL	ISOL	ISOL	ISOL
34	SOUTH INTERIOR KARNATAKA	DRY	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
35	KERALA & MAHE	ISOL	ISOL	ISOL	SCT	SCT	SCT	SCT
36	LAKSHADWEEP	FWS	WS	WS	WS	FWS	FWS	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 colour warning does not mean "Red Alert", Red colour 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

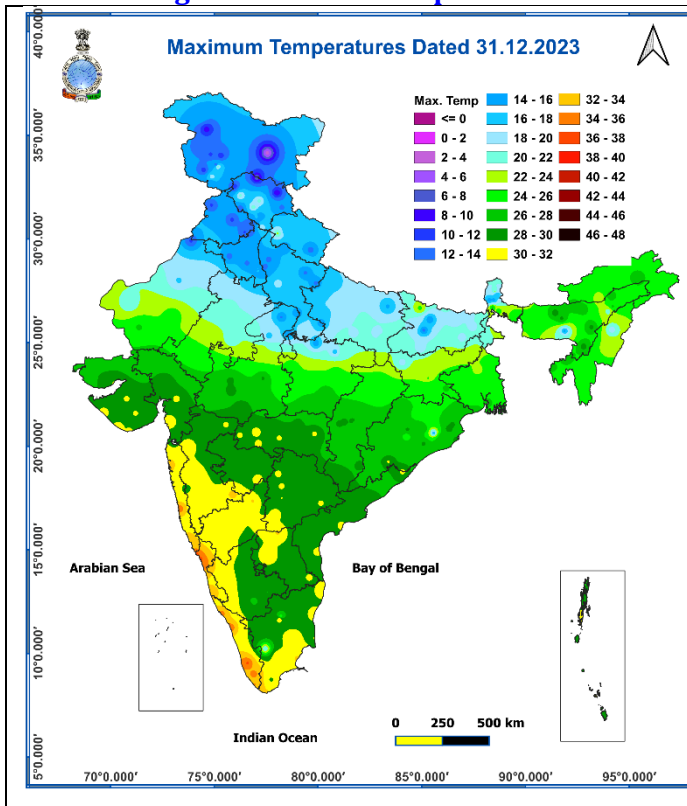


Fig. 2: Departure of Maximum Temperatures

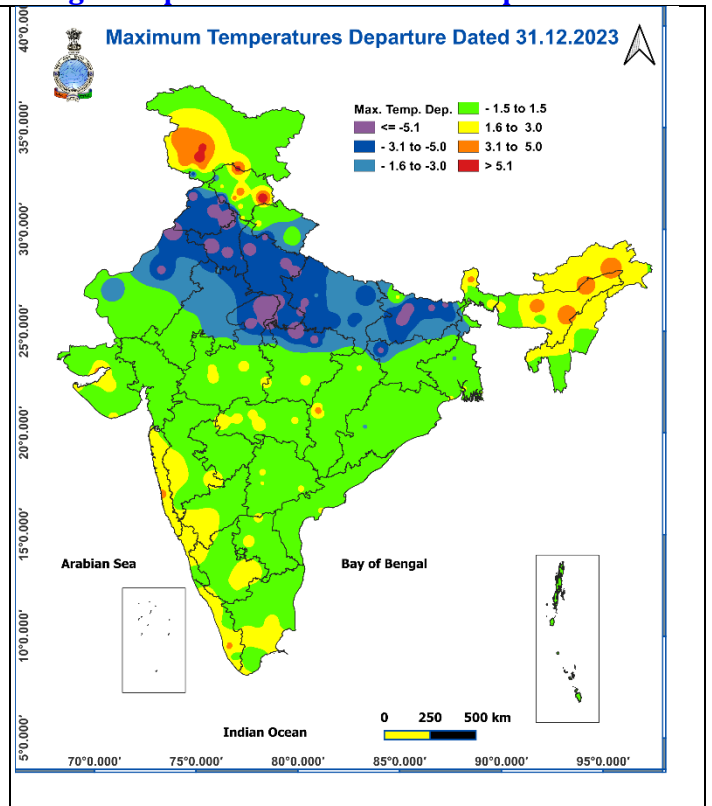


Fig. 3: Minimum Temperatures

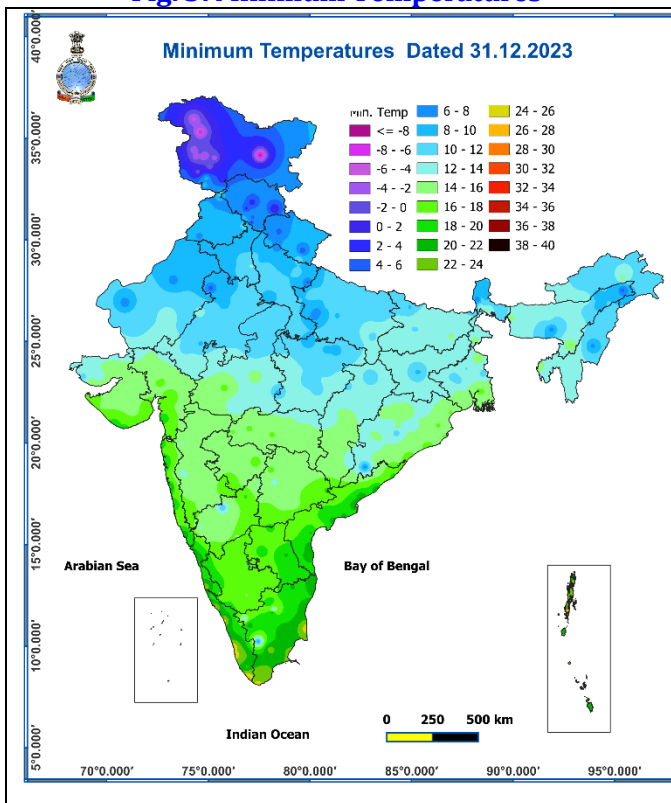


Fig. 4: Departure of Minimum Temperatures

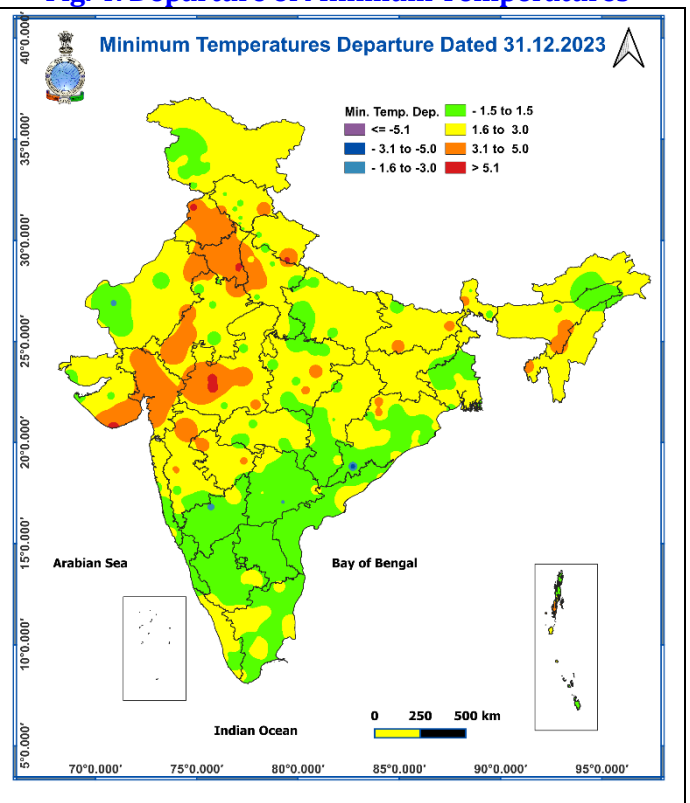
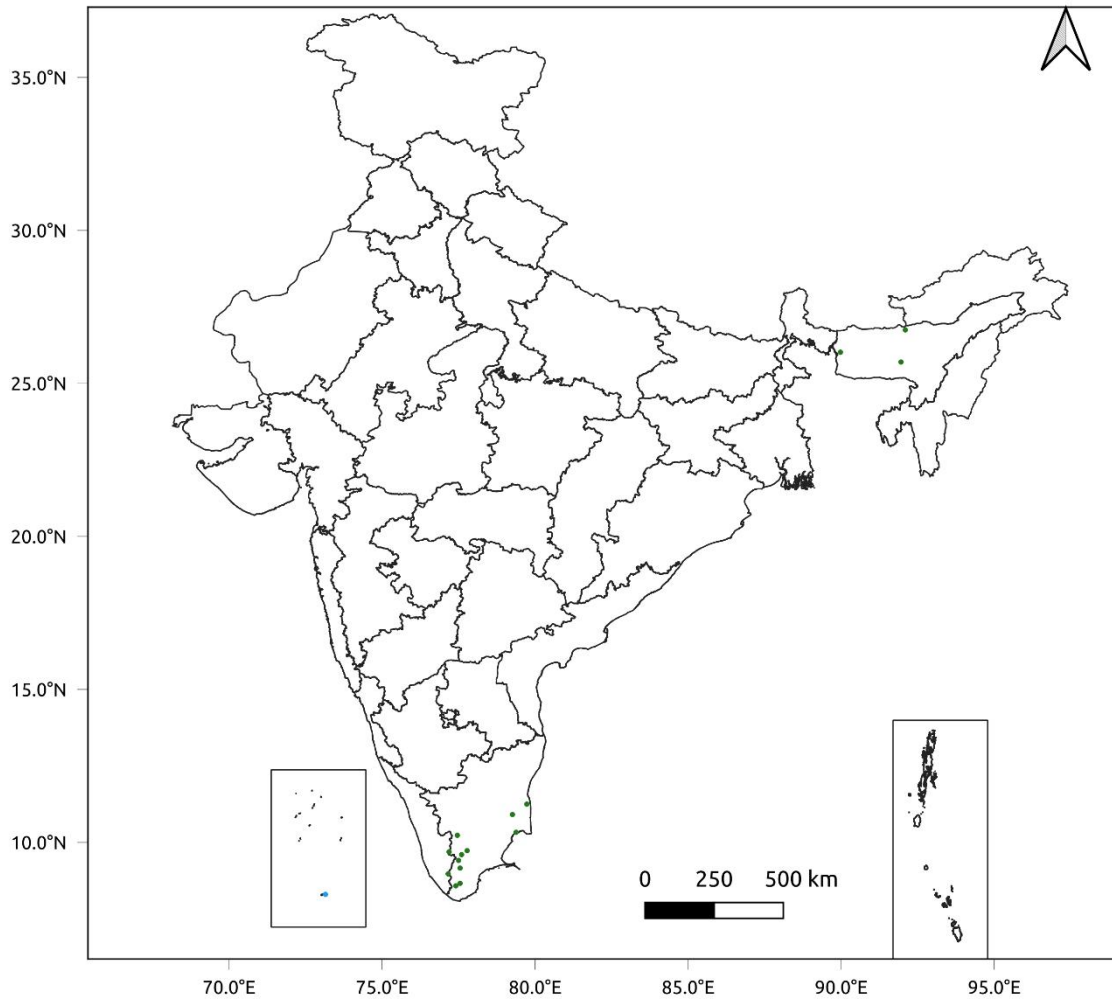


Fig. 5: Accumulated Rainfall (mm) during past 24 hours

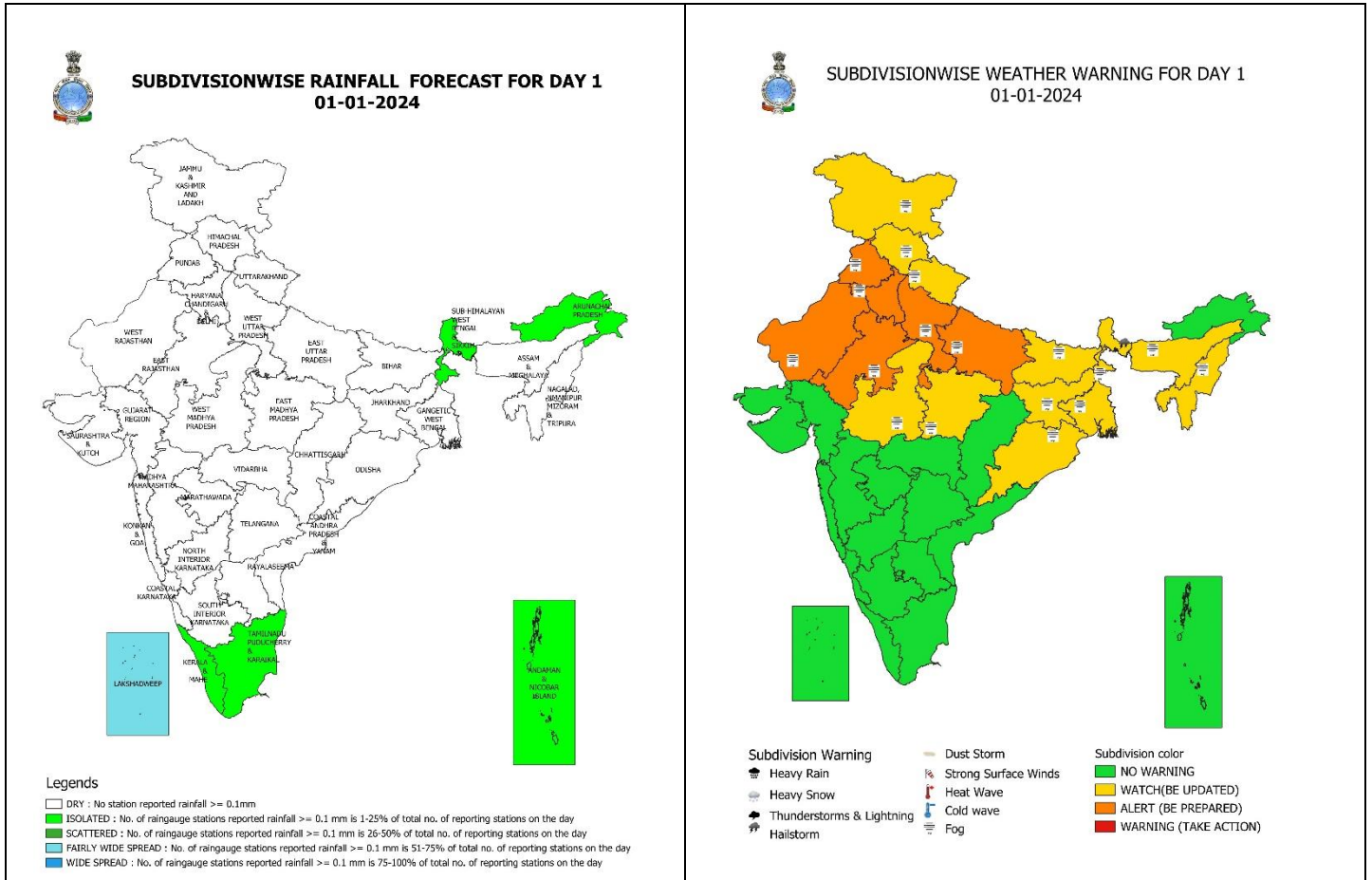


24 Hr cumulative rainfall recorded over different stations during 0830 IST of 30-12-2023 to 0830 IST of 31-12-2023



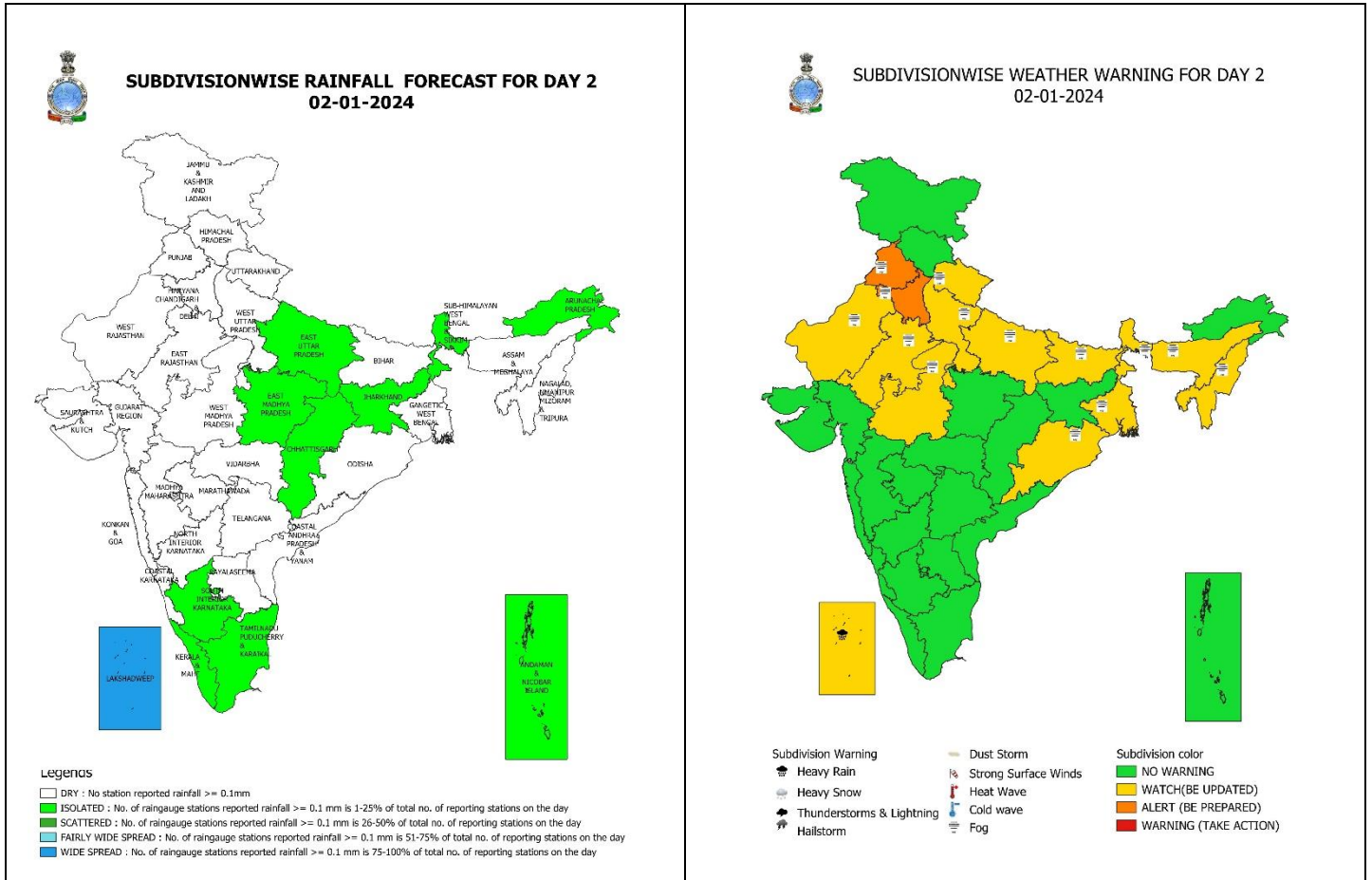
Legends

- 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)



01 January (Day 1):

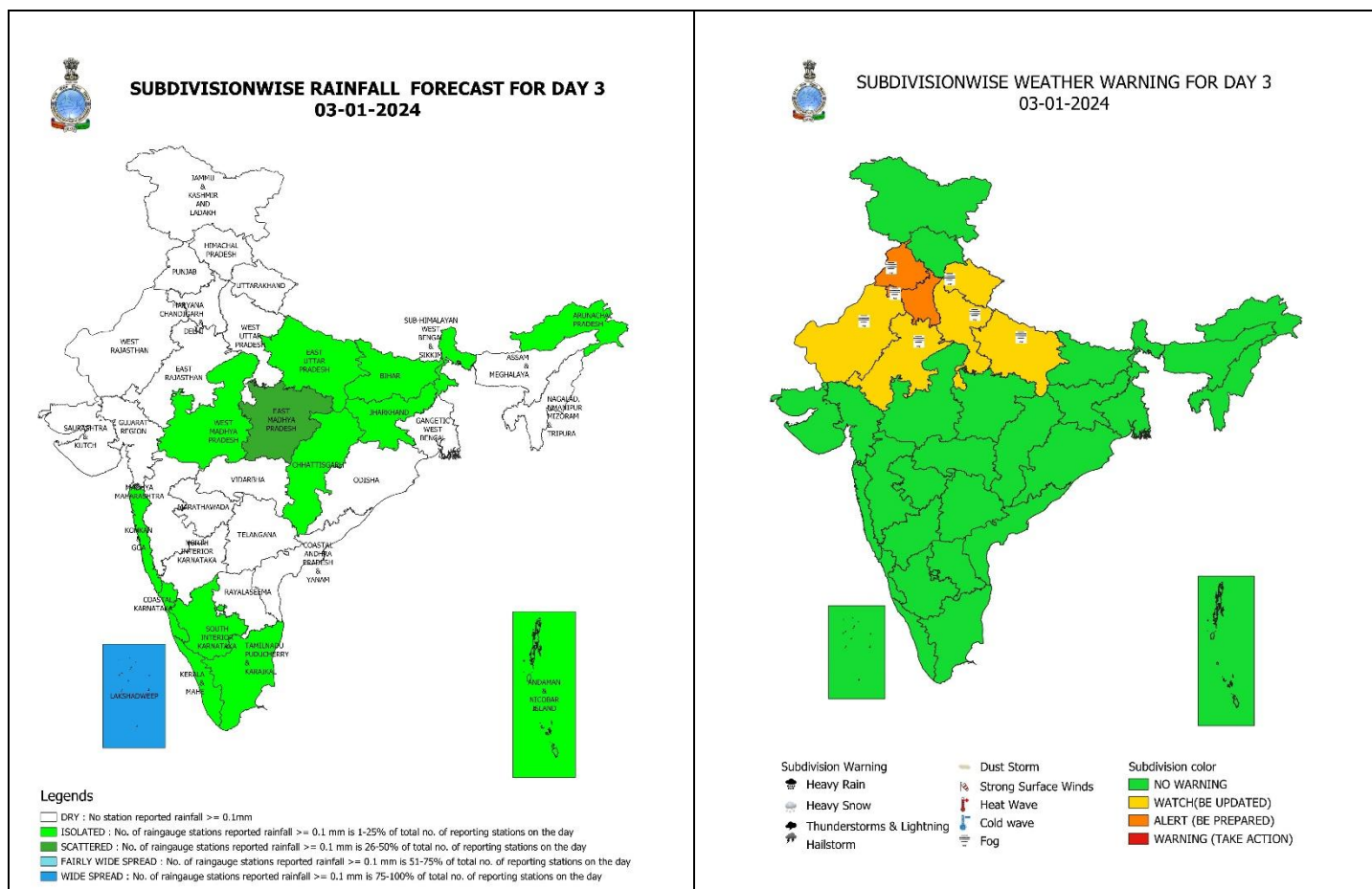
- ❖ **Dense to very dense fog** very likely in many parts of Punjab; **Dense fog** in some parts of Haryana-Chandigarh, Uttar Pradesh; in isolated pockets of Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand, Rajasthan, Madhya Pradesh, Bihar, Jharkhand, Odisha, West Bengal & Sikkim, Assam & Meghalaya and Mizoram & Tripura.
- ❖ **Hailstorm with thunderstorm & lightning** very likely at isolated places over Sub-Himalayan West Bengal & Sikkim.
- ❖ **Cold day to severe Cold day** conditions very likely in isolated pockets of Punjab; **Cold day** in isolated pockets of Haryana-Chandigarh, Uttar Pradesh, Rajasthan and Madhya Pradesh.
- ❖ **Squally weather** with wind speed 40-45 kmph gusting to 55 kmph very likely to prevail over Comorin area and Gulf of Mannar; **Squally weather** with wind speed 40-45 kmph gusting to 55 kmph likely over Southeast Arabian sea, Lakshadweep & adjoining Southwest Arabian sea. Fishermen are advised not to venture into these areas.



02 January (Day 2):

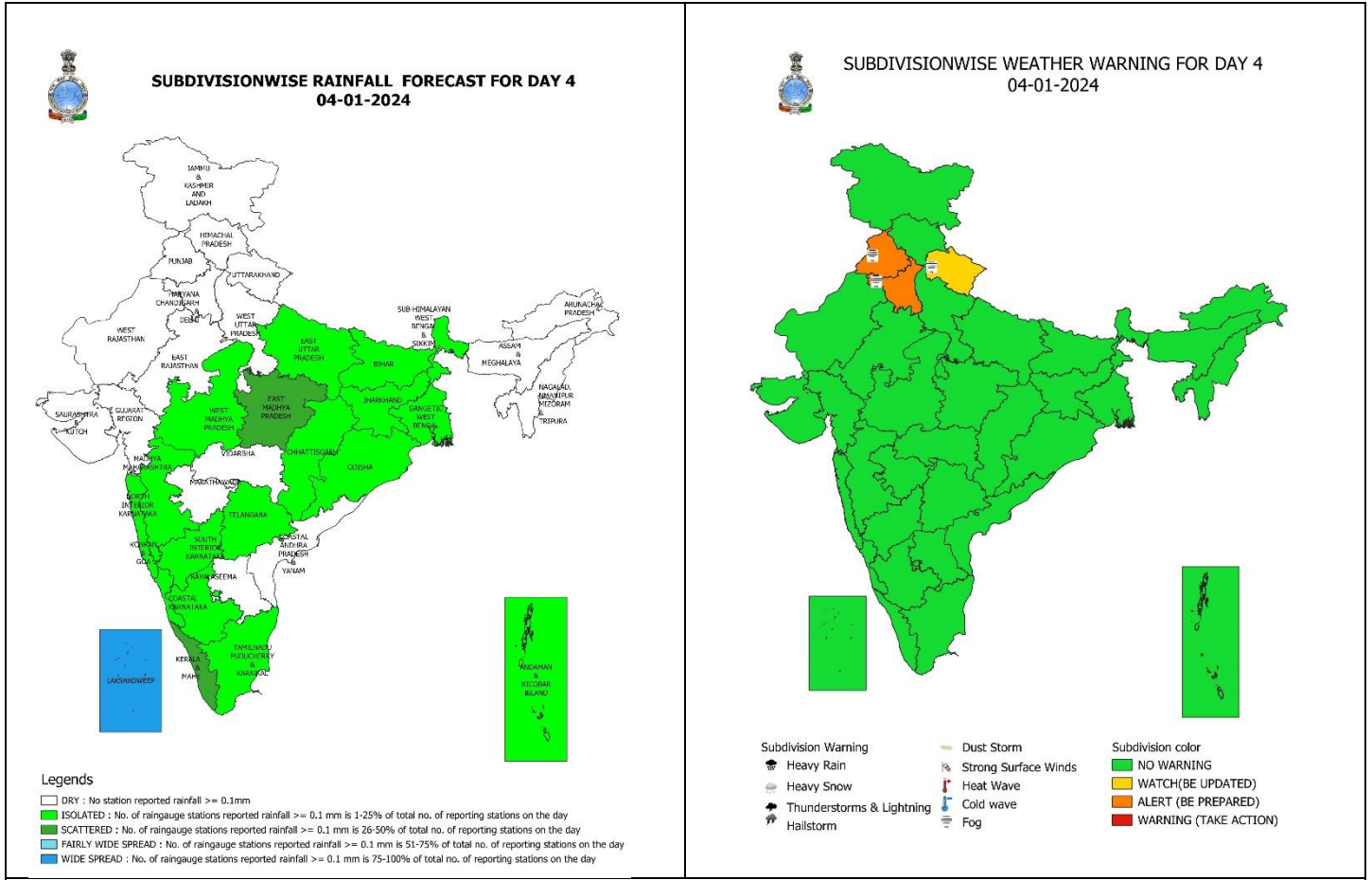
- ❖ **Dense to very dense fog** likely in some parts of Punjab; in isolated pockets of Uttar Pradesh and Haryana-Chandigarh; **Dense fog** in isolated pockets of Uttarakhand, Rajasthan, West Madhya Pradesh, Odisha, West Bengal & Sikkim, Bihar, Nagaland, Manipur, Mizoram & Tripura and Assam & Meghalaya.
- ❖ **Cold day** conditions very likely in isolated pockets of Punjab, Haryana-Chandigarh and West Madhya Pradesh.
- ❖ **Heavy rainfall** at isolated places over Lakshadweep.
- ❖ **Squally weather** with wind speed 40-45 kmph gusting to 55 kmph likely to prevail over Comorin area & adjoining Gulf of Mannar; **Squally weather** with wind speed 40-45 kmph gusting to 55 kmph over Southeast Arabian sea, Lakshadweep & adjoining Southwest Arabian sea. Fishermen are advised not to venture into these areas.

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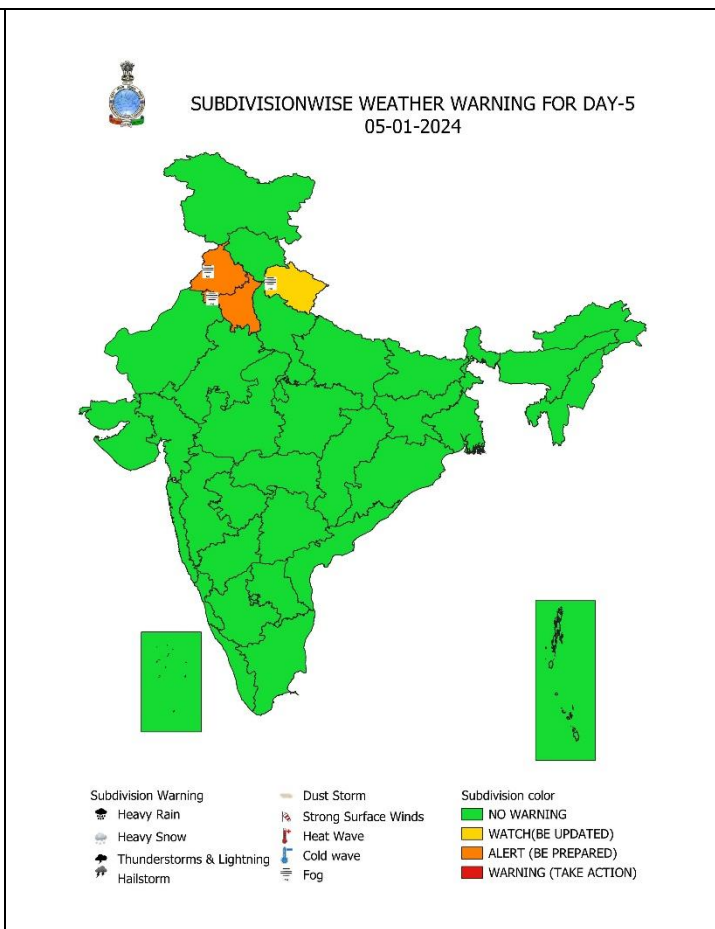
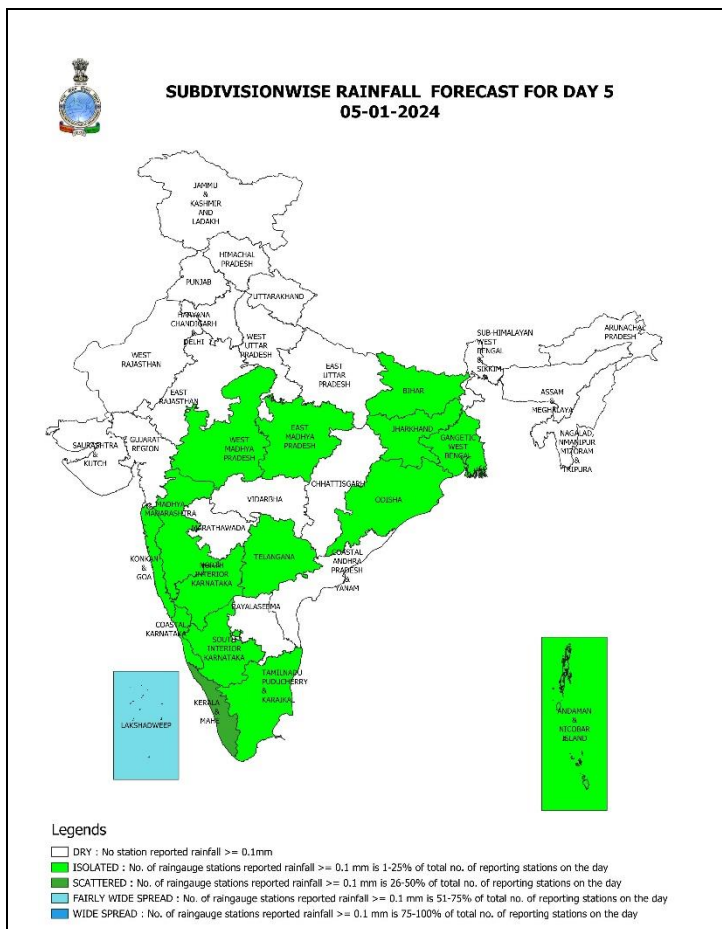
03 January (Day 3):

- ❖ **Dense to very dense fog** likely in some parts of Punjab; in isolated pockets of Uttar Pradesh and Haryana-Chandigarh; **Dense fog** in isolated pockets of Uttarakhand, Rajasthan.
- ❖ **Cold day** conditions likely in isolated pockets of Punjab and Haryana-Chandigarh.
- ❖ **Squally weather** with wind speed 40-45 kmph gusting to 55 kmph likely to prevail over Comorin area adjoining Gulf of Mannar. **Squally weather** with wind speed 40-45 kmph gusting to 55 kmph likely to prevail over Southeast Arabian sea & adjoining Southwest Arabian sea. Fishermen are advised not to venture into these areas.



04 January (Day 4):

- ❖ **Dense to very dense fog** likely in some parts of Punjab; in isolated pockets of Uttar Pradesh and Haryana-Chandigarh; Dense fog in isolated pockets of Uttarakhand.
- ❖ **Cold day** conditions likely in isolated pockets of Punjab and Haryana-Chandigarh.
- ❖ **Squally weather with wind speed 40-45 kmph gusting to 55 kmph** likely to prevail over Comorin area & adjoining Gulf of Mannar. **Squally weather** with wind speed 40-45 kmph gusting to 55 kmph likely to prevail over and Southeast Arabian sea, Lakshadweep area, east central & adjoining west central and South Arabian sea. Fishermen are advised not to venture into these areas.

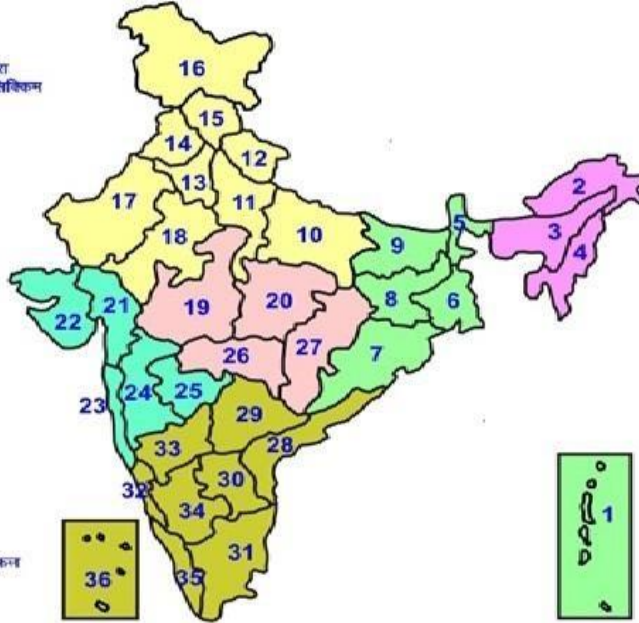


05 January (Day 5):

- ❖ **Dense to very dense fog** likely in some parts of Punjab; in isolated pockets of Uttar Pradesh and Haryana-Chandigarh; Dense fog in isolated pockets of Uttarakhand.
- ❖ **Cold day** conditions likely in isolated pockets of Punjab and Haryana-Chandigarh.
- ❖ **Squally weather with wind speed 40-45 kmph gusting to 55 kmph likely to prevail** over Comorin area & adjoining Gulf of Mannar. Squally weather with wind speed 40-45 kmph gusting to 55 kmph likely to prevail over and Southeast Arabian sea, Lakshadweep area, east central & adjoining west central and South Arabian sea. Fishermen are advised not to venture into these area.

LEGENDS

- 1 अंडमान और निकोबार द्वीप समूह
- 2 अरुणाचल प्रदेश
- 3 असम और मेघालय
- 4 नागालैंड मनीपुर मीज़ोरम और त्रिपुरा
- 5 उप हिमालय पश्चिम बंगाल एवं सिक्किम
- 6 पश्चिम बंगाल
- 7 ओडिशा
- 8 झारखंड
- 9 बिहार
- 10 पूर्वी उत्तर प्रदेश
- 11 पश्चिम उत्तर प्रदेश
- 12 उत्तराखंड
- 13 हरियाणा चंडीगढ़ 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
- 22 सौराष्ट्र
- 23 कोंकण एवं गोवा
- 24 मध्य महाराष्ट्र
- 25 मराठवाड़ा
- 26 विदर्भ
- 27 छत्तीसगढ़
- 28 तटीय आंध्र प्रदेश एवं यनम
- 29 तेलंगाना
- 30 तमिलनाडु, पुदुचेरी एवं काराईकल
- 31 उत्तरी कर्नाटक
- 32 दक्षिणी कर्नाटक
- 33 अंतरिक उत्तरी कर्नाटक
- 34 अंतरिक 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. Odisha
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. Widharbha
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

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



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

Rain/ Snow *

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 $\geq 37^{\circ}\text{C}$



Heat Wave



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 Storm: Wind speed > 220 kmph (> 119 knots)

* Red colour warning does not mean "Red Alert", Red colour 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)