



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

**Press Release**  
**Date: 20<sup>th</sup> December, 2023**  
**Time of Issue: 1230 hours IST**

**Subject: No significant weather over the country during next 5 days.**

**Realized weather during past 24 hours till 0830 hours IST of today:**

- **Minimum temperatures** are in the range of 4-8°C over most parts of Punjab, Haryana-Chandigarh-Delhi, north Rajasthan and West Uttar Pradesh and 8-12°C over most parts of East Uttar Pradesh, south Rajasthan, Madhya Pradesh, Chhattisgarh and Bihar.
- **Dense fog** observed in the morning hours in isolated pockets over **Punjab**.
- **Cold wave** observed in isolated pockets over **Punjab**.

**Weather Systems and Forecast & Warnings during next 5 days: (graphics in Annexure I)**

**Weather Systems**

- Yesterday's Cyclonic Circulation over Lakshadweep now lies over southeast Arabian Sea and extends upto middle tropospheric levels.
- A fresh Western Disturbance as a trough in middle tropospheric westerlies runs roughly along Long. 50°E to the north of Lat. 30°N.

**Forecast & Warnings:**

- Light to moderate rainfall at isolated places accompanied with isolated thunderstorm, lightning very likely over south Tamil Nadu, Kerala & Mahe and Lakshadweep on 21<sup>th</sup> December and decrease significantly thereafter.
- Isolated light rainfall/snowfall likely over Jammu-Kashmir-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh during 22<sup>nd</sup>-24<sup>th</sup> and over north Punjab, north Haryana and Uttarakhand on 23<sup>rd</sup> December.
- No significant weather likely over remaining parts of the country during next 5 days.

**Dense fog warning:**

- **Dense fog** in isolated pockets very likely over Punjab, Haryana, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura in the morning hours during next 4 days.

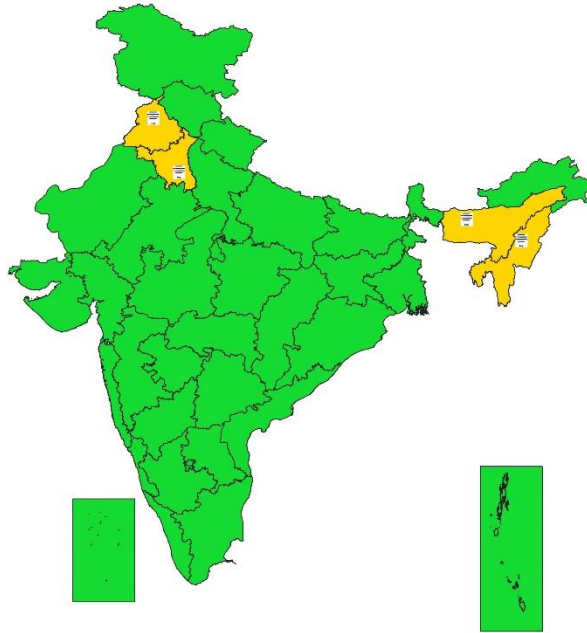
**Minimum Temperatures Forecast:**

- No significant change in Minimum Temperatures likely over Northwest, Central and East India during next 2 days and rise by 2-3°C thereafter.

For more details kindly refer: [https://mausam.imd.gov.in/responsive/all\\_india\\_forecast\\_bulletin.php](https://mausam.imd.gov.in/responsive/all_india_forecast_bulletin.php) and <https://mausam.imd.gov.in/responsive/cycloneinformation.php>



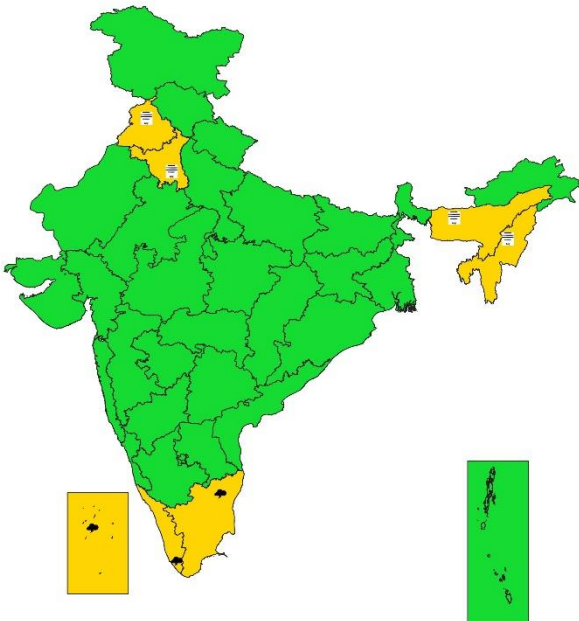
SUBDIVISIONWISE WEATHER WARNING FOR DAY 1  
( 20-12-2023 )



- |                             |                         |                          |
|-----------------------------|-------------------------|--------------------------|
| <b>Subdivision Warning</b>  | <b>Dust Storm</b>       | <b>Subdivision color</b> |
| ☁️ Heavy Rain               | 🌪️ Strong Surface Winds | 🟢 NO WARNING             |
| ❄️ Heavy Snow               | 🔥 Heat Wave             | 🟡 WATCH(BE UPDATED)      |
| ⚡ Thunderstorms & Lightning | ❄️ Cold wave            | 🟠 ALERT (BE PREPARED)    |
| 🌨️ Hailstorm                | 🌫️ Fog                  | 🔴 WARNING (TAKE ACTION)  |



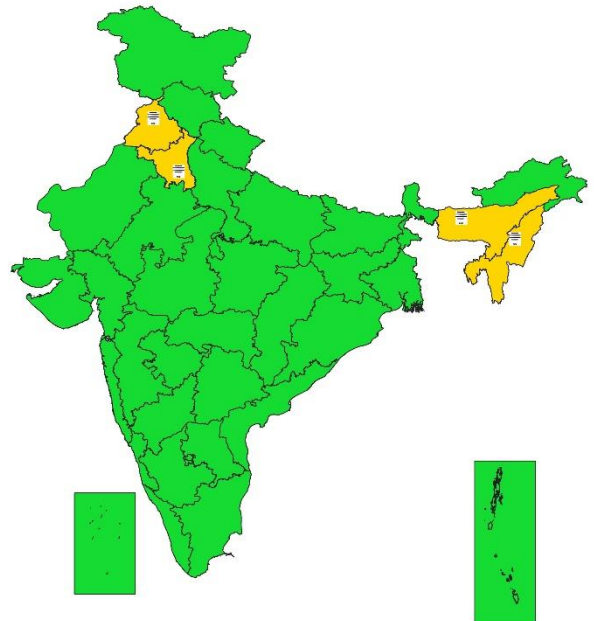
SUBDIVISIONWISE WEATHER WARNING FOR DAY 2  
( 21-12-2023 )



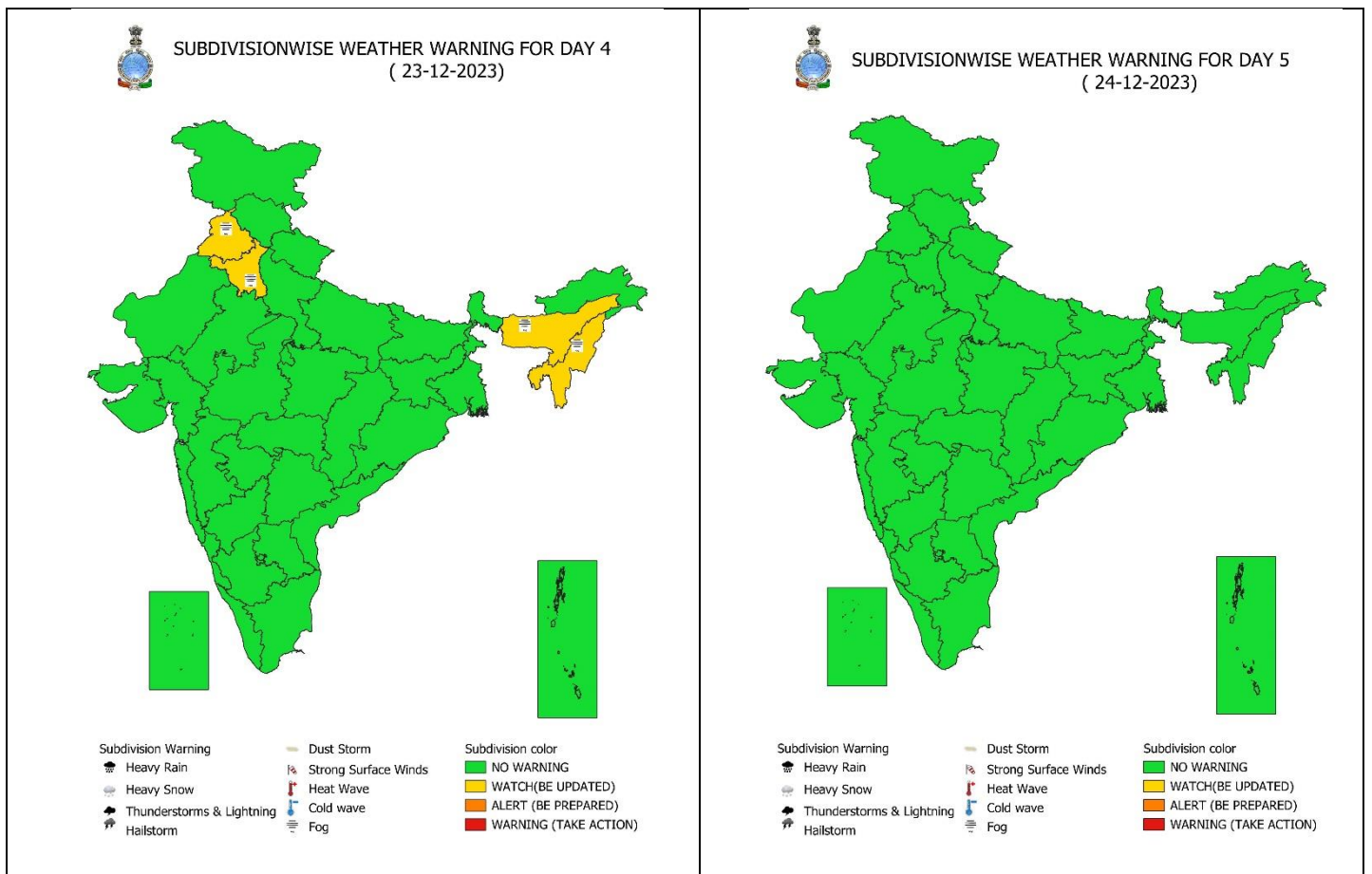
- |                             |                         |                          |
|-----------------------------|-------------------------|--------------------------|
| <b>Subdivision Warning</b>  | <b>Dust Storm</b>       | <b>Subdivision color</b> |
| ☁️ Heavy Rain               | 🌪️ Strong Surface Winds | 🟢 NO WARNING             |
| ❄️ Heavy Snow               | 🔥 Heat Wave             | 🟡 WATCH(BE UPDATED)      |
| ⚡ Thunderstorms & Lightning | ❄️ Cold wave            | 🟠 ALERT (BE PREPARED)    |
| 🌨️ Hailstorm                | 🌫️ Fog                  | 🔴 WARNING (TAKE ACTION)  |



SUBDIVISIONWISE WEATHER WARNING FOR DAY 3  
( 22-12-2023 )



- |                             |                         |                          |
|-----------------------------|-------------------------|--------------------------|
| <b>Subdivision Warning</b>  | <b>Dust Storm</b>       | <b>Subdivision color</b> |
| ☁️ Heavy Rain               | 🌪️ Strong Surface Winds | 🟢 NO WARNING             |
| ❄️ Heavy Snow               | 🔥 Heat Wave             | 🟡 WATCH(BE UPDATED)      |
| ⚡ Thunderstorms & Lightning | ❄️ Cold wave            | 🟠 ALERT (BE PREPARED)    |
| 🌨️ Hailstorm                | 🌫️ Fog                  | 🔴 WARNING (TAKE ACTION)  |



### Legends:

- ❖ **Heavy Rain:** 64.5 to 115.5 mm; **Very Heavy Rain:** 115.6 to 204.4 mm; **Extremely Heavy Rain:** >204.4mm.
- ❖ **Obsy:** Observatory; **AWS:** Automatic Weather Station; **dist:** District; **NH:** National Highway; **KVK:** Krishi Vigyan Kendra; **DVC:** Damodar Valley Corporation
- ❖ **Region wise classification of meteorological Sub-Divisions:**
  - **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.
  - **Central India:** West Madhya Pradesh, East Madhya Pradesh, Vidarbha and Chhattisgarh.
  - **East India:** Bihar, Jharkhand, Sub-Himalayan West Bengal & Sikkim; Gangetic West Bengal, Odisha and Andaman & Nicobar Islands.
  - **Northeast India:** Arunachal Pradesh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.
  - **West India:** Gujarat Region, Saurashtra & Kutch, Konkan & Goa, Madhya Maharashtra and Marathwada.
  - **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)

Subdivision Warning	Dust Storm Strong Surface Winds Heat Wave Cold wave Fog	Subdivision color <div style="display: flex; flex-direction: column; gap: 5px;"> <div style="display: flex; align-items: center;"><span style="width: 15px; height: 15px; background-color: #00FF00; border: 1px solid black; margin-right: 5px;"></span> NO WARNING</div> <div style="display: flex; align-items: center;"><span style="width: 15px; height: 15px; background-color: #FFD700; border: 1px solid black; margin-right: 5px;"></span> WATCH(BE UPDATED)</div> <div style="display: flex; align-items: center;"><span style="width: 15px; height: 15px; background-color: #FFA500; border: 1px solid black; margin-right: 5px;"></span> ALERT (BE PREPARED)</div> <div style="display: flex; align-items: center;"><span style="width: 15px; height: 15px; background-color: #FF0000; border: 1px solid black; margin-right: 5px;"></span> WARNING (TAKE ACTION)</div> </div>
Heavy Rain Heavy Snow Thunderstorms & Lightning Hailstorm		

Probabilistic Forecast	
Terms	Probability of Occurrence (%)
Unlikely	< 25
Likely	25 - 50
Very Likely	50 - 75
Most Likely	> 75

Flash Flood Risk	
<span style="width: 15px; height: 15px; background-color: #FF0000; border: 1px solid black; display: inline-block;"></span>	High Risk (Take Action)
<span style="width: 15px; height: 15px; background-color: #FFA500; border: 1px solid black; display: inline-block;"></span>	Moderate Risk (Be Prepared)
<span style="width: 15px; height: 15px; background-color: #FFFF00; border: 1px solid black; display: inline-block;"></span>	Low Risk (Be Updated)

**Cold Wave**

When minimum temperature of a station  $\leq 10^{\circ}\text{C}$  for plains and  $\leq 0^{\circ}\text{C}$  for hilly regions.

**(a) Based on departure**

Cold Wave: Minimum Temperature Departure from normal  $-4.5^{\circ}\text{C}$  to  $-6.4^{\circ}\text{C}$

Severe Cold Wave: Minimum Temperature Departure from normal  $\leq -6.5^{\circ}\text{C}$

**(b) Based on actual Minimum Temperature (for Plains only)**

Cold Wave : When Minimum Temperature is  $\leq 4.0^{\circ}\text{C}$

Severe Cold Wave: When Minimum Temperature is  $\leq 2.0^{\circ}\text{C}$

**(c) For Coastal Stations**

When Minimum Temperature departure is  $\leq -4.5^{\circ}\text{C}$  & actual Minimum Temperature is  $\leq 15^{\circ}\text{C}$

**Cold Day**

When minimum temperature of a station  $\leq 10^{\circ}\text{C}$  for plains and  $\leq 0^{\circ}\text{C}$  for hilly regions

**Based on departure**

Cold Day: Maximum Temperature Departure from normal  $-4.5^{\circ}\text{C}$  to  $-6.4^{\circ}\text{C}$ .

Severe Cold Day: Maximum Temperature Departure from normal  $\leq -6.5^{\circ}\text{C}$

**Fog**

Phenomenon of small droplets suspended in air and the horizontal visibility  $< 1\text{km}$

Moderate Fog: When the visibility between 500-200 metres

Dense Fog: when the visibility between 50- 200 metres

Very Dense Fog: when the visibility  $< 50$  metres