राष्ट्रीय मौसम पूर्वानुमान केन्द्र
भारत मौसम विज्ञान विभाग
पृथ्वी विज्ञान मंत्रालय

National Weather Forecasting Centre
India Meteorological Department
Ministry of Earth Sciences

All India Weather Warning Bulletin

Saturday 15 January 2022
Time of Issue: 2010 hours IST

(NIGHT)

15 January (Day 1): ♦ **Thunderstorm** accompanied with **lightning** at isolated places very likely over Vidarbha, Chattisgarh, Coastal Andhra Pradesh & Yanam and Telangana.

♦ **Cold day to severe cold day conditions** in isolated pockets very likely over Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh, Rajasthan and Madhya Pradesh.

♦ **Cold Wave conditions** in isolated pockets over East Rajasthan.

♦ **Dense to Very Dense Fog** in some parts very likely over West Uttar Pradesh; in isolated pockets over East Uttar Pradesh and **dense fog** in isolated pockets over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, plains of Himachal Pradesh & Uttarakhand, Punjab, Haryana, Chandigarh & Delhi, Rajasthan, Madhya Pradesh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.

16 January (Day 2): ♦ **Thunderstorm** accompanied with **lightning** at isolated places very likely over Coastal Andhra Pradesh & Yanam.
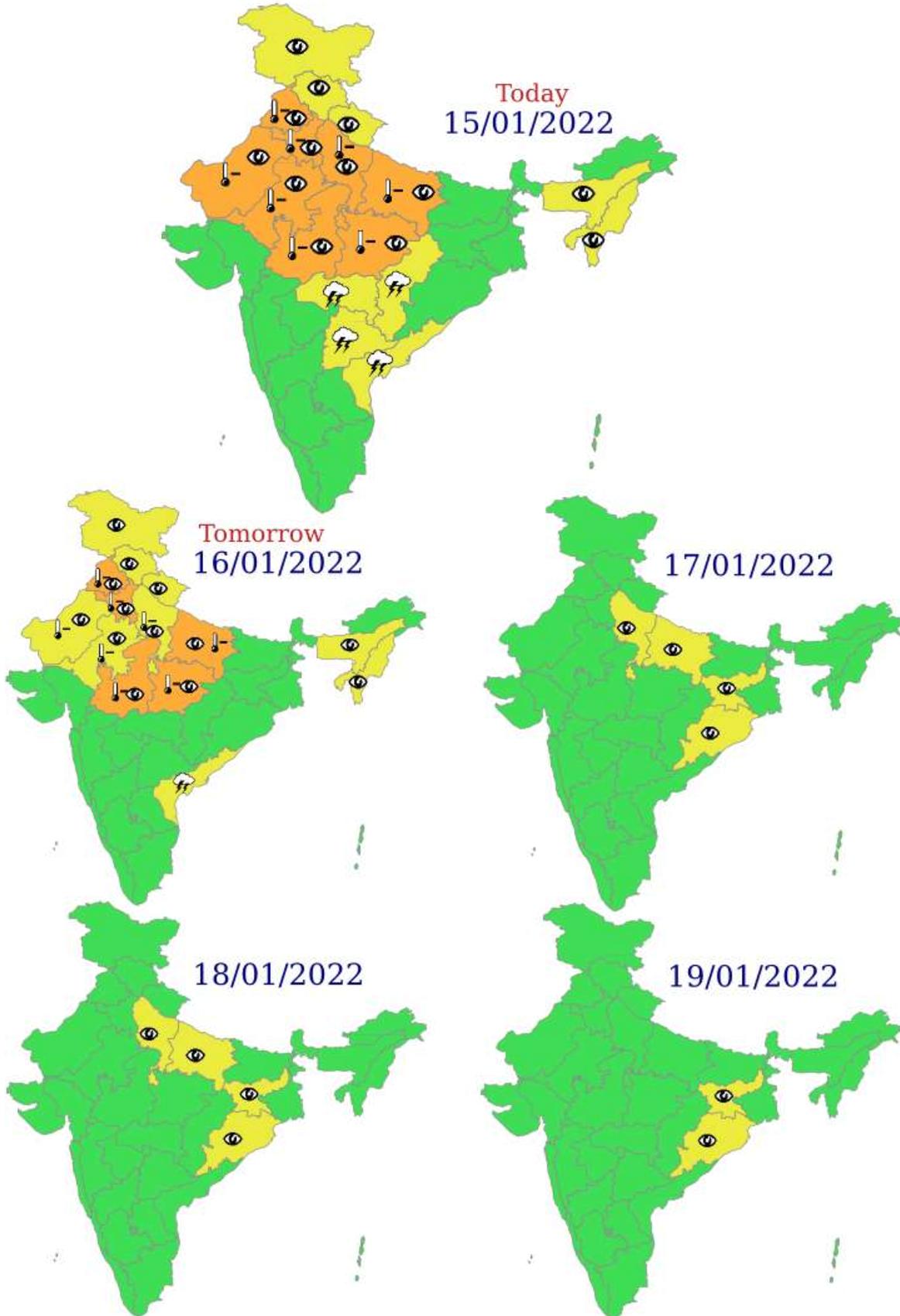
♦ **Cold day to severe cold day conditions** in isolated pockets very likely over Punjab, Haryana, Chandigarh & Delhi and Madhya Pradesh and Cold day condition in isolated pockets over Uttar Pradesh and Rajasthan.

♦ **Dense to Very Dense Fog** in isolated pockets over East Uttar Pradesh and **dense fog** in isolated pockets over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, plains of Himachal Pradesh & Uttarakhand, West Uttar Pradesh, Punjab, Haryana, Chandigarh & Delhi, Rajasthan, Madhya Pradesh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.

17 January (Day 3): ♦ **Dense fog in** isolated pockets very likely over Uttar Pradesh, Jharkhand and Odisha.

18 January (Day 4): ♦ **Dense fog in** isolated pockets likely over Uttar Pradesh, Jharkhand and Odisha.

19 January (Day 5): ♦ **Dense fog in** isolated pockets likely over Jharkhand and Odisha.

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Today
15/01/2022

Tomorrow
16/01/2022

17/01/2022

18/01/2022

19/01/2022

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Impact expected and action suggested due to <u>Dense/Very Dense fog</u> in the night/morning hours very likely over Western Himalayan Region, Punjab, Haryana, Chandigarh & Delhi, Madhya Pradesh and Rajasthan during next 2 days; over Uttar Pradesh during next 4 days and over Odisha & Jharkhand during 18th-20th January, 2022.

Impact expected:

➢ **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.

- 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.

- Causes 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:**

- Careful while driving or outing through any transport.

- Use fog lights during driving.

- Be in touch with airlines and Railway 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.

* Red color warning does not mean "Red Alert" Red color 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 www.imd.gov.in or contact : +91 11 24631913, 24643965, 24629798
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Impact expected and action suggested due to Cold Day/Severe Cold Day conditions over Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh, Madhya Pradesh and Rajasthan during next 2 days.

Impact expected:

- 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 woolen 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. (For details kindly refer NDMA guidelines: https://ndma.gov.in/Resources/awareness/Cold_Wave)

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LEGENDS

WARNING

WARNING (TAKE ACTION)
ALERT (BE PREPARED)
WATCH (BE UPDATED)
NO WARNING (NO ACTION)

Probabilistic Forecast

Terms	Probability of Occurrence (%)
Unlikely	< 25
Likely	25 - 50
Very Likely	50 - 75
Most Likely	> 75

Rain/ Snow *

Heavy: 64.5 to 115.5 mm/cm *
Very Heavy: 115.6 to 204.4 mm/cm*
Extremely Heavy: > 204.4 mm/cm *

Heat Wave

When maximum temperature of a station reaches ≥40° C for plains and ≥30° C for hilly regions
(a) Based on Departure from normal

Heat Wave: Maximum Temperature Departure from normal 4.5° C to 6.4° C.

Severe Heat Wave: Maximum Temperature Departure from normal ≥6.5° C

(b). Based on Actual maximum temperature

Heat Wave: When actual maximum temperature ≥45°C.

Severe Heat Wave: When actual maximum temperature ≥47°C

(c). Criteria for heat wave for coastal stations
When maximum temperature departure is >4.5°C from normal. Heat Wave may be described provided maximum temperature ≥37°C

Warm Night

When maximum temperature remains 40ºC

Warm Night: When minimum temperature departure 4.5 ºC to 6.4 ºC.

Severe Warm Night: When minimum temperature departure >6.4 ºC.
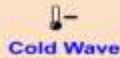
Cold Wave

When minimum temperature of a station ≤10°C for plains and ≤0°C for hilly regions.
(a). Based on departure

Cold Wave: Minimum Temperature Departure from normal –4.5 ºC to -6.4 ºC.

Severe Cold Wave: Minimum Temperature Departure from normal ≥ -6.5 ºC

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

Cold Wave : When Minimum Temperature is ≤ 4.0 ºC

Severe Cold Wave: When Minimum Temperature is ≤ 2.0 ºC

(c) For Coastal Stations
When Minimum Temperature departure is ≤-4.5 °C or actual Minimum Temperature is ≤ 15 °C

Cold Day

When minimum temperature of a station ≤10°C for plains and ≤0°C for hilly regions
Based on departure

Cold Day: Maximum Temperature Departure from normal -4.5 ºC to -6.4 ºC.

Severe Cold Day: Maximum Temperature Departure from normal ≤ -6.5 ºC

Fog

Phenomenon of small droplets suspended in air and the horizontal visibility < 1km

Moderate Fog: When the visibility between 500-200 metres

Dense Fog: when the visibility between 50- 200 metres

Very Dense Fog: when the visibility < 50 metres

Thunderstorm

Sudden electrical discharges manifested by a flash of light (Lightning) and a sharp rumbling sound (thunder)

Dust/Sand Storm

An ensemble of particles of dust or sand energetically lifted to great heights by a strong and turbulent wind.

Frost

Ice deposits on ground

Air temperature ≤4°C (over Plains)

Squall

A strong wind that rises suddenly, lasts for atleast 1 minute.

Moderate: Wind speed 52-61 kmph

Severe: Wind speed 62-87 kmph

Very Severe: Wind speed >87 kmph

Sea State

Effect of various waves in the sea over specific area

Rough to very rough: Wind speed 41-62 kmph (22-33 knots) & Wave height 2.5-6 metre

High to very high: Wind speed 63-117 kmph (34-63 knots) & Wave height 6-14 metre

Phenomenal: Wind speed >117 kmph (>63 knots) & Wave height >14 metre

Cyclone

Cyclonic Storm: Wind speed 62-87 kmph (34-47 knots)

Severe Cyclonic Storm: Wind speed 88-117 kmph (48-63 knots)

Very Severe Cyclonic Storm: Wind speed 118-165 kmph (64 - 89 knots)
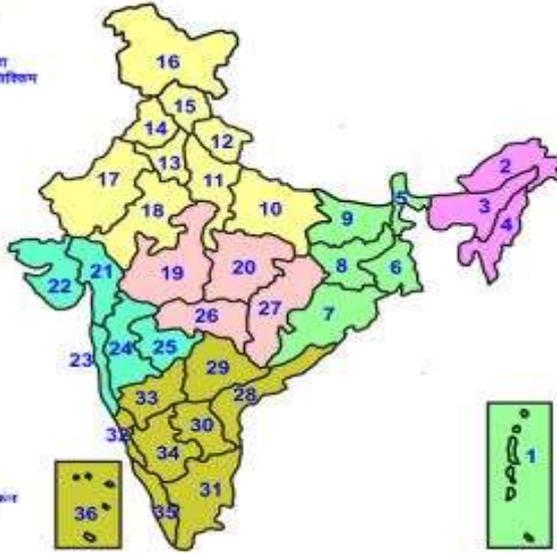
Extremely Severe Cyclonic Storm: Wind speed 166-220 kmph (90 -119 knots)

Super Cyclone Strom: Wind speed >220 kmph (>119 knots)

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LEGENDS

1. अंडमान और निकोबार द्वीप समूह		1. Andaman & Nicobar Islands
2. अरुणाचल प्रदेश		2. Arunachal Pradesh
3. असम और मेघालय		3. Assam & Meghalaya
4. नागालैंड मणिपुर मिजोरम और त्रिपुरा		4. Nagaland, Manipur, Mizoram & Tripura
5. उप हिमालय पश्चिम बंगाल एवं सिक्किम		5. Sub-Himalayan West Bengal & Sikkim
6. पश्चिम गांगेय बंगाल		6. Gangetic West Bengal
7. ओड़िशा		7. Orissa
8. झारखंड		8. Jharkhand
9. बिहार		9. Bihar
10. पूर्वी उत्तर प्रदेश		10. East Uttar Pradesh
11. पश्चिम उत्तर प्रदेश		11. West Uttar Pradesh
12. उत्तराखंड		12. Uttarakhand
13. हरियाणा चंडीगढ़ एवम् दिल्ली		13. Haryana, Chd & Delhi
14. पंजाब		14. Punjab
15. हिमाचल प्रदेश		15. Himachal Pradesh
16. जम्मू एवं कश्मीर एवं लद्दाख		16. Jammu & Kashmir and Ladakh
17. पश्चिम राजस्थान		17. West Rajasthan
18. पूर्वी राजस्थान		18. East Rajasthan
19. पश्चिम मध्य प्रदेश		19. West Madhya Pradesh
20. पूर्वी मध्य प्रदेश		20. East Madhya Pradesh
21. गुजरात क्षेत्र		21. Gujarat
22. सौराष्ट्र एवम् कच्छ		22. Saurashtra
23. कोंकण एवम् गोवा		23. Konkan & Goa
24. मध्य महाराष्ट्र		24. Madhya Maharashtra
25. मराठवाड़ा		25. Marathawada
26. विदर्भ		26. Vidharbha
27. छत्तीसगढ़		27. Chhattisgarh
28. तटीय आंध्र प्रदेश एवं यनम		28. Coastal Andhra Pradesh & Yanam
29. तेलंगाना		29. Telangana
30. रायलसीमा		30. Rayalaseema
31. तमिलनाडु, पुडुचेरी एवं कराईकल		31. Tamilnadu, Puducherry & Karaikal
32. तटीय कर्नाटक		32. Coastal Karnataka
33. आंतरिक उत्तरी कर्नाटक		33. North Interior Karnataka
34. आंतरिक दक्षिणी कर्नाटक		34. South Interior Karnataka
35. केरल एवं माहे		35. Kerala & Mahe
36. लक्षद्वीप		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 Widespred (FWS/ Many Places)	1-25	Isolated (ISOL)

WARNING

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- Heavy Rain
- Heavy Snow
- Thunderstorm
- Dust Storm
- Strong Winds
- Visibility
- Cyclone
- Squall/ Hail
- Frost
- Cold Wave
- Heat Wave
- Sea State

Kindly download **MAUSAM** APP for location specific forecast & warning, **MEGHDOOT** APP for Agromet advisory and **DAMINI** APP for Lightning Warning & visit state MC/RMC websites for district wise warning.