



Government of India
Ministry of Earth Sciences
India Meteorological Department

Press Release

Date: 08th January, 2023

Time of Issue: 1315 hours IST

Subject: i) Abatement of Cold Wave and Cold Day conditions over northwest India after 48 hours.
ii) Dense to very dense fog conditions over many parts of Punjab, Haryana, Chandigarh, Delhi, Uttar Pradesh and Bihar during next 48 hours and decrease in intensity & distribution thereafter.

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

- ❖ **The minimum temperature** has risen in many parts of northwest India by 1-2°C except many parts of Punjab and Haryana where there is no significant change during past 24 hours. It has fallen by 2-4°C over central and adjoining north peninsular India during past 24 hours.
- ❖ The minimum temperatures are 1-4°C over South Haryana, Delhi & adjoining areas of north Rajasthan, south Uttar Pradesh and adjoining areas of North Madhya Pradesh. **The Lowest Minimum Temperature of -0.5°C observed over Churu (Rajasthan).**
- ❖ The minimum temperatures are below normal by 5-7°C over many parts of East Madhya Pradesh, adjoining areas of west Madhya Pradesh, some areas of south Haryana and isolated pockets of North Rajasthan, south-east Uttar Pradesh, south Bihar, north Jharkhand, northwest Odisha, east Vidarbha.
- ❖ **Dense to very dense Fog** observed over many parts of Punjab, Haryana, Chandigarh & Delhi; over some parts of Uttar Pradesh and in isolated pockets over, north Rajasthan, Jammu division and Sub Himalayan West Bengal and Bihar. **Dense fog** observed in isolated pockets over Uttarakhand, Tripura and Assam.
- ❖ **Cold Day to Severe Cold Day** conditions prevailed over many parts of Uttar Pradesh, Bihar & Haryana; in isolated pockets over northeast Madhya Pradesh. **Cold day conditions** prevailed in isolated pockets over Punjab and Sub-Himalayan West Bengal & Sikkim.
- ❖ **Cold Wave to Severe Cold Wave conditions** prevailed over many parts of south Haryana & Delhi; over some parts of North Rajasthan, East Madhya Pradesh & East Uttar Pradesh and at isolated pockets over West Madhya Pradesh and West Uttar Pradesh. **Cold wave conditions** prevailed in isolated pockets over Bihar, Jharkhand, Odisha and Himachal Pradesh.

Weather Forecast and Warnings (Annexure I & II):

Weather Systems and associated rainfall/snowfall

- A Western Disturbance as a trough in middle tropospheric westerly winds runs along Long. 58°E to the north of 32°N. Under its influence, light/moderate isolated to scattered rainfall/snowfall over Western Himalayan Region during 08th -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. Isolated light rainfall likely over Punjab and Haryana on 11th & 12th January, 2023.

Minimum Temperature Forecast & Cold Wave Warning:

Due to the approaching Western Disturbance on 10th January, minimum temperatures are very likely to rise by 2-4°C over many parts of Northwest India after 2 days. As a result:

- ❖ **Cold wave to severe cold wave conditions** in isolated pockets very likely to continue over north Rajasthan, south Haryana, Chandigarh & Delhi and East Madhya Pradesh on 09th and cold wave condition in isolated pockets on 10th January over the region. **Cold wave conditions** in isolated pockets over Bihar, Jharkhand, Uttar Pradesh, Vidarbha, Chhattisgarh, West Madhya Pradesh and Telangana during next 2 days and over Punjab, Himachal Pradesh and Odisha on 09th January. Thereafter, abatement of cold wave conditions over the region.
- ❖ No significant change in minimum temperatures very likely over many parts of East India during next 3 days and gradual rise by 2-3°C thereafter. Fall in minimum temperatures by 2-3°C most parts of central India, Maharashtra States and Northern parts of Peninsular India during next 3 days and no significant change thereafter.

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 parts during night & morning hours over Punjab, Haryana, Chandigarh, Delhi & adjoining north Rajasthan and Uttar Pradesh during next 2 days and dense fog in isolated pockets thereafter for subsequent 3 days over the region.
- ❖ **Dense fog** very likely in isolated pockets over Jammu Division, Himachal Pradesh, Uttarakhand, north Madhya Pradesh, Bihar, Sub-Himalayan West Bengal & Sikkim, Assam & Meghalaya and Mizoram & Tripura during next 2-3 days.
- ❖ **Cold Day to severe cold day conditions** very likely in many/some parts of Punjab, Haryana, Chandigarh & Delhi and Uttar Pradesh on 08th & 09th and cold day conditions in isolated pockets over the region on 10th January. **Cold Day conditions** very likely in isolated pockets over north Rajasthan and Bihar 08th & 09th and Sub-Himalayan West Bengal & Sikkim on 08th January. Thereafter, abatement of cold day conditions over the region.
- ❖ **Ground frost conditions** very likely in isolated pockets over south Haryana, north Rajasthan, north Madhya Pradesh and West Uttar Pradesh on 09th & 10th January.

For more details kindly refer:

https://mausam.imd.gov.in/imd_latest/contents/all_india_forcast_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, north Rajasthan, Uttar Pradesh and Bihar during next 2 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 some/many parts over Punjab, Haryana, Chandigarh & Delhi, north Rajasthan, Uttar Pradesh, north Madhya Pradesh and Bihar during next 2 days.

Impact expected:

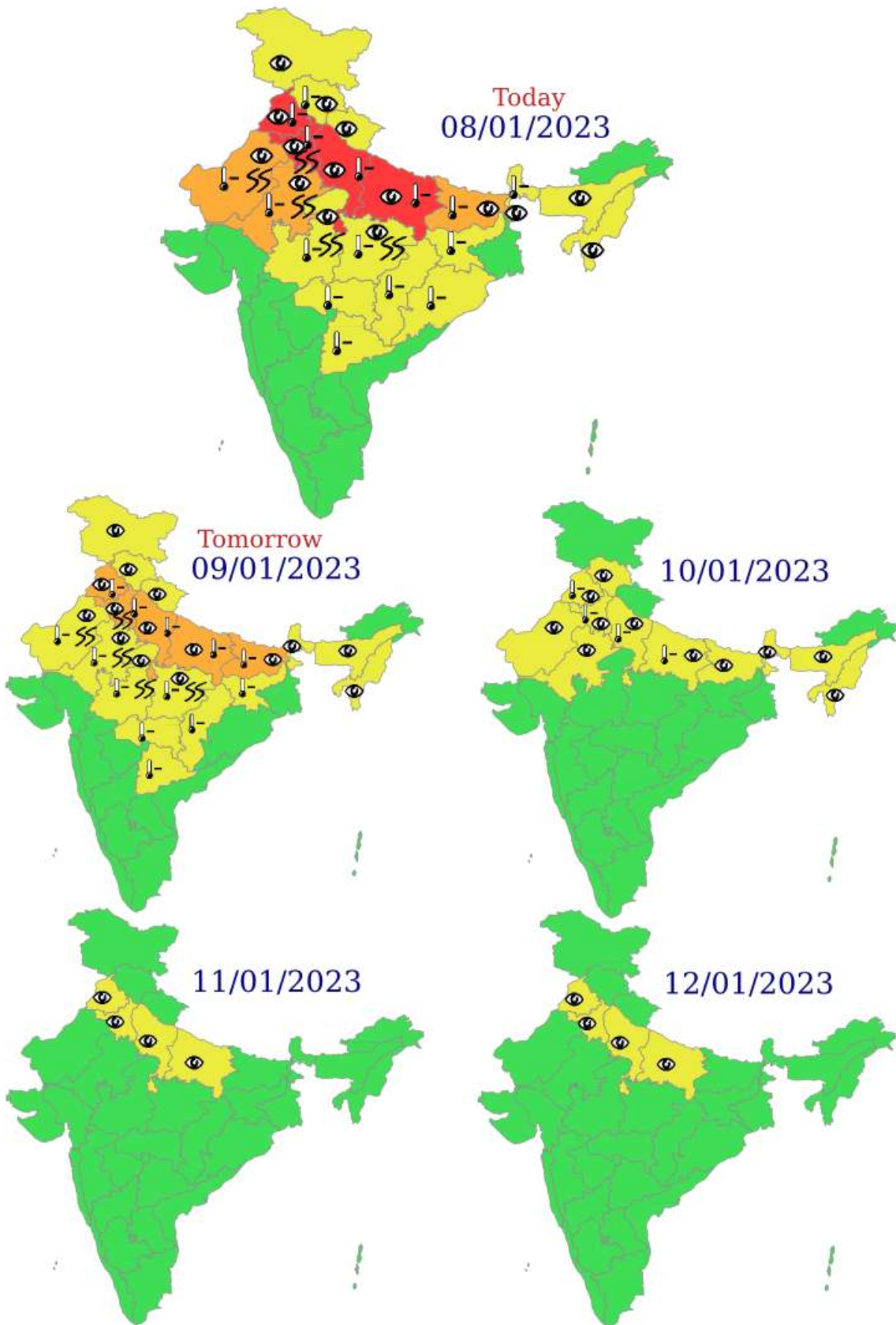
- An increased likelihood of various illnesses like flu, running/ stuffy nose or nosebleed, which usually set in or get aggravated due to prolonged exposure to cold.
- Do not ignore shivering. It is the first sign that the body is losing heat. Get Indoors.
- Frostbite can occur due to prolonged exposure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

