



Government of India  
Ministry of Earth Sciences  
India Meteorological Department



Press Release

Date: 13<sup>th</sup> January 2026

Time of Issue: 1320 hours IST

**Subject: (i) Cold wave to Severe Cold wave conditions very likely to continue over Himachal Pradesh, Punjab, Haryana, Delhi, Rajasthan, Jharkhand and Odisha during next 2-3 days and abate thereafter.**

**(ii) Dense fog conditions very likely to continue during morning hours over northwest India and Bihar during next 5-6 days.**

**(iii) Cold day conditions very likely in isolated pockets of Uttarakhand and West Uttar Pradesh during next 2 days.**

**(iv) Conditions are becoming favourable for cessation of Northeast monsoon rains over Tamilnadu, Puducherry & Karaikal, Kerala & Mahe and adjoining areas of Coastal Andhra Pradesh & Yanam, Rayalaseema and South Interior Karnataka during next 3 days.**

**Realised weather during past 24 hours ending at 0830 hours IST of today, the 13<sup>th</sup> January, 2026:**

- ❖ **Dense to very Dense fog (visibility <50 m) conditions** prevailed in many parts of Punjab; in some parts of Uttarakhand, Haryana, West Uttar Pradesh; in isolated pockets of Jammu-Kashmir, Chandigarh; **dense fog (visibility 50-199 m)** conditions prevailed in isolated pockets of Odisha.
- ❖ **Visibility reported (in meters ≤200 m): Jammu-Kashmir:** Udhampur 0; **Uttarakhand:** Pantnagar 0m, Laksar 50m, Bhagwanpur 50m, Kashipur 50m, Khatima 75m, Roshnabad 100m, Roorkee 100m, Haridwar 100m; **Punjab:** Amritsar 0m, Ludhiana 20m, Bathinda(<50m), Faridkot(<50m), Ballowal Saunkri 10m; Patiala 40m, Gurdaspur 100m; **Haryana & Chandigarh:** Ambala 0m; Hisar 20m, Karnal 20m, Bhiwani 05m; Chandigarh 40m; **West Uttar Pradesh:** Bareilly IAF, Hindon IAF & Sarsawa(IAF) 0m, Meerut 30m, AMS Moradabad, Muzaffarnagar & Najibabad 50m each, Bareilly 100m; **Odisha:** Rourkela 100m.
- ❖ **Cold wave to severe cold wave conditions** prevailed in many parts of Punjab & Haryana; in some parts of Himachal Pradesh; in isolated pockets of East Rajasthan and **Cold wave conditions** in isolated pockets of Uttar Pradesh and West Rajasthan.
- ❖ **Cold day conditions** prevailed in isolated pockets of Uttarakhand.
- ❖ **Ground frost conditions** have been recorded in isolated pockets over Uttarakhand.
- ❖ **Heavy to very heavy rainfall (7-20 cm)** has been recorded at isolated places over Tamil Nadu.

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

- ❖ **Minimum temperatures** were **below 0°C** at many places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad; **1-5°C** at many places over Himachal Pradesh Punjab, Haryana, Chandigarh, Delhi, some places over Uttarakhand, West Rajasthan and isolated places over West Uttar Pradesh; **5°-10°C** at many places over East Uttar Pradesh, east Rajasthan, Madhya Pradesh; at a few places over Bihar; at isolated places over West Bengal, Assam & Meghalaya, Jharkhand, north Chhattisgarh and Odisha.
- ❖ Minimum Temperatures were below normal (-3°C to -6°C) over Jammu-Kashmir, Punjab, Haryana, Chandigarh & Delhi, West Uttar Pradesh, Rajasthan, Chhattisgarh, Odisha, Saurashtra & Kutch and near normal over rest parts of the country. **(refer to ANNEXURE IV)**
- ❖ The **lowest minimum temperature** of 0°C was observed at Ballowal Saunkri (**Punjab**) over the plains of India.

**Weather Systems, Forecast and Warnings (refer to ANNEXURE I & II):**

- ❖ **An upper air cyclonic circulation** lies over Gulf of Mannar & neighbourhood in lower tropospheric levels.

- ❖ The **Western Disturbance** as a cyclonic circulation over Himachal Pradesh and neighbourhood in lower tropospheric levels.
- ❖ An **upper air cyclonic circulation** lies over northwest Uttar Pradesh in lower tropospheric levels.
- ❖ **Subtropical westerly Jet Stream** with core winds of the order of 100 knots at 12.6 km above mean sea level continues to prevail over north India.
- ❖ A **trough** in middle and upper tropospheric westerlies runs roughly between Long. 60°E/Lat. 27°N and Long. 60°E/Lat. 15°N.
- ❖ A fresh **Western disturbance** is likely to affect Western Himalayan region from the night of 15<sup>th</sup> January, 2026.

#### **Under the influence of above system, the following weather is likely:**

- ❖ Light/moderate scattered to fairly widespread rainfall/snowfall likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh and Uttarakhand during 16<sup>th</sup>-19<sup>th</sup> January and isolated rainfall over Punjab, Haryana, Chandigarh and West Uttar Pradesh on 18<sup>th</sup> & 19<sup>th</sup> January.
- ❖ Light/moderate rainfall at isolated places accompanied with thunderstorm, lightning likely over Tamil Nadu and Kerala & Mahe on 13<sup>th</sup> January.

#### **Forecast of minimum temperatures:**

- ❖ No significant change in minimum temperatures likely over northwest India during next 48 hours and gradual rise by 3-5°C during subsequent 5 days.
- ❖ No significant change in minimum temperatures likely over Maharashtra during next 24 hours; gradual fall by 2-3°C during next 3 days and thereafter gradual rise by 2-3°C during subsequent 3 days.
- ❖ No significant change in minimum temperatures likely over Gujarat State during next 48 hours and gradual rise by 2-3°C during subsequent 2 days and no significant change thereafter.
- ❖ No significant change in minimum temperatures likely over rest parts of the country.

#### **Dense Fog, Cold day & Cold wave Warnings:**

- ❖ **Dense to very dense fog** conditions very likely to prevail in morning hours in some parts over Haryana, Chandigarh & Delhi and Punjab till 15<sup>th</sup> and **Dense fog** in isolated pockets till 20<sup>th</sup> January 2026.
- ❖ **Dense to very dense fog** conditions very likely to prevail in morning hours in isolated/some parts over West Uttar Pradesh till 19<sup>th</sup>; **Dense fog** in isolated pockets on 20<sup>th</sup> January 2026.
- ❖ **Dense to very dense fog** conditions very likely to prevail in morning hours in some/many parts over East Uttar Pradesh during 17<sup>th</sup>-20<sup>th</sup>; **Dense fog** in isolated pockets on 15<sup>th</sup> & 16<sup>th</sup> January 2026.
- ❖ **Dense fog** conditions also likely during morning hours in isolated pockets over Jammu division, Himachal Pradesh till 16<sup>th</sup>; Uttarakhand till 18<sup>th</sup>; Bihar till 17<sup>th</sup>; Odisha till 16<sup>th</sup>; Sub-Himalayan West Bengal & Sikkim during 16<sup>th</sup>-18<sup>th</sup>; Gangetic West Bengal on 17<sup>th</sup> & 18<sup>th</sup>; Assam & Meghalaya on 15<sup>th</sup> & 16<sup>th</sup> January.
- ❖ **Cold day** conditions very likely in isolated pockets of Uttarakhand on 13<sup>th</sup> & 14<sup>th</sup>; West Uttar Pradesh on 13<sup>th</sup> January.
- ❖ **Cold wave to Severe Cold wave** conditions very likely in some/many parts of Punjab, Haryana, Chandigarh on 14<sup>th</sup> & 15<sup>th</sup> and **Cold wave conditions** in isolated pockets on 16<sup>th</sup> January.
- ❖ **Cold wave conditions** very likely in isolated pockets over Himachal Pradesh & Rajasthan on 14<sup>th</sup> & 15<sup>th</sup>; West Uttar Pradesh on 14<sup>th</sup>; Jharkhand & Odisha during 14<sup>th</sup>-16<sup>th</sup> January.

#### **Ground frost Warning:**

- ❖ **Ground frost conditions** very likely in isolated pockets over Uttarakhand on 13<sup>th</sup> & 14<sup>th</sup> and West Uttar Pradesh on 13<sup>th</sup> January, 2026.

#### **Fishermen Warning:**

Fishermen are advised not to venture into the following areas during 13<sup>th</sup> January to 18<sup>th</sup> January, 2026:

##### ➤ **Bay of Bengal:**

Over Gulf of Mannar on 13<sup>th</sup> January; over some parts of Comorin area on 13<sup>th</sup> & 14<sup>th</sup> January.

#### **Weather conditions and forecast over Delhi/NCR during 13<sup>th</sup> -16<sup>th</sup> January, 2026 (ANNEXURE III) For more details, kindly refer National Weather Bulletin:**

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

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

For Fishermen warning refer <https://rsmcnewdelhi.imd.gov.in/fishermen-warning.php>

**Significant rainfall recorded (in cm) (from 0830 hours IST of yesterday to 0830 hours IST of today):**

**Tamil NaduPuducherry & Karaikal:** Velankanni (dist Nagapattinam) 13; Tirupoondi (dist Nagapattinam), Thirukuvalai (dist Nagapattinam) 10 Each; Mayiladuthurai (dist Mayiladuthurai), Sirkali (dist Mayiladuthurai), Vedaranyam (dist Nagapattinam), Karaikal (dist Karaikal), Sembanarkoil PWD (dist Mayiladuthurai) 8 Each; Mayiladuthurai AWS (dist Mayiladuthurai), Vedharanyam AWS (dist Nagapattinam), Kollidam (dist Mayiladuthurai), Tarangambadi (dist Mayiladuthurai), Thalaignayer (dist Nagapattinam) 7 Each.

**ANNEXURE I**

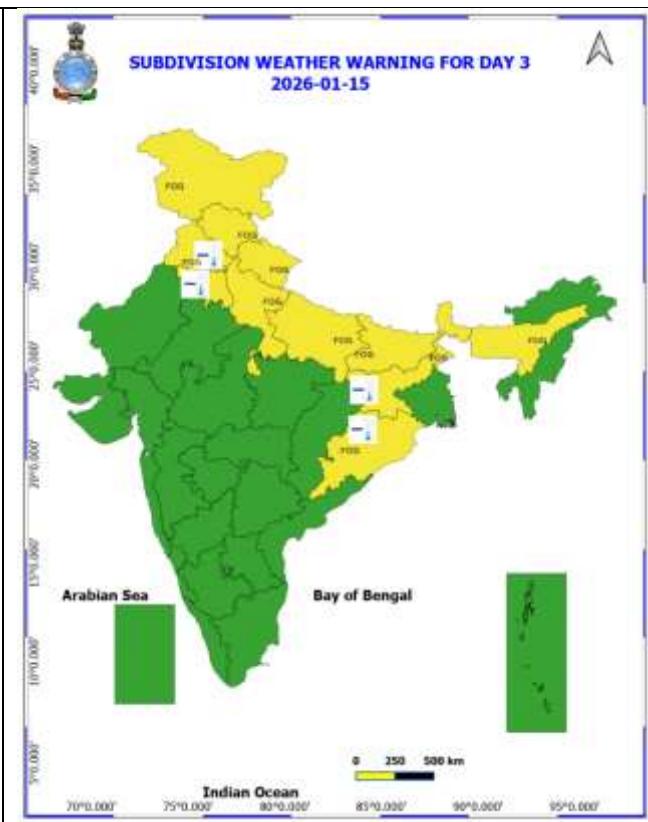
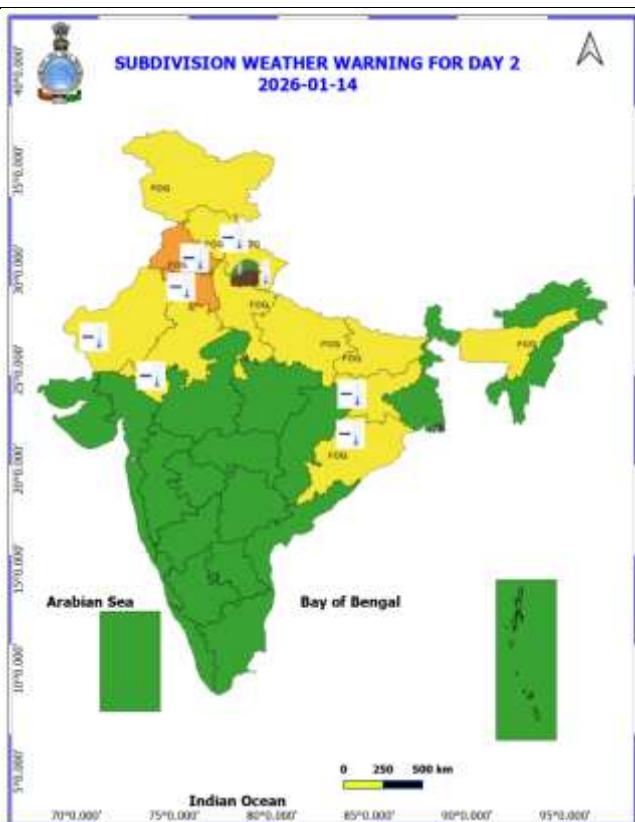
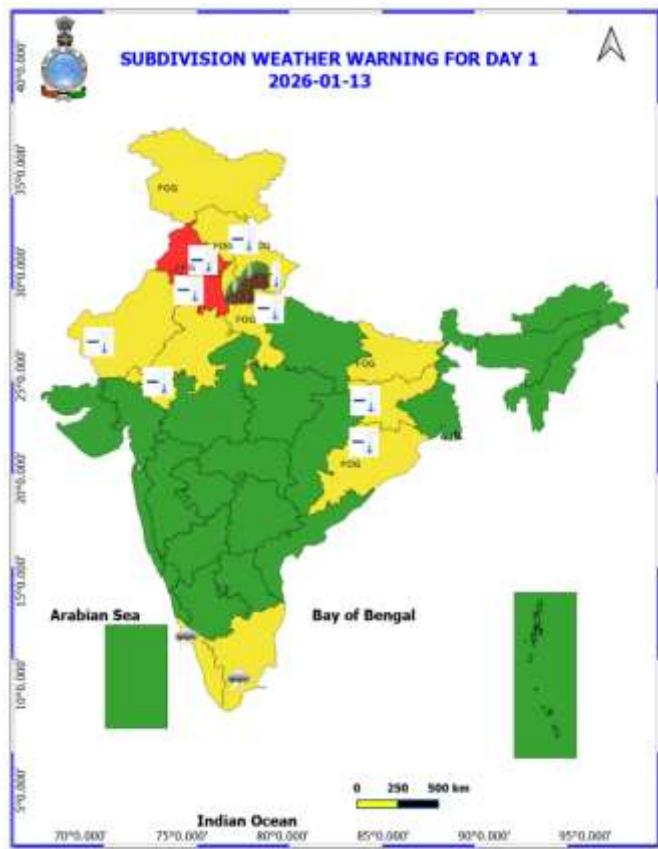
**Table-1**

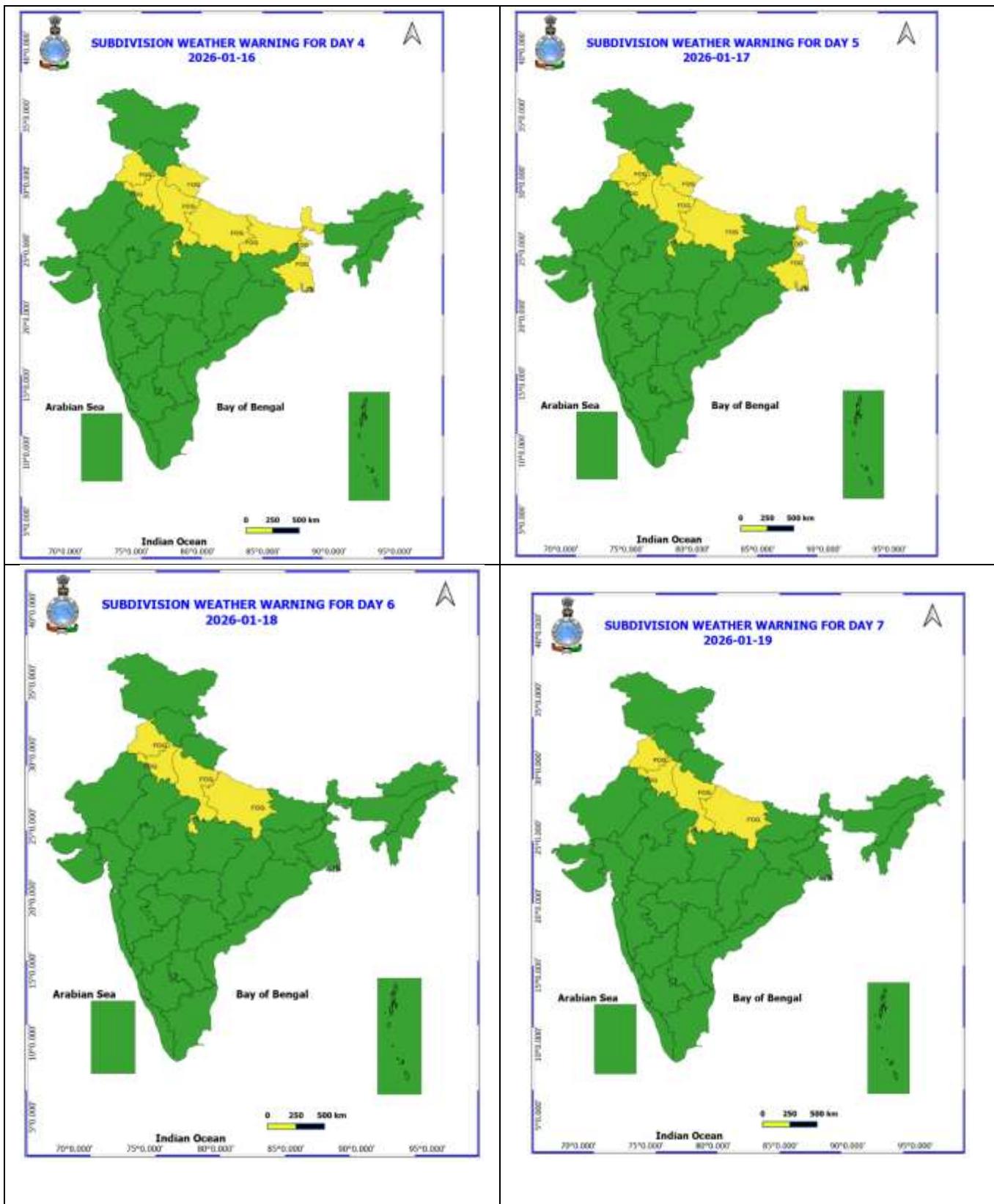
**7 Days Rainfall Forecast**

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

- As the lead period increases forecast accuracy decrease.

## ANNEXURE II





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

Detailed districtwise Multi Hazard weather warning for next five days available at  
<https://mausam.imd.gov.in/responsive/districtWiseWarningGIS.php>

## Weather forecast over Delhi/NCR during 13<sup>th</sup> to 16<sup>th</sup> January 2026

### Past Weather:

There has been no large change in the minimum temperature and rise in the maximum temperature by 1-2°C during the past 24 hours over Delhi. The maximum temperatures over Delhi were around 16 to 20°C and the minimum temperatures are around 03-04°C, respectively. The minimum temperatures are appreciably below normal (-3.1 to -5.0) at many places and below normal (-1.6 to -3.0°C) at isolated places over Delhi. The maximum temperatures are appreciably below normal (-3.1 to -5.0) at isolated places, above normal (1.6 to 3.0) at isolated places and normal (-1.5°C to 1.5°C) over remaining parts of Delhi. Cold wave conditions have been realized at many places over Delhi. Safdarjung airport reported lowest visibility 600m from 0800 IST to 0830 IST which thereafter improved to 700m from 0900 IST onwards. Palam airport reported lowest visibility 600m from 0730 IST to 0830 IST which thereafter improved to 700m from 0900 IST of today, 09-01-2026. Mainly clear sky conditions with predominant surface wind from the northwest directions with a wind speed up to 08 kmph prevailed during the past 24 hours. Partly cloudy sky conditions associated with calm wind reaching upto 05 kmph from the west direction prevailed over the region in the forenoon today.

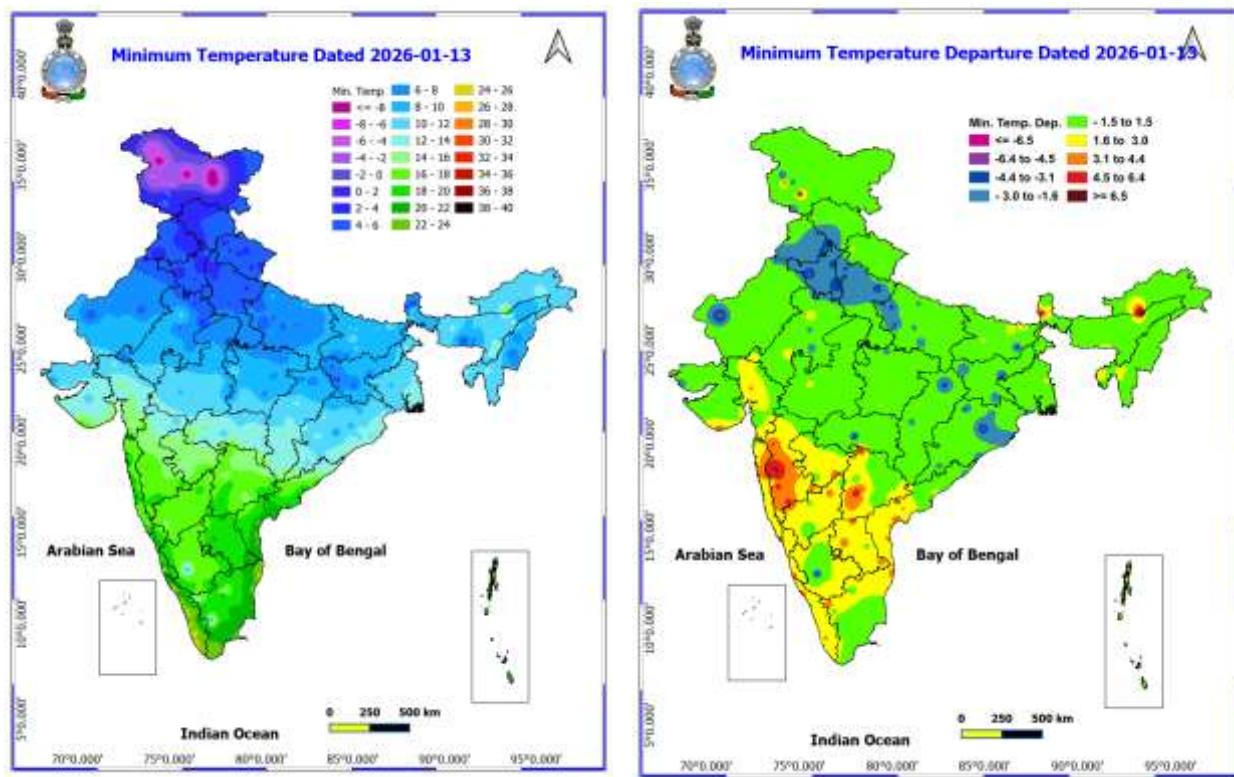
### Weather Forecast:

**13.01.2026:** Partly cloudy sky. Mist/Haze during night. The maximum temperatures are likely to be in the range of 19°C to 21°C. The maximum temperatures will be near normal over Delhi. The predominant surface wind is likely to be from the northwest direction with wind speeds less than 10kmph during the afternoon hours. The wind speed will decrease, becoming less than 08 kmph from the west direction during the evening and night.

**14.01.2026:** Mainly clear sky. Cold wave conditions at few places. Shallow to Moderate fog during morning hours. The maximum and minimum temperatures over Delhi are likely to be in the range of 19°C to 21°C and 03°C to 05°C respectively. The minimum temperatures will be appreciably below normal (-3.1 to -5.0) at many places & below normal (-1.6 to -3.0°C) at isolated places and the maximum temperatures will near normal over Delhi. The predominant surface wind is likely to be from the west direction with wind speed less than 10kmph during the morning hours. The wind speed will increase becoming 12kmph from the northwest direction in the afternoon. The wind speed will decrease up to 10kmph from west direction during the evening and night.

**15.01.2026:** Partly cloudy sky. Shallow to Moderate fog during morning hours. The maximum and minimum temperatures over Delhi are likely to be in the range of 20°C to 22°C and 04°C to 06°C respectively. The minimum will below normal (-1.6°C to -3.0°C) and the maximum temperatures will above normal (1.6°C to 3.0°C) over Delhi. The predominant surface wind is likely to be from the west direction with wind speed less than 10kmph during the morning hours. The wind speed will increase becoming 15kmph from the northwest direction in the afternoon. The wind speed will decrease up to 5kmph from west direction during the evening and night.

**16.01.2026:** Partly cloudy sky. Shallow to Moderate fog during morning hours. The maximum and minimum temperatures over Delhi are likely to be in the ranges of 21°C to 23°C and 06°C to 08°C respectively. The minimum temperatures will below normal (-1.6°C to -3.0°C) and the maximum temperatures will above normal (1.6°C to 3.0°C) over Delhi. The predominant surface wind is likely to be from the west direction with wind speed up to 10 kmph during the morning hours. The wind speed is likely to be from the northwest direction with wind reaching up to 15 kmph during afternoon hours. The wind speed will decrease gradually becoming less than 05 kmph from the northwest direction during evening and night.



Reported minimum temperature ( $\leq 5^{\circ}\text{C}$ ) at 0830 hrs IST of the 13<sup>th</sup> January 2026.

Station	State	Temperature
Ballowal Saunkri	Punjab	0.0
Hisar	Haryana	1.5
Karnal	Haryana	2.0
Muzaffarnagar	Uttar Pradesh	2.1
Chandigarh	Haryana	2.8
Meerut	Uttar Pradesh	2.9
Patiala	Punjab	3.0
Safdarjung	Delhi	3.0
Bareilly	Uttar Pradesh	3.0
Ayanagar	Delhi	3.2
Alwar	Rajasthan	3.2
Ganganagar	Rajasthan	3.6
Rohtak	Haryana	3.8
Palam	Delhi	4.0
Jaisalmer	Rajasthan	4.4
Najibabad	Uttar Pradesh	4.5
Ambikapur	Chhattisgarh	4.9
Bulandshahr	Uttar Pradesh	5.0

**Impact expected due to dense/very dense fog in the morning hours:** Dense fog conditions very likely to continue during morning hours over northwest India and Bihar during next 5-6 days.

❖ **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 conditions:** Cold wave to Severe Cold wave conditions very likely to continue over Himachal Pradesh, Punjab, Haryana, Delhi, Rajasthan, Jharkhand and Odisha during next 2-3 days and abate thereafter.

- ❖ 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.

**Impact expected due to Cold Day conditions:** Cold day conditions very likely in isolated pockets of Uttarakhand and West Uttar Pradesh during next 2 days.

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

**Action suggested:**

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

**Agromet advisories for likely impact of Cold Waves/ Ground Frost/ Low Temperatures**

- In **Himachal Pradesh, Uttarakhand, Punjab, Haryana, West Uttar Pradesh, Rajasthan, Odisha and Jharkhand**, apply light and frequent irrigation to the standing crops in the evening hours to protect crops from low temperature stress or cold injury. Use mulching and cover the vegetable nurseries and young fruit plants with straw / polythene sheets to maintain optimum soil temperature.

**Livestock / Poultry**

- Keep the cattle in the sheds during night and provide dry bedding to protect them from cold.
- Keep the chicks warm by providing artificial light in the poultry sheds.

**Agromet advisories for likely impact of Thunderstorm / Gusty Winds**

- Provide mechanical support to horticultural crops and staking or support to vegetables and young fruit plants / fruit-bearing plants to avoid lodging due to strong winds.

**Legends & abbreviations:**

- ❖ **Heavy Rain:** 64.5-115.5mm; **Very Heavy Rain:** 115.6-204.4mm; **Extremely Heavy Rain:** >204.4mm.
- ❖ **Obsy:** Observatory; 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. झारखण्ड

9. बिहार

10. पूर्वी उत्तर प्रदेश

11. पश्चिम उत्तर प्रदेश

12. उत्तराखण्ड

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. कोकण और गोवा

24. मध्य महाराष्ट्र

25. मराठवाड़ा

26. विदर्भ

27. छत्तीसगढ़

28. तटीय आंध्र प्रदेश और यनम

29. तेलंगाना

30. रायलसीमा

31. तमिलनाडु, पुदुचेरी और कराईकल

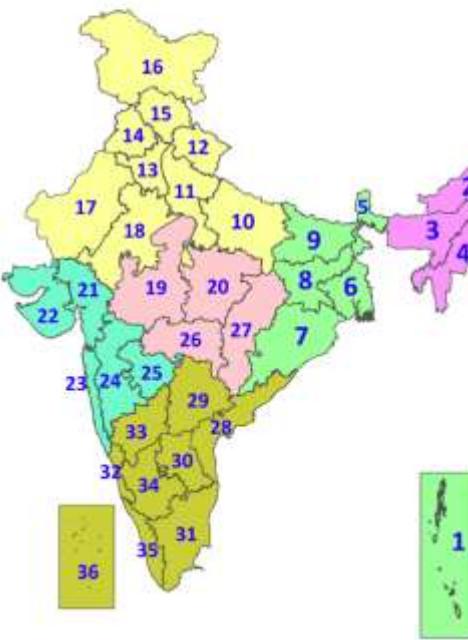
32. तटीय कर्नाटक

33. आतंरिक उत्तरी कर्नाटक

34. आतंरिक 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

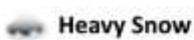
34. South Interior Karnataka

35. Kerala & Mahe

36. Lakshadweep

## SPATIAL DISTRIBUTION (% of Stations reporting)

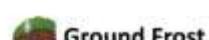
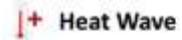
% Stations	Category	% Stations	Category
76-100	Widespread (WS/Most Places)		
51-75	Fairly Widespread (FWS/Many Places)		
26-50	Scattered (SCT/A Few Places)		
1-25	Isolated (ISOL)		



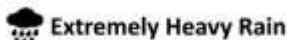
### COLOUR CODED WARNING



No Warning (No Action)



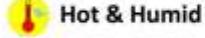
Watch (Be Aware)



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 \*

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  $\geq 6.5^{\circ}\text{C}$

### Heat Wave

(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)