



Government of India
Ministry of Earth Sciences
India Meteorological Department

Press Release

Date: 05th January, 2023

Time of Issue: 1310 hours IST

**Subject: i) Abatement of cold wave conditions over northwest India after 48 hours.
ii) Dense to very dense fog and cold day conditions very likely to continue over northwest India during next 2 days and decrease in intensity & distribution thereafter.**

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

- ❖ **Minimum temperatures** are in the range of 1-5°C in many parts of plains of northwest India and in isolated pockets over adjoining area of north Madhya Pradesh. **The Lowest Minimum Temperature of -1.5°C observed Churu and Sikar (Rajasthan).**
- ❖ **Dense to very dense fog observed** in most parts of Punjab, Haryana; in isolated pockets over Rajasthan and West Madhya Pradesh; **Dense fog in a few places over Uttar Pradesh and in isolated pockets** over Assam & Meghalaya, Tripura, Sub-Himalayan West Bengal, Jammu Division, Uttarakhand and Chhattisgarh today morning.
- ❖ **Yesterday, Cold Day to severe cold Day conditions** observed in most parts over Punjab, Haryana and Uttar Pradesh; isolated parts of Uttarakhand, Delhi, Rajasthan, Madhya Pradesh and Bihar.
- ❖ **Today, Severe Cold Wave conditions** observed in a few places over Rajasthan; **Cold Wave conditions** in some pockets over Punjab, Haryana and in isolated pockets over Delhi, west Uttar Pradesh, East Madhya Pradesh.

Minimum Temperature Forecast, Cold Wave/Cold Day & Fog Warnings (Annexure I & II):

Fog and Cold Day Warning

- ❖ Due to continue to prevailing of light winds and high moisture near surface over Indo-Gangetic plains, **dense to very dense fog** very likely to continue in some/many pockets during night/morning hours over Punjab, Haryana, Chandigarh and Uttar Pradesh next 3 days and dense fog thereafter; in isolated pockets over Rajasthan during next 24 hours.
- ❖ **Dense fog** in isolated pockets very likely over North Madhya Pradesh, Bihar, Assam & Meghalaya and Nagaland Manipur, Mizoram and Tripura during next 2-3 days; over Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Sub Himalayan West Bengal & Sikkim during next 24 hours.

- ❖ **Cold Day to severe cold day conditions** very likely in many pockets over Punjab, Haryana and Uttar Pradesh during next 2-3 days; in a few places over East Rajasthan and Madhya Pradesh during 48 hours; **Cold Day conditions** in isolated pockets over Uttarakhand, West Rajasthan and Bihar during next 48 hours.
- ❖ **Ground frost conditions** in many places over Rajasthan during next 48 hours and isolated pockets over Haryana during next 24 hours.

Minimum Temperature Forecast & Cold Wave Warning

- ❖ No significant change in minimum temperatures very likely over many parts of Northwest India during next 24 hours and rise by 3-5°C thereafter. As a result;
 - **Cold wave to severe cold wave conditions** in many pockets very likely over Rajasthan and **Cold wave conditions** in isolated pockets over Jammu Division, Punjab, Haryana, Himachal Pradesh and Haryana, Chandigarh & Delhi and west Uttar Pradesh during 48 hours.
- ❖ No significant change in minimum temperatures very likely over East India during next 2 days and fall by 2-4°C thereafter. No significant change in minimum temperatures very likely over remaining parts of the country during next 5 days.

Weather Systems and associated rainfall/snowfall

- A fresh Western Disturbance seen as a cyclonic circulation in middle tropospheric levels over east Iran & neighbourhood; under its influence isolated/scattered rainfall/snowfall likely over Western Himalayan Region during 07th-09th January, 2023.
- Due to trough from southeast Madhya Pradesh to north Madhya Maharashtra in lower tropospheric levels; isolated light rainfall likely over south Madhya Pradesh, Vidarbha, Madhya Maharashtra and Marathawada during next 24 hours.

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 pockets over Punjab, Haryana, Chandigarh 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 Cold Day/Severe Cold day conditions in isolated/some parts over Punjab, Haryana-Chandigarh-Delhi, Uttar Pradesh and Rajasthan during next 2 days.

Impact expected:

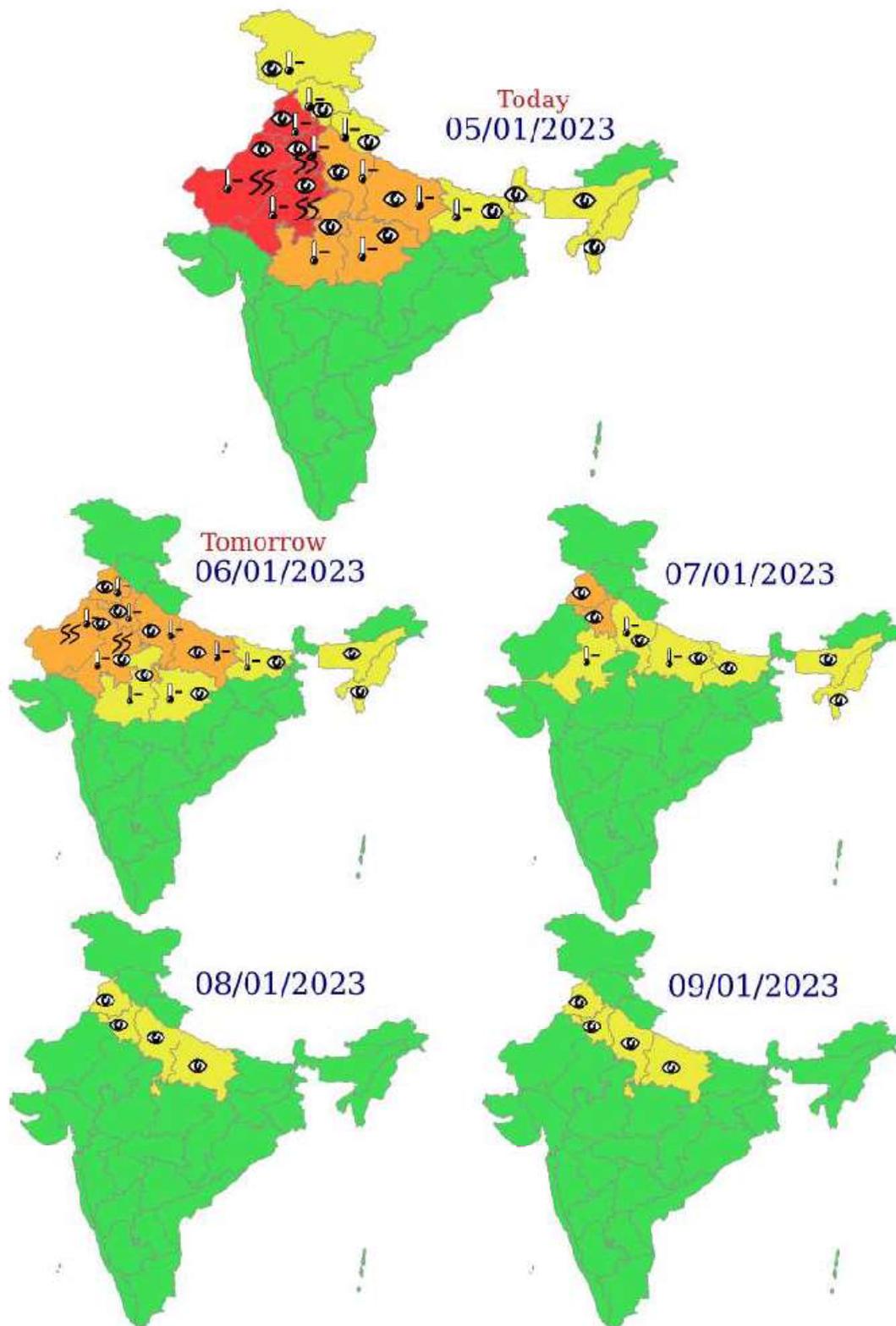
- An increased likelihood of various illnesses like flu, running/ stuffy nose or nosebleed, which usually set in or get aggravated due to prolonged exposure to cold.
- Do not ignore shivering. It is the first sign that the body is losing heat. Get Indoors.
- Frostbite can occur due to prolonged exposure 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)



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