राष्ट्रीय मौसम पूर्वानुमान केन्द्र भारत मौसम विज्ञान विभाग पृथ्वी विज्ञान मंत्रालय



National Weather Forecasting Centre India Meteorological Department Ministry of Earth Sciences

Monday, January 8, 2024 Time of Issue: 0800 hours IST (MORNING)

ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

Significant Weather Features:

Weather Systems and Forecast & Warnings during next 5 days:

Weather Systems:

- A trough at mean sea level runs from south Sri Lanka to westcentral Bay of Bengal off south Andhra Pradesh coast.
- A cyclonic circulation lies over southwest Uttar Pradesh and a trough runs from this cyclonic circulation to north Gujarat in lower tropospheric levels.

Dense fog and Cold day warning:

- **Dense to very dense fog** conditions very likely to prevail in night/morning hours in some parts of Punjab and in isolated pockets of Haryana-Chandigarh on 08^t & 09th January and **Dense fog** in isolated pockets for subsequent 24 hours
- Dense to very dense fog conditions very likely to prevail for a few hours in morning in some parts over West
 Uttar Pradesh and in isolated pockets over Bihar on 08th January and Dense fog in isolated pockets for
 subsequent 2 days.
- **Dense fog** conditions very likely to prevail for a few hours in morning in isolated pockets over East Uttar Pradesh during 08th-10th January; over Uttarakhand, Madhya Pradesh, Jharkhand, Odisha, Assam & Meghalaya, Mizoram & Tripura on 08th & 09th January; over north Rajasthan during 08th-12th January.
- **Cold Day to Severe Cold Day** conditions very likely to continue in some parts over Punjab, Haryana-Chandigarh on 08th and **Cold Day** conditions in isolated pockets over Rajasthan on 08th January.

Temperatures Forecast and Cold wave warning:

- No significant change in minimum temperatures likely over northern parts of the country during next 4-5 days.
- No Cold wave conditions are likely during next 4-5 days.

Rainfall Forecast and heavy rainfall warning:

- Light to moderate rainfall at some places very likely over Tamil Nadu, Puducherry & Karaikal, Kerala and Lakshadweep during next 4-5 days. Isolated **heavy rainfall** very likely over Tamil Nadu, Puducherry & Karaikal during 08th-10th; over Kerala on 08th & 10th and over Andhra Pradesh on 08th January. **Isolated very heavy rainfall also very likely over coastal Tamil Nadu, Puducherry & Karaikal on 08th January.**
- A 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. 60°E to the north of Lat. 25°N. Under its the influence and its interaction with lower level easterly winds:
 - ✓ Light isolated rainfall/snowfall likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand on 09th January and over plains of Northwest India and Central India on 08th & 09th January.
 - ✓ Light to moderate rainfall accompanied with thunderstorms and lightning very likely at some places over Maharashtra during 08th-09th January and over Gujarat on 08th & 09th January.
 - ✓ Isolated **hailstorm** also likely over East Rajasthan on 08th & 09th January and over West Madhya Pradesh on 08th January.

Fishermen warning:

• **08th-10th January:** Squally Weather with Wind Speed 40-45 Kmph gusting to 55 Kmph likely to prevail over along & off Tamil Nadu-Puducherry coasts, adjoining Southwest Bay of Bengal, Gulf of Mannar & adjoining Comorin Area. Fishermen are advised not to venture into these areas.





Main Weather Observations:

- * Rainfall distribution (from 0830 hours IST to 1730 hours IST of yesterday): at a few places over Tamil Nadu, and at isolated places Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Gangetic West Bengal, Bihar and Kerala & Mahe.
- * Significant rainfall amount recorded (from 0830 hours IST to 1730 hours IST of yesterday): (in cm): Tamil Nadu: Chennai (ennore Port)-8; Chennai and Sathyabama -3 each; Anna, Taramani, Meenambakkam and Lemois -2 each; Pallikaranai- Niot-1; Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad South Interior Karnataka: Konanur (dist Hassan) 8, C R Patna (dist Hassan) 5.
- * Yesterday, Heavy rainfall observed at isolated places over Tamil Nadu.
- ❖ Fog conditions observed (at 0530 hours IST of today, 08.01.2024): Very dense fog in isolated pockets of Punjab, Haryana-Chandigarh, Uttar Pradesh, Rajasthan, Bihar; Dense fog in isolated pockets of Madhya Pradesh; Shallow to Moderate fog in isolated pockets over Chhattisgarh, Iharkhand and Odisha.
- ❖ Visibility recorded (at 0530 hours IST of today, 08.01.2024) (≤500 metres): Punjab: Patiala-25, Amritsar-50; Uttar Pradesh: Bareilly and Gorakhpur-25 each; Bahraich and Varanasi-50 each, Varanasi (Babatpur)-200, Sultanpur, Lucknow and Jhansi-500 each; Haryana-Chandigarh: Ambala-25, Chandigarh-50, Hissar-500; Rajasthan: Churu-25, Jaisalmer-200, Jaipur, Ajmer, Kota and Ganganagar-500 each; Bihar: Gaya-25; Madhya Pradesh: Jabalpur-50, Sagar-200, Gwalior, Indore and Bhopal-500 each; Chhattisgarh: Ambikapur-200; Jharkhand: Ranchi-500; Odisha: Chandbali and Jharsiguda-500 each.
- Yesterday, cold day to severe cold day conditions prevailed over some parts of West Rajasthan, Haryana and in isolated pockets over Punjab and north Madhya Pradesh.
- * Minimum Temperature Departures (as on 07-01-2024): Minimum temperatures were appreciably above normal (3.1°C to 5.0°C) at most places over Bihar; at many places over East Uttar Pradesh, Jharkhand; at a few places over Sub-Himalayan West Bengal & Sikkim, East Madhya Pradesh, Madhya Maharashtra, Rayalaseema; at an isolated places over Konkan and Goa, North Interior Karnataka; above normal (1.6°C to 3.0°C) at most places over Kerala & Mahe; at many places over West Madhya Pradesh, Vidarbha, Chhattisgarh, South Interior Karnataka; at a few places over Uttarakhand, Marathwada, Gujarat Region, Assam & Meghalaya at an isolated places over Haryana-Chandigarh-Delhi, West Uttar Pradesh, Gangetic West Bengal, Nagaland, Manipur, Mizoram & Tripura. and near normal over rest parts of the country. Yesterday, the lowest minimum temperature of 3.8°C was reported at Alwar (East Rajasthan) over the plains of the country.
- * Maximum Temperature Departures (as on 07-01-2024): Maximum temperatures were appreciably above normal (3.1°C to 5.0°C) at isolated places over Jammu & Kashmir, Himachal Pradesh, Chhattisgarh; above normal (1.6°C to 3.0°C) at most places over Assam & Meghalaya and Arunachal Pradesh; at a few places over Sub-Himalayan West Bengal & Sikkim and Nagaland, Manipur, Mizoram & Tripura. They were markedly below normal (-5.1°C or less) at a few places over West Rajasthan; appreciably below normal (-3.1°C to -5.0°C) at many places over Punjab, West Madhya Pradesh; below normal (-1.6°C to -3.0°C) at most places over East Madhya Pradesh, East Rajasthan, Gujarat Region, West Uttar Pradesh and near normal over rest parts of the country. Yesterday, the highest maximum temperature of 35.3°C was reported at Thiruvananthapuram & Hut Bay (Kerala and Andaman & Nicobar).





Meteorological Analysis (Based on 0530 hours IST)

- The **trough at mean sea level from** south Sri Lanka to westcentral Bay of Bengal off south Andhra Pradesh coast extending upto 1.5 km above mean sea level persists.
- The **cyclonic circulation** over southeast Arabian Sea at 1.5 km above mean sea level persists.
- The **trough** from the cyclonic circulation over southeast Arabian Sea to Gujarat coast at 1.5 km above mean sea level persists.
- The **cyclonic circulation** over southwest Uttar Pradesh at 1.5 km above mean sea level persists.
- * The **trough** from the cyclonic circulation over southwest Uttar Pradesh to north Gujarat at 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 now runs roughly along Long. 60°E to the north of Lat. 25°N.

Weather Forecast for next 7 days (Upto 0830 hours IST of 15th January, 2024)

- ❖ No significant change in minimum temperatures likely over northern parts of the country during next 4-5 days.
- ❖ No Cold wave conditions are likely during next 4-5 days.

Weather Outlook for subsequent 2 days

Mainly dry weather likely to prevail over most parts of the country.

राष्ट्रीय मौसम पूर्वानुमान केन्द्र भारत मौसम विज्ञान विभाग पृथ्वी विज्ञान मंत्रालय

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Table-1

	7 Days Rainfall Forecast							
S. No.	Subdivision	08- Jan Day 1	09- Jan Day 2	10- Jan Day 3	11- Jan Day 4	12- Jan Day 5	13- Jan Day 6	14- Jan Day 7
1	ANDAMAN & NICOBAR ISLANDS	ISOL						
2	ARUNACHAL PRADESH	DRY						
3	ASSAM & MEGHALAYA	DRY						
4	NAGALAND, MANIPUR, MIZORAM & TRIPURA	DRY						
5	SUB-HIMALAYAN WEST BENGAL & SIKKIM	DRY						
6	GANGETIC WEST BENGAL	DRY						
7	ODISHA	DRY						
8	JHARKHAND	DRY	DRY	ISOL	DRY	DRY	DRY	DRY
9	BIHAR	DRY	DRY	ISOL	DRY	DRY	DRY	DRY
10	EAST UTTAR PRADESH	ISOL	ISOL	DRY	DRY	DRY	DRY	DRY
11	WEST UTTAR PRADESH	ISOL	SCT	DRY	DRY	DRY	DRY	DRY
12	UTTARAKHAND	DRY	SCT	ISOL	DRY	DRY	DRY	DRY
13	HARYANA CHANDIGARH & DELHI	ISOL	ISOL	DRY	DRY	DRY	DRY	DRY
14	PUNJAB	DRY	ISOL	DRY	DRY	DRY	DRY	DRY
15	HIMACHAL PRADESH	DRY	ISOL	ISOL	DRY	DRY	DRY	DRY
16	JAMMU & KASHMIR AND LADAKH	DRY	ISOL	ISOL	DRY	DRY	DRY	DRY
17	WEST RAJASTHAN	ISOL	ISOL	DRY	DRY	DRY	DRY	DRY
18	EAST RAJASTHAN	SCT	SCT	DRY	DRY	DRY	DRY	DRY
19	WEST MADHYA PRADESH	ISOL	SCT	ISOL	DRY	DRY	DRY	DRY
20	EAST MADHYA PRADESH	ISOL	ISOL	ISOL	DRY	DRY	DRY	DRY
21	GUJARAT REGION	ISOL	ISOL	DRY	DRY	DRY	DRY	DRY
22	SAURASHTRA & KUTCH	ISOL	ISOL	DRY	DRY	DRY	DRY	DRY
23	KONKAN & GOA	ISOL	ISOL	DRY	DRY	DRY	DRY	DRY
24	MADHYA MAHARASHTRA	ISOL	SCT	ISOL	DRY	DRY	DRY	DRY
25	MARATHAWADA	ISOL	ISOL	ISOL	DRY	DRY	DRY	DRY
26	VIDARBHA	ISOL	ISOL	DRY	DRY	DRY	DRY	DRY
27	CHHATTISGARH	DRY						
28	COASTAL ANDHRA PRADESH & YANAM	ISOL	ISOL	DRY	DRY	DRY	DRY	DRY
29	TELANGANA	ISOL	ISOL	DRY	DRY	DRY	DRY	DRY
30	RAYALASEEMA	ISOL	ISOL	DRY	DRY	DRY	DRY	DRY
31	TAMILNADU PUDUCHERRY & KARAIKAL	SCT	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
32	COASTAL KARNATAKA	SCT	SCT	ISOL	ISOL	ISOL	ISOL	DRY
33	NORTH INTERIOR KARNATAKA	ISOL	ISOL	DRY	DRY	DRY	DRY	DRY
34	SOUTH INTERIOR KARNATAKA	SCT	SCT	ISOL	DRY	DRY	DRY	DRY
35	KERALA & MAHE	SCT	SCT	ISOL	DRY	DRY	DRY	DRY
36	LAKSHADWEEP	SCT	SCT	SCT	SCT	SCT	SCT	DRY

Legend	Legend Category	
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





70°0.000



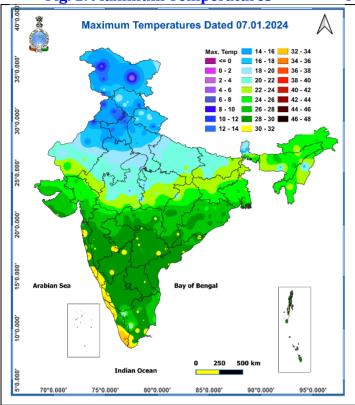
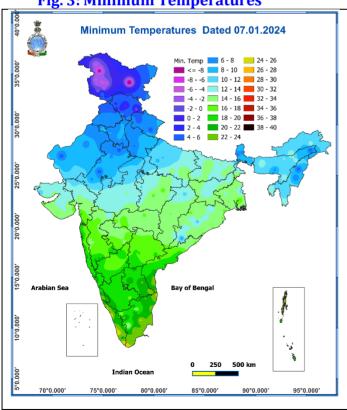


Fig. 2: Departure of Maximum Temperatures Maximum Temperatures Departure Dated 07.01.2024 Max. Temp. Dep. ____ - 1.5 to 1.5 1.6 to 3.0 <= -5.1 - 3.1 to -5.0 - 1.6 to -3.0 = > 5.1 20°0.000







80°0.000

85°0.000'

90°0.000'

95°0.000

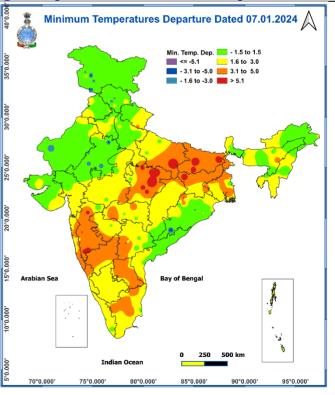


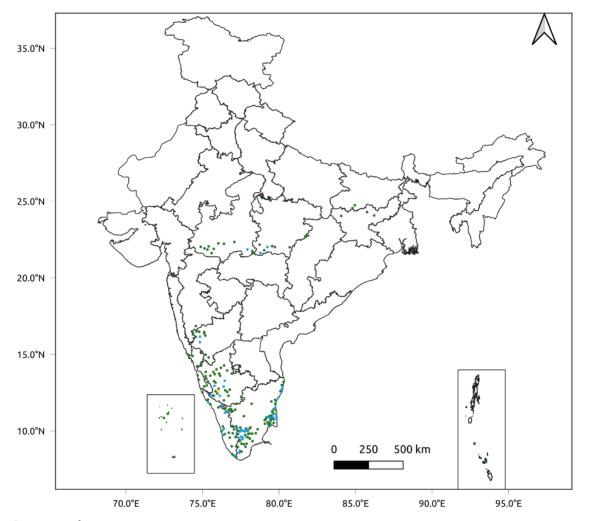




Fig. 5: Accumulated Rainfall (mm) during past 24 hours



24 Hr cumulative rainfall recorded over different stations during 0830 IST of 6-1-2024 to 0830 IST of 7-1-2024

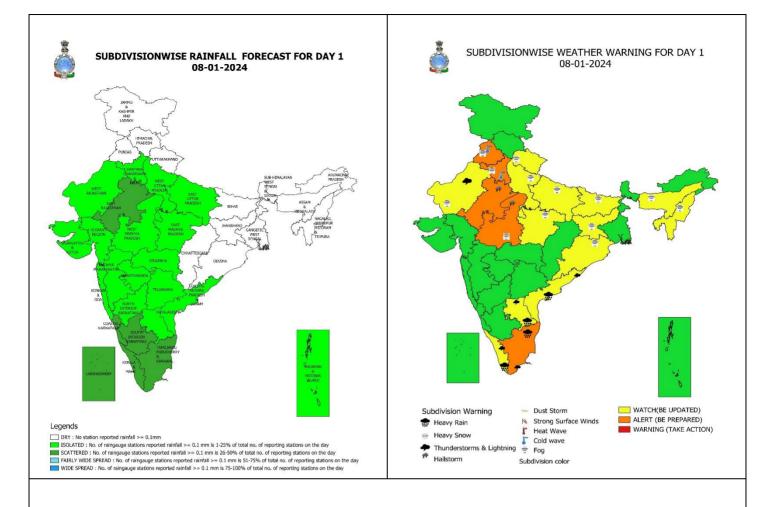


Legends

- 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)





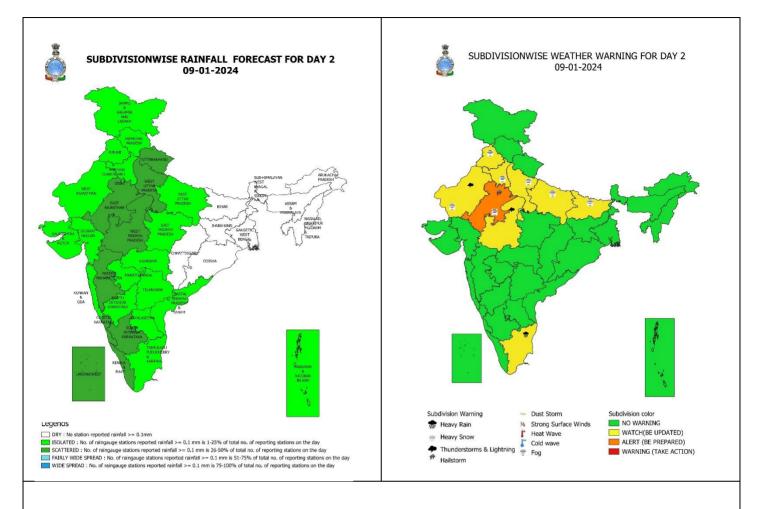


08 January (Day 1):

- ❖ Dense to very dense fog very likely in some parts of Punjab; in isolated pockets of Haryana-Chandigarh; Dense fog in isolated pockets of Uttarakhand, Uttar Pradesh, West Rajasthan, Madhya Pradesh, Bihar, Jharkhand, Odisha, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura.
- **Cold day to severe Cold day** conditions very likely in some parts of Punjab, Haryana-Chandigarh.
- ❖ Heavy to very heavy rainfall very likely at isolated places over coastal Tamil Nadu, Puducherry & Karaikal and heavy rainfall at isolated places over Kerala, Andhra Pradesh and Rayalaseema.
- ❖ Thunderstorm accompanied with lightning & Hail very likely at isolated places over East Rajasthan and West Madhya Pradesh; Thunderstorm accompanied with lightning at isolated places over West Rajasthan, Tamil Nadu, Kerala, Andhra Pradesh and Rayalaseema.
- ❖ Squally weather with wind speed 40-45 kmph gusting to 55 kmph likely to prevailing over along and off south Tamil Nadu-Puducherry coasts, southwest Bay of Bengal, Gulf of Mannar, adjoining Comorin area.





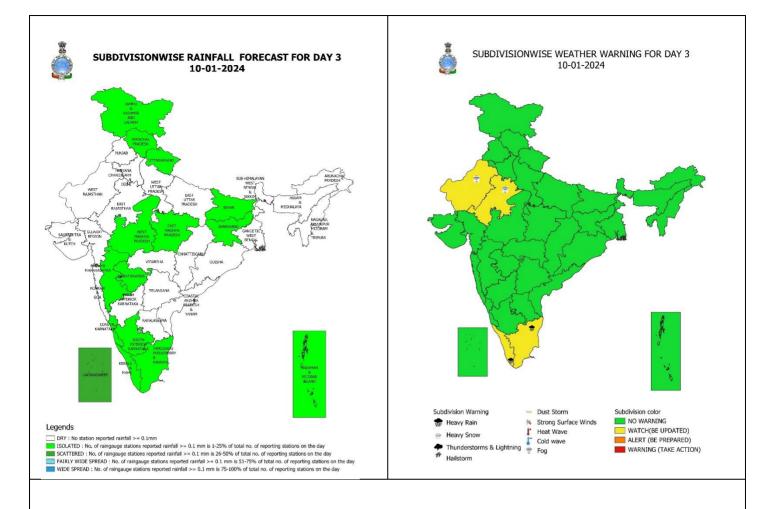


09 January (Day 2):

- ❖ Dense fog very likely in isolated pockets of Punjab, Haryana-Chandigarh, Uttar Pradesh, Bihar and Rajasthan.
- ❖ Heavy rainfall very likely at isolated places over Coastal Tamil Nadu, Puducherry & Karaikal.
- ❖ Thunderstorm accompanied with lightning & Hail very likely at isolated places over East Rajasthan; thunderstorm accompanied with lightning at isolated places over West Rajasthan, West Madhya Pradesh.
- ❖ Squally weather with wind speed 40-45 kmph gusting to 55 kmph likely to prevailing over along and off south Tamil Nadu coast, southwest Bay of Bengal, along and off Sri Lanka coast, Gulf of Mannar, adjoining Comorin area.



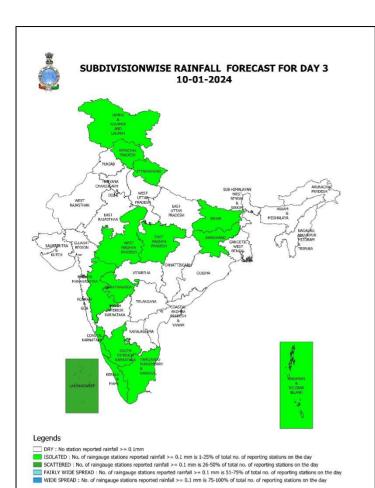


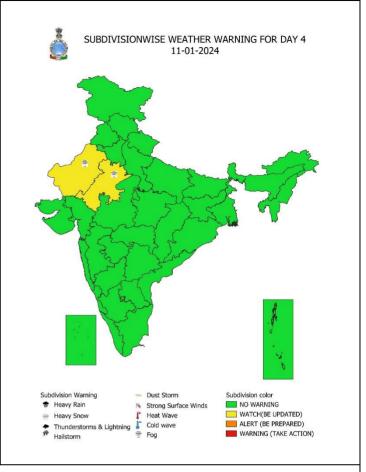


10 January (Day 3):

- ❖ **Dense fog** likely over at isolated pockets over Rajasthan.
- ❖ Heavy rainfall likely at isolated places over coastal Tamil Nadu, Puducherry & Karaikal and Kerala.
- ❖ Squally weather with wind speed 40-45 kmph gusting to 55 kmph likely to prevailing over along and off south Tamil Nadu coast, along and off Sri Lanka coast, Gulf of Mannar, adjoining Comorin area.





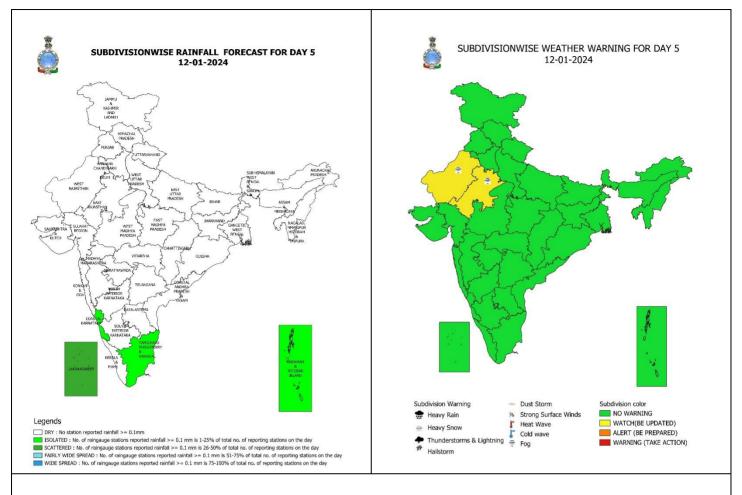


11 January (Day 4):

- ❖ **Dense fog** likely over at isolated pockets over Rajasthan.
- ❖ Squally weather with wind speed 40-45 kmph gusting to 55 kmph likely to prevailing over, Gulf of Mannar, adjoining Comorin area adjoining Maldives.







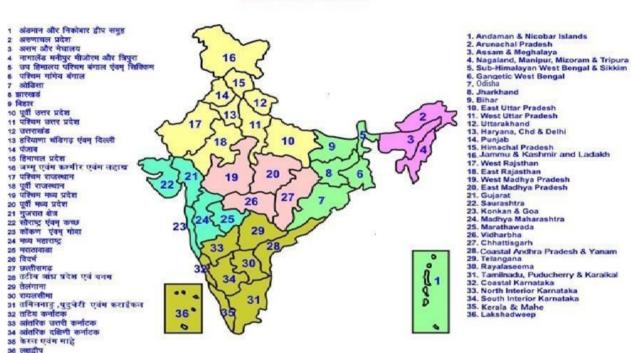
12 January (Day 5):

- **Dense fog** likely over at isolated pockets over Rajasthan.
- ❖ Squally weather with wind speed 40-45 kmph gusting to 55 kmph likely to prevailing over, Gulf of Mannar, adjoining Comorin area adjoining Maldives.









- 33. North Interior Karnataka 34. South Interior Karnataka

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 Widespred (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



7 Thunderstorm



Dust Storm



Strong Winds



Visibility

Cold Wave





Squall/ Hail



Frost

Heat Wave

Sea State





LEGENDS Probabilistic Forecast WARNING Probability of Occurrence (%) WARNING (TAKE ACTION) Terms ALERT (BE PREPARED) Likely WATCH (BE UPDATED) Very Likely 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 ≥40° C for plains and ≥30° 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 ≥6.5° C (b). Based on Actual maximum temperature **Heat Wave** Heat Wave: When actual maximum temperature ≥45°C Severe Heat Wave: When actual maximum temperature ≥47°C (c). Criteria for heat wave for coastal stations When maximum temperature departure is >4.5°C from normal. Heat Wave may be described provided maximum temperature ≥37°C When maximum temperature remains 40°C **J+**Warm Night Warm Night: When minimum temperature departure 4.5 °C to 6.4 °C Severe Warm Night: When minimum temperature departure >6.4 °C. When minimum temperature of a station ≤10°C for plains and ≤0°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 ≤ -6.5 °C (b) Based on actual Minimum Temperature (for Plains only) Cold Wave Cold Wave : When Minimum Temperature is ≤ 4.0 °C Severe Cold Wave: When Minimum Temperature is ≤ 2.0 °C When Minimum Temperature departure is ≤-4.5 °C & actual Minimum Temperature is ≤ 15 °C When minimum temperature of a station ≤10°C for plains and ≤0°C for hilly regions Based on departure Cold Day: Maximum Temperature Departure from normal -4.5 °C to -6.4 °C. **Cold Day** Severe Cold Day: Maximum Temperature Departure from normal ≤ -6.5 °C Phenomenon of small droplets suspended in air and the horizontal visibility < 1km Moderate Fog: When the visibility between 500-200 metres 0 Dense Fog: when the visibility between 50-200 metres Fog Very Dense Fog: when the visibility < 50 metres 44 Sudden electrical discharges manifested by a flash of light (Lightning) and a sharp rumbling sound (thunder) Thunderstorm An ensemble of particles of dust or sand energetically lifted to great heights by a strong and **Dust/Sand** turbulent wind. Storm Ice deposits on ground 55 Air temperature ≤4°C (over Plains) Frost A strong wind that rises suddenly, lasts for atleast 1 minute. Moderate: Wind speed 52-61 kmph 4 Severe: Wind speed 62-87 kmph Squall Very Severe: Wind speed >87 kmph 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 Sea State Phenomenal: Wind speed >117 kmph (>63 knots) & Wave height >14 metre Cyclonic Storm: Wind speed 62-87 kmph (34-47 knots) Severe Cyclonic Storm: Wind speed 88-117 kmph (48-63 knots) 9 Very Severe Cyclonic Storm: Wind speed 118-165 kmph (64 - 89 knots) Extremely Severe Cyclonic Storm: Wind speed 166-220 kmph (90 -119 knots) Cyclone Super Cyclone Strom: Wind speed >220 kmph (>119 knots)