राष्ट्रीय मौसम पूर्वानुमान केन्द्र
भारत मौसम विज्ञान विभाग
पृथ्वी विज्ञान मंत्रालय

National Weather Forecasting Centre
India Meteorological Department
Ministry of Earth Sciences

Tuesday, January 7, 2025
Time of Issue: 0800 hours IST
(MORNING)

ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

Significant Weather Features:

Weather Systems, Forecast and warning

- A Western disturbance is now seen as a cyclonic circulation over North Pakistan at 3.1 km above mean sea level with a trough aloft in middle & upper tropospheric levels with its axis at 5.8km above mean sea level roughly along Long. 75°E to the north of Lat. 25°N. An induced cyclonic circulation lies over northeast Rajasthan & neighbourhood in lower tropospheric levels. There is active moisture incursion from Arabian Sea. It is very likely to cause
  - ✓ Light to moderate rainfall at many places accompanied with thunderstorm activity at isolated places likely over Northeastern states on 07th & 08th January. Isolated hailstorm also likely over Arunachal Pradesh and Assam on 07th January.
  - ✓ Isolated rainfall accompanied with thunderstorm & hailstorm activity over Sikkim on 07th January.
- A fresh Western Disturbance and its interaction with easterly winds, likely to affect Northwest India from 10th-12th January. Under its influence, Light to moderate rainfall/snowfall likely over Western Himalayan region and light rainfall over the plains of Northwest India during the same period.

Temperature, Cold Wave and Fog Forecast:

Temperature Conditions during past 24 hours till 0830 hours IST of today

- Minimum temperatures are **below 0°C** over many parts of Jammu, Kashmir & Ladakh; **5-10°C** over many parts of Northwest India; **10-14°C** over many parts of West, Central & East India. Today, the lowest minimum temperature of **6.1°C** is reported at **Jaisalmer (West Rajasthan)** over the plains of the country.
- During the past 24 hours, there has been rise in minimum temperatures by 2-5^{0}C over many parts of Central India, by 1-3^{0}C over some parts of Haryana, Uttar Pradesh, Maharashtra and East India. There has been fall in minimum temperatures by 2-5^{0}C over some parts of Gujarat and by 1-3^{0}C over some parts of Rajasthan.

Forecast of temperature:

- Fall in minimum temperatures by 3-5°C likely over Western Himalayan Region during next 3 days and gradual rise by 2-4°C thereafter.
- Fall in minimum temperatures by 2-4°C likely over plains of Northwest India during next 3 days and gradual rise by 2-4°C thereafter.
- No significant change in minimum temperatures likely over Central & India during next 24 hours and gradual fall by 2-4°C thereafter.
- Fall in minimum temperatures by 3-5°C likely over Maharashtra during next 2-3 days and no large change thereafter.
- Fall in minimum temperatures by 2-3°C likely over Gujarat during next 2-3 days and no large change thereafter.
- Rise in minimum temperatures by 3-4°C likely Northeast India during next 1-2 days and gradual fall by 2-3°C during subsequent 2 days.
- No significant change in minimum temperatures likely over northwest, Central & West India during next 3-4 days.

Cold Day Warnings:

Cold day to severe cold day conditions very likely in isolated pockets of Uttar Pradesh on 07th & 08th January. **Cold day** conditions very likely in isolated pockets of Rajasthan on 07th; Uttar Pradesh on 09th January.

Dense Fog Warnings:

Very Dense fog Condition very likely to continue to prevail during night/early morning hours in some parts of Uttar Pradesh during 07th-09th; Punjab, Haryana & Chandigarh on 07th & 08th; Odisha on 07th; **Dense fog conditions** to prevail during night/early morning hours in some parts of Punjab, Haryana& Chandigarh on 09th; in isolated pockets of Himachal Pradesh on 07th & 08th; Sub-Himalaya West Bengal & Sikkim on 07th; Assam & Meghalaya & Nagaland, Manipur, Mizoram & Tripura on 09th & 10th January.

Main Weather Observations:

- **Rainfall/Snowfall distribution** (from 0830 hours IST to 1730 hours IST of yesterday): at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, West Uttar Pradesh, Himachal Pradesh and Uttarakhand.

- **Fog reported** (at 0530 hours IST of today): Dense to very dense fog in isolated pockets of Jammu-Kashmir, Punjab, Bihar, Uttar Pradesh; **Moderate fog** in isolated pocket over West Bengal.

- **Visibility reported** (at 0530 hours IST of today) (≤ 200 meter)**: Jammu-Kashmir**: Jammu Airport 0; **Punjab:** Patiala, Amritsar 0 each; **Bihar**: Bhagalpur 0, Patna 100**; Uttar Pradesh**: Bareilly 0, Gorakhpur 100; **West Bengal**: Kolkata 200**.**

- Yesterday, **Cold day to severe cold day conditions** prevailed in isolated places over East Uttar Pradesh. **Cold day condition** prevailed in isolated places over Haryana, Delhi, West Madhya Pradesh.

- **Minimum Temperature Departures (as on 06-01-2025):** Minimum temperatures were **Markedly above normal (5.1°C or above)** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad and Himachal Pradesh; **appreciably above normal (3.1°C to 5.0°C)** at many places over Punjab and Haryana-Chandigarh-Delhi; at isolated places Uttarakhand, Rajasthan, Bihar and Madhya Maharashtra; **above normal (1.6°C to 3.0°C)** at most places over West Uttar Pradesh and West Madhya Pradesh; at many places over Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Jharkhand, East Uttar Pradesh, and Andaman & Nicobar Islands; at isolated places over East Madhya Pradesh, Vidarbha, Konkan & Goa, Marathwada and Gujarat Region. These were **below normal (-1.6°C to -3.0°C)** at isolated places over Tamil Nadu, Puducherry & Karaikal, Rayalaseema, Saurashtra & Kutch, Interior Karnataka and near normal over rest part of the country (Fig. 4). Yesterday, the **lowest minimum temperature** of **6.1°C** was reported at **Jaisalmer (West Rajasthan)** over the plains of the country.

- **Maximum Temperature Departures (as on 06-01-2025**): Maximum temperatures were **Markedly above normal (5.1°C or above)** at isolated places over Himachal Pradesh; **appreciably above normal (3.1°C to 5.0°C)** at isolated places over Uttarakhand, Sub-Himalaya West Bengal & Sikkim, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Vidarbha, Tamil Nadu; **above normal (1.6°C to 3.0°C)** at many places over Bihar, Arunachal Pradesh; at isolated places over Jharkhand, Gangetic West Bengal, Chhattisgarh, Marathwada, Madhya Maharashtra, Telangana, Coastal Andhra Pradesh & Yanam, Kerala & Mahe. These were **markedly below normal (-5.1° C or less)** at isolated places over East Rajasthan, Uttar Pradesh, Madhya Pradesh; **appreciably below normal (-3.1°C to -5.0°C)** at isolated places over Haryana-Chandigarh-Delhi; **below normal (-1.6°C to -3.0°C)** at isolated places over West Rajasthan, Gujarat State and near normal over rest part of the country (Fig. 2). Yesterday, the **highest maximum temperature** of **35.6°C** was reported at **Karwar (Coastal Karnataka) & Kannur Airport (Kerala)** over the plains of the country.

Meteorological Analysis (Based on 0530 hours IST)

- The **Western disturbance** now lies as a trough in middle & upper tropospheric westerlies with its axis at 5.8 km above mean sea level roughly along Long. 80°E to the north of Lat. 28°N.
- The **cyclonic circulation** over Northeast Rajasthan & neighbourhood now lies over west Uttar Pradesh & neighbourhood at 0.9 km above mean sea level.
- Subtropical **westerly Jet Stream** with core winds of the order upto 120 knots at 12.6 km above mean sea level continues to prevail over North India.
- The **cyclonic circulation** over Madhya Maharashtra & neighbourhood at 0.9 km above mean sea level persists.
- The **cyclonic circulation** over Northeast Assam & neighbourhood at 3.1 km above mean sea level persists.
- The **cyclonic circulation** over equatorial Indian Ocean and adjoining Southeast Bay of Bengal at 1.5 km above mean sea level persists.
- The **trough** runs from above cyclonic circulation to Tamil Nadu at 1.5 km above mean sea level persists.
- A fresh **Western Disturbance** is likely to affect northwest India from 10th January, 2025.

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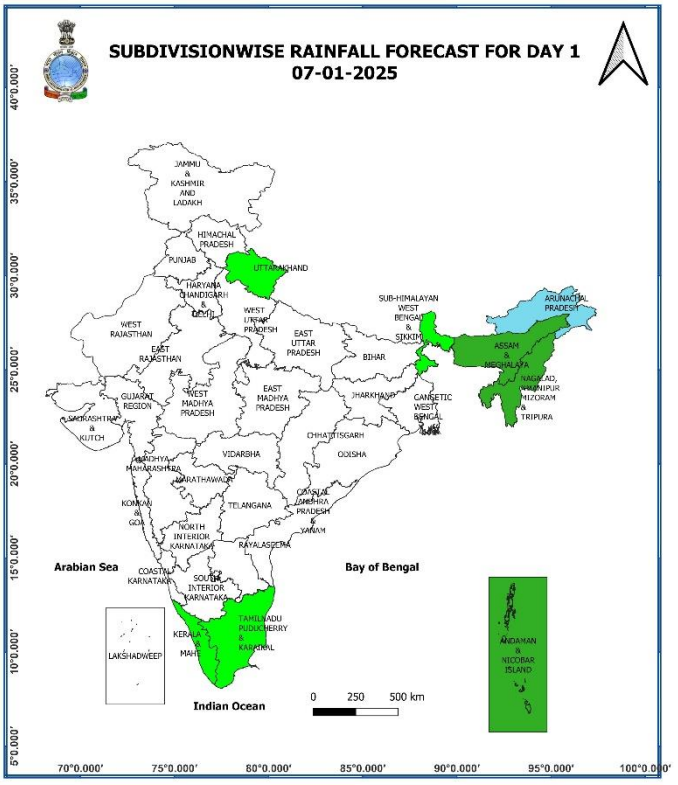
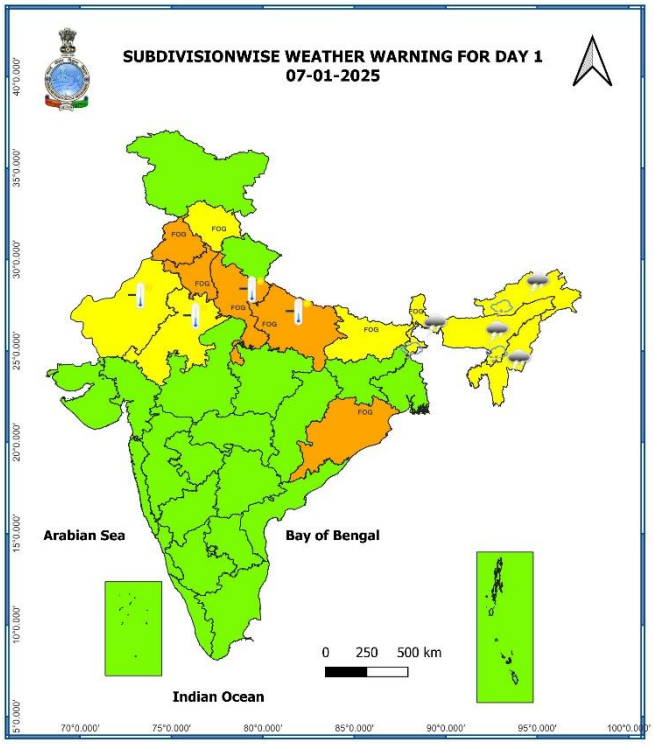
Weather Forecast & Warnings for next 7 days (Upto 0830 hours IST of 13th January, 2025)





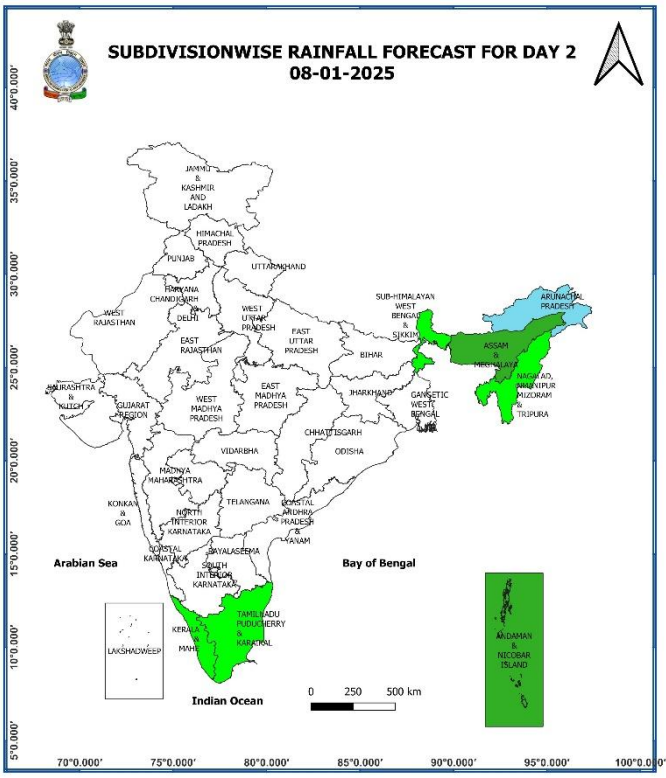
07th January (Day 1):

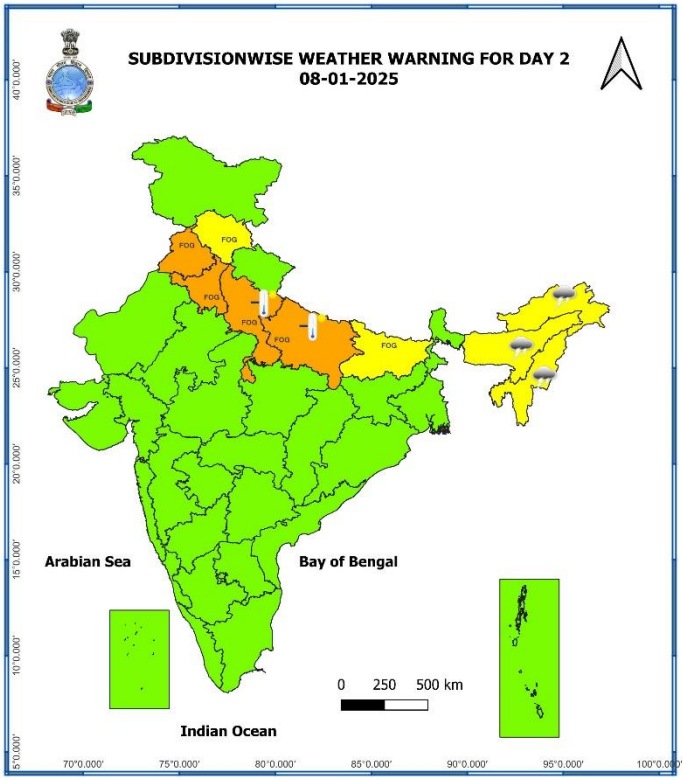
- **Dense to very dense fog conditions** very likely in some parts of Uttar Pradesh and in isolated pockets of Punjab, Haryana-Chandigarh-Delhi, Odisha and **dense fog conditions** in isolated pockets of Himachal Pradesh, Bihar, Sub-Himalayan West Bengal & Sikkim during night/morning hours.

- **Cold day to severe cold day** conditions very likely in isolated pocked of Uttar Pradesh; **Cold day** in isolated pockets of Rajasthan.

- **Thunderstorm accompanied with hailstorm & lightning** very likely at isolated places over Sikkim, Arunachal Pradesh, Assam & Meghalaya; **with lightning** at isolated places over and Nagaland, Manipur, Mizoram & Tripura.

- **Squally wind with speed 45 kmph to 55 kmph gusting to 65 kmph** very likely to prevail, along and off Somalia coast & adjoining southwest Arabian sea, over Comorin area and adjoining Gulf of Mannar. Fisherman are advised not to venture in to these areas.



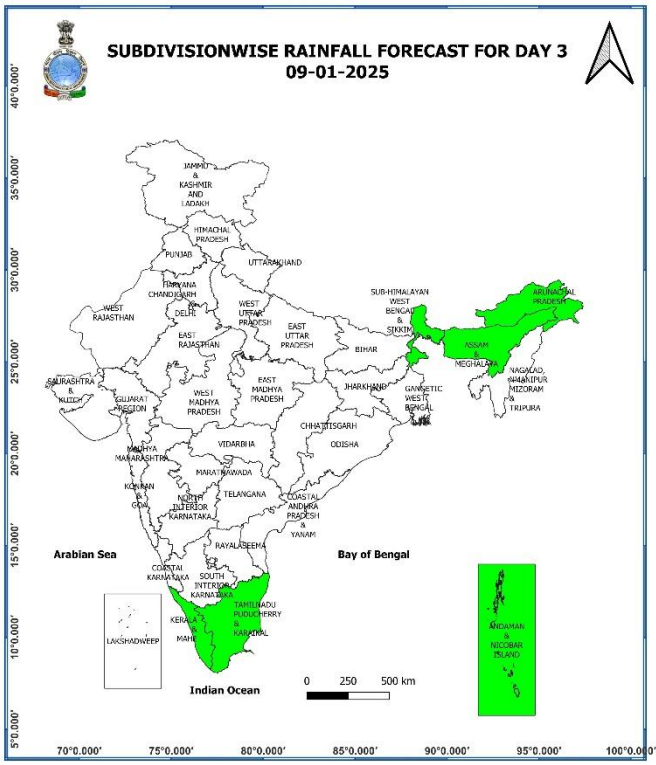


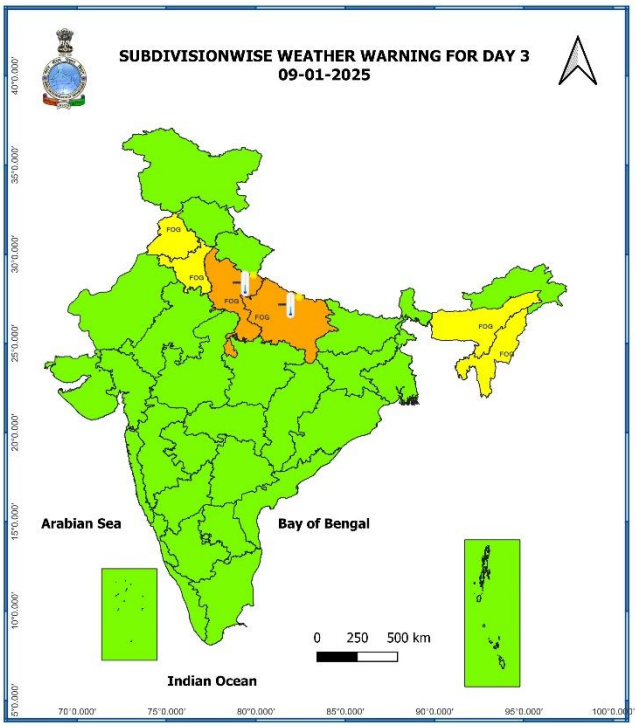
08th January (Day 2):

- **Dense to very dense fog conditions** very likely in some parts of Uttar Pradesh and in isolated pockets of Punjab, Haryana-Chandigarh-Delhi and **dense fog conditions** in isolated pockets of Himachal Pradesh, Bihar during night/morning hours.

- **Cold day to severe cold day** conditions very likely in isolated pocked of Uttar Pradesh.

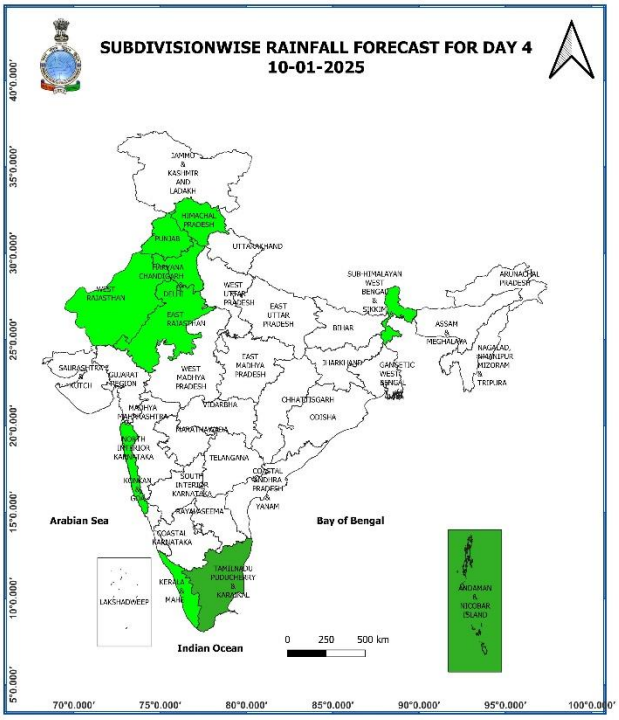
- **Thunderstorm accompanied with lightning** very likely at isolated places over Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura.

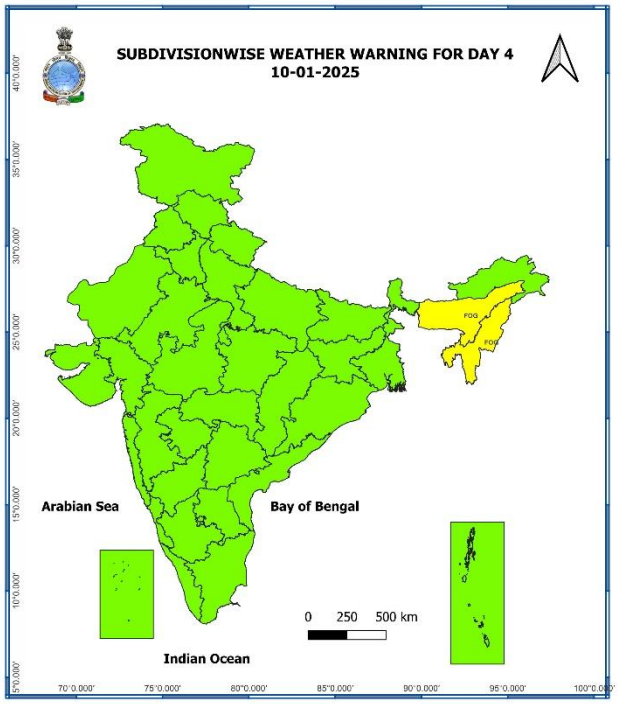




09th January (Day 3):

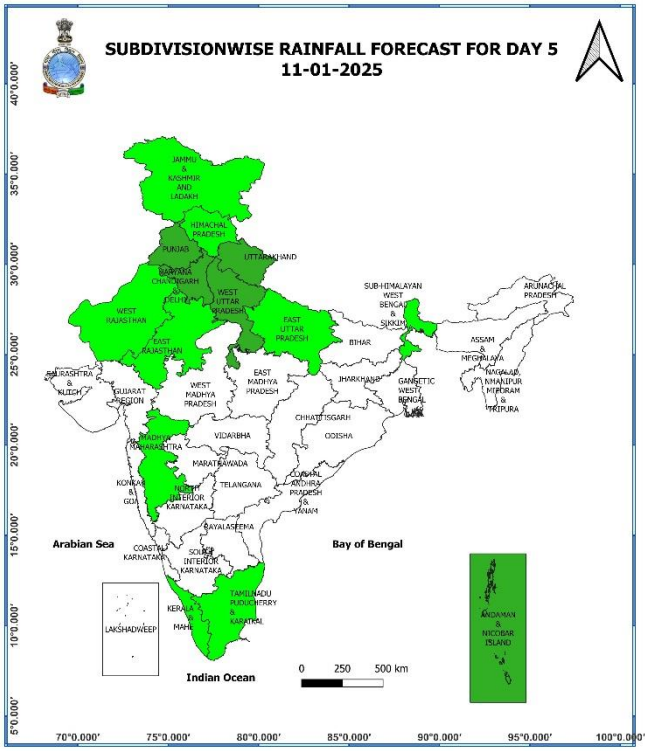
- **Dense to very dense fog conditions** likely in isolated pockets of Uttar Pradesh and **dense fog conditions** in isolated pockets of Punjab, Haryana-Chandigarh-Delhi, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura during night/morning hours.
- **Cold day conditions likely** in isolated pocked of Uttar Pradesh.

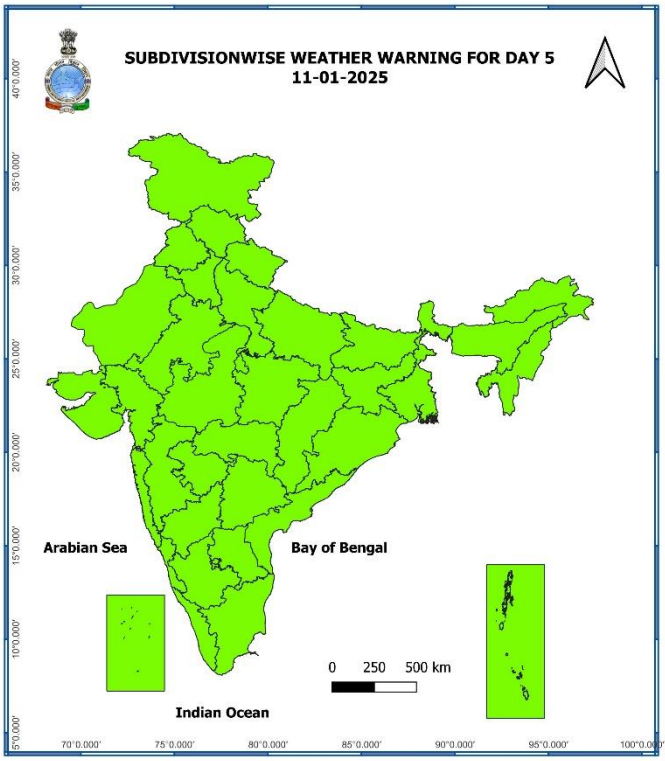




10th January (Day 4):

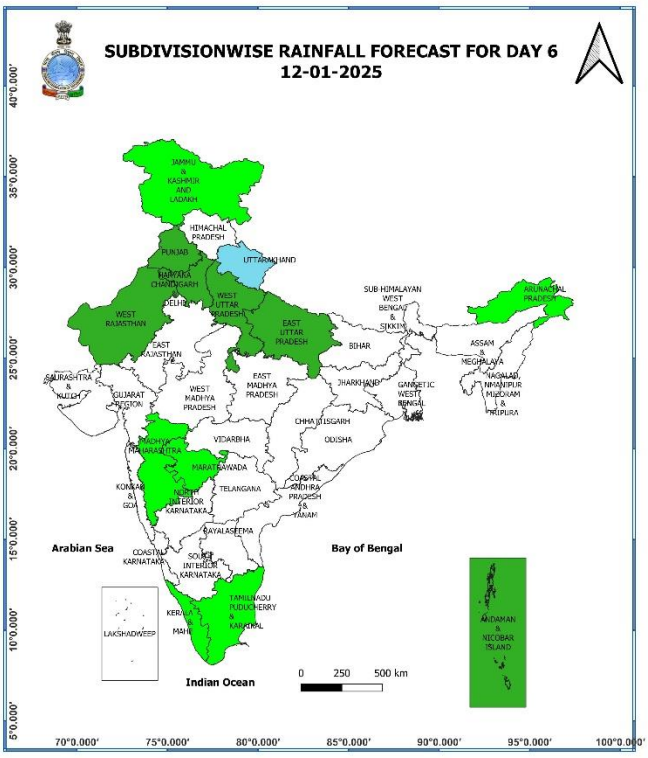
- **Dense fog conditions** very likely in isolated pockets of Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura during night/morning hours.

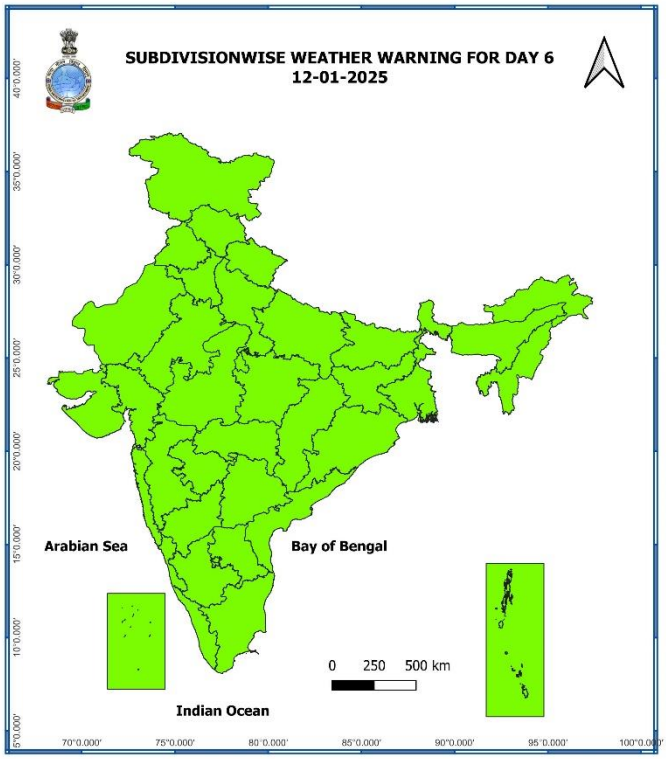




11th January (Day 5):

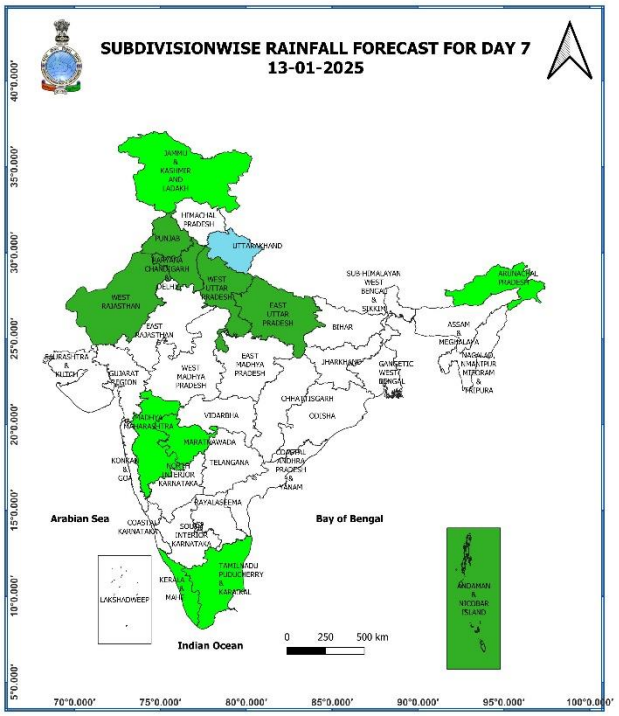
- **No Weather Warning.**

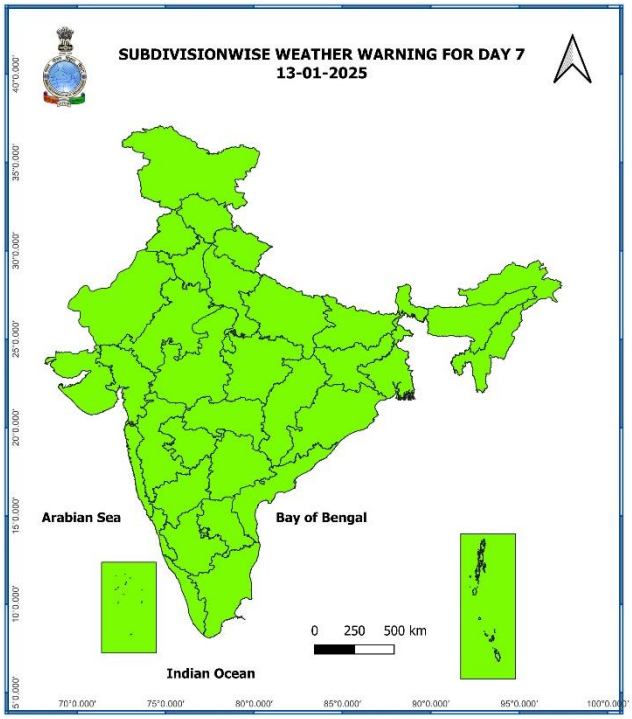




12th January (Day 6):

❖ **No Weather Warning.**





13th January (Day 7):

❖ **No Weather Warning.**

Weather Outlook for subsequent 3 days (During 14th January– 16th January, 2025)

❖ Isolated to scattered light to moderate rainfall over Northwest, Central India and South Peninsular India.
❖ Isolated to scattered rainfall/snowfall over Himalayan Region.
❖ Mainly dry weather will prevail over rest parts of country.

Action may be taken based on ORANGE AND RED COLOUR warnings.

- **Vulnerable regions likely urban and hilly areas action may be initiated for heavy rainfall warning.**
- **As the lead period increases forecast accuracy decreases.**

Fig. 1: Maximum Temperatures

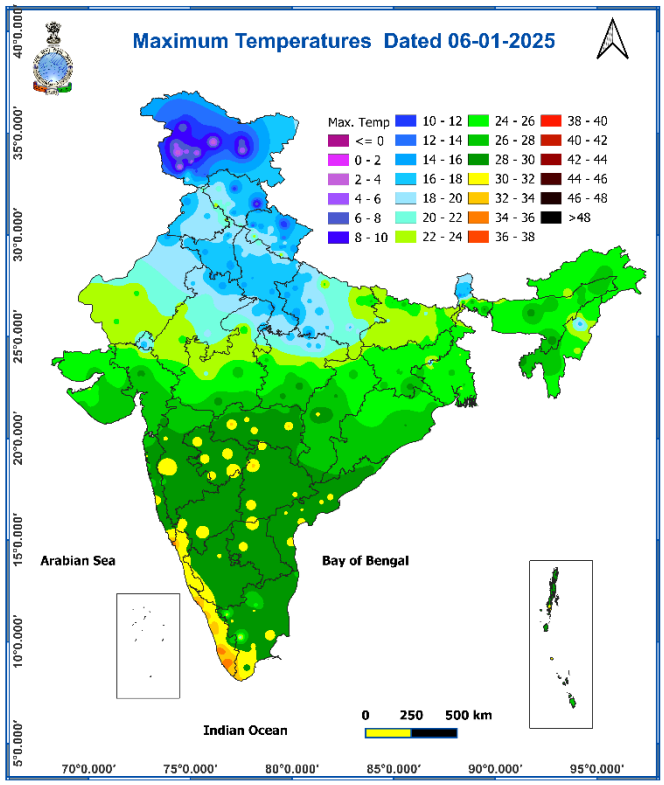


Fig. 2: Departure of Maximum Temperatures

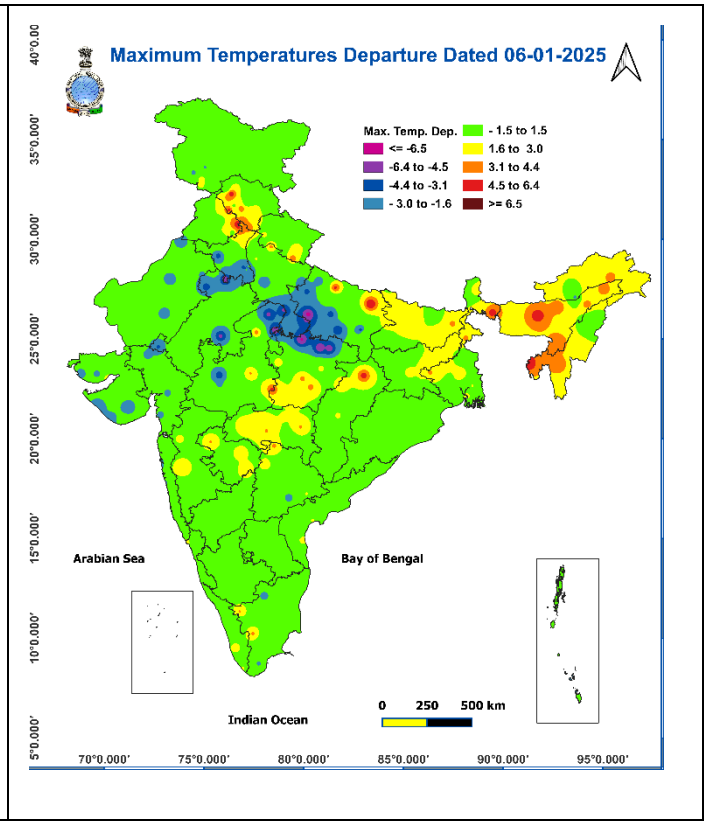


Fig. 3: Minimum Temperatures

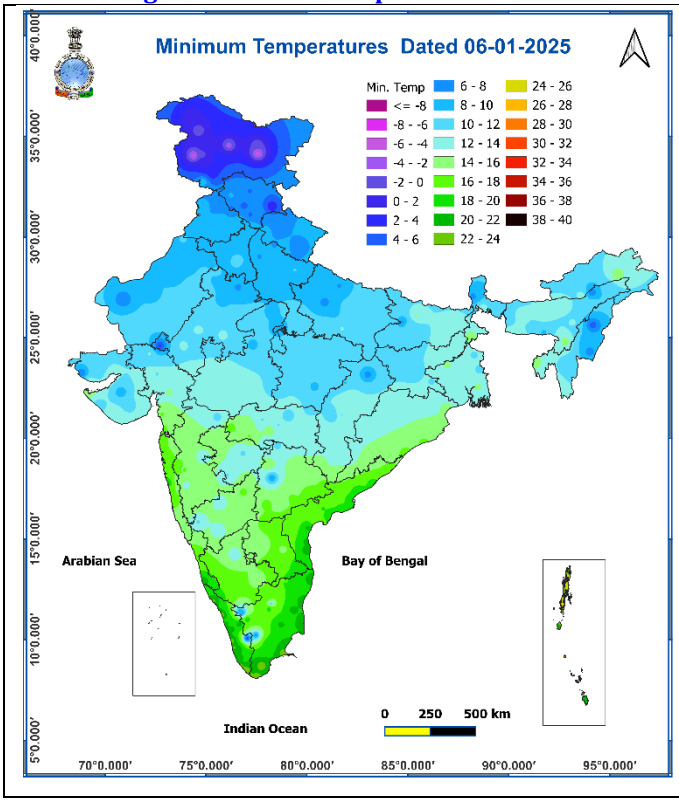
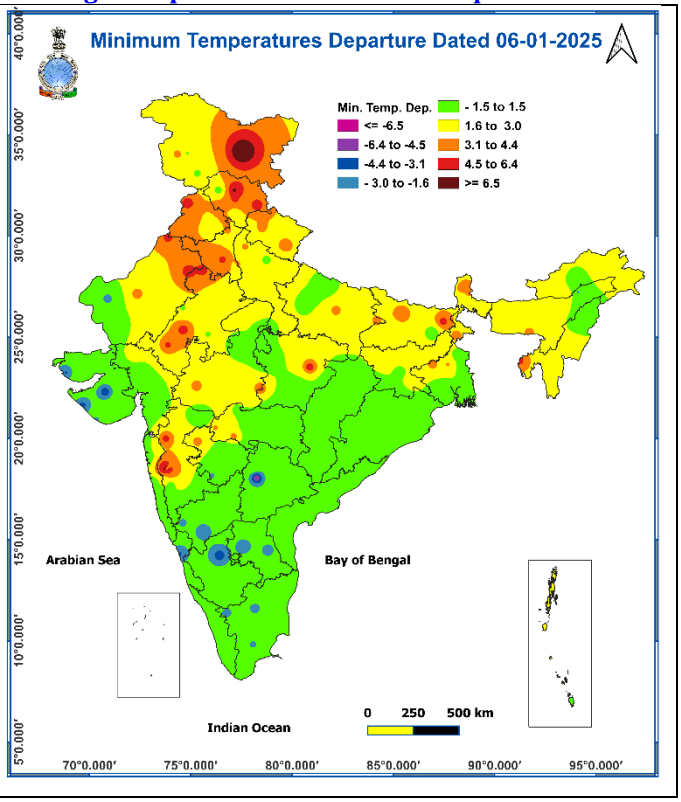
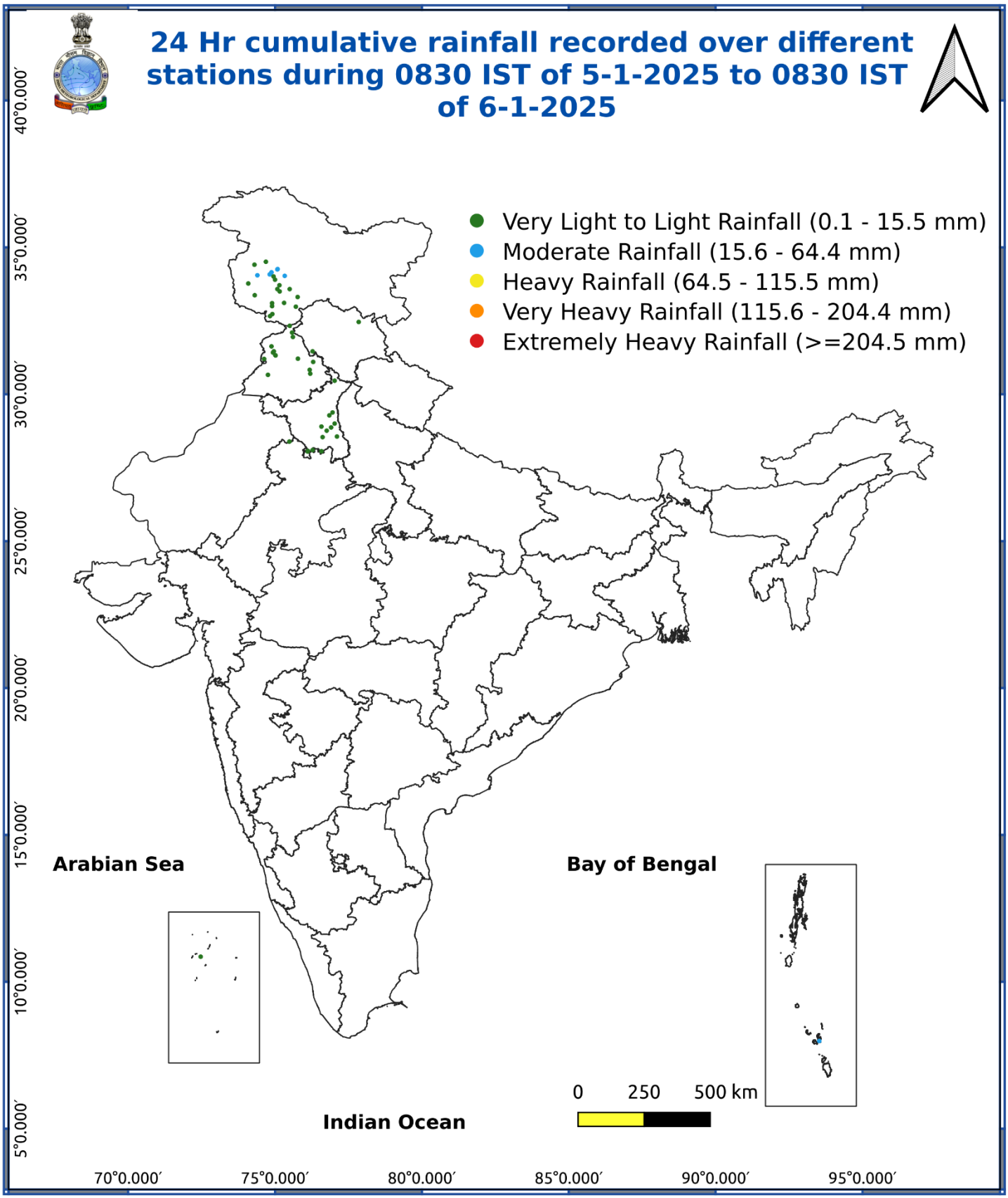


Fig. 4: Departure of Minimum Temperatures



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



Impact expected due to dense/very dense fog in the night /morning hour:

❖ Transport and Aviation:
- May affect some airports, highways and railway routes in the areas of met- sub-division.
- Difficult driving conditions with slower journey times.
- Unless taken precautionary measures, it may lead to some road traffic collisions.

❖ Power Sector:
- Chances of Tripping of Power lines in the very dense fog routes.

❖ Human Health:
- Lung related health impacts: Dense fog contains particulate matter and other pollutants and in case exposed it gets lodged in the lungs, clogging them and decreasing their functional capacity which increases episodes of wheezing, coughing and shortness of breath.
- Impact on people having asthma bronchitis: Long time exposure to dense fog may cause respiratory problem for people having asthma bronchitis and other lung related health problems.
- Eye Irritation: Dense fog contains pollutions of various types and these Pollutants in the air if exposed may tend to irritate the membranes of the eye causing various infections leading to redness or swelling of the eye.

Action suggested:

❖ Transport and Aviation:
- Be careful while driving or outing through any transport.
- Use fog lights during driving.
- Be in touch with airlines, railways and state transport for schedule of your journey.

❖ Power Sector:
- To keep ready Maintenance Team.
- Human Health: To avoid outing until unless emergency and to cover the face.

Impact expected due to Cold Day/Severe Cold day conditions

❖ An increased likelihood of various illnesses like flu, running/ stuffy nose or nosebleed, which usually set in or get aggravated due to prolonged exposure to cold.
❖ Do not ignore shivering. It is the first sign that the body is losing heat. Get Indoors.
❖ Frostbite can occur due to prolonged exposure to cold. The skin turns pale, hard and numb and eventually black blisters appear on exposed body parts such as fingers, toes, nose and or earlobes. Severe frostbite needs immediate medical attention and treatment.
❖ Impact on agriculture, crop, livestock, water supply, transport and power sector at some places.

Action suggested:

❖ Wear several layers of loose fitting, light weight; warm woollen clothing.
❖ Cover your head, neck, hands and toes adequately as majority of heat loss occurs through these body parts. Wear several layers of loose fitting, light weight; warm Woolen clothing rather than one layer of heavy cloth.
❖ Eat vitamin-C rich fruits & vegetable and drink sufficient fluids preferably warm fluids to maintain adequate immunity.
❖ Avoid or limit outdoor activities.
❖ Keep dry, if wet, change cloths immediately to prevent loss of body heat. Wear insulated/waterproof shoes.
❖ Warm the affected area of the body slowly with lukewarm water; do not rub the skin vigorously.
❖ If the affected skin area turns black, immediately consult a doctor.
❖ Maintain ventilation while using Heaters to avoid inhaling toxic fumes.
❖ Take safety measures while using electrical and gas heating devices.
❖ Extreme care needed for vulnerable people.
❖ Seek medical attention as soon as possible for someone suffering from frostbite/ Hypothermia.
❖ Protect livestock from cold weather.

Agromet advisories for likely impact of Hailstorm / Cold Wave

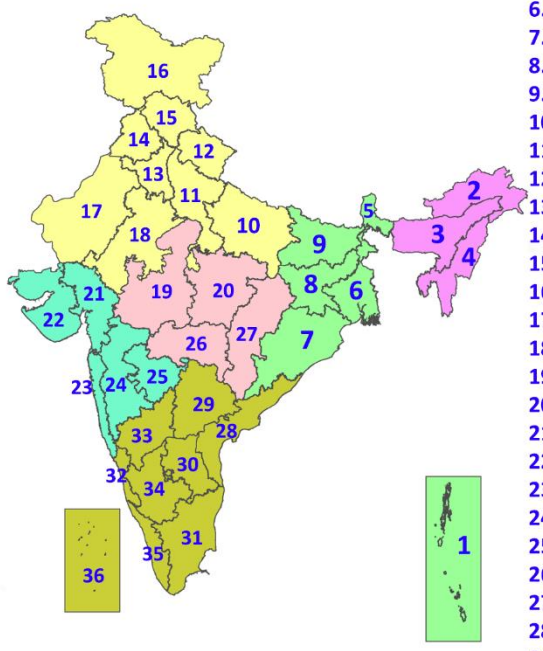
- Shake the fruit bearing trees to remove snow from the branches in Jammu & Kashmir and Himachal Pradesh.
- Use hail nets to protect orchards and vegetable plants in Sikkim, Arunachal Pradesh, Assam and Meghalaya.
- Provide mechanical support to horticultural crops and staking to vegetables.

Livestock

- Keep the animals inside the shed during heavy rainfall period and provide them balanced feed. Store feed and fodder in a safe place to prevent spoilage.
- To protect from cold, keep cattle inside the sheds during night and provide dry bedding. Also keep the chicks warm by providing artificial light in the poultry sheds.

LEGENDS

1. अंडमान और निकोबार द्वीपसमूह
2. अरुणाचल प्रदेश
3. असम और मेघालय
4. नागालैंड, मणिपुर, मिजोरम और त्रिपुरा
5. उप-हिमालयी पश्चिम बंगाल और सिक्किम
6. गंगीय पश्चिम बंगाल
7. ओडिशा
8. झारखंड
9. बिहार
10. पूर्वी उत्तर प्रदेश
11. पश्चिम उत्तर प्रदेश
12. उत्तराखंड
13. हरियाणा, चंडीगढ़ और दिल्ली
14. पंजाब
15. हिमाचल प्रदेश
16. जम्मू और कश्मीर और लद्दाख
17. पश्चिम राजस्थान
18. पूर्वी राजस्थान
19. पश्चिम मध्य प्रदेश
20. पूर्वी मध्य प्रदेश
21. गुजरात
22. सौराष्ट्र
23. कोंकण और गोवा
24. मध्य महाराष्ट्र
25. मराठवाड़ा
26. विदर्भ
27. छत्तीसगढ़
28. तटीय आंध्र प्रदेश और यनम
29. तेलंगाना
30. रायलसीमा
31. तमिलनाडु, पुडुचेरी और कराईकल
32. तटीय कर्नाटक
33. आंतरिक उत्तरी कर्नाटक
34. आंतरिक दक्षिणी कर्नाटक
35. केरल और 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, Chandigarh & 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. Vidarbha
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)

Fog
Heavy Rain
Very Heavy Rain
Extremely Heavy Rain
Thunder & Lightning
Hailstorm
Dust Raising Winds
Heavy Snow
Dust Storm
Heat Wave
Warm Night
Hot Day
Hot & Humid
Strong Surface Winds
Cold Wave
Cold Day
Ground Frost

COLOUR CODED WARNING

- No Warning (No Action)
- Watch (Be Aware)
- Alert (Be Prepared To Take Action)
- Warning (Take Action)

Probabilistic Forecast

Terms	Probability of Occurrence (%)
Unlikely	< 25
Likely	25 - 50
Very Likely	50 - 75
Most Likely	> 75

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(Service to the Nation since 1875)

DEFINITION/CRITERIA

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 ≥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:** 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
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 °C.
Cold Wave	**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 :** When Minimum Temperature is ≤ 4.0 °C **Severe Cold Wave:** When Minimum Temperature is ≤ 2.0 °C **(c) For Coastal Stations** When Minimum Temperature departure is ≤-4.5 °C & actual Minimum Temperature is ≤ 15 °C
Cold Day	**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. **Severe Cold Day:** Maximum Temperature Departure from normal ≤ -6.5 °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 ≤4°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)

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