



Government of India  
Ministry of Earth Sciences  
India Meteorological Department



Press Release

Date: 06<sup>th</sup> January, 2025

Time of Issue: 1300 hours IST

**Subject: (i) Dense to very dense fog conditions likely to continue over Indo-Gangetic plains during next 3-4 days.**

**(ii) Under the influence of Western disturbance and its interaction with easterly winds, wet spell likely over northwest India during 10<sup>th</sup> to 12<sup>th</sup> January, 2025.**

**i. Realised weather during past 24 hours till 0830 hours IST of today**

- ❖ Cold day to severe cold day conditions prevailed in some parts of East Uttar Pradesh.
- ❖ Dense to very dense fog (visibility < 50 m) reported in many parts of East Uttar Pradesh; in some parts of Punjab, West Uttar Pradesh and Bihar and in isolated pockets of Haryana, Gangetic West Bengal, East Madhya Pradesh, Odisha and dense fog (visibility 50-200 m) reported in isolated pockets of Uttarakhand.
- ❖ Visibility reported ( $\leq 200$  m) (in meter): **Punjab:** Amritsar & Ludhiana-0 each, Patiala-200; **Haryana:** Karnal-0, Bhiwani-200; **East Uttar Pradesh:** Varanasi, Fursatganj, Sultanpur & Lucknow-0 each; **West Uttar Pradesh:** Bareilly & Shahjahanpur-0 each, Meerut & Jhansi-200 each; **Bihar:** Patna & Bhagalpur-0 each; **East Madhya Pradesh:** Rewa & Satna-0 each, Damoh & Khajuraho-200 each; **West Bengal:** Haldia-0, Kolkata-50, Diamond Harbour-200; **Uttarakhand:** Pantnagar-50.

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

- ❖ 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. 71°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
  - ✓ Isolated to fairly widespread light rainfall very likely over Western Himalayan Region on 06<sup>th</sup> January.
  - ✓ Isolated rainfall accompanied with thunderstorm & hailstorm activity over Uttarakhand and northwest Uttar Pradesh on 06<sup>th</sup> January.
  - ✓ Light to moderate rainfall at many places accompanied with thunderstorm activity at isolated places likely over Northeastern states on 07<sup>th</sup> & 08<sup>th</sup> January. Isolated hailstorm also likely over Arunachal Pradesh and Assam on 07<sup>th</sup> January.
  - ✓ Isolated rainfall accompanied with thunderstorm & hailstorm activity over Sikkim on 07<sup>th</sup> January.
- ❖ A fresh Western Disturbance and its interaction with easterly winds, likely to affect Northwest India from 10<sup>th</sup>-12<sup>th</sup> 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.

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

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

- ❖ 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°C over many parts of Central India, by 1-3°C over some parts of Haryana, Uttar Pradesh, Maharashtra and East India. There has been fall in minimum temperatures by 2-5°C over some parts of Gujarat and by 1-3°C over some parts of Rajasthan.
- ❖ Minimum Temperature Departures (as on 06-01-2025): Minimum temperatures are 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 are **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). Today, the **lowest minimum temperature of 6.1°C** is reported at **Jaisalmer (West Rajasthan)** over the plains of the country.

#### 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 during 06<sup>th</sup>-08<sup>th</sup> January. **Cold day** conditions very likely in isolated pockets of Uttar Pradesh on 09<sup>th</sup>; Rajasthan on 06<sup>th</sup> & 07<sup>th</sup> 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 06<sup>th</sup>-09<sup>th</sup>; Punjab, Haryana & Chandigarh during 06<sup>th</sup>-08<sup>th</sup>; Odisha on 06<sup>th</sup> & 07<sup>th</sup>; Bihar on 06<sup>th</sup>; **Dense fog conditions** to prevail during night/early morning hours in some parts of Punjab, Haryana & Chandigarh on 09<sup>th</sup>; in isolated pockets of Himachal Pradesh during 06<sup>th</sup>-08<sup>th</sup>; Rajasthan, Jharkhand, Gangetic West Bengal on 06<sup>th</sup>, Sub-Himalaya West Bengal & Sikkim on 06<sup>th</sup> & 07<sup>th</sup>; Assam & Meghalaya & Nagaland, Manipur, Mizoram & Tripura on 09<sup>th</sup> & 10<sup>th</sup> January.

#### Fishermen Warnings (Annexure IV):

Fishermen are advised not to venture into along and off Somalia coast, western parts of southwest Arabian sea, over Comorin area and adjoining gulf of Mannar on 06<sup>th</sup> & 07<sup>th</sup> January.

### iii. Weather conditions and forecast over Delhi/NCR during 06<sup>th</sup> Jan. to 09<sup>th</sup> Jan. 2025 (Annexure V)

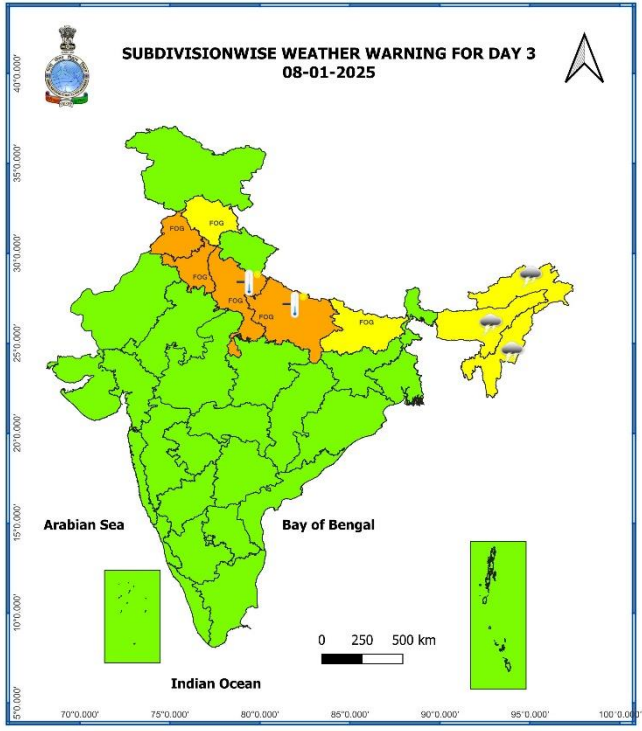
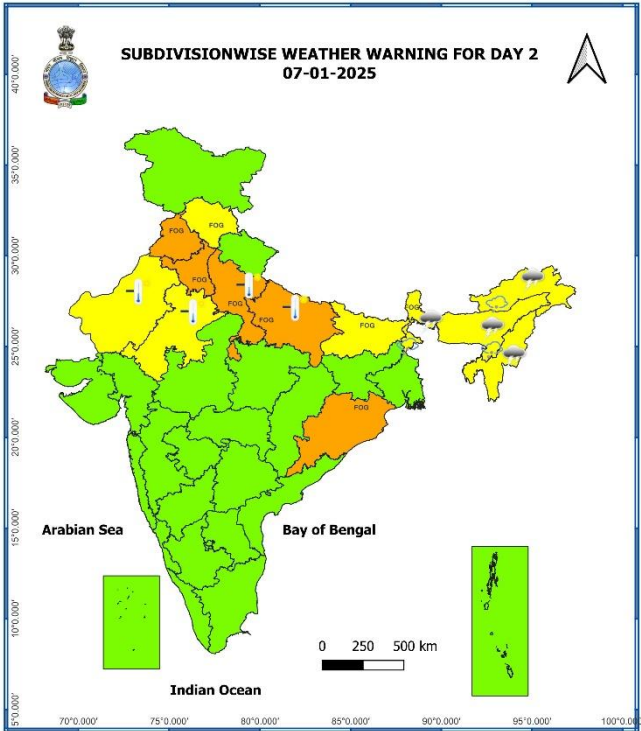
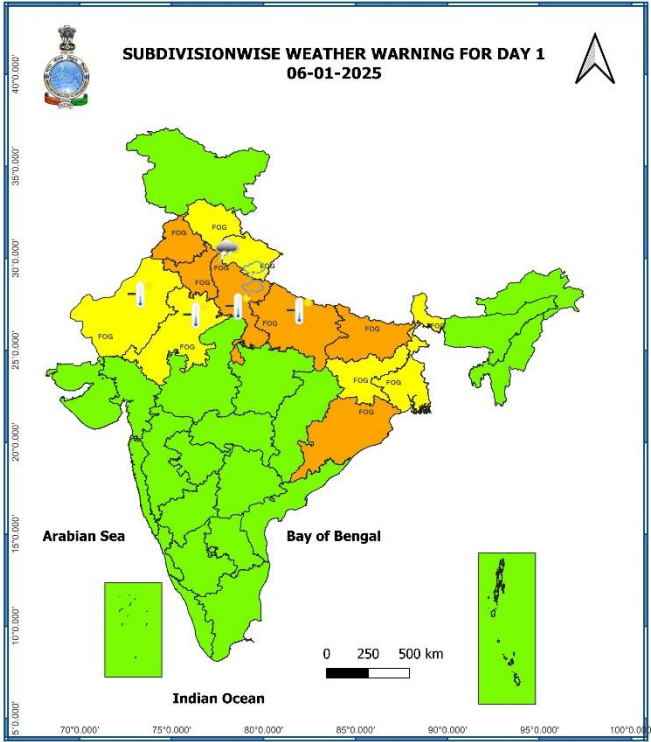
For more details, kindly refer National Weather Bulletin:

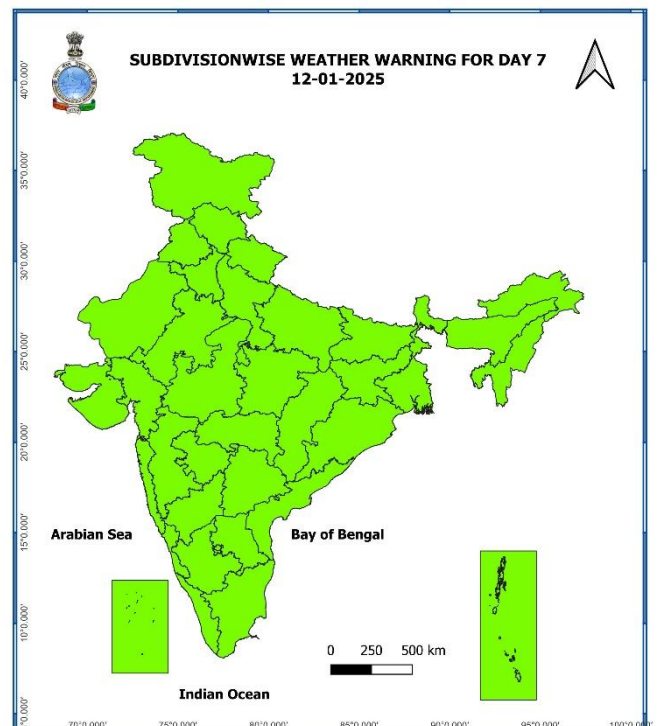
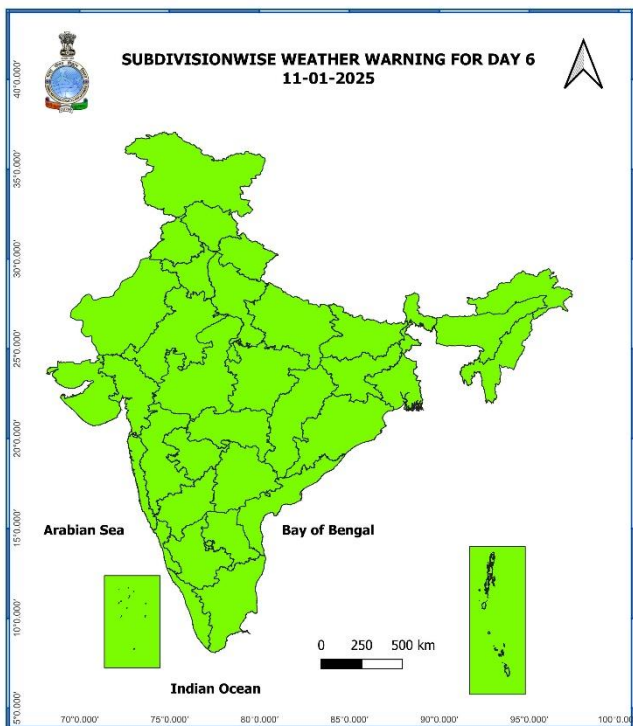
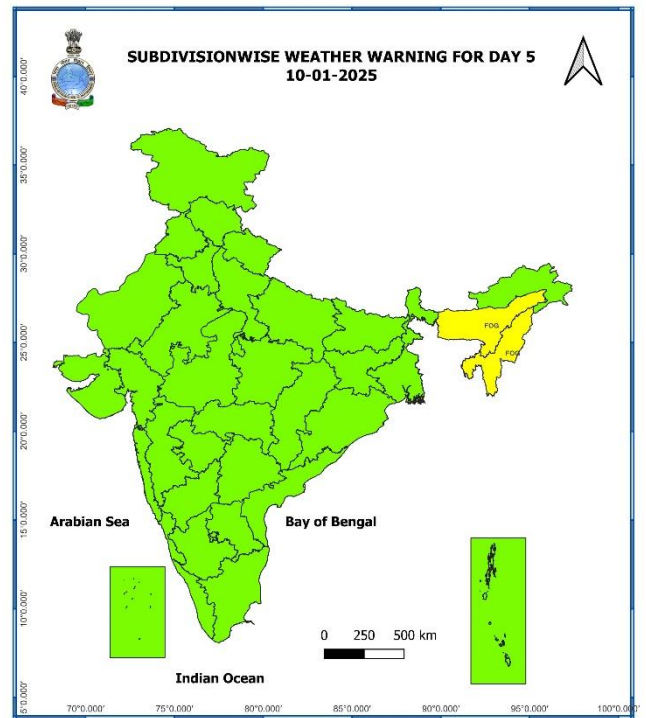
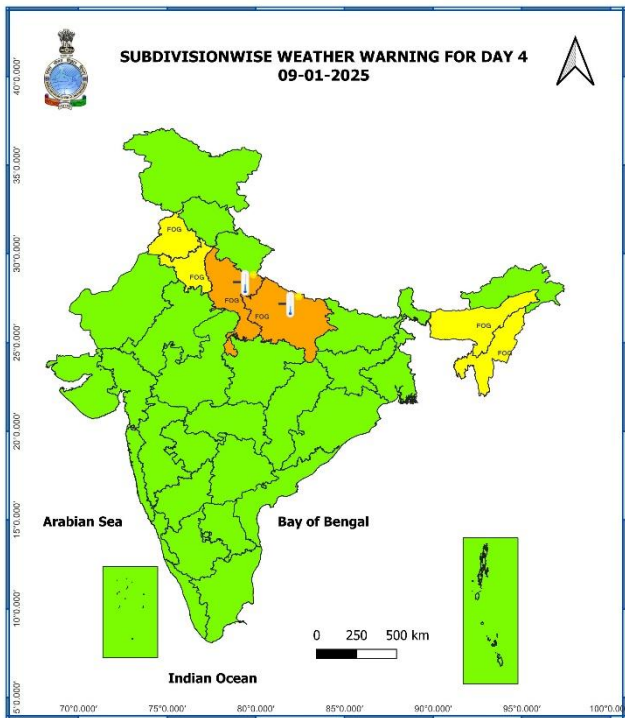
[https://mausam.imd.gov.in/responsive/all\\_india\\_forecast\\_bulletin.php](https://mausam.imd.gov.in/responsive/all_india_forecast_bulletin.php)

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

7 Days Rainfall Forecast								
S. No.	Subdivision	06-Jan	07-Jan	08-Jan	09-Jan	10-Jan	11-Jan	12-Jan
		Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
1	ANDAMAN & NICOBAR ISLANDS	SCT	SCT	SCT	ISOL	ISOL	SCT	SCT
2	ARUNACHAL PRADESH	ISOL	FWS	FWS	ISOL	DRY	DRY	ISOL
3	ASSAM & MEGHALAYA	DRY	SCT	SCT	ISOL	DRY	DRY	DRY
4	NAGALAND, MANIPUR, MIZORAM & TRIPURA	DRY	SCT	ISOL	DRY	DRY	DRY	DRY
5	SUB-HIMALAYAN WEST BENGAL & SIKKIM	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL	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	DRY	DRY	DRY	DRY
10	EAST UTTAR PRADESH	DRY	DRY	DRY	DRY	DRY	ISOL	SCT
11	WEST UTTAR PRADESH	ISOL	DRY	DRY	DRY	DRY	SCT	SCT
12	UTTARAKHAND	ISOL	ISOL	DRY	DRY	DRY	SCT	FWS
13	HARYANA CHANDIGARH & DELHI	ISOL	DRY	DRY	DRY	ISOL	SCT	SCT
14	PUNJAB	ISOL	DRY	DRY	DRY	ISOL	SCT	SCT
15	HIMACHAL PRADESH	ISOL	DRY	DRY	DRY	ISOL	ISOL	DRY
16	JAMMU & KASHMIR AND LADAKH	FWS	DRY	DRY	DRY	DRY	ISOL	ISOL
17	WEST RAJASTHAN	DRY	DRY	DRY	DRY	ISOL	ISOL	SCT
18	EAST RAJASTHAN	DRY	DRY	DRY	DRY	ISOL	ISOL	DRY
19	WEST MADHYA PRADESH	DRY	DRY	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	ISOL	DRY	DRY
24	MADHYA MAHARASHTRA	DRY	DRY	DRY	DRY	DRY	ISOL	ISOL
25	MARATHAWADA	ISOL	DRY	DRY	DRY	DRY	DRY	ISOL
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	ISOL	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	ISOL	ISOL	ISOL	ISOL
36	LAKSHADWEEP	SCT	DRY	DRY	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

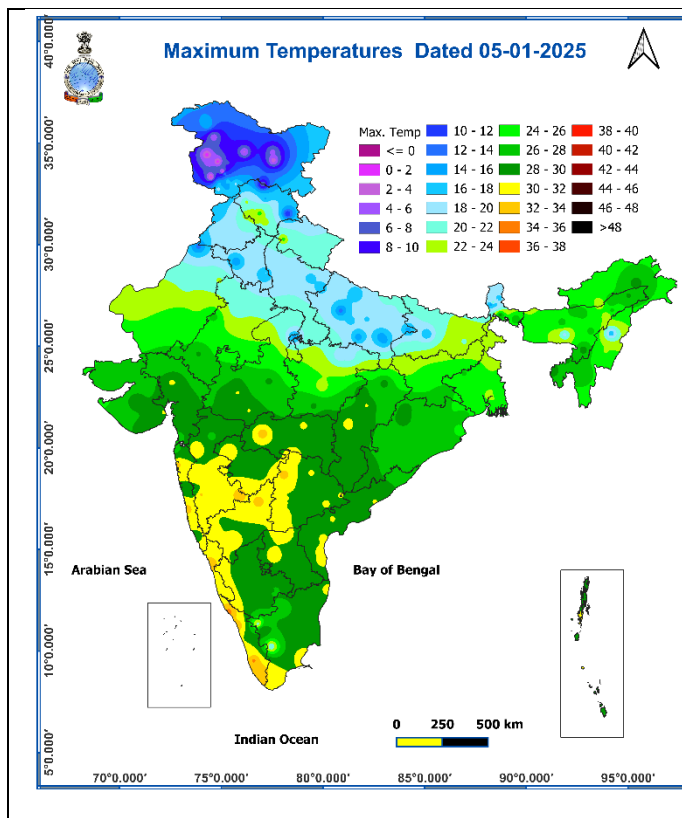


Fig. 2: Departure of Maximum Temperatures

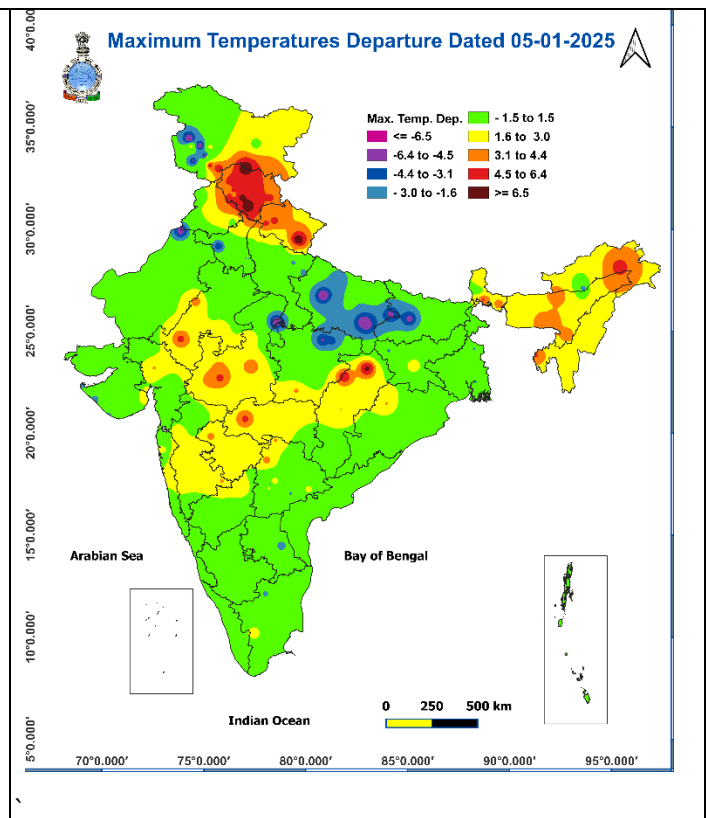


Fig. 3: Minimum Temperatures

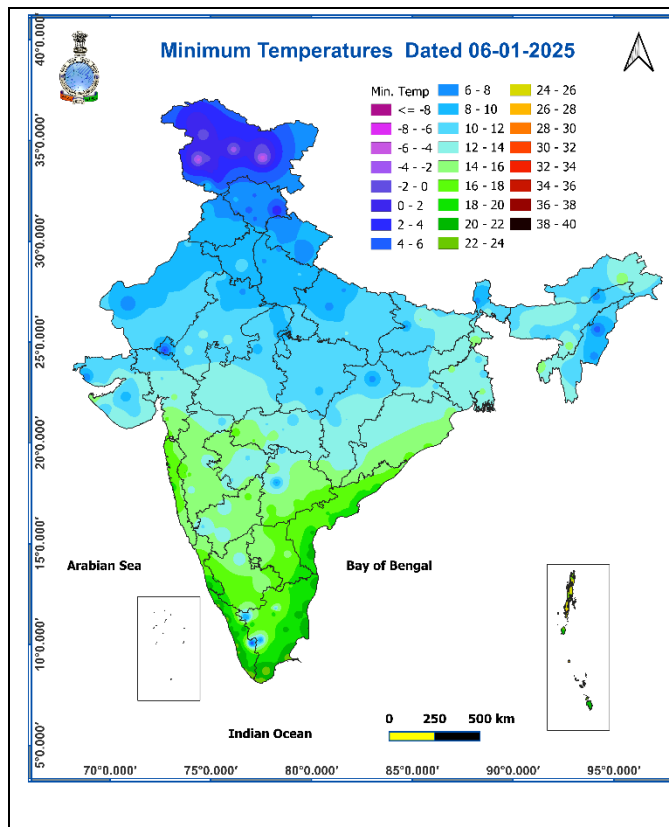
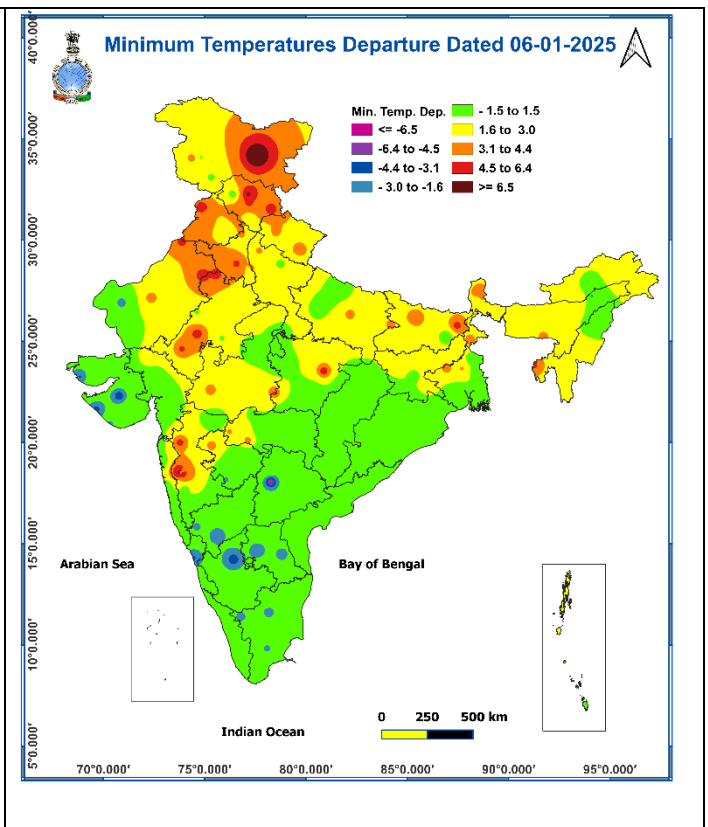
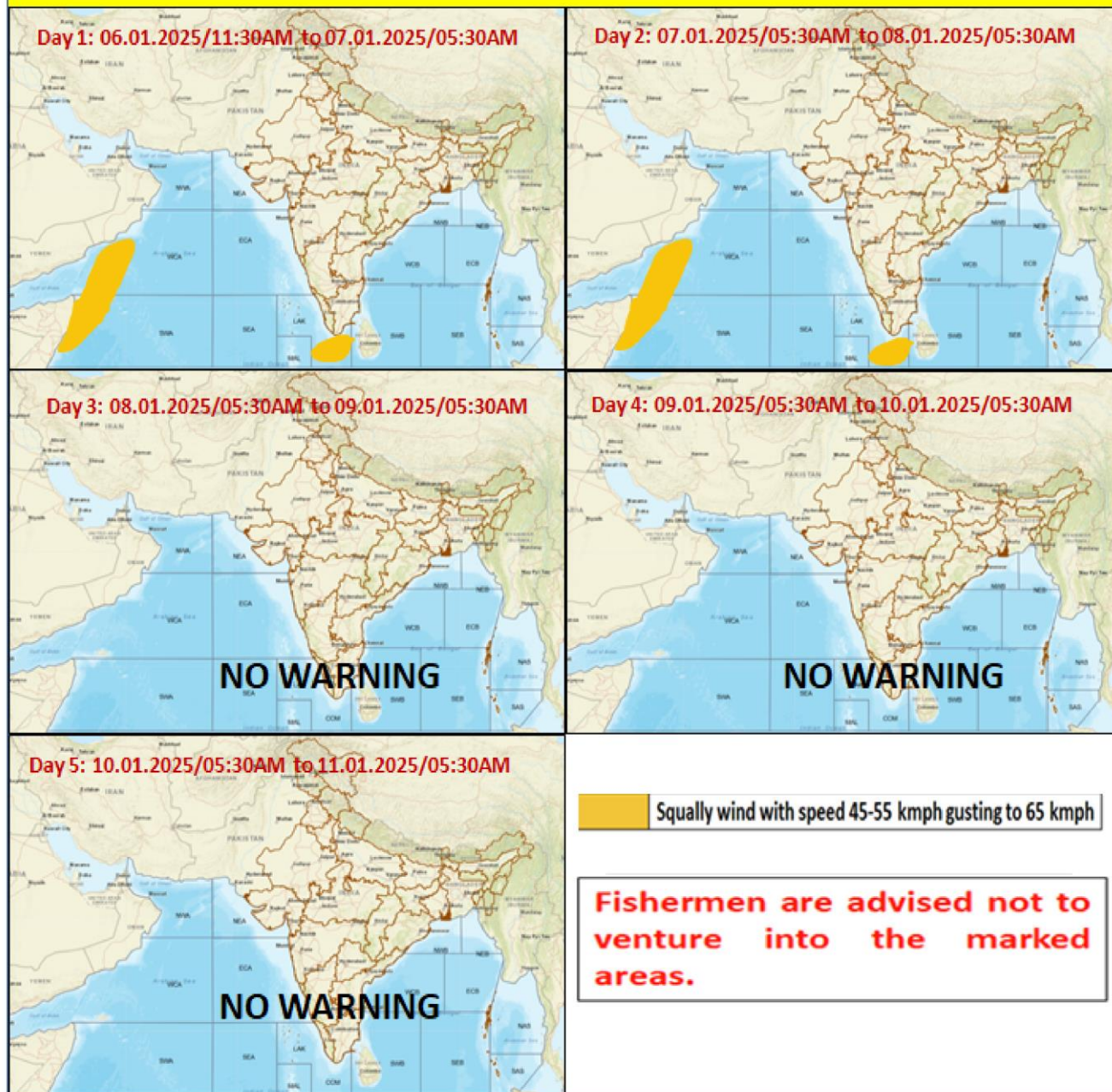


Fig. 4: Departure of Minimum Temperatures



### Fishermen Warning Graphics



**Weather forecast over Delhi/NCR during 06<sup>th</sup> to 09<sup>th</sup> Jan. 2025****Past Weather:**

There has been a slight rise in minimum temperature and fall in maximum temperature upto 01°C over Delhi/NCR during past 24hr. The Maximum and Minimum temperatures over Delhi are in the range of 17 to 19°C and 9 to 10°C respectively. The minimum temperature was above normal upto 03°C and the maximum temperature was below normal upto 04°C over most places. Moderate fog was reported at Palam airport. Palam airport recorded the lowest visibility 200 m from 0200 hours to 0430 hours IST which improved thereafter becoming 300m at 0500 hours IST. Safdarjung airport recorded the lowest visibility 300 m at 0530 hours IST which improved thereafter becoming 450 m at 0700 hours IST. Mainly clear sky conditions with predominant surface wind from the southeast direction with wind speed reaching 08 to 12 kmph prevailed during past 24hr. Mainly smog/mist conditions with wind speed less than 10 kmph variable direction prevailed over the region in the forenoon today.

**Weather Forecast:**

**06.01.2024:** Generally cloudy sky. Very light to light rain accompanied with thunderstorm. The predominant surface wind will likely be in the southeast direction with a wind speed of less than 08 kmph till evening. It would decrease thereafter becoming less than 04 kmph from the northwest direction during the night. Smog/shallow to moderate fog is likely in the evening/night.

**07.01.2025:** Mainly clear sky. The predominant surface wind is likely to be from the northwest direction with a speed of less than 06 kmph during morning hours. Smog/ moderate fog at most of the places and dense fog at isolated places is likely in the morning. The wind speed will gradually increase becoming 08-12 kmph from the northwest direction during the afternoon. It will decrease thereafter becoming less than 06 kmph from the northwest direction during evening and night. Smog/shallow fog is likely in the evening/night.

**08.01.2025:** Mainly clear sky. The predominant surface wind is likely to be from the northwest direction with a wind speed less than 06 kmph during morning hours. Smog/ moderate fog at most of the places and dense fog at isolated places is likely in the morning. The wind speed will again decrease thereafter becoming 04-06 kmph from northwest direction during afternoon. It will gradually decrease becoming less than 04 kmph from northwest direction during evening and night. Smog/ shallow to moderate fog is likely in the evening/night.

**09.01.2025:** Mainly clear sky. The predominant surface wind is likely to be from northwest direction with wind speed less than 02 kmph during morning hours. Smog/moderate fog in most of the places and dense fog at isolated places is likely in the morning. The wind speed will increase thereafter becoming 02-04 kmph from northwest direction during afternoon. It will gradually decrease becoming less than 04 kmph from northwest direction during evening and night. Smog/ shallow to moderate 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/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 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 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

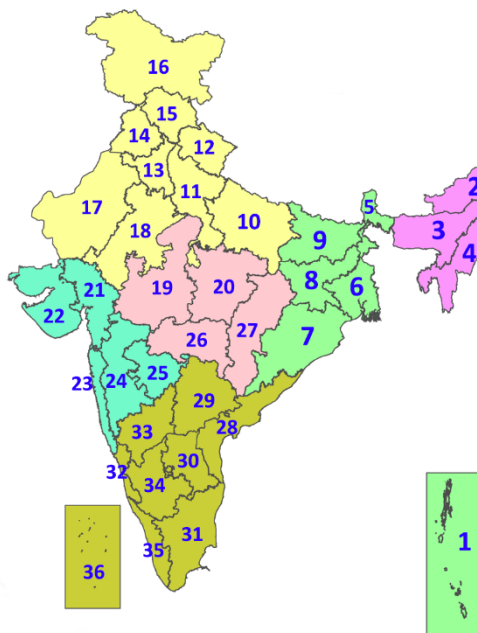
- Keep the animals inside the shed during heavy rainfall period and provide them balanced feed. Store feed and fodder in a safe place to prevent spoilage.
- To protect from cold, keep cattle inside the sheds during night and provide dry bedding. Also keep the chicks warm by providing artificial light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

### Legends & 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  $4.5^{\circ}\text{C}$  to  $6.4^{\circ}\text{C}$ .

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  $40^{\circ}\text{C}$

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

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  $-4.5^{\circ}\text{C}$  to  $-6.4^{\circ}\text{C}$ .

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  $-4.5^{\circ}\text{C}$  to  $-6.4^{\circ}\text{C}$ .

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 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  
(Service to the Nation since 1875)