राष्ट्रीय मौसम पूर्वानुमान केन्द्र
भारत मौसम विज्ञान विभाग
पृथ्वी विज्ञान मंत्रालय

National Weather Forecasting Centre
India Meteorological Department
Ministry of Earth Sciences

Wednesday, January 15, 2025
Time of Issue: 0800 hours IST
(MORNING)

ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

Significant Weather Features:

Weather Systems, Forecast and warning:

- A **cyclonic circulation** lies over central parts of south Arabian Sea and adjoining equatorial Indian Ocean in lower tropospheric levels. Under its influence,
  - ✓ Light to moderate rainfall accompanied with thunderstorm, lightning very likely at isolated places over Tamil Nadu, Puducherry & Karaikal on 18th January.
- A **Western Disturbance** as a trough in lower & upper tropospheric level with its axis 5.8 km above mean sea level runs roughly along Long. 64°E to the north of Lat. 28°N. Under its influence,
  - ✓ Isolated to scattered rainfall/snowfall activity likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad on 16th; Uttarakhand on 15th & 16th; Himachal Pradesh during 15th-17th and Isolated rainfall activity over Punjab, Haryana, Chandigarh on 15th; Uttar Pradesh, East Rajasthan on 15th & 16th and West Rajasthan on 15th January.
  - ✓ Thunderstorm activity at isolated places likely over Punjab, Haryana, Chandigarh and West Uttar Pradesh on 15th January.
- A fresh Western Disturbance is likely to affect Western Himalayan Region from 18th January, 2025. Under its influence, Isolated to scattered rainfall/snowfall activity likely over Western Himalayan region during 18th-20th January.

ii. 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; **1-4°C** over some parts of Himachal Pradesh; **4-10°C** over many parts of Northwest & Central India;**10-16°C** over many parts of East & West India. Today, the lowest minimum temperature of **4.6°C** is reported at **Rajgarh (West Madhya Pradesh)** over the plains of the country.
- During the past 24 hours, there has been **fall in minimum temperatures by 1-5^{0}C** in many parts of Madhya Pradesh; in some parts over Uttar Pradesh, Chhattisgarh, Sub-Himalayan West Bengal & Sikkim; in isolated pockets of Gujarat State, Madhya Maharashtra, Vidarbha and **rise by 1-3^{0}C** in many parts of Odisha; in some parts of Gangetic West Bengal; in isolated pockets of Himachal Pradesh and East Uttar Pradesh.

Forecast of temperature:

- No significant change in minimum temperatures likely over Northwest India during next 24 hours and gradual rise by 2-3°C during subsequent 3 days.
- Gradual rise in minimum temperatures by 2-3°C likely over Central India and Maharashtra during next 3 days and no significant change thereafter.
- No significant change in minimum temperatures likely over East India and Gujarat State during next 5 days.

Dense Fog Warnings:

Dense to very Dense fog Condition very likely to continue to prevail during night/early morning hours in isolated pockets of West Uttar Pradesh and East Uttar Pradesh till 15th January.

Dense fog conditions very likely to continue to prevail during night/early morning hours in some parts of Uttarakhand till 15th; in isolated pockets of Gangetic West Bengal, Bihar, Jharkhand, Odisha till 15th; Himachal Pradesh, Sub-Himalayan West Bengal & Sikkim, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura till 16th; Haryana, Chandigarh & East Rajasthan till 18th; Punjab till 19th; Uttar Pradesh during 16th-19th; West Rajasthan on 15th, 17th & 18th January.

Fishermen Warnings:

Fishermen are advised not to venture into Gulf of Mannar and adjoining Comorin area on 15th January.

Main Weather Observations:

- **Rainfall distribution** (from 0830 hours IST to 1730 hours IST of yesterday): **at isolated places** over Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe.

- **Significant amount of rainfall** (from 0830 hours IST to 1730 hours IST of yesterday) (in cm): **Nil**.

- **Yesterday Cold wave conditions** prevailed in isolated pockets of Himachal Pradesh.

- **Dense fog** (**at 0530 hours IST of today**): **Dense to very Dense fog** in isolated pockets of Punjab, Haryana, Delhi, Rajasthan, Uttar Pradesh, West Madhya Pradesh; moderate fog in isolated pockets of East Madhya Pradesh, Bihar.

- **Visibility reported** (**at 0530 hours IST of today**): **(≤200 m)** (in meter)**: Punjab:** Amritsar, Patiala 0 each; **Haryana:** Ambala 0, Hissar 200; **Rajasthan:** Churu 0; **West Uttar Pradesh:** Agra, Bareilly 0 each; **East Uttar Pradesh:** Prayagraj 0, Lucknow, Bahraich, Varanasi 200 each; **West Madhya Pradesh:** Gwalior 0; **Delhi:** Palam 150, Safdarjung 200; **East Madhya Pradesh:** Satna 200; **Bihar:** Patna, Purnea 200 each.

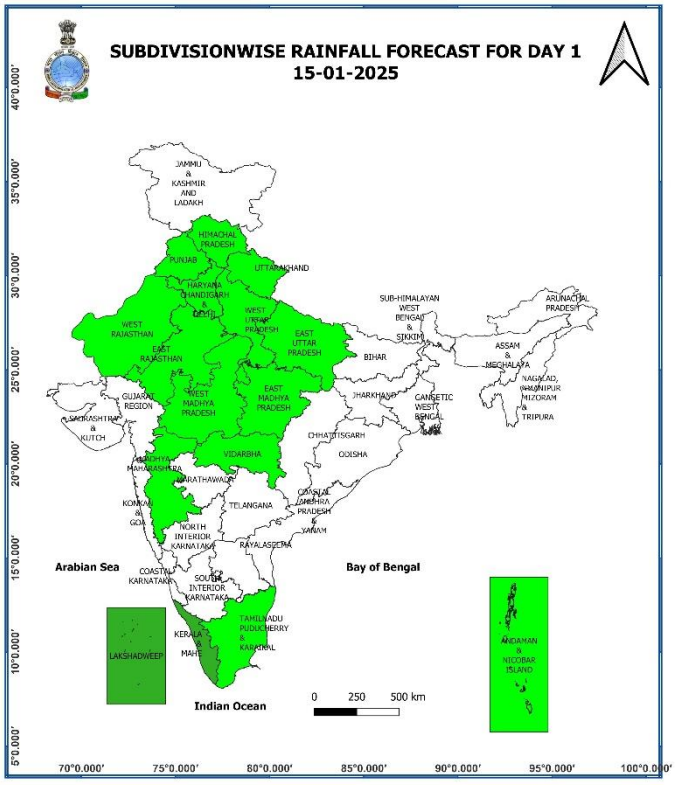
- **Minimum Temperature Departures (as on 14-01-2025):** Minimum temperatures were **markedly above normal (5.1°C or more)** at isolated places over Bihar, Madhya Maharashtra; **appreciably above normal (3.1°C to 5.0°C)** at many places over East Uttar Pradesh; at a few places over Kerala & Mahe; at isolated places over Arunachal Pradesh, Assam & Meghalaya, Gangetic West Bengal, Odisha, Rayalaseema, Karnataka, Tamil Nadu, Puducherry & Karaikal; **above normal (1.6°C to 3.0°C)** at many places over Nagaland, Manipur, Mizoram & Tripura, Telangana, Marathwada, Vidarbha, Chhattisgarh; at a few places over East Madhya Pradesh, Coastal Andhra Pradesh & Yanam; at isolated places over Himachal Pradesh, Haryana-Chandigarh-Delhi, West Uttar Pradesh, Gujarat Region. These were **appreciable below normal(-5.0°C to -3.0°C)** at isolated places over West Rajasthan, West Madhya Pradesh; **below normal (-1.6°C to -3.0°C)** at isolated places over East Rajasthan and Saurashtra & Kutch and near normal over rest part of the country (Fig. 4). Yesterday, the **lowest minimum temperature** of **4.6°C** was reported at **Rajgarh (West Madhya Pradesh)** over the plains of the country.

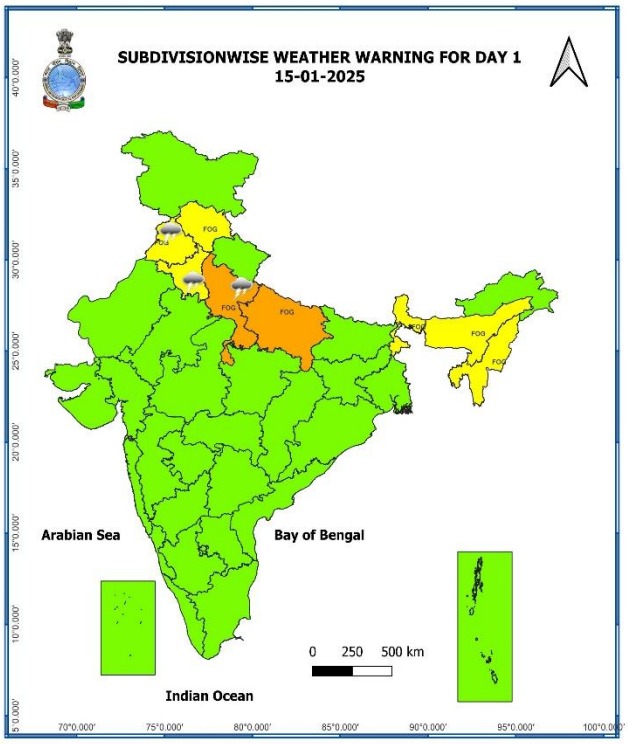
- **Maximum Temperature Departures (as on 14-01-2025**): Maximum temperatures were **appreciable above normal (3.1°C to 5.0°C)** at isolated places over Himachal Pradesh, Sub-Himalayan West Bengal & Sikkim, Konkan & Goa; **above normal (1.6°C to 3.0°C)** at a few places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Assam & Meghalaya; at isolated places over Punjab, Uttarakhand, Arunachal Pradesh, Nagaland, Manipur, Mizoram & Tripura, North Interior Karnataka, Coastal Andhra Pradesh & Yanam. These were **markedly below normal (-5.1°C or less)** at isolated places over East Uttar Pradesh, Bihar; **appreciable below normal(-3.1°C to -5.0°C) at a few places over** Rajasthan; at isolated places over Saurashtra & Kutch, Tamil Nadu, Puducherry & Karaikal;**below normal (-1.6°C to -3.0°C)** at a few places over Gujarat Region, Madhya Pradesh; at isolated places over Haryana-Chandigarh-Delhi, West Uttar Pradesh and near normal over rest part of the country (Fig. 2). Yesterday, the **highest maximum temperature** of **36.3°C** was reported at **Kannur Airport (Kerala)** over the plains of the country.

Meteorological Analysis (Based on 0530 hours IST)

- The **Western Disturbance** as a cyclonic circulation over West Afghanistan & neighbourhood is now seen as a trough in lower & upper tropospheric level with its axis 5.8 km above mean sea level roughly along Long. 64°E to the north of Lat. 28°N.
- The **cyclonic circulation** over Southeast Arabian Sea and adjoining equatorial Indian Ocean now lies over central parts of south Arabian Sea and adjoining equatorial Indian Ocean at 0.9 km above mean sea level.
- Subtropical **westerly Jet Stream** with core winds of the order upto 130 knots at 12.6 km above mean sea level continues to prevail over North India.
- A fresh **Western Disturbance** is likely to affect Western Himalayan Region from 18th January, 2025.

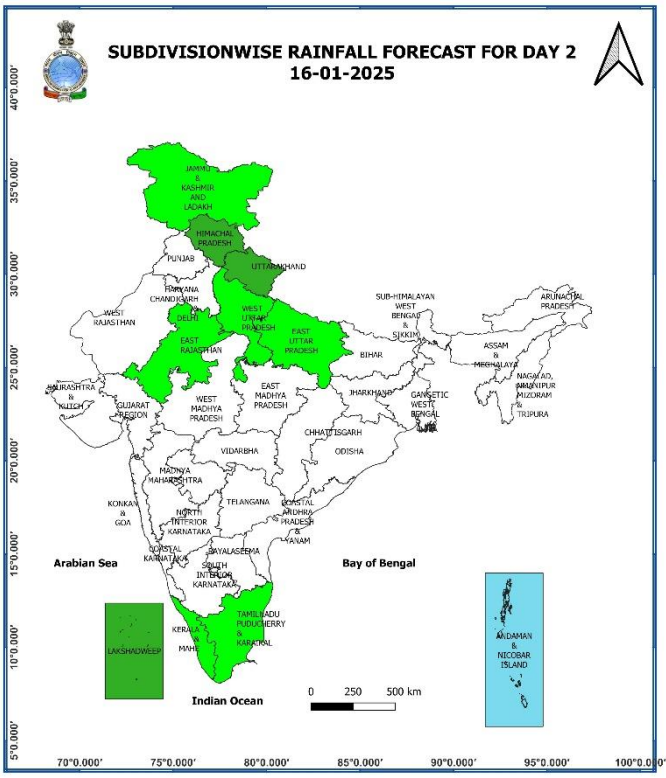
Weather Forecast & Warnings for next 7 days (Upto 0830 hours IST of 22nd January, 2025)

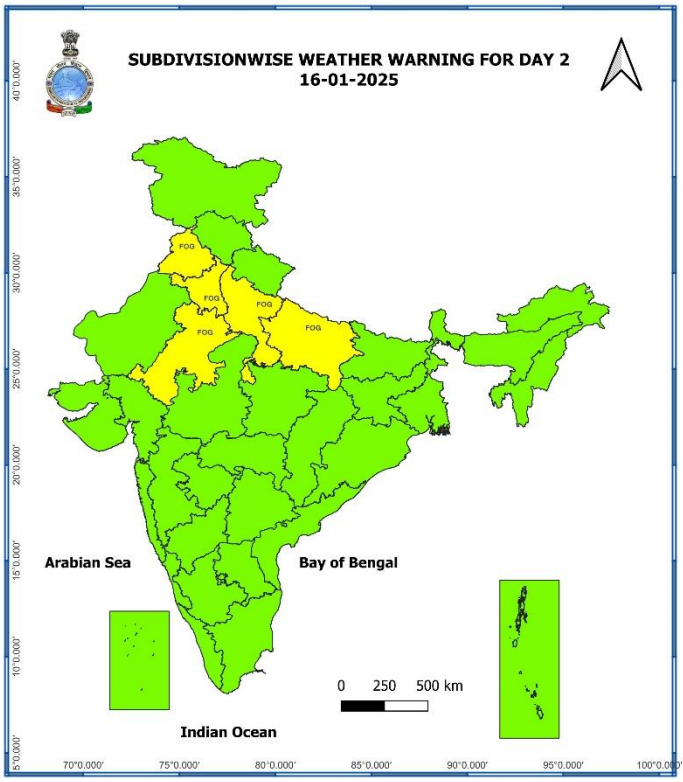




15th January (Day 1):

- **Dense to very dense fog conditions** very likely in isolated parts of Uttar Pradesh; **Dense fog conditions** likely in isolated pockets of Himachal Pradesh, Punjab, Sub-Himalayan West Bengal & Sikkim, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura during night/morning hours.
- **Thunderstorm accompanied with lightning** very likely at isolated places over Punjab, Haryana-Chandigarh-Delhi, West Uttar Pradesh.
- **Squally weather with wind speed 35 kmph to 45 kmph gusting to 55 kmph** likely to prevail over Comorin area and adjoining Gulf of Mannar.Fisherman are advised not to venture in to these areas.

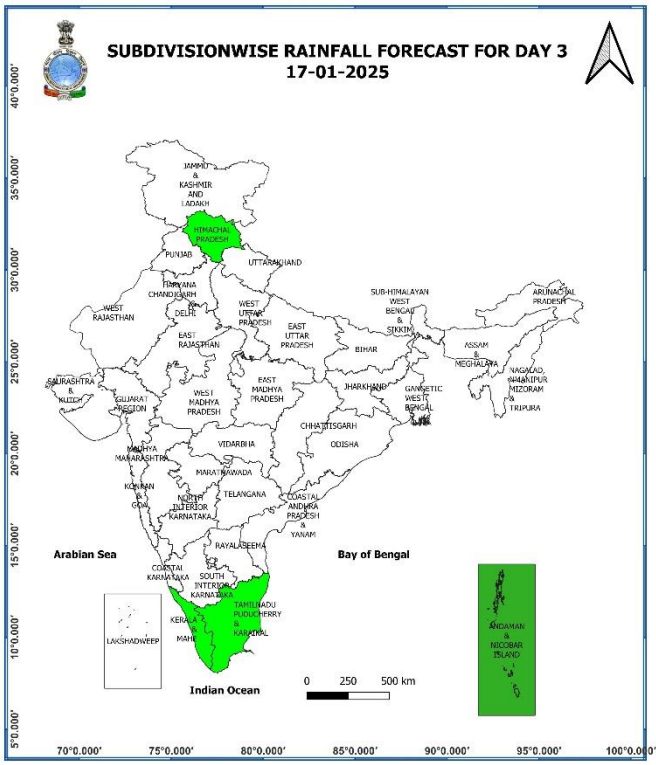


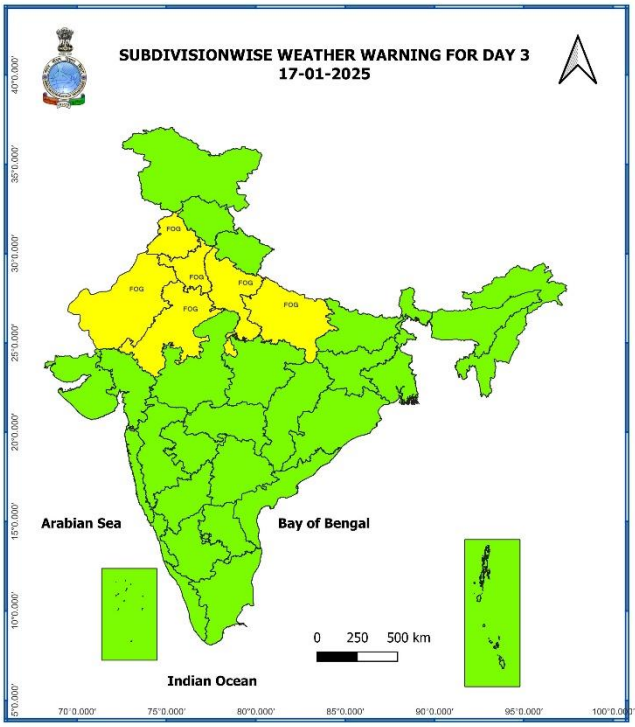


16th January (Day 2):

- **Dense fog conditions** likely in isolated pockets of Punjab, Haryana, Uttar Pradesh, East Rajasthan during night/morning hours.

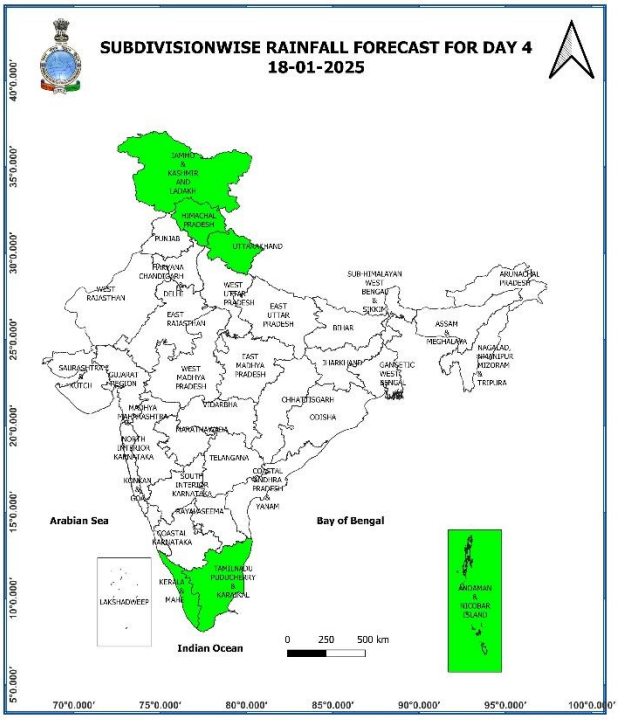
  Thunderstorm accompanied with lightning very likely at isolated places Kerala & Mahe.

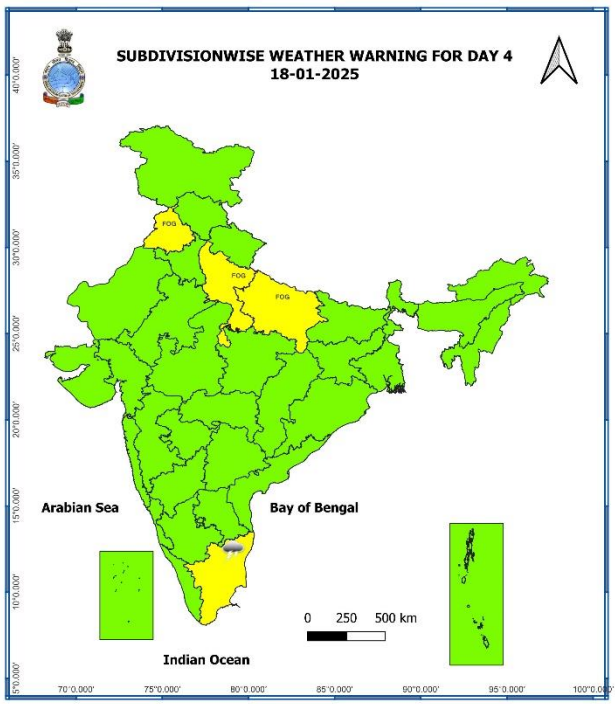




17th January (Day 3):

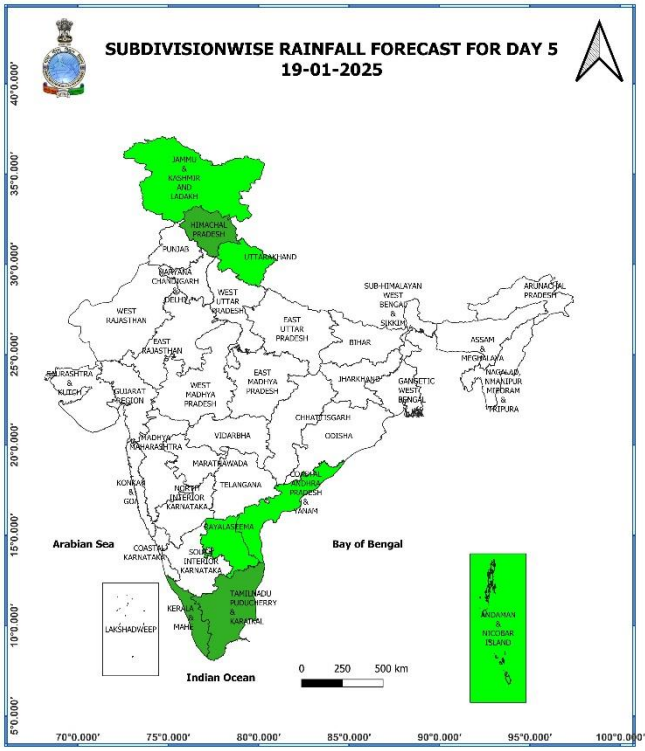
- **Dense fog conditions** likely in isolated pockets of Punjab, Haryana-Chandigarh-Delhi, Uttar Pradesh, Rajasthan during night/morning hours.

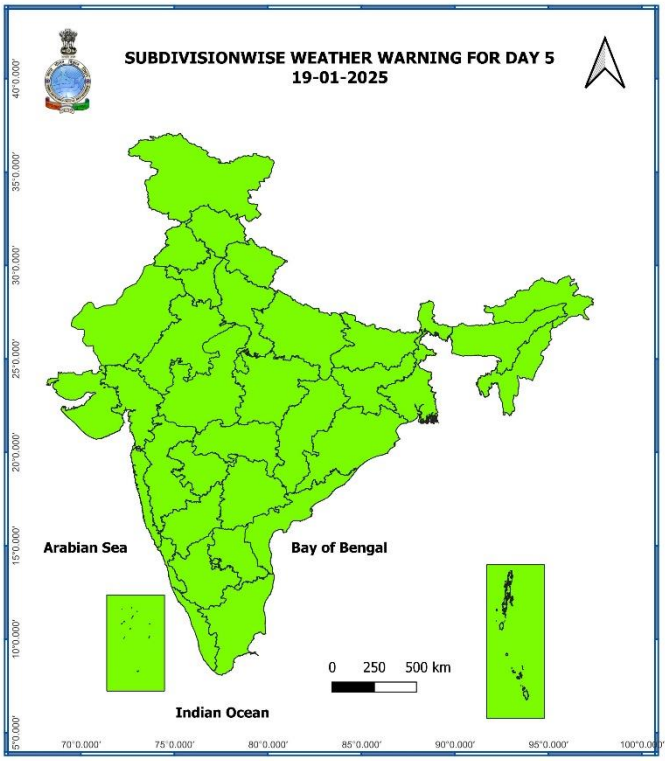




18th January (Day 4):

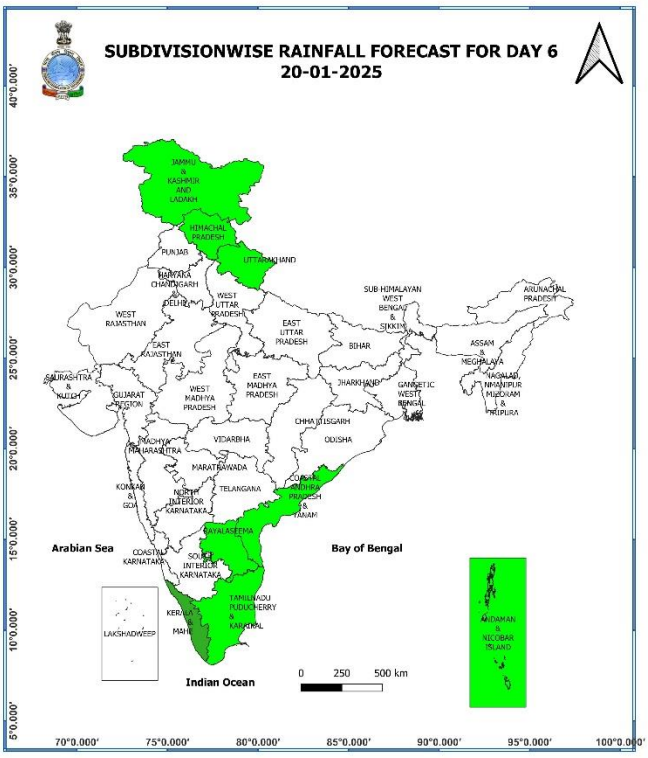
- **Dense fog conditions** likely in isolated pockets of Punjab, Uttar Pradesh during night/morning hours.
- **Thunderstorm accompanied with lightning** likely at isolated places over Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe.

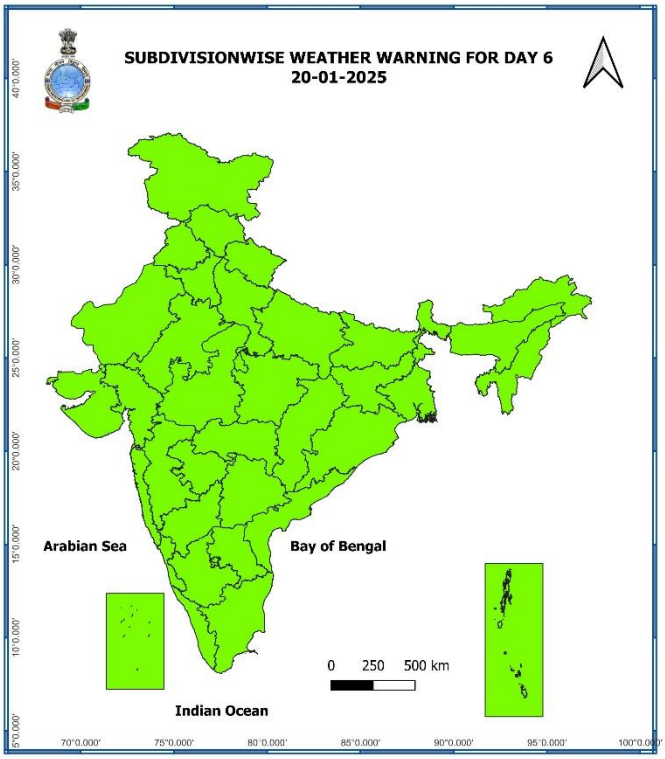




19th January (Day 5):

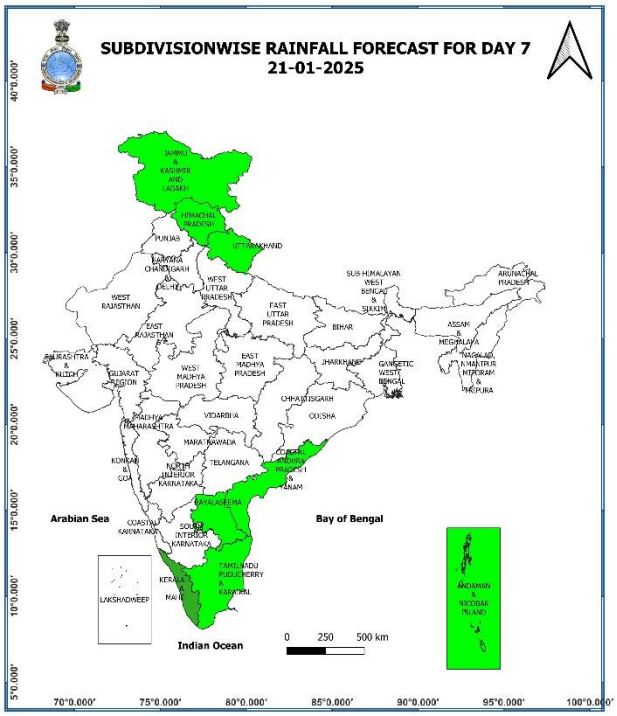
No Weather Warning.

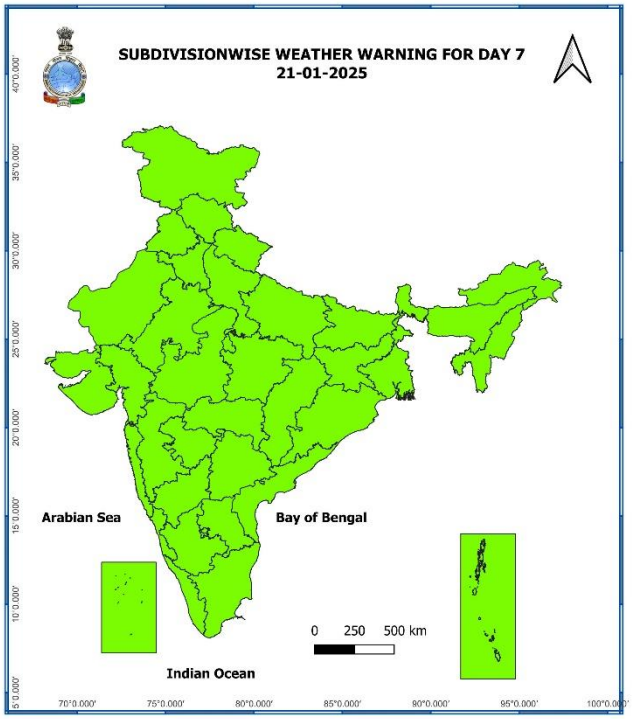




20th January (Day 6):

- **No Weather Warning.**





21st January (Day 7):

- **No Weather Warning.**

Weather Outlook for subsequent 3 days (During 22nd January– 24th January, 2025)

- Isolated rainfall over Tamil Nadu & Kerala and scattered to fairly widespread rainfall over Nicobar Islands.
- Isolated rainfall/snowfall over higher reaches of Jammu & Kashmir & Himachal Pradesh.
- 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

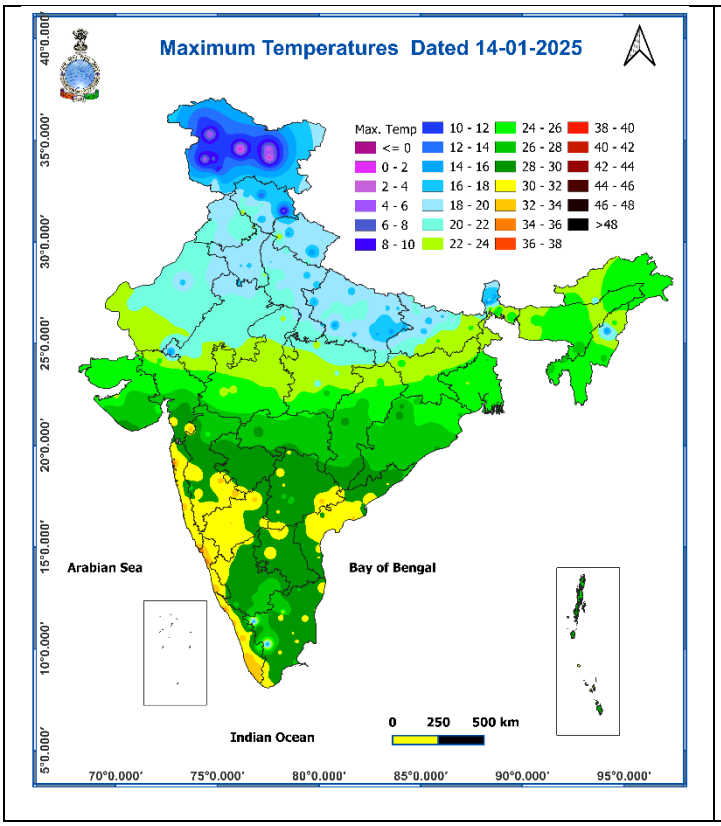


Fig. 2: Departure of Maximum Temperatures

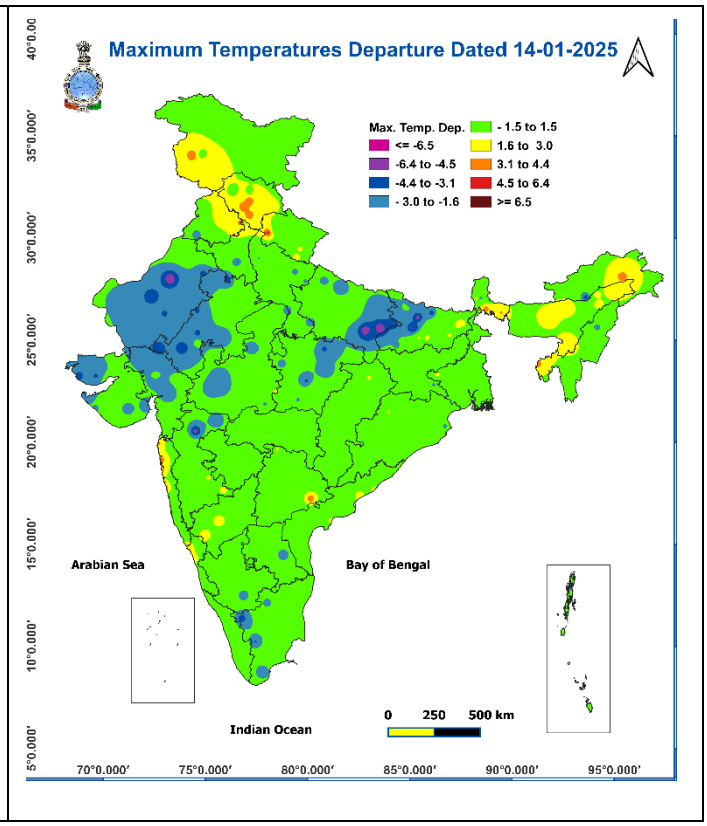


Fig. 3: Minimum Temperatures

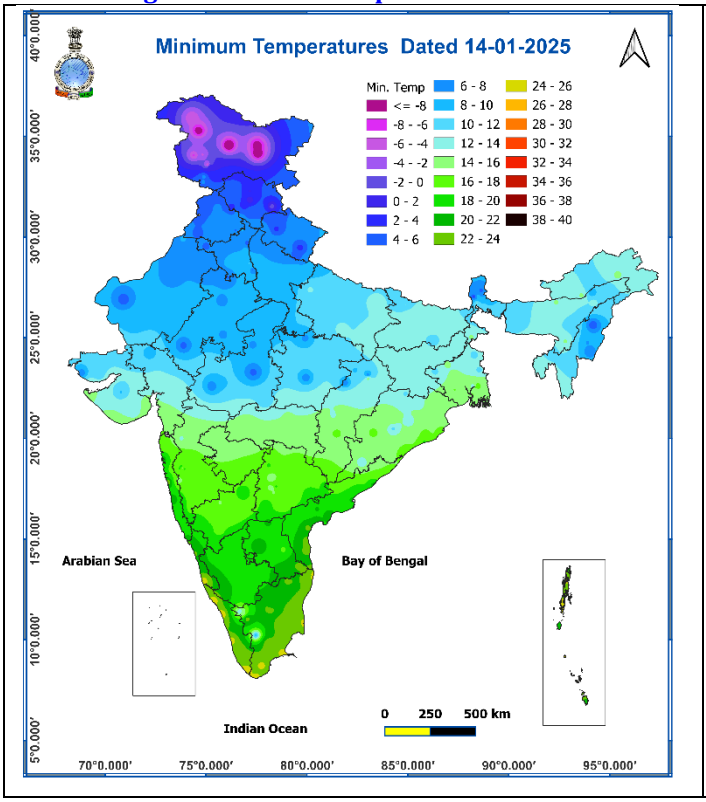
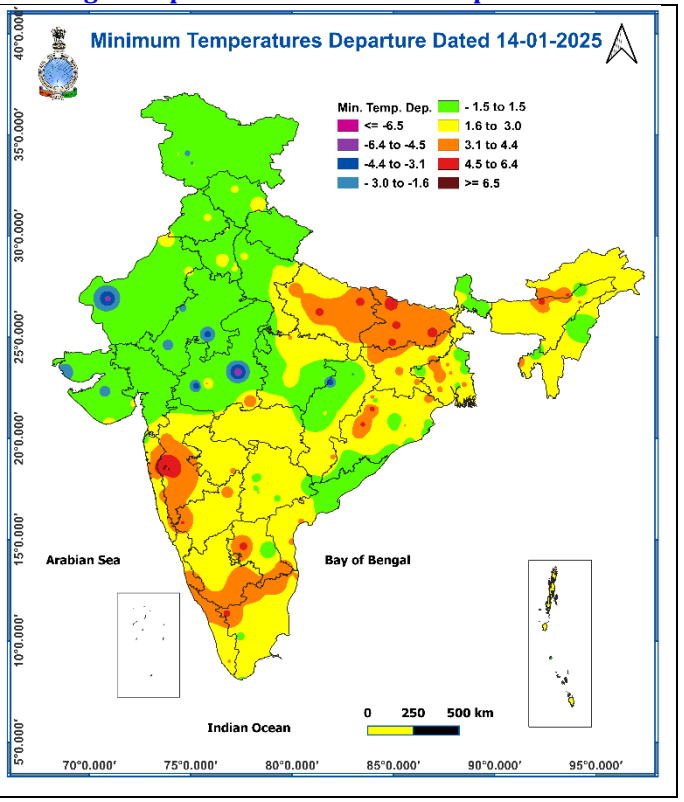


Fig. 4: Departure of Minimum Temperatures



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For more details, kindly visit https://mausam.imd.gov.in or contact: 011-2434-4599
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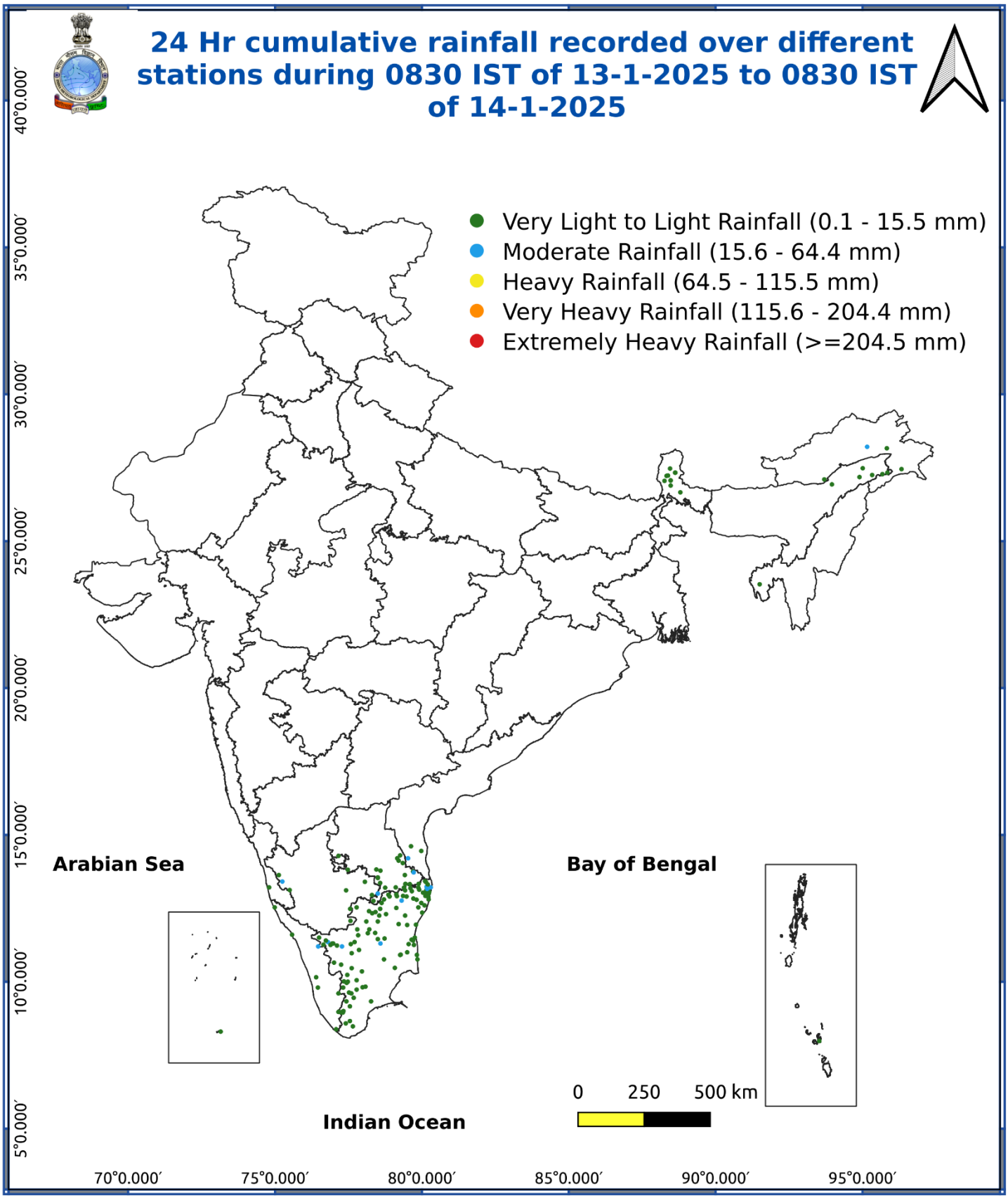
Fig. 5: Accumulated Rainfall (mm) during past 24 hours



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

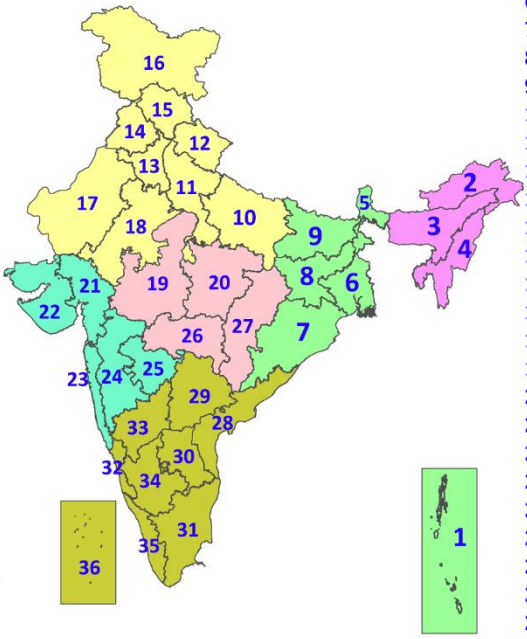
❖ An increased likelihood of various illnesses like flu, running/ stuffy nose or nosebleed, which usually set in or get aggravated due to prolonged exposure to cold.
❖ Do not ignore shivering. It is the first sign that the body is losing heat. Get Indoors.
❖ Frostbite can occur due to prolonged exposure 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.

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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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)

* 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
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