



Government of India
Ministry of Earth Sciences
India Meteorological Department



Press Release

Date: 21st January, 2025

Time of Issue: 1330 hours IST

Subject: Wet spell likely to continue over Western Himalayan Region till 23rd and over plains of Northwest India on 22nd & 23rd January, 2025.

i. Realised weather during past 24 hours till 0830 hours IST of today (Annexure I)

- ❖ **Dense to very dense fog (visibility < 50 m)** reported in some parts of East Uttar Pradesh; in isolated pockets of Odisha, Bihar, Meghalaya and **dense fog (visibility 50-199 m)** reported in isolated pockets of West Uttar Pradesh, Sub-Himalayan West Bengal.
- ❖ **Visibility reported (<200 m)** (in meter): **East Uttar Pradesh:** Ayodhya, Gorakhpur, Bahraich 0 each; **Odisha:** Paradip, Chandbali 0 each; **Bihar:** Purnea, Patna, Bhagalpur, Supaul 0 each; **Meghalaya:** Shillong 0, Barapani 30; **Sub-Himalayan West Bengal:** Cooch Behar 50; **West Uttar Pradesh:** Najibabad 100.
- ❖ **Rainfall/Snowfall** recorded at isolated places over **Jammu Kashmir (in cm):** Gulmarg (dist Baramula) 1.

Weather Systems, Forecast and warning (Annexure II & III):

- ❖ The **Western Disturbance** as a cyclonic circulation lies over North Pakistan & neighbourhood with a trough aloft in middle tropospheric levels roughly along Long. 70°E to the north of Lat. 30°N. The induced cyclonic circulation lies over West Rajasthan in lower tropospheric levels. A fresh **Western Disturbance** as a trough in middle & upper tropospheric westerlies runs roughly along Long. 52°E to the north of Lat. 30°N. Under the influence of these systems:
 - ✓ Isolated to Scattered rainfall/snowfall very likely over Western Himalayan Region till 23rd and isolated to scattered rainfall likely over Punjab, Haryana, Chandigarh & West Uttar Pradesh on 22nd & 23rd; Rajasthan and West Madhya Pradesh on 22nd January.
 - ✓ Thunderstorm activity at isolated places likely over Himachal Pradesh, Uttarakhand, Haryana, Chandigarh, West Uttar Pradesh on 22nd January.

ii. Temperature, Cold Day and Fog Forecast:

Temperature Conditions during past 24 hours till 0830 hours IST of today (Annexure IV):

- ❖ Minimum temperatures are **below 0°C** over isolated places of Jammu, Kashmir & Ladakh; **8-14°C** over many parts of plains of northwest, Central & East India; **14-18°C** in many parts of West India. Today, the lowest minimum temperature of **6.5°C** is reported at **Mandla (East Madhya Pradesh)** over the plains of the country.
- ❖ During the past 24 hours, there has been **rise in minimum temperatures by 1-4°C** in many parts of East Madhya Pradesh; in some parts of Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Odisha, West Bengal & Sikkim; in isolated places of Assam & Meghalaya and Chhattisgarh and **fall by 1-3°C** in some parts of Himachal Pradesh, Coastal Andhra Pradesh & Yanam, Tamilnadu Puducherry & Karaikal; in isolated places of West Uttar Pradesh, West Rajasthan, Karnataka, Telangana and Kerala & Mahe.
- ❖ Minimum temperatures are **below normal (-1°C to -3°C)** at many places over Telangana, at a few places over Coastal Andhra Pradesh & Yanam; at isolated places over Odisha, Chhattisgarh, North Interior Karnataka. These are **markedly above normal (5°C or more)** at isolated places over East Uttar Pradesh; **appreciably above normal (3°C to 5°C)** at a few places over East Madhya Pradesh, West Uttar Pradesh; at isolated places over Gujarat State, East Rajasthan, West Rajasthan, Punjab, Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad; **above normal (1°C to 3°C)** at many places over Assam & Meghalaya, Kerala & Mahe; at isolated places over Bihar, Jharkhand, West

Rajasthan, Tamil Nadu, Puducherry & Karaikal, Konkan & Goa, Madhya Maharashtra, Gangetic West Bengal and near normal over rest parts of the country.

Forecast of temperature:

- ❖ Gradual rise in minimum temperatures by about 2°C likely over plains of Northwest & Central India during next 48 hours and gradual fall by 2-3°C thereafter.
- ❖ No significant change in minimum temperatures likely over Gujarat region during next 24 hours and gradual fall by 2-3°C thereafter.
- ❖ No significant change in minimum temperatures likely over rest parts of the country.

Dense Fog Warnings:

Dense to very Dense fog Condition very likely to continue to prevail during night/early morning hours in isolated pockets of East Uttar Pradesh till 24th; Bihar and Odisha on 21st January.

Dense fog conditions very likely to continue to prevail during night/early morning hours in some parts of Bihar during 22nd-24th; in isolated pockets of Gangetic West Bengal, Jharkhand, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura till 23rd; Rajasthan & Odisha during 22nd-24th; Sub-Himalayan West Bengal & Sikkim till 24th; Himachal Pradesh & East Uttar Pradesh during 24th-26th and West Uttar Pradesh during 22nd-26th January.

Cold Day Warnings:

Cold day conditions very likely in few parts of Himachal Pradesh on 23rd January.

Fishermen Warnings (Annexure V):

Fishermen are advised not to venture into Comorin area & adjoining Gulf of Mannar on 21st & 22nd; adjoining South Sri Lanka coast & southwest Bay of Bengal on 21st; Westcentral and adjoining southwest Arabian sea along and off Somalia coast during 22nd-24th January.

iii. Weather conditions and forecast over Delhi/NCR during 21st Jan. to 24th Jan. 2025 (Annexure VI)

For more details, kindly refer National Weather Bulletin:

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

For District wise warnings refer: <https://mausam.imd.gov.in/responsive/districtWiseWarningGIS.php>

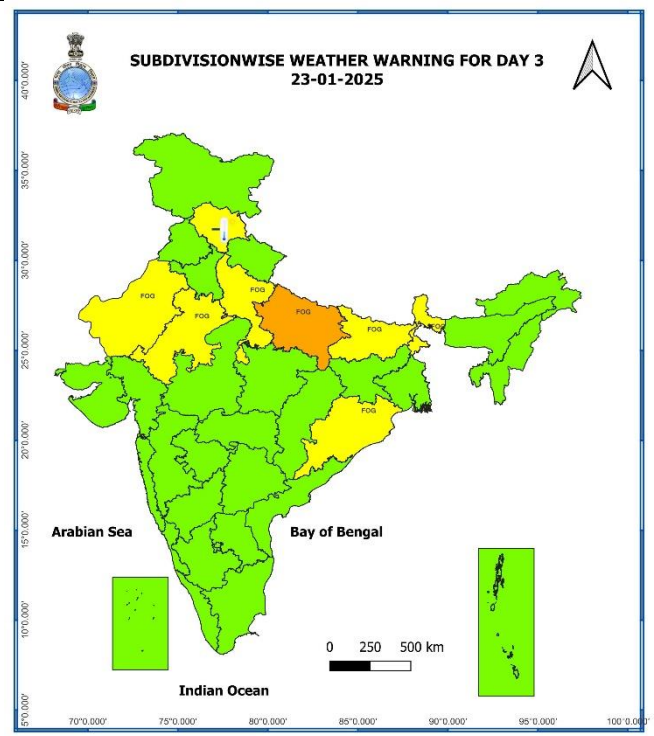
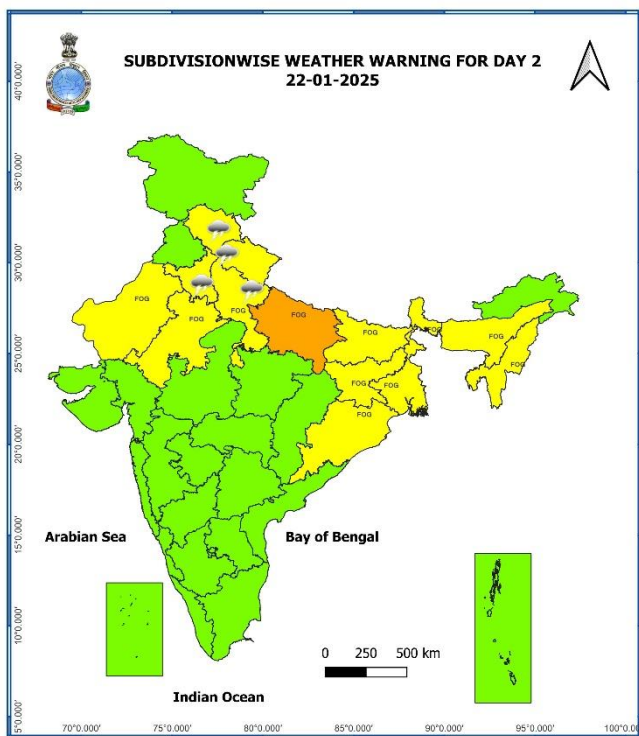
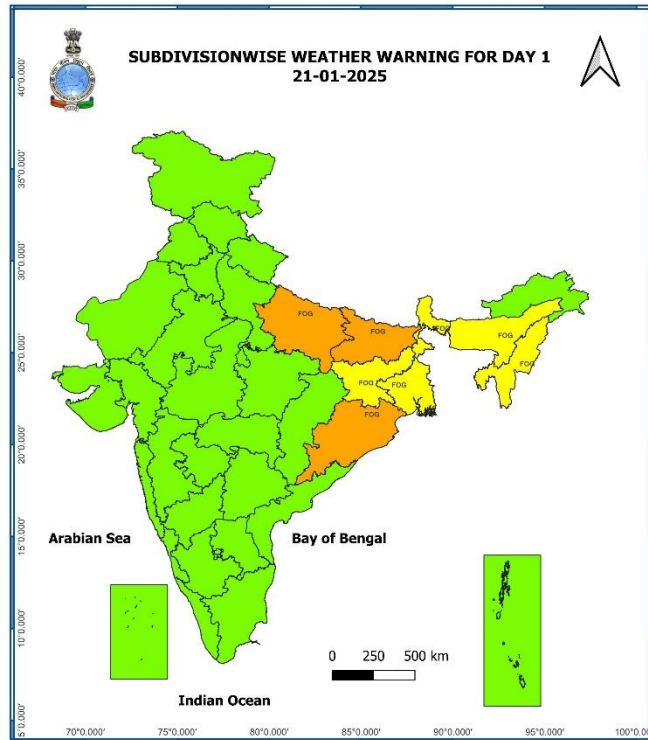
ANNEXURE I

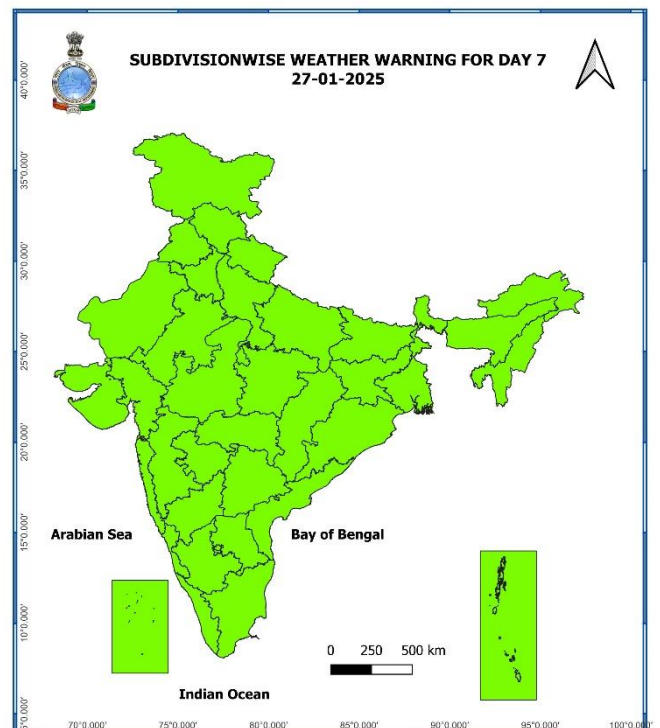
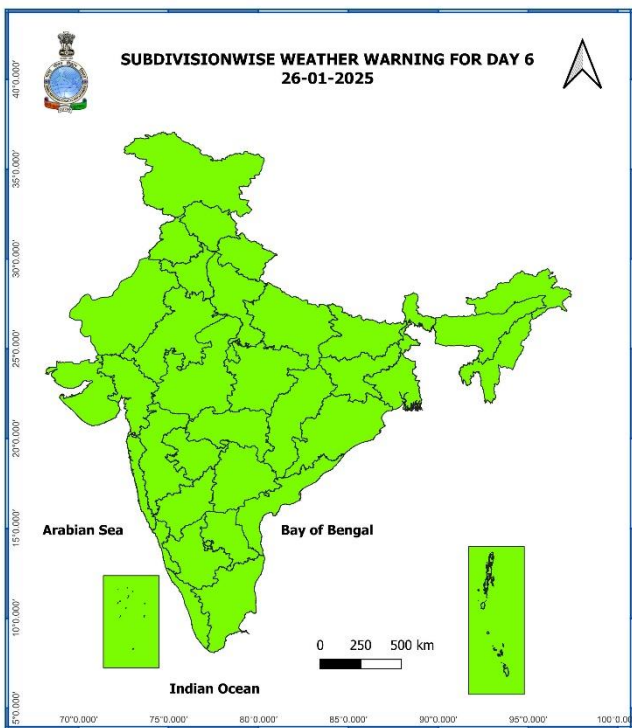
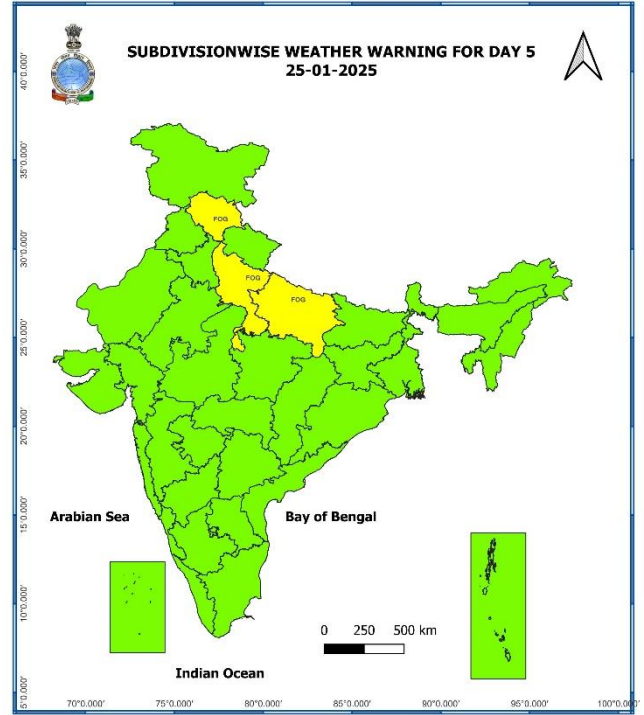
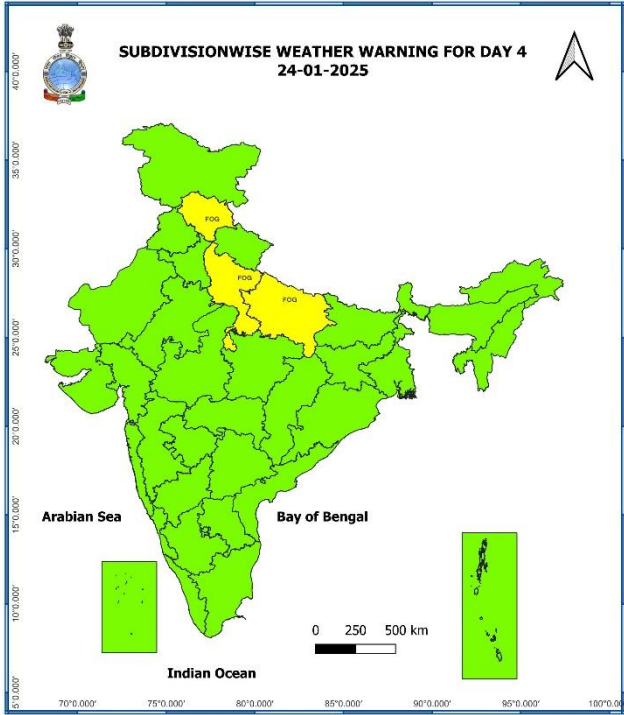
Rainfall recorded during past 24 hours till 0830 hours IST of today 21.01.2025 (in cm):

- ❖ **Tamil Nadu:** Oothu (dist Tirunelveli), Thiruthuraipoondi (dist Thiruvarur) 1 each;
- ❖ **Lakshadweep:** Agathi (dist Lakshadweep) 1

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

- As the lead period increases forecast accuracy decreases





- 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

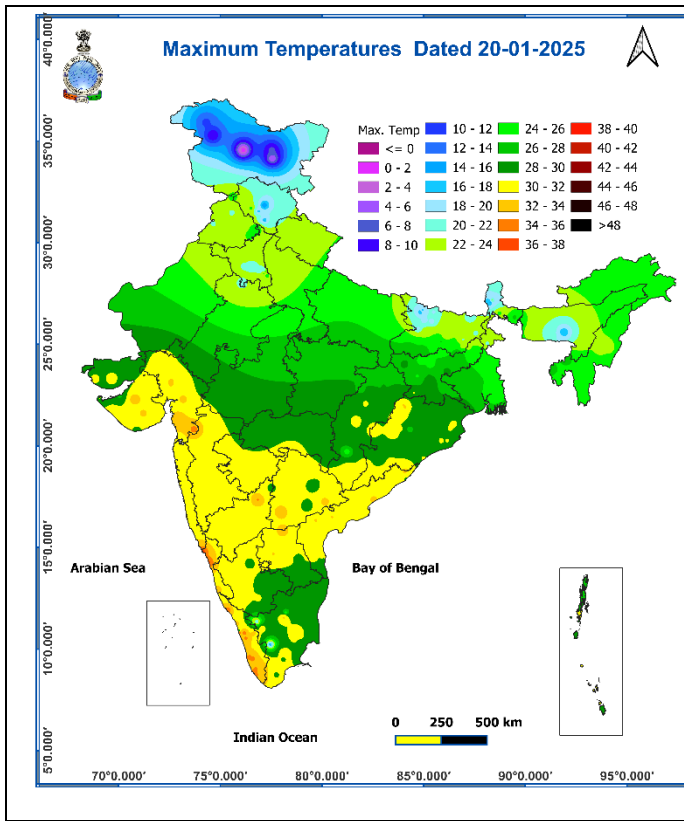


Fig. 2: Departure of Maximum Temperatures

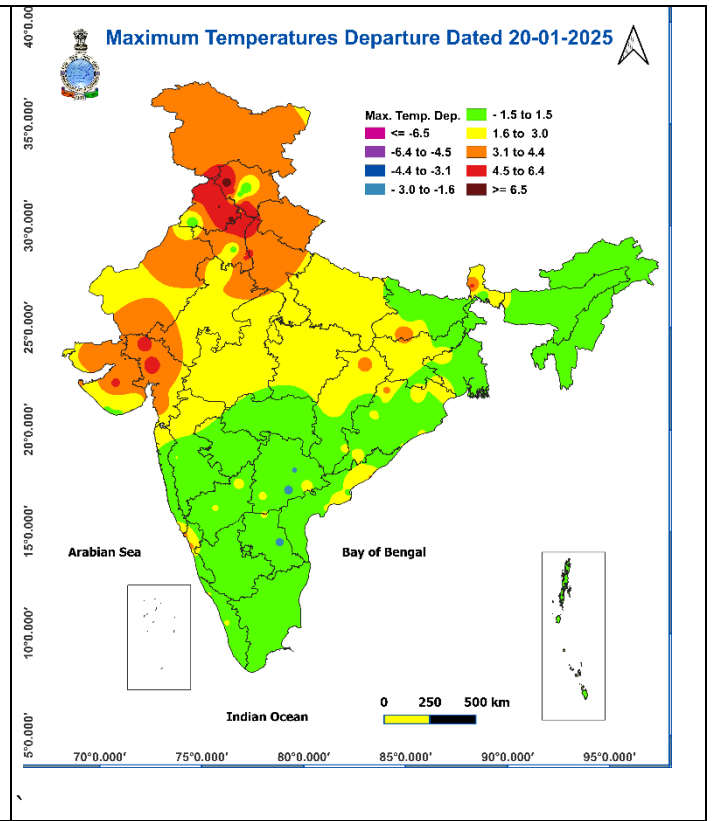


Fig. 3: Minimum Temperatures

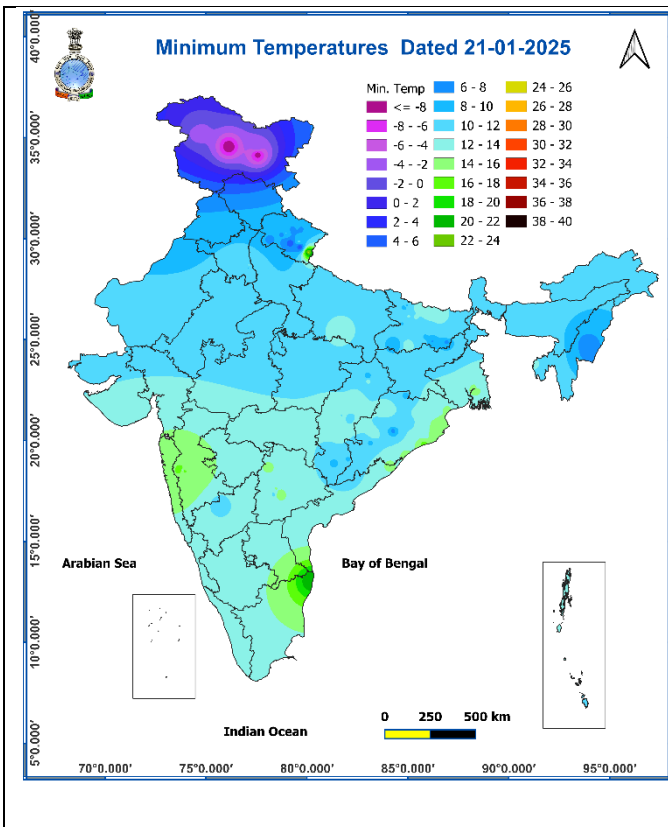
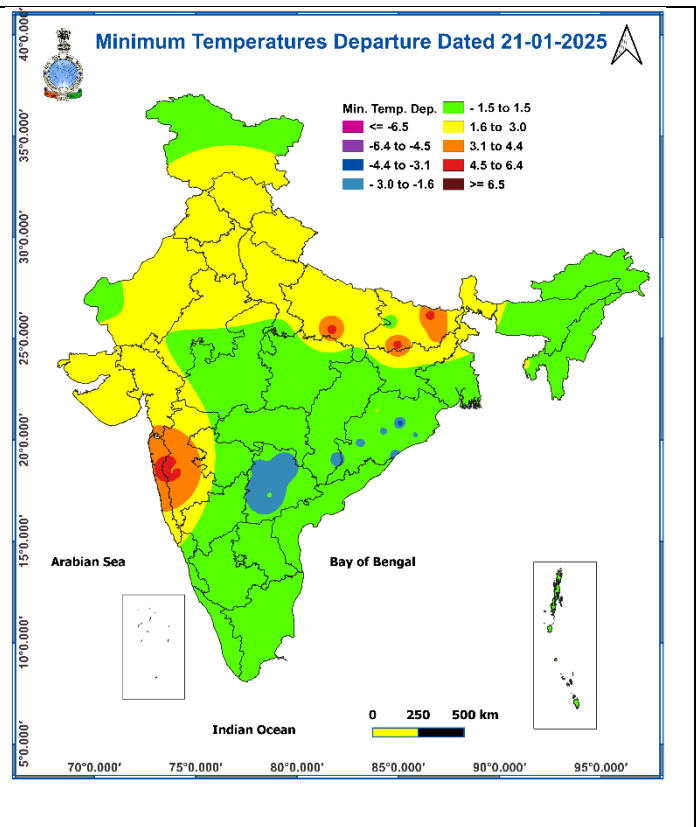
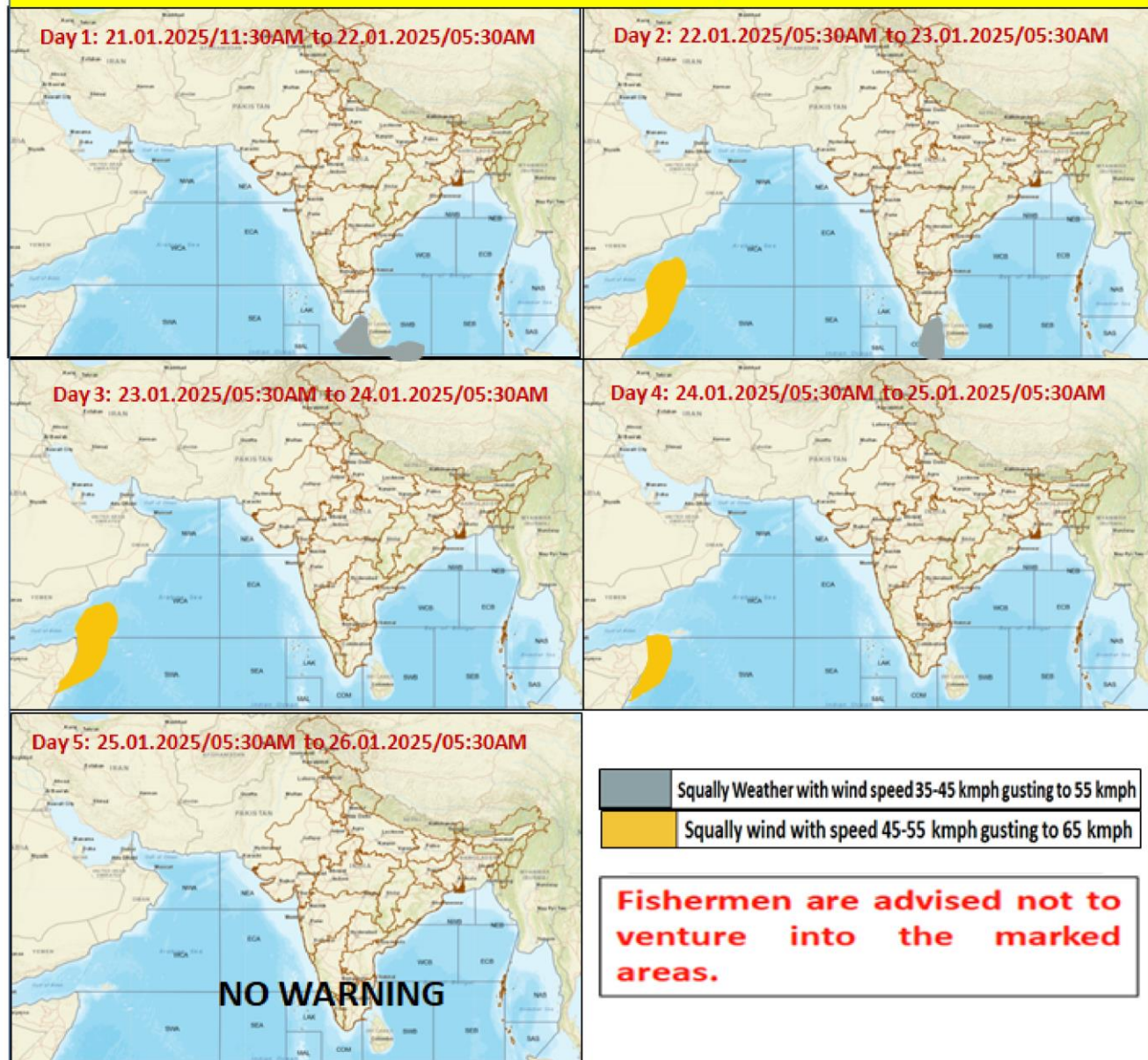


Fig. 4: Departure of Minimum Temperatures





Fishermen Warning Graphics



Weather forecast over Delhi/NCR during 21st to 24th Jan. 2025

Past Weather:

There has been a fall in minimum temperature upto 01°C over Delhi/NCR during past 24hr. The Maximum and Minimum temperatures over Delhi are in the range of 22 to 25°C and 10 to 11°C respectively. The minimum temperature was above normal upto 03°C and maximum temperature was above normal upto 05°C over most places. Shallow fog was reported at Palam airport. Palam airport recorded the lowest visibility 700m from 0830 hours to 0900 hours IST which improved thereafter becoming 1000 m at 0930 hours IST. Safdarjung airport recorded the lowest visibility 1000m from 0030 hours to 0700 hours IST which improved thereafter becoming 1100 m at 0730 hours IST. Mainly smog/mist conditions with predominant surface wind from the northwest direction with wind speed reaching 14 to 16 kmph prevailed during past 24hr. Mainly clear sky conditions with wind speed less than 12 kmph west direction prevailed over the region in the forenoon today.

Weather Forecast:

21.01.2025: Mainly clear sky. The predominant surface wind will likely be in the northwest direction with a wind speed of less than 14 kmph till evening. It would decrease thereafter becoming less than 06 kmph from the northwest direction during the night. Smog/shallow fog is likely in the evening/night.

22.01.2025: Generally cloudy sky. Possibility of one or two spell of very light to light rain with thunderstorm during evening/night. The predominant surface wind is likely to be from the north direction with a wind speed less than 06 kmph during morning hours. Smog/ moderate fog in most of the places very likely to commence during early morning hours with dense fog in isolated places during morning hours. The wind speed will decrease thereafter becoming 06-08 kmph from northeast direction during afternoon. It will gradually decrease becoming less than 06 kmph from northwest direction during evening and night. Smog/shallow fog is likely in the evening/night.

23.01.2025: Generally cloudy sky. Possibility of a spell of light rain with thunderstorm during morning hours. The predominant surface wind is likely to be from north direction with wind speed less than 06 kmph during morning hours. Smog/ shallow fog in most of the places very likely to commence during early morning hours with moderate fog in isolated places during morning hours. The wind speed will gradually increase thereafter becoming 10-12 kmph from north direction during afternoon. It will decrease becoming less than 06 kmph from northwest direction during evening and night. Smog/shallow fog is likely in the evening/night.

24.01.2025: Mainly clear sky. The predominant surface wind will likely be in the northwest direction with a wind speed of less than 06 kmph during morning hours. Smog/ moderate fog in most of the places very likely to commence during early morning hours with dense fog in isolated places during morning hours. The wind speed will gradually increase thereafter becoming 12-14 kmph from northwest direction during afternoon. It will decrease becoming less than 10 kmph from northwest direction during evening and night. Smog/shallow fog is likely in the evening/night.

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 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:

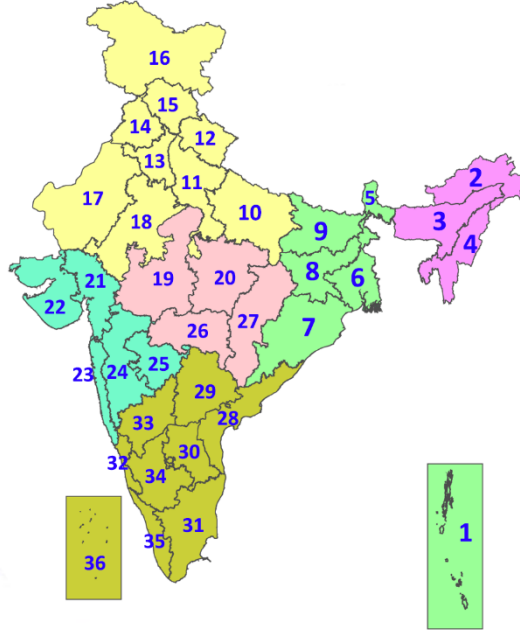
- ❖ Wear several layers of loose fitting, light weight; warm woollen clothing.
- ❖ Cover your head, neck, hands and toes adequately as majority of heat loss occurs through these body parts. Wear several layers of loose fitting, light weight; warm Woolen clothing rather than one layer of heavy cloth.
- ❖ 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 & abbreviations:

- ❖ **Heavy Rain:**64.5-115.5mm; **Very Heavy Rain:**115.6-204.4mm; **Extremely Heavy Rain:** >204.4mm.
- ❖ **Obsy:** Observatory; **AWS:** Automatic Weather Station; **ARG:** Automatic Rain Gauge; **dist:** District; **NH:** National Highway; **KVK:** Krishi Vigyan Kendra; **DVC:** Damodar Valley Corporation; **PTO:** Part Time Office, **Aero:** Aerodrome, **IAF:** Indian Air Force.
- ❖ **Region wise classification of meteorological Sub-Divisions:**
 - **Northwest India:** Western Himalayan Region (Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh and Uttarakhand); Punjab, Haryana-Chandigarh-Delhi; West Uttar Pradesh, East Uttar Pradesh, West Rajasthan and East Rajasthan.
 - **Central India:** West Madhya Pradesh, East Madhya Pradesh, Vidarbha and Chhattisgarh.
 - **East India:** Bihar, Jharkhand, Sub-Himalayan West Bengal & Sikkim; Gangetic West Bengal, Odisha and Andaman & Nicobar Islands.
 - **Northeast India:** Arunachal Pradesh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.
 - **West India:** Gujarat Region, Saurashtra & Kutch, Konkan & Goa, Madhya Maharashtra and Marathawada.
 - **South India:** Coastal Andhra Pradesh & Yanam, Telangana, Rayalaseema, Coastal Karnataka, North Interior Karnataka, South Interior Karnataka, Kerala & Mahe, Tamil Nadu, Puducherry & Karaikal and Lakshadweep.

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 Snow



Cold Wave



Heavy Rain



Dust Storm



Cold Day



Very Heavy Rain



Heat Wave



Ground Frost



Extremely Heavy Rain



Warm Night



Thunder & Lightning



Hot Day



Hailstorm



Hot & Humid



Dust Raising Winds



Strong Surface Winds

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 |

* 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)

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 $\geq 40^\circ\text{C}$ for plains and $\geq 30^\circ\text{C}$ for hilly regions
(a) Based on Departure from normal

Heat Wave: Maximum Temperature Departure from normal 4.5°C to 6.4°C .
Severe Heat Wave: Maximum Temperature Departure from normal $\geq 6.5^\circ\text{C}$

(b). Based on Actual maximum temperature

Heat Wave: When actual maximum temperature $\geq 45^\circ\text{C}$.
Severe Heat Wave: When actual maximum temperature $\geq 47^\circ\text{C}$

(c). Criteria for heat wave for coastal stations

When maximum temperature departure is $> 4.5^\circ\text{C}$ from normal. Heat Wave may be described provided maximum temperature $\geq 37^\circ\text{C}$

Warm Night

When maximum temperature remains 40°C

Warm Night: When minimum temperature departure 4.5°C to 6.4°C .
Severe Warm Night: When minimum temperature departure $> 6.4^\circ\text{C}$.

Cold Wave

When minimum temperature of a station $\leq 10^\circ\text{C}$ for plains and $\leq 0^\circ\text{C}$ for hilly regions.
(a). Based on departure

Cold Wave: Minimum Temperature Departure from normal -4.5°C to -6.4°C .
Severe Cold Wave: Minimum Temperature Departure from normal $\leq -6.5^\circ\text{C}$

(b) Based on actual Minimum Temperature (for Plains only)

Cold Wave: When Minimum Temperature is $\leq 4.0^\circ\text{C}$
Severe Cold Wave: When Minimum Temperature is $\leq 2.0^\circ\text{C}$

(c) For Coastal Stations

When Minimum Temperature departure is $\leq -4.5^\circ\text{C}$ & actual Minimum Temperature is $\leq 15^\circ\text{C}$

Cold Day

When minimum temperature of a station $\leq 10^\circ\text{C}$ for plains and $\leq 0^\circ\text{C}$ for hilly regions
Based on departure

Cold Day: Maximum Temperature Departure from normal -4.5°C to -6.4°C .
Severe Cold Day: Maximum Temperature Departure from normal $\leq -6.5^\circ\text{C}$

Fog

Phenomenon of small droplets suspended in air and the horizontal visibility $< 1\text{km}$

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
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