**Government of India**
**Ministry of Earth Sciences**
**India Meteorological Department**

**Press Release**
**Date: 09th January, 2025**
**Time of Issue: 1330 hours IST**

**Subject: (i) Dense to very dense fog conditions likely to continue over Indo-Gangetic plains during next 2 days and improve thereafter.**
**(ii) In association with the Western disturbance and its interaction with easterly winds, wet spell likely over Northwest India during 10th to 12th January, 2025.**

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

- **Heavy to very heavy rainfall** recorded at isolated places over Andaman & Nicobar Islands.
- **Cold day to severe cold day conditions** prevailed in isolated pockets of East Uttar Pradesh.
- **Cold wave conditions** prevailed in isolated pockets of Punjab.
- **Dense to very dense fog (visibility< 50 m)** reported in some parts of Punjab & East Uttar Pradesh; in isolated pockets of Haryana, West Uttar Pradesh, Meghalaya and **dense fog (visibility 50-200 m)** reported in isolated pockets of Himachal Pradesh and Assam.
- **Visibility reported (<200 m)** (in meter)**: Punjab:** Amritsar, Pathankot 0 each, Patiala 10, Ludhiana 20; **East Uttar Pradesh:** Barabanki 10, Prayagraj-40, Fursatganj 50, Varanasi-200; **West Uttar Pradesh:** Meerut 30, Etawah 200; **Meghalaya:** Barapani, Shillong Airport 30 each; **Haryana:** Ambala, Karnal 40 each; **Himachal Pradesh:** Bilaspur 50, Mandi 100; **Assam:** Jorhat Airport-100

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

- A Western Disturbance as a Cyclonic Circulation lies over southwest Iran & neighbourhood in lower & middle tropospheric levels. Under its influence, Light/moderate isolated to scattered rainfall/snowfall likely over Western Himalayan region on 11th & 12th and Light/moderate isolated to scattered rainfall likely over the plains of Northwest India and adjoining central India during 10th -12th January.
  - ✓ Thunderstorm activity at isolated places likely over Himachal Pradesh, Uttarakhand, Punjab, Haryana, Chandigarh, West Uttar Pradesh, Rajasthan and Madhya Pradesh on 11th January. Isolated hailstorm also likely over south Haryana & Rajasthan on 11th January.

- A cyclonic circulation lies over Southeast Bay of Bengal & adjoining Equatorial Indian Ocean in lower tropospheric levels. Under its influence,
  - ✓ Light to moderate rainfall accompanied with thunderstorm, lightning very likely at a few places over Tamil Nadu, Puducherry & Karaikal during 11th – 13th and Kerala & Mahe on 12th & 13th January with Isolated **heavy rainfall** likely over Tamilnadu, Puducherry & Karaikal on 12th January.
- Light to moderate rainfall accompanied with thunderstorm, lightning very likely at isolated places over northeastern states on 13th January.

## ii. Temperature, Cold Wave and Fog Forecast:

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

- Minimum temperatures are **below 0°C** over many parts of Jammu, Kashmir & Ladakh; **1-4°C** over isolated places of Himachal Pradesh, Punjab, Haryana; **5-10°C** over many parts of Northwest & Central India; **10-15°C** over many parts of East & West India. Today, the lowest minimum temperature of **1.6°C** is reported at **Adampur (Punjab)** over the plains of the country.

- During the past 24 hours, there has been **fall in minimum temperatures** by 3-6$^0$C over many parts of Uttar Pradesh; by 1-3$^0$C over some parts of Himachal Pradesh, East Madhya Pradesh, Gangetic West Bengal, Odisha, Madhya Maharashtra, Assam & Meghalaya; in isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Chhattisgarh, Telangana and **rise by** 1-3$^0$C over some parts of Rajasthan, West Madhya Pradesh, Gujarat State and Tamil Nadu.
- Minimum temperatures are **appreciably below normal (-3°C to -5°C)** at isolated places over Madhya Pradesh, Vidarbha, Telangana, Chhattisgarh and Saurashtra & Kutch; **below normal (-1°C to -3°C)** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Haryana, Chandigarh, East Uttar Pradesh, East Rajasthan, Jharkhand, Odisha, Gujarat Region and Marathawada. These are **appreciably above normal (3°C to 5°C)** at isolated places over Assam & Meghalaya; **above normal (1°C to 3°C)** at isolated places over West Rajasthan, West Uttar Pradesh, Nagaland, Manipur, Mizoram & Tripura, Kerala & Mahe and near normal over rest part of the country.

**Forecast of temperature:**

- Rise in minimum temperatures by 2-4°C likely over Northwest India during next 4 days and gradual fall by 2-3°C thereafter.
- Gradual rise in minimum temperatures by 2-4°C likely over Central India during next 3 days and gradual fall by about 2°C thereafter.
- No significant change in minimum temperatures likely over East India during next 2 days and gradual rise by 2-4°C thereafter.
- Rise in minimum temperatures by 2-3°C likely over Maharashtra & Gujarat state during next 2 days and gradual fall by 2-3°C thereafter over Gujarat.

**Cold Wave Warnings:**

**Cold wave** conditions very likely in isolated pockets over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad & Himachal Pradesh on 09th & 10th; Punjab, Madhya Pradesh and Chhattisgarh on 09th January.

**Dense Fog Warnings:**

**Dense to very Dense fog Condition** very likely to continue to prevail during night/early morning hours in some parts of Punjab till 11th; Haryana- Chandigarh till 10th; in isolated pockets of Uttar Pradesh till 10th; Rajasthan on 12th January.

**Dense fog conditions** very likely to continue to prevail during night/early morning hours in isolated pockets of Bihar during 10th -12th; Jharkhand on 10th & 11th; Himachal Pradesh, Odisha, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura till 11th; Sub-Himalayan West Bengal & Sikkim on 11th & 12th; West Rajasthan on 11th, 13th & 14th; East Rajasthan on 13th & 14th January.

**Fishermen Warnings (Annexure V):**

Fishermen are advised not to venture into southeast & southwest Bay of Bengal on 09th & 10th; Gulf of Mannar and adjoining Comorin area on 09th, 11th & 12th January.

**iii. Weather conditions and forecast over Delhi/NCR during 09th Jan. to 12th Jan. 2025 (Annexure VI)**

**For more details, kindly refer National Weather Bulletin:**
https://mausam.imd.gov.in/responsive/all_india_forcast_bulletin.php
**For District wise warnings refer:** https://mausam.imd.gov.in/responsive/districtWiseWarningGIS.php

**ANNEXURE I**

**Significant Rainfall recorded during past 24 hours till 0830 hours IST of today 09.01.2025 (in cm):**

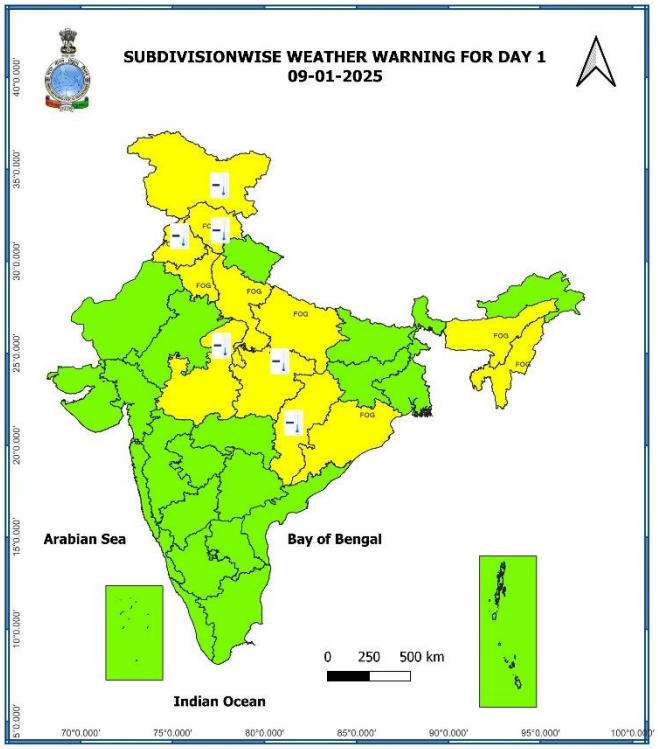
- **Andaman & Nicobar Islands:** Car Nicobar (dist Nicobar) 14, Iaf Carnicobar (dist Nicobar) 8, Nancowry (dist Nicobar) 2, Port Blair (dist South Andaman) 1

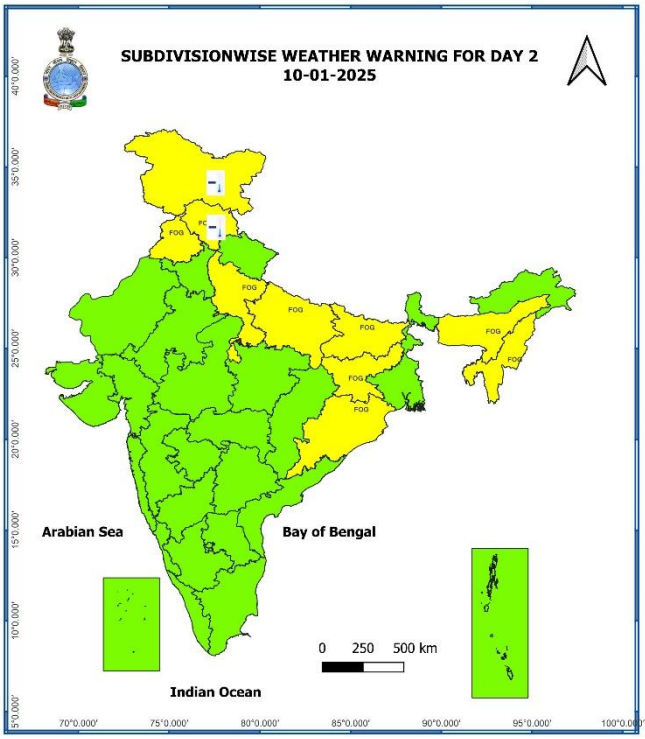
**ANNEXURE II**

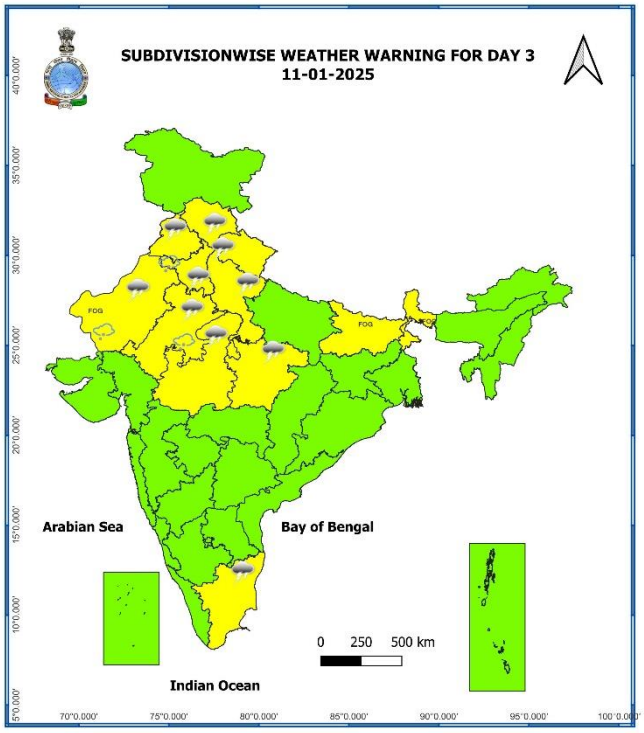
| 7 Days Rainfall Forecast | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| S. No. | Subdivision | 09-Jan | 10-Jan | 11-Jan | 12-Jan | 13-Jan | 14-Jan | 15-Jan |
| | | Day 1 | Day 2 | Day 3 | Day 4 | Day 5 | Day 6 | Day 7 |
| 1 | ANDAMAN & NICOBAR ISLANDS | FWS | SCT | SCT | ISOL | ISOL | ISOL | ISOL |
| 2 | ARUNACHAL PRADESH | ISOL | DRY | DRY | SCT | SCT | ISOL | DRY |
| 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 | DRY | DRY | ISOL | ISOL | ISOL | DRY | DRY |
| 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 | ISOL | DRY | DRY | DRY |
| 10 | EAST UTTAR PRADESH | DRY | DRY | ISOL | ISOL | DRY | DRY | DRY |
| 11 | WEST UTTAR PRADESH | DRY | DRY | SCT | ISOL | DRY | DRY | DRY |
| 12 | UTTARAKHAND | DRY | DRY | FWS | SCT | DRY | DRY | DRY |
| 13 | HARYANA CHANDIGARH & DELHI | DRY | ISOL | SCT | ISOL | DRY | DRY | DRY |
| 14 | PUNJAB | DRY | ISOL | SCT | ISOL | DRY | DRY | DRY |
| 15 | HIMACHAL PRADESH | DRY | DRY | SCT | SCT | DRY | DRY | DRY |
| 16 | JAMMU & KASHMIR AND LADAKH | DRY | DRY | ISOL | ISOL | DRY | DRY | DRY |
| 17 | WEST RAJASTHAN | DRY | ISOL | ISOL | DRY | DRY | DRY | DRY |
| 18 | EAST RAJASTHAN | DRY | ISOL | ISOL | DRY | DRY | DRY | DRY |
| 19 | WEST MADHYA PRADESH | DRY | ISOL | ISOL | DRY | DRY | DRY | DRY |
| 20 | EAST MADHYA PRADESH | DRY | DRY | ISOL | ISOL | 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 | ISOL | ISOL | DRY | DRY | DRY | DRY |
| 24 | MADHYA MAHARASHTRA | DRY | ISOL | ISOL | ISOL | DRY | DRY | DRY |
| 25 | MARATHAWADA | DRY | DRY | ISOL | ISOL | DRY | DRY | DRY |
| 26 | VIDARBHA | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| 27 | CHHATTISGARH | DRY | DRY | DRY | ISOL | DRY | DRY | DRY |
| 28 | COASTAL ANDHRA PRADESH & YANAM | DRY | DRY | DRY | ISOL | ISOL | ISOL | DRY |
| 29 | TELANGANA | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| 30 | RAYALASEEMA | DRY | DRY | DRY | DRY | DRY | DRY | ISOL |
| 31 | TAMILNADU PUDUCHERRY & KARAIKAL | ISOL | ISOL | ISOL | SCT | SCT | ISOL | ISOL |
| 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 | SCT | SCT | DRY | DRY |
| 36 | LAKSHADWEEP | DRY | DRY | SCT | SCT | SCT | SCT | SCT |

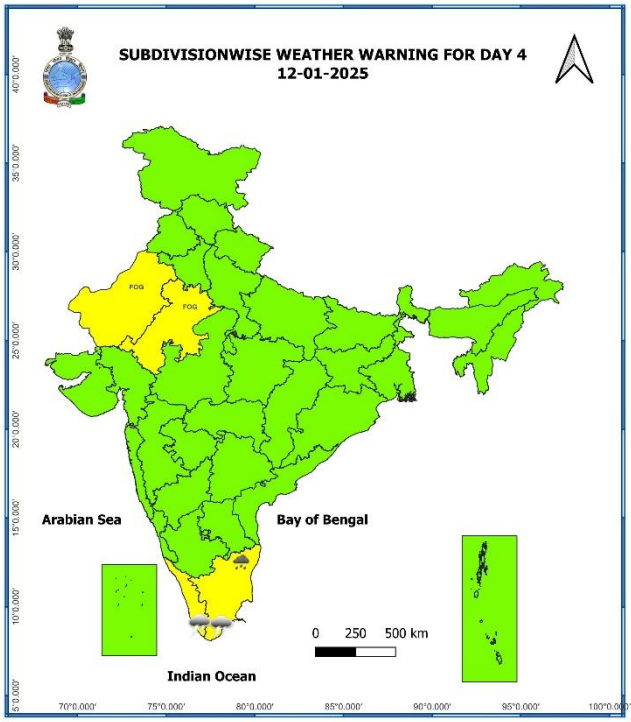
- **As the lead period increases forecast accuracy decreases**

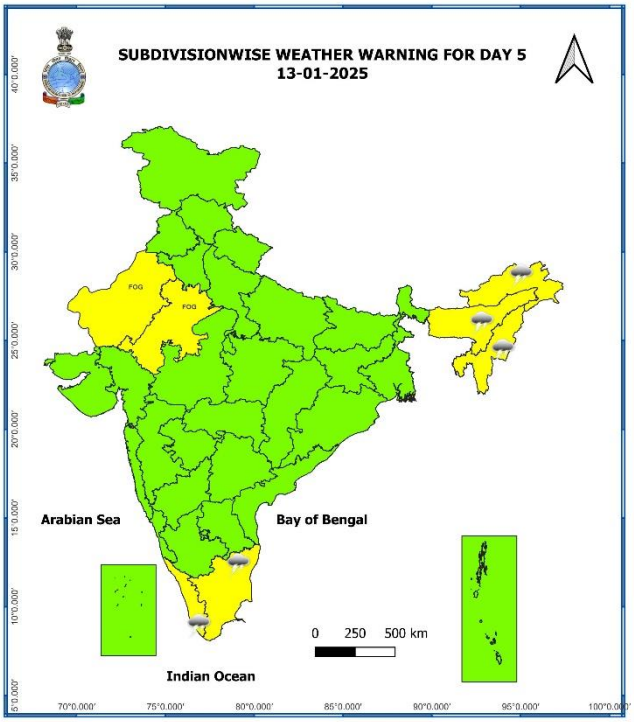
**ANNEXURE III**

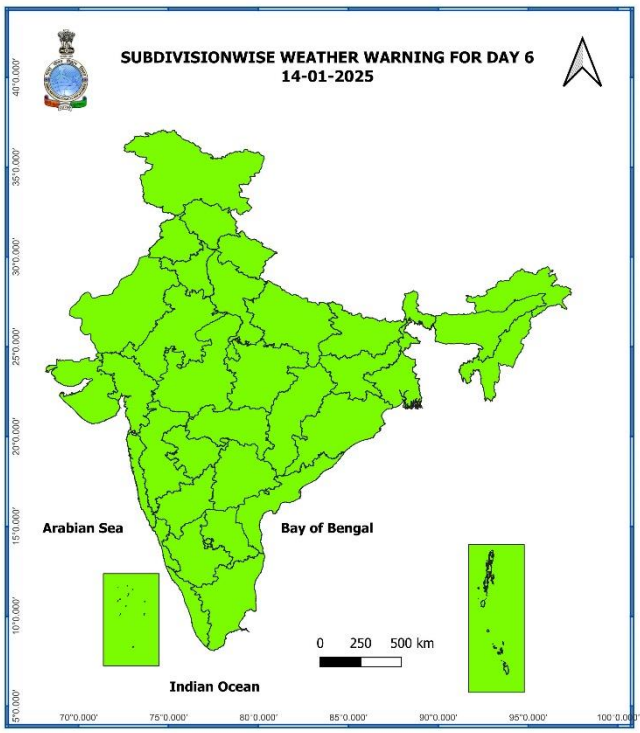


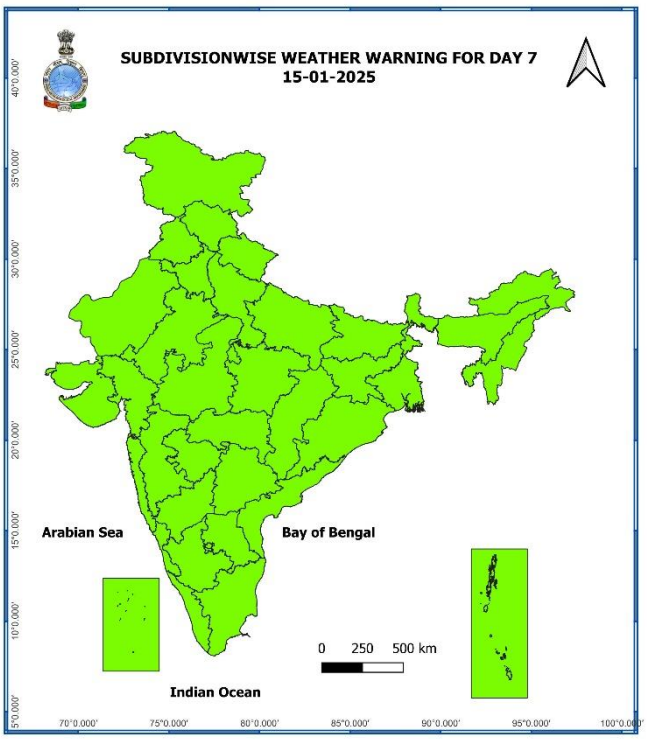





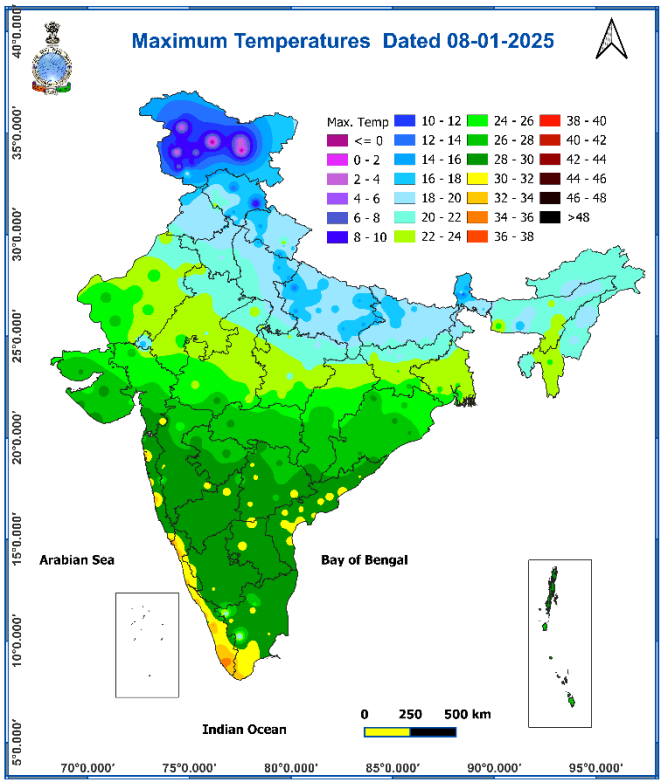



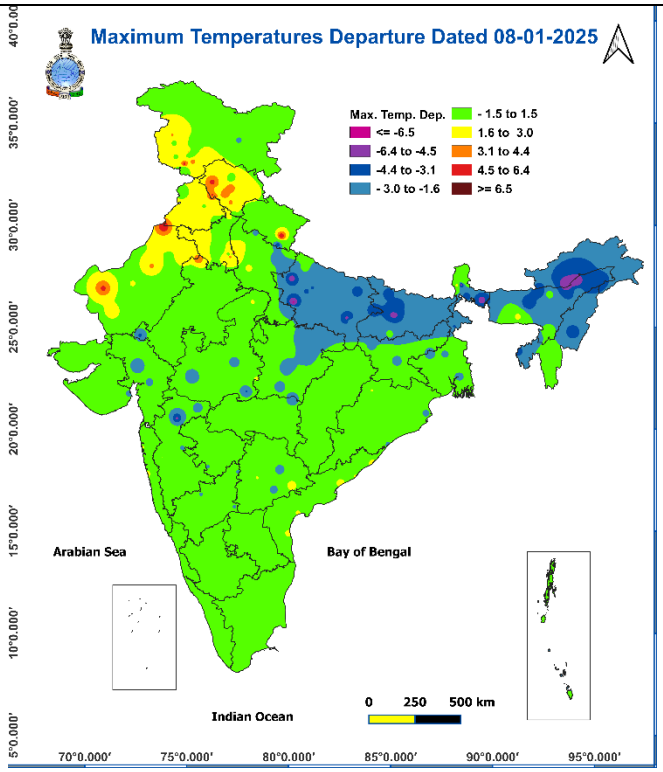




- **Action may be taken based on ORANGE AND RED COLOUR warnings.**
- **Vulnerable regions likely urban and hilly areas action may be initiated for heavy rainfall warning.**
- **As the lead period increases forecast accuracy decreases.**

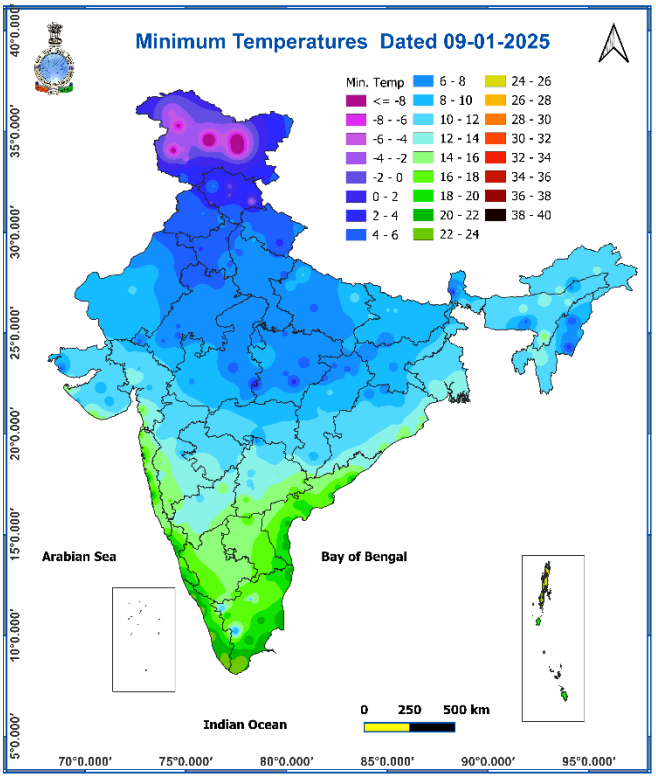
## Fig. 1: Maximum Temperatures



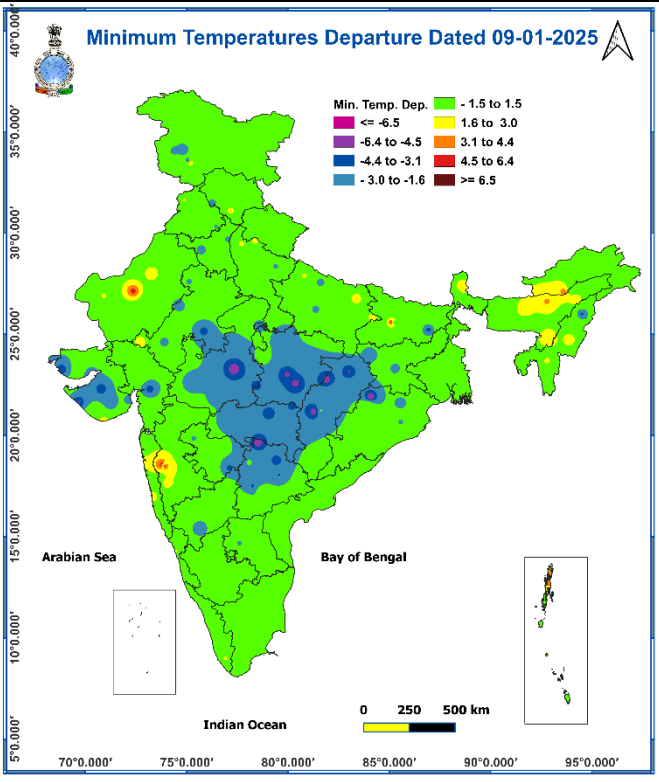

## Fig. 2: Departure of Maximum Temperatures




## Fig. 3: Minimum Temperatures

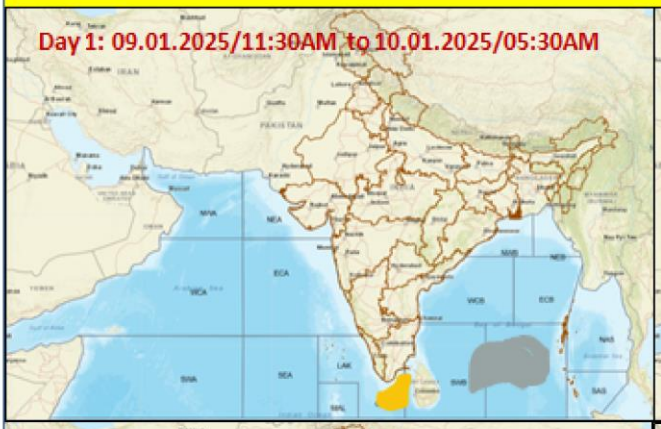


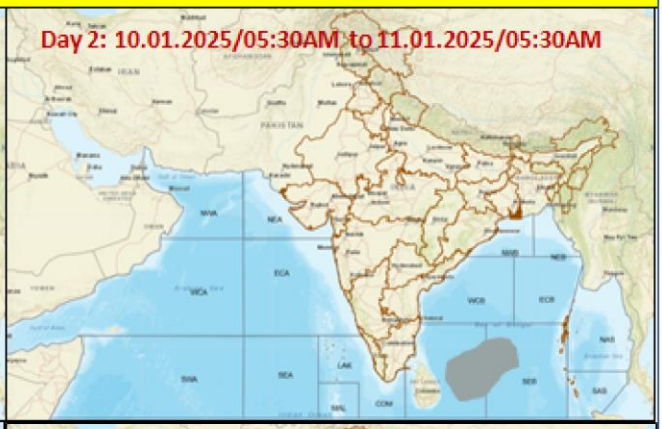

## Fig. 4: Departure of Minimum Temperatures

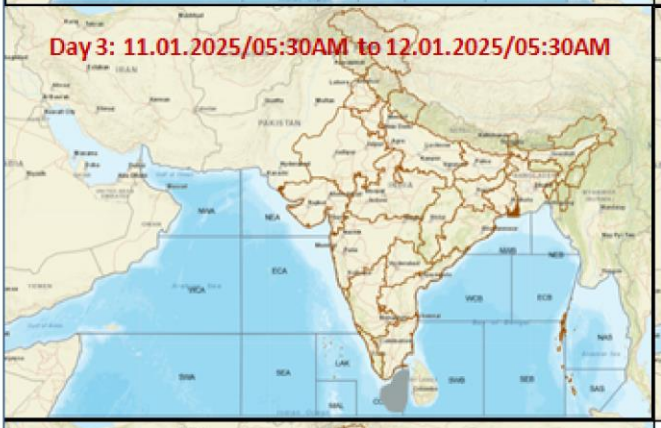


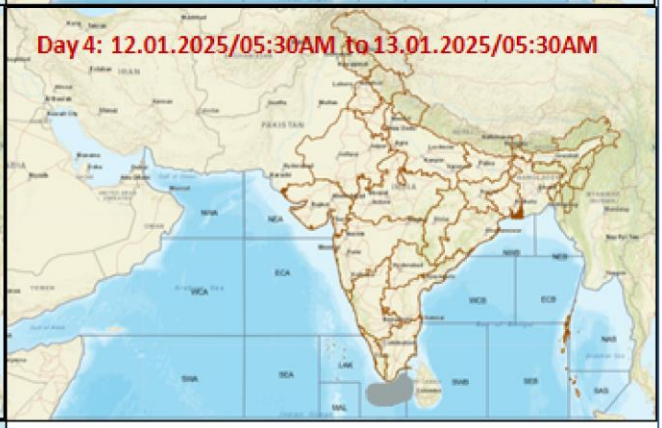
**ANNEXURE V**

# Fishermen Warning Graphics





Squally Weather with wind speed 35-45 kmph gusting to 55 kmph

Squally wind with speed 45-55 kmph gusting to 65 kmph

**Fishermen are advised not to venture into the marked areas.**

**ANNEXURE VI**

**Weather forecast over Delhi/NCR during 09th to 12th Jan. 2025**

**Past Weather:**

**There has been a fall in minimum temperature upto 03°C over Delhi/NCR during past 24hr. The Maximum and Minimum temperatures over Delhi are in the range of 19 to 21°C and 5 to 7°C respectively. The minimum temperature was near normal and the maximum temperature was above normal upto 05°Cover most places. Shallow fog was reported at Safdarjung airport. Safdarjung airport recorded the lowest visibility 600 m from 0730 hours to 0900 hours IST which improved thereafter becoming 1000m at 0930 hours IST. Palam airport recorded the lowest visibility 800 m at 0800 hours IST which improved thereafter becoming 900 m at 0830 hours IST. Mainly clear sky conditions with predominant surface wind from the northwest direction with wind speed reaching 14 to 18 kmph prevailed during past 24hr. Mainly smog/mist conditions with wind speed less than 04 kmph variable direction prevailed over the region in the forenoon today.**

**Weather Forecast:**

**09.01.2024:** Mainly clear sky. The predominant surface wind will likely be in the northwest direction with a wind speed of less than 06 kmph till evening. It would decrease thereafter becoming less than 04 kmph from the northeast direction during the night. Smog/shallow fog is likely in the evening/night.

**10.01.2025:** Partly cloudy sky. The predominant surface wind is likely to be from the southeast direction with a speed of less than 04 kmph during morning hours. Smog/ moderate fog in most of the places and dense fog in few places is likely in the morning. The wind speed will gradually increase becoming 04-06 kmph from the southeast direction during the afternoon. It will decrease thereafter becoming less than 04 kmph from the southeast direction during evening and night. Smog/shallow to moderate fog is likely in the evening/night.

**11.01.2025:** Generally cloudy sky. Light rain accompanied with thunderstorm. The predominant surface wind is likely to be from the southeast direction with a wind speed less than 04 kmph during morning hours. Smog/ moderate fog is likely in the morning. The wind speed will gradually increase thereafter becoming 06-08 kmph from southeast direction during afternoon. It will decrease becoming less than 04 kmph from southeast direction during evening and night. Smog/ shallow to moderate fog is likely in the evening/night.

**12.01.2025:** Generally cloudy sky. Very light rain/drizzle during morning hours. The predominant surface wind is likely to be from east direction with wind speed less than 04 kmph during morning hours. Smog/ moderate fog is likely in the morning. The wind speed will increase thereafter becoming 04-06 kmph from northeast direction during afternoon. It will gradually increase becoming less than 04 kmph from north 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 Wave/Severe Cold Wave 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 woollen 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 Cold Wave

- In **Jammu & Kashmir**, **Himachal Pradesh, Punjab, Haryana, Madhya Pradesh and Chhattisgarh,** apply light and frequent irrigation to the standing crops in the evening to protect them from low temperature stress or cold injuries. Use mulching and cover vegetable nurseries and young fruit plants with straw/polythene sheets to maintain optimum soil temperature.
- Provide mechanical support to horticultural crops and staking to vegetables.

**Livestock**

- 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 & abbreviations:**

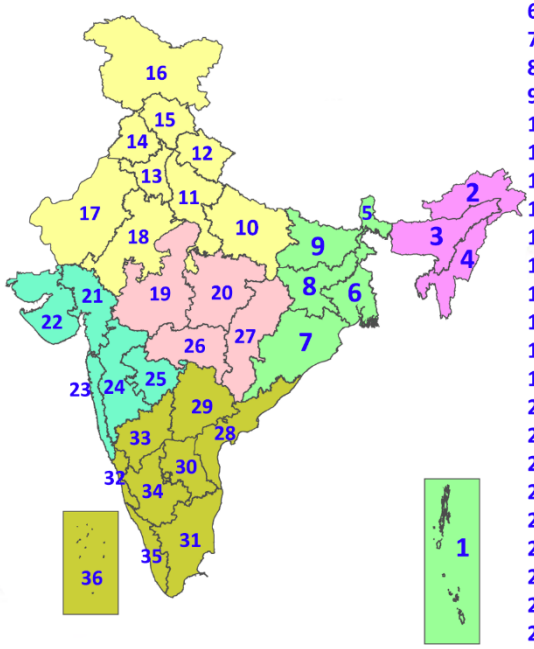
- **Heavy Rain:**64.5-115.5mm; **Very Heavy Rain:**115.6-204.4mm; **Extremely Heavy Rain:** >204.4mm.
- **Obsy:** Observatory; **AWS:** Automatic Weather Station; **ARG:** Automatic Rain Gauge; **dist:** District: **NH:** National Highway; **KVK**: Krishi Vigyan Kendra; **DVC:** Damodar Valley Corporation; **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.

राष्ट्रीय मौसम पूर्वानुमान केन्द्र
भारत मौसम विज्ञान विभाग
पृथ्वी विज्ञान मंत्रालय

National Weather Forecasting Centre
India Meteorological Department
Ministry of Earth Sciences

# 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 |

* 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 *<br>**Very Heavy:** 115.6 to 204.4 mm/cm*<br>**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**<br>**(a) Based on Departure from normal**<br>**Heat Wave:** Maximum Temperature Departure from normal 4.5° C to 6.4° C.<br>**Severe Heat Wave:** Maximum Temperature Departure from normal ≥6.5° C<br>**(b). Based on Actual maximum temperature**<br>**Heat Wave:** When actual maximum temperature ≥45°C.<br>**Severe Heat Wave:** When actual maximum temperature ≥47°C<br>**( c). Criteria for heat wave for coastal stations**<br>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**<br>**Warm Night:** When minimum temperature departure 4.5 °C to 6.4 °C.<br>**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.**<br>**(a). Based on departure**<br>**Cold Wave:** Minimum Temperature Departure from normal -4.5 °C to -6.4 °C.<br>**Severe Cold Wave:** Minimum Temperature Departure from normal ≤ -6.5 °C<br>**(b) Based on actual Minimum Temperature (for Plains only)**<br>**Cold Wave :** When Minimum Temperature is ≤ 4.0 °C<br>**Severe Cold Wave:** When Minimum Temperature is ≤ 2.0 °C<br>**( c) For Coastal Stations**<br>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**<br>**Based on departure**<br>**Cold Day:** Maximum Temperature Departure from normal -4.5 °C to -6.4 °C.<br>**Severe Cold Day:** Maximum Temperature Departure from normal ≤ -6.5 °C |
| **Fog** | **Phenomenon of small droplets suspended in air and the horizontal visibility < 1km**<br>**Moderate Fog:** When the visibility between 500-200 metres<br>**Dense Fog:** when the visibility between 50- 200 metres<br>**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**<br>Air temperature ≤4°C ( over Plains) |
| **Squall** | **A strong wind that rises suddenly, lasts for atleast 1 minute.**<br>**Moderate**: Wind speed 52-61 kmph<br>**Severe**: Wind speed 62-87 kmph<br>**Very Severe**: Wind speed >87 kmph |
| **Sea State** | **Effect of various waves in the sea over specific area**<br>**Rough to very rough**: Wind speed 41-62 kmph (22-33 knots) & Wave height 2.5-6 metre<br>**High to very high**: Wind speed 63-117 kmph ( 34-63 knots) & Wave height 6-14 metre<br>**Phenomenal**: Wind speed >117 kmph (>63 knots) & Wave height >14 metre |
| **Cyclone** | **Cyclonic Storm**: Wind speed 62-87 kmph (34-47 knots)<br>**Severe Cyclonic Storm**: Wind speed 88-117 kmph (48-63 knots)<br>**Very Severe Cyclonic Storm**: Wind speed 118-165 kmph (64 - 89 knots)<br>**Extremely Severe Cyclonic Storm**: Wind speed 166-220 kmph (90 -119 knots)<br>**Super Cyclone Strom**: Wind speed >220 kmph (>119 knots) |

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