



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

**Press Release  
Date: 16<sup>th</sup> January, 2023  
Time of Issue: 1245 hours IST**

**Subject: Two Western Disturbances in quick succession likely to affect northwest India on 18<sup>th</sup> & another on 20<sup>th</sup> January. As a result, cold wave conditions over northwest India likely to abate from 19<sup>th</sup> January, 2023.**

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

- ❖ **The minimum temperatures** are in the range of 1-3°C over many parts of Punjab, Haryana, Chandigarh & Delhi, northwest Rajasthan and East Rajasthan; in the range of 3-5°C over remaining parts of Rajasthan, many parts of West Uttar Pradesh; in range of 5-8°C over remaining parts of East Uttar Pradesh and central India.
- ❖ **Minimum Temperature** has fallen by 1-3°C over Punjab, Haryana, Chandigarh & Delhi, East Rajasthan, northwest Madhya Pradesh and West Uttar Pradesh and no significant change in remaining parts of northwest India. **The Lowest Minimum Temperature of -2.5°C observed over Churu (West Rajasthan).**
- ❖ **Cold wave to Severe Cold wave conditions** prevailed at many parts of Delhi; in some parts of Punjab, Haryana and East Rajasthan and in isolated pockets over West Rajasthan; **Cold wave conditions** in isolated pockets over Uttar Pradesh and East Madhya Pradesh.
- ❖ **Very dense fog** in isolated pockets observed over Sub-Himalayan West Bengal & Sikkim and Assam; **Dense fog** in isolated pockets observed over Himachal Pradesh, Uttarakhand, Bihar and Tripura.

**Weather Forecast and Warnings (Annexure I):**

**Weather Systems and associated rainfall/snowfall**

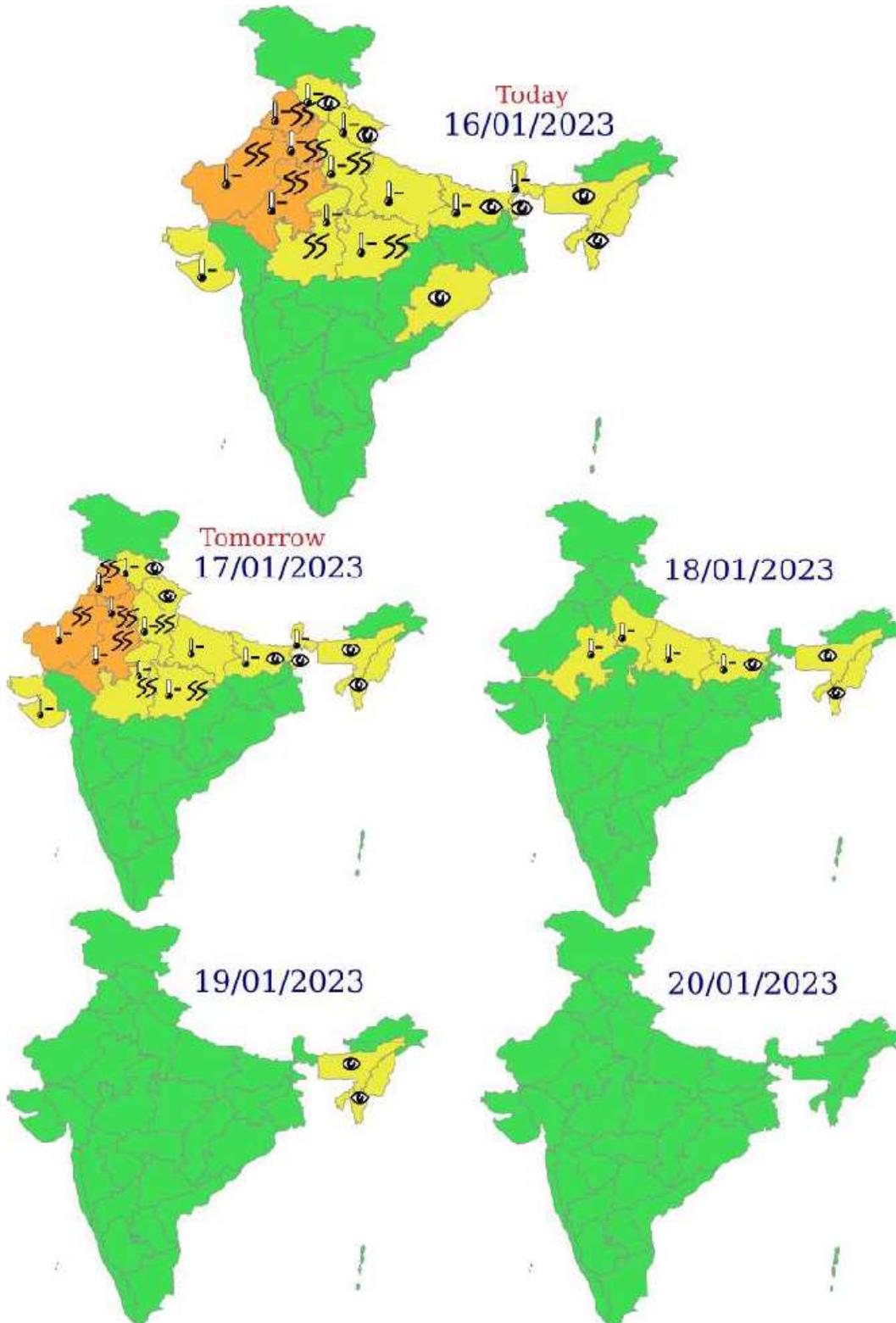
- ❖ A fresh **Western Disturbance** is likely to affect Western Himalayan Region from the night of 18<sup>th</sup> January, 2023. Under its influence, light/moderate isolated/scattered rainfall/snowfall very likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh and Uttarakhand likely during 18<sup>th</sup>-20<sup>th</sup> January, 2023.
- ❖ Another active **Western Disturbance in quick succession** is likely to affect Western Himalayan Region from the night of 20<sup>th</sup> and adjoining plains of northwest India from 22<sup>nd</sup> January, 2023. Under its influence, light/moderate scattered/fairly widespread rainfall/snowfall over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh and Uttarakhand likely during 20<sup>th</sup>-24<sup>th</sup> January, 2023 and light/moderate isolated to scattered rainfall likely over plains of northwest India 22<sup>nd</sup> to 24<sup>th</sup> January, 2023.

### Minimum Temperature Forecast, Cold Wave, Cold Day & Fog Warning:

- ❖ Minimum temperatures are very likely to fall further about 2°C over many parts of Northwest India till 17<sup>th</sup> January morning; no significant change till 18<sup>th</sup> and rise by 4-6°C during 19<sup>th</sup>-21<sup>st</sup> January, 2023. Fall in minimum temperatures by 2-4°C very likely over many parts of East India till 18<sup>th</sup> and no significant change thereafter. No significant change in minimum temperatures very likely over Gujarat state by 18<sup>th</sup> and rise by 2-4°C thereafter. No significant change in minimum temperatures over the rest parts of northern India during next 4-5 days.
- ❖ **Cold Wave to severe cold wave conditions** very likely over many/some parts of Rajasthan, Punjab and Haryana, Chandigarh & Delhi till 18<sup>th</sup> and thereafter in isolated pockets of East Rajasthan on 19<sup>th</sup>; **Cold wave condition** in isolated pockets also very likely over Uttar Pradesh and Bihar during 17<sup>th</sup>-19<sup>th</sup>; over Madhya Pradesh, Himachal Pradesh and Saurashtra and Kutch on 17<sup>th</sup> & 18<sup>th</sup> January, 2023.
- ❖ **Ground Frost** conditions in isolated places very likely over Punjab, Haryana, Rajasthan, Madhya Pradesh and West Uttar Pradesh on 17<sup>th</sup> & 18<sup>th</sup> January 2023.
- ❖ **Dense to very dense fog** very likely in isolated pockets during night & morning hours over Sub Himalayan West Bengal & Sikkim during 16<sup>th</sup> to 18<sup>th</sup>; **Dense fog** very likely in isolated pockets over Himachal Pradesh, Uttarakhand during 16<sup>th</sup>-18<sup>th</sup>; over Bihar during 16<sup>th</sup>-19<sup>th</sup>; over Odisha on 16<sup>th</sup> & 17<sup>th</sup> and over Assam & Meghalaya and Tripura during 16<sup>th</sup>-20<sup>th</sup> January 2023.
- ❖ **Cold Day conditions** very likely in isolated pockets over Himachal Pradesh, Uttarakhand, Rajasthan, West Madhya Pradesh on 16<sup>th</sup>; over Sub Himalayan West Bengal & Sikkim during 16<sup>th</sup> & 17<sup>th</sup> January 2023.

For more details kindly refer:

[https://mausam.imd.gov.in/imd\\_latest/contents/all\\_india\\_forecast\\_bulletin.php](https://mausam.imd.gov.in/imd_latest/contents/all_india_forecast_bulletin.php)



**Impact expected and action suggested due to Severe Cold wave/Cold wave conditions** in some/many parts of Rajasthan, Punjab and Haryana, Chandigarh & Delhi on 17<sup>th</sup>-18<sup>th</sup> January, 2023.

**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](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.

<b>SPATIAL DISTRIBUTION</b> (% 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