



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

**Press Release
Date: 07th January, 2023
Time of Issue: 1415 hours IST**

**Subject: i) Cold Wave and Cold Day conditions likely to continue over northwest India during next 2 days.
ii) Dense to very dense fog conditions over many parts of Punjab and Haryana & Chandigarh during next 48 hours and decrease in intensity & distribution thereafter.**

Weather observed during past 24 hours ending at 0830 hrs IST of today:

- ❖ Minimum Temperatures has risen by 2-4°C over western Himalayan region and are normal to above normal.
- ❖ Minimum Temperatures are below normal to markedly below normal over many parts of north and central India.
- ❖ **Minimum temperatures** are in the range of 1-3°C in many parts of southwest Uttar Pradesh, South Haryana, Delhi and adjoining north Madhya Pradesh and some parts of north Rajasthan and in the range of 3-7°C over many parts of Central Madhya Pradesh, East Uttar Pradesh, western parts of Bihar and Punjab & north Haryana. **The Lowest Minimum Temperature of 0.0°C observed over Churu (Rajasthan).**
- ❖ **Cold Wave to Severe Cold Wave conditions** observed in many parts of Haryana, Chandigarh & Delhi; in some areas of East Uttar Pradesh, East Rajasthan; in isolated pockets over West Rajasthan, East Madhya Pradesh and **Cold Wave conditions** in many parts of East Madhya Pradesh, West Uttar Pradesh and in isolated pockets over Himachal Pradesh, Punjab, Bihar and West Madhya Pradesh.
- ❖ **Cold Day to Severe Cold Day** conditions reported at most places over Punjab, Haryana, Chandigarh, Uttar Pradesh; at many places over Bihar; at a few places over North Rajasthan and North Madhya Pradesh. **Cold Day conditions** also reported at a few places over Delhi.
- ❖ **Very Dense fog observed** in many parts of Punjab, Haryana, Chandigarh & Delhi and West Uttar Pradesh; in some areas of East Uttar Pradesh and northwest Rajasthan and in isolated pockets over Sub-Himalayan West Bengal; **Dense fog** in isolated pockets over East Rajasthan, Bihar, north Madhya Pradesh, Assam, Tripura and Moderate fog in isolated pockets over Jammu, Punjab, Chandigarh, Delhi and Bihar today morning.

Weather Forecast and Warnings (Annexure I & II):

Weather Systems and associated rainfall/snowfall

- A Western Disturbance now seen as a trough in middle tropospheric westerly winds along Long. 56°E to the north of 32°N. Under its influence, light/moderate scattered to fairly widespread rainfall/snowfall over Western Himalayan Region during 07th-09th January, 2023.
- In quick succession, another Western Disturbance is likely to cause scattered to fairly widespread rainfall/snowfall likely over Western Himalayan Region during 10th-13th January, 2023.

Minimum Temperature Forecast & Cold Wave Warning:

Due to the prevailing and approaching Western Disturbance:

- ❖ Minimum temperatures are very likely to rise by about 2°C over many parts of plains of Northwest India after 2 days. No significant change in minimum temperatures very likely over east India during next 3 days and rise about 2-3°C thereafter. Fall by 2-3°C in minimum temperatures very likely over Madhya Pradesh during next 2 days and no significant change during subsequent 3 days.
- ❖ **Cold wave to severe cold wave conditions** in some areas very likely to continue over Rajasthan and Haryana, Chandigarh & Delhi on 08th and **Cold wave conditions** in some areas over Uttar Pradesh and Madhya Pradesh and in isolated pockets over Punjab, Bihar, Gangetic West Bengal, Jharkhand, Vidarbha, Chhattisgarh, and North Odisha during next 2-3 days and over Rajasthan, Haryana, Chandigarh & Delhi on 09th January 2023.

Fog and Cold Day Warning:

- ❖ Due to continuation of prevailing light winds and high moisture near surface over Indo-Gangetic plains, **dense to very dense fog** very likely to continue in some/many parts during night & morning hours over Punjab, Haryana, Chandigarh & Delhi and Uttar Pradesh during next 2 days and in isolated pockets thereafter for subsequent 3 days over the region.
- ❖ **Dense fog** in isolated pockets very likely over Uttarakhand, north Rajasthan, Bihar, Sub-Himalayan West Bengal & Sikkim, Assam & Tripura during next 3 days; over north Madhya Pradesh during next 2 days.
- ❖ **Cold Day to severe cold day conditions** very likely in many/some parts of Punjab, Haryana, Chandigarh & Delhi and Uttar Pradesh on 07th & 08th; in isolated pockets over Bihar, Rajasthan on 07th; **Cold Day conditions** in isolated pockets over Madhya Pradesh, Sub-Himalayan West Bengal & Sikkim on 07th & 08th; over Bihar on 08th & 09th; Rajasthan on 08th January, 2023
- ❖ **Ground frost conditions** in isolated places of north Rajasthan, Madhya Pradesh on 08th & 09th and over Haryana, Chandigarh & Delhi, Uttarakhand and West Uttar Pradesh on 08th and abate thereafter.

For more details kindly refer:

https://mausam.imd.gov.in/imd_latest/contents/all_india_forecast_bulletin.php

Impact expected and action suggested due to dense to very dense fog in the night/morning hours in some/many parts of Punjab, Haryana, Chandigarh & Delhi and Uttar Pradesh during next 2-3 days.

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.

Impact expected and action suggested due to Severe cold wave/Cold wave/ Cold Day/Severe Cold day conditions in isolated/some parts over Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh, north Rajasthan and north Madhya Pradesh during next 2 days.

Impact expected:

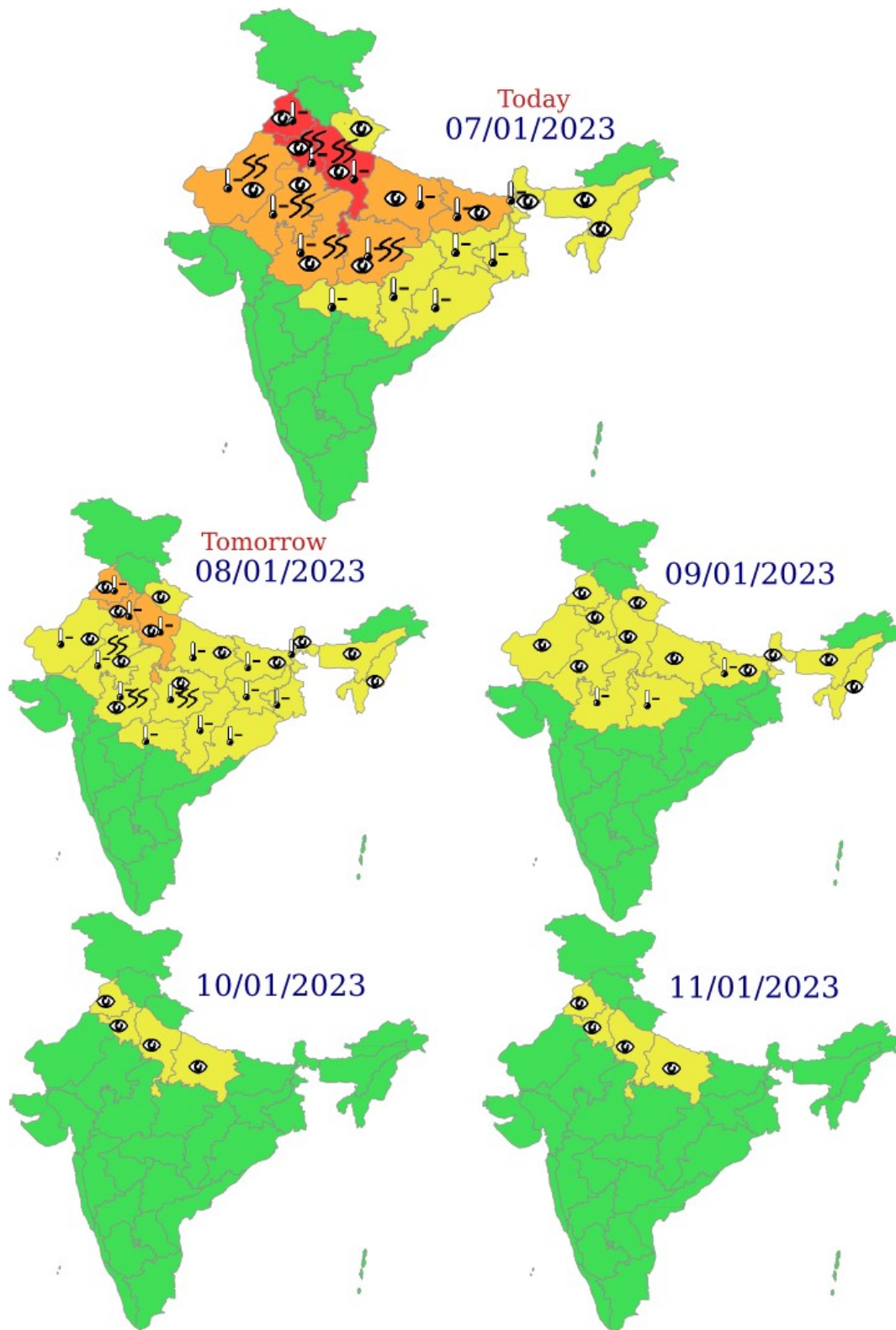
- An increased likelihood of various illnesses like flu, running/ stuffy nose or nosebleed, which usually set in or get aggravated due to prolonged exposure to cold.
- Do not ignore shivering. It is the first sign that the body is losing heat. Get Indoors.
- Frostbite can occur due to prolonged exposure to cold. The skin turns pale, hard and numb and eventually black blisters appear on exposed body parts such as fingers, toes, nose and 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.

(For details kindly refer NDMA guidelines:

https://ndma.gov.in/Resources/awareness/Cold_Wave)



Legends:

Heavy Rain: 64.5 to 115.5 mm; **Very Heavy Rain:** 115.6 to 204.4 mm; **Extremely Heavy Rain:** >204.4 mm.

Region wise classification of meteorological Sub-Divisions:

- 1) **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.
- 2) **Central India:** West Madhya Pradesh, East Madhya Pradesh, Vidarbha and Chhattisgarh.
- 3) **East India:** Bihar, Jharkhand, Sub-Himalayan West Bengal & Sikkim; Gangetic West Bengal, Odisha and Andaman & Nicobar Islands.
- 4) **Northeast India:** Arunachal Pradesh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.
- 5) **West India:** Gujarat Region, Saurashtra & Kutch, Konkan & Goa, Madhya Maharashtra and Marathwada.
- 6) **South India:** Coastal Andhra Pradesh & Yanam, Telangana, Rayalaseema, Coastal Karnataka, North Interior Karnataka, South Interior Karnataka, Kerala & Mahe, Tamil Nadu, Puducherry & Karaikal and 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)

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

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