



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

**Press Release
Date: 17th January, 2023
Time of Issue: 1315 hours IST**

Subject: Two Western Disturbances in quick succession likely to affect northwest India on 18th & another on 20th January. As a result, cold wave conditions over northwest India likely to abate from 19th 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, Delhi and north Rajasthan; in the range of 3-5°C over remaining parts of Rajasthan, many parts of Uttar Pradesh and a few parts of north Madhya Pradesh. **The Lowest Minimum Temperature of -2.7°C observed over Churu (West Rajasthan).**
- ❖ **Cold wave to Severe Cold wave conditions** prevailed at many parts of Punjab, Haryana, Chandigarh & Delhi and West Rajasthan; in isolated pockets over Uttar Pradesh, Himachal Pradesh; **Cold wave conditions** in isolated pockets over Uttarakhand and north Madhya Pradesh.
- ❖ **Cold Day to Severe Cold Day conditions** prevailed in isolated pockets over Sub-Himalayan West Bengal & Sikkim; Cold Day conditions in isolated pockets over Bihar.
- ❖ **Very Dense fog** in isolated pockets observed over Himachal Pradesh, Sub-Himalayan West Bengal & Sikkim and Odisha; **Dense fog** in isolated pockets over Assam.

Weather Forecast and Warnings (Annexure I):

Weather Systems and associated rainfall/snowfall

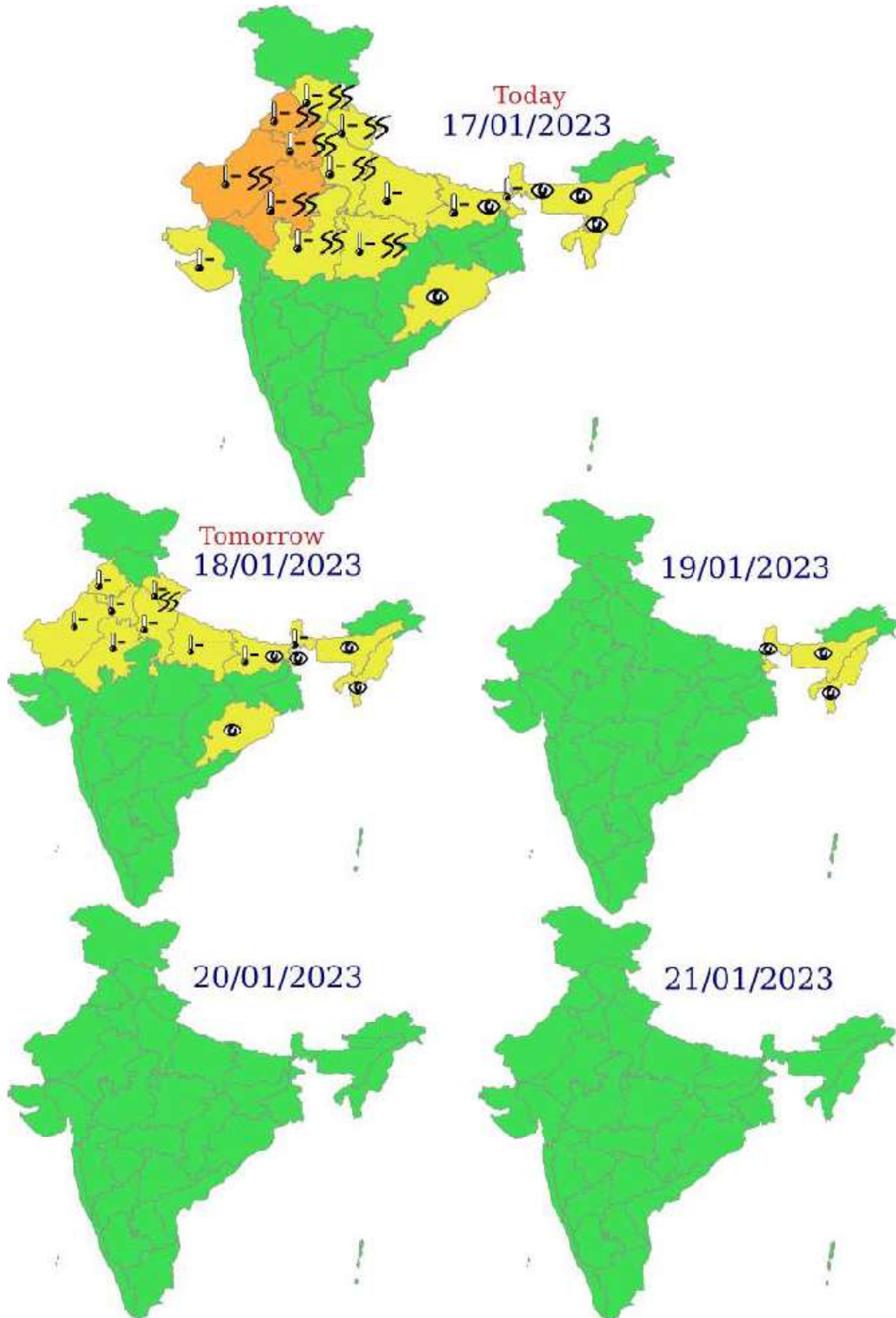
- ❖ A **Western Disturbance** seen as a trough in middle tropospheric westerlies along 64°E to the north of 28°N. Under its influence, light/moderate isolated/scattered rainfall/snowfall very likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh and Uttarakhand likely on 18th & 19th January, 2023.
- ❖ Another active **Western Disturbance in quick succession** is likely to affect Western Himalayan Region from the night of 20th and adjoining plains of northwest India from 22nd January. Under its influence, light/moderate scattered to fairly widespread rainfall/snowfall over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh and Uttarakhand likely during 20th-24th January, 2023 and light/moderate isolated to scattered rainfall likely over plains of northwest India during 22nd-24th January, 2023.

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

- ❖ No significant change in minimum temperatures very likely over plains of Northwest India and Madhya Pradesh till 18th January morning and gradual rise by 4-6°C during 19th -21st January and no significant change during 22nd to 24th January, 2023. Gradual rise by 2-4°C in minimum temperatures very likely over Gujarat state till 20th and no significant change 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 Punjab, Haryana, Chandigarh & Delhi and Rajasthan till 18th and **Cold wave condition** in isolated pockets thereafter over above areas on 19th; **Cold wave condition** in isolated pockets also very likely over Uttarakhand, Uttar Pradesh and Bihar on 18th & 19th; over Madhya Pradesh, Himachal Pradesh and Saurashtra and Kutch on 18th January, 2023.
- ❖ **Ground Frost** conditions in isolated places very likely over Himachal Pradesh, Uttarakhand, Punjab, Haryana, Rajasthan, Madhya Pradesh and West Uttar Pradesh on 18th January 2023.
- ❖ **Dense fog** very likely in isolated pockets during night & morning hours over Sub Himalayan West Bengal & Sikkim, Assam & Meghalaya and Tripura during 17th-20th; over Bihar and Odisha during 17th-19th January 2023.
- ❖ **Cold Day conditions** very likely in isolated pockets over Sub Himalayan West Bengal & Sikkim on 17th-18th January 2023.

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 Severe Cold wave/Cold wave conditions in some/many parts of Rajasthan, Punjab and Haryana, Chandigarh & Delhi on 18th 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)

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