



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

**Press Release
Date: 11th January, 2023
Time of Issue: 1330 hours IST**

**Subject: i) Scattered to fairly widespread rainfall/snowfall over Western Himalayan Region and isolated rainfall over adjoining plains during 11th to 13th January, 2023.
ii) Dense to very dense fog and cold day conditions over parts of Punjab, Haryana, Chandigarh, Uttar Pradesh and Bihar during next 24 hours.**

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

- ❖ **Rainfall/Snowfall observed:** light to moderate rainfall/snowfall at isolated places over Jammu & Kashmir, Ladakh and light rainfall/snowfall at isolated places over Himachal Pradesh.
- ❖ The minimum temperatures are in range of 5-8°C over most parts of northern plains & adjoining areas of North Madhya Pradesh. **The Lowest Minimum Temperature of 4.2°C observed over Alwar (East Rajasthan).**
- ❖ **Very dense fog** observed in night/morning hours over many parts of Uttar Pradesh; in some parts of Punjab, Haryana, Chandigarh & Delhi and Bihar; in isolated pockets over northwest Rajasthan, northwest Madhya Pradesh and Sub-Himalayan West Bengal & Sikkim and **Dense fog** in isolated pockets over Jammu Division, Uttarakhand and Tripura.
- ❖ **Cold Day to Severe Cold Day conditions** prevailed in some parts of Uttar Pradesh and Bihar and in isolated pockets over Punjab and Haryana.
- ❖ **Cold wave** conditions observed in isolated pockets over North Interior Karnataka.

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. 60°E to the north of 30°N and an induced cyclonic circulation lies over central Pakistan in lower tropospheric levels. Jet stream winds of order upto 130 knots in upper tropospheric levels (12-14 Km above mean sea level) prevailing along latitude 30° N over Indian region.
- These systems are very likely to cause light/moderate fairly widespread to widespread rainfall/snowfall over Jammu & Kashmir, Ladakh and Himachal Pradesh during 11th-13th January; scattered to fairly widespread rainfall/snowfall over Uttarakhand on 11th & 12th and isolated light rainfall/snowfall on 13th January.
- Isolated light rainfall likely over Punjab, Haryana and adjoining area of west Uttar Pradesh during 11th -13th January, 2023.
- **Isolated heavy rainfall/snowfall is also likely over Kashmir valley on 11th January, 2023.**

Minimum Temperature Forecast & Cold Wave Warning:

- ❖ **Rise in minimum temperatures by about 2°C very likely over many parts of Northwest India by 12th morning; no significant change by 13th and gradual fall by 3-5°C during 14th -16th January.** Gradual rise in minimum temperatures by 2-4°C very likely over many parts of East India during next 3 days and no significant change thereafter. Gradual rise in minimum temperatures by 2-3°C very likely over many parts of Central India during next 3 days and fall by 2-4°C hereafter. No significant change in minimum temperatures very likely over Gujarat state during next 24 hours and gradual fall by 3-5°C thereafter.
- ❖ **Cold Wave conditions** very likely in isolated pockets over Punjab, Haryana, Chandigarh & Delhi and Rajasthan on 15th & 16th 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 parts during night & morning hours over Uttar Pradesh and Bihar during next 24 hours and in isolated pockets for subsequent 4 days.
- ❖ **Dense fog** very likely in isolated pockets during night & morning hours over Uttarakhand, Punjab, Haryana, Chandigarh & Delhi, West Madhya Pradesh during next 24 hours. **Dense fog** very likely to continue in isolated pockets over Sub-Himalayan West Bengal, Assam & Meghalaya and Tripura during next 48 hours.
- ❖ **A fresh spell of dense to very dense fog** very likely in isolated pockets during night & morning hours over Punjab and Haryana, Chandigarh & Delhi during 14th to 16th January, 2023.
- ❖ **Cold Day to severe cold day conditions** very likely to continue in some parts of Uttar Pradesh on 11th January. **Cold day conditions** also very likely to continue in isolated pockets over Uttarakhand, Punjab, Haryana, Chandigarh & Delhi on 11th and over Bihar on 11th -13th 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 dense to very dense fog in the night/morning hours in some parts of Uttar Pradesh and Bihar during next 24 hours.

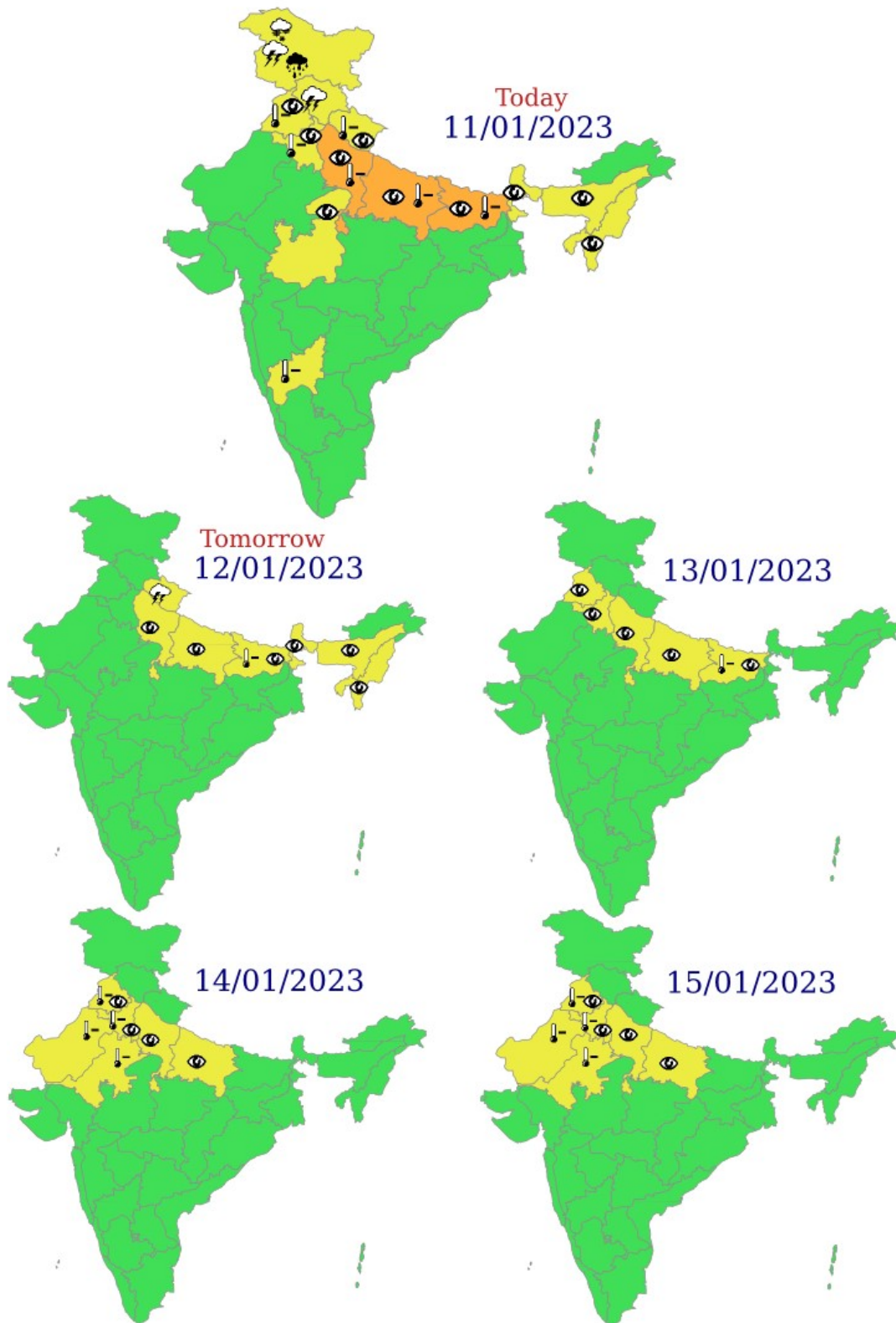
Impact expected:

- **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.

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