राष्ट्रीय मौसम पूर्वानुमान केन्द्र
भारत मौसम विज्ञान विभाग
पृथ्वी विज्ञान मंत्रालय

National Weather Forecasting Centre
India Meteorological Department
Ministry of Earth Sciences

All India Impact Based Weather Warning Bulletin

Friday 22 January 2021
Time of Issue: 0800 hours IST

(MORNING)

22 January (Day 1): ♦ **Dense to Very Dense Fog** in isolated pockets very likely over Sub-Himalayan West Bengal and **Dense Fog** in isolated pockets over East Uttar Pradesh, Bihar, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.

♦ **Thunderstorm** accompanied with **lightning** & **hail** at isolated places very likely over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad.

♦ **Strong Winds** (speed reaching 45-55 kmph) very likely over Northwest Arabian Sea. Fishermen are advised not to venture into this area.

23 January (Day 2): ♦ **Dense to Very Dense Fog** in isolated pockets very likely over Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.

♦ **Thunderstorm** accompanied with **lightning** & **hail** at isolated places very likely over Himachal Pradesh and Uttarakhand; with **lightning** at isolated places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad.

♦ **Heavy rain/snow** at isolated places very likely over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad.

♦ **Strong Winds** (speed reaching 45-55 kmph) very likely over Northwest Arabian Sea. Fishermen are advised not to venture into this area.

24 January (Day 3): ♦ **Dense to Very Dense Fog** in isolated pockets very likely over Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura and **Dense Fog** in isolated pockets over Punjab and Haryana, Chandigarh & Delhi.

25 January (Day 4): ♦ **Dense to Very Dense Fog** in isolated pockets likely over Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura and **Dense Fog** in isolated pockets over Punjab, Haryana, Chandigarh & Delhi and Uttar Pradesh.

26 January (Day 5): ♦ **Dense to Very Dense Fog** in isolated pockets likely over Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura and **Dense Fog** in isolated pockets over Punjab, Haryana, Chandigarh & Delhi and Uttar Pradesh.

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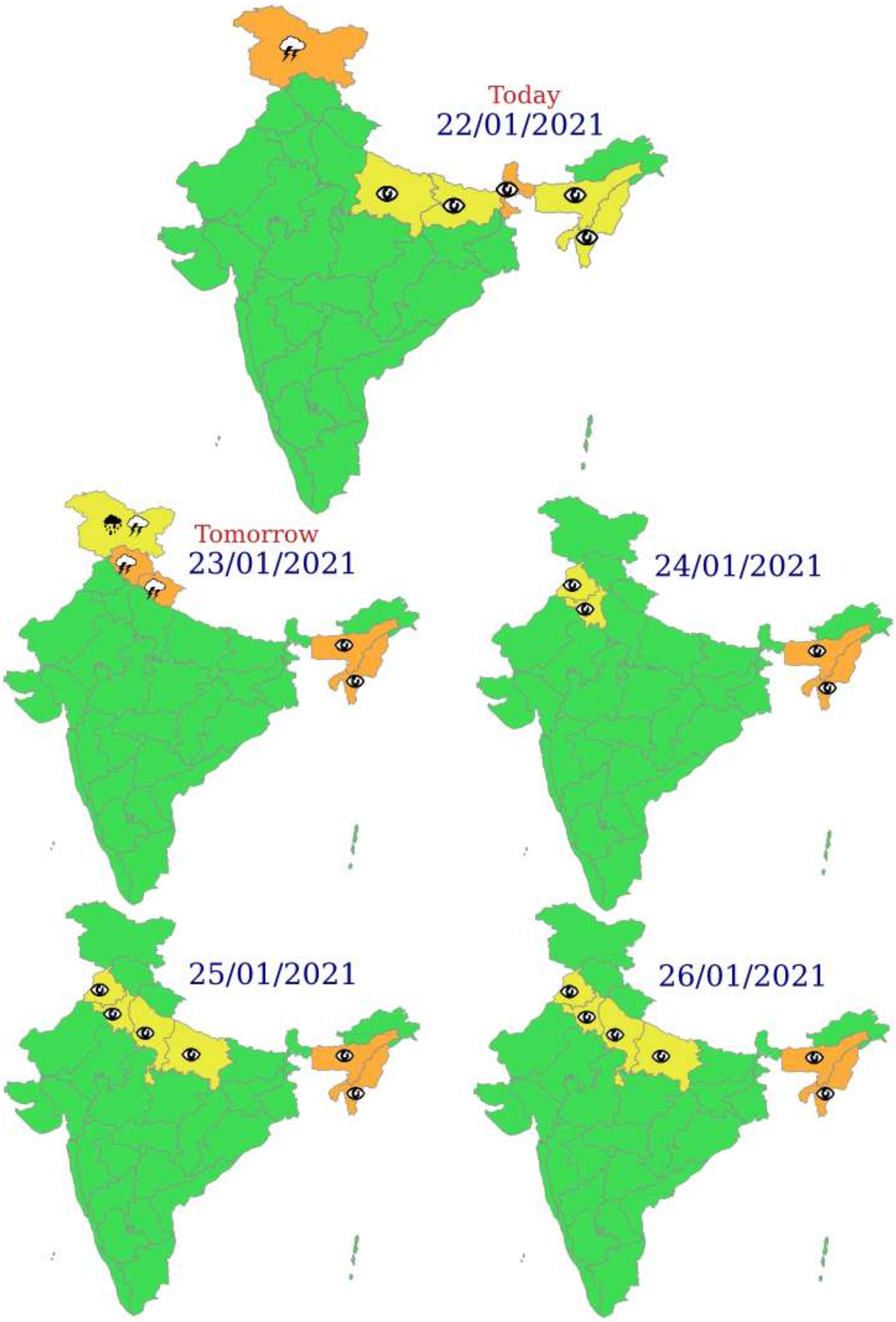

* Red color warning does not mean "Red Alert" Red color warning means "Take Action".

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Impact expected and action suggested due to Dense/Very Dense Fog over East Uttar Pradesh, Bihar and Sub-Himalayan West Bengal during next 24 hours; over Punjab, Haryana and Chandigarh & Delhi during 24th-26th January; over Uttar Pradesh during 25th-26th and over Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura during 22nd-26th January.

Impact expected:

➢ **Transport and Aviation:**

- May affect some airports, highways and railway routes in the areas of met- sub-division.
- Ferry services also to be affected.
- 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 touch with airlines and Railway and State transport for scheduled of your journey.

➢ **Power Sector:**

- Keep Maintenance Team ready.

- **Human Health:** Avoid outing until unless emergency and cover the face.

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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 40°C

- **Warm Night:** When minimum temperature departure 4.5 °C to 6.4 °C.
- **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.

(a). Based on departure

- **Cold Wave:** Minimum Temperature Departure from normal -4.5 °C to -6.4 °C.
- **Severe Cold Wave:** Minimum Temperature Departure from normal ≥ -6.5 °C

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

- **Cold Wave :** When Minimum Temperature is ≤ 4.0 °C
- **Severe Cold Wave:** When Minimum Temperature is ≤ 2.0 °C

(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 °C to -6.4 °C.
- **Severe Cold Day:** Maximum Temperature Departure from normal ≤ -6.5 °C

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

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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Probabilistic Forecast

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Likely	25 - 50
Very Likely	50 - 75
Most Likely	> 75

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.

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