



Government of India  
Ministry of Earth Sciences  
India Meteorological Department



Press Release

Date: 10<sup>th</sup> February, 2024

Time of Issue: 1200 hours IST

**Subject: Light rainfall activity likely over Central India during 10<sup>th</sup>-12<sup>th</sup> and East India during 12<sup>th</sup>-14<sup>th</sup> February, 2024.**

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

- ❖ **Minimum temperatures:** Minimum temperatures are in the range of 5-10°C over most parts of northern plains. These are below normal by 2-4°C over many parts of the region. **Today, the lowest minimum temperature of 3.6°C reported at Hissar (Haryana).**
- ❖ **Cold wave conditions** observed in some parts over southeast Rajasthan, south Bihar, north Jharkhand and north Gangetic West Bengal.

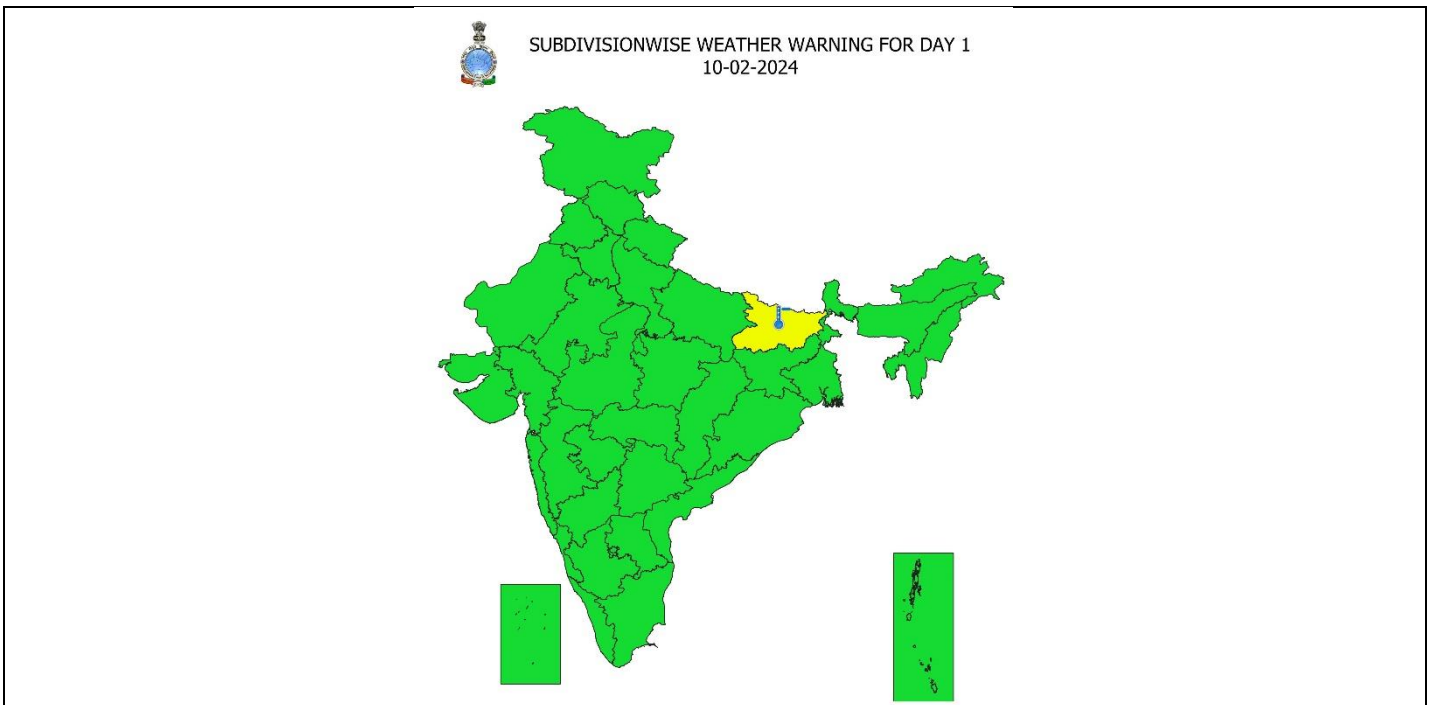
**Weather Systems and Forecast & Warnings during next 5 days: (graphics in Annexure I)**

- ❖ Under the influence of lower level trough in easterlies along the west coast and its likely east-northeastward movement; isolated to scattered light rainfall activity likely over East Madhya Pradesh, Vidarbha, Chhattisgarh, Odisha during 10<sup>th</sup>-13<sup>th</sup>; over south Uttar Pradesh, south Bihar, Jharkhand, Gangetic West Bengal during 12<sup>th</sup>-14<sup>th</sup> February, 2024.
- ❖ Isolated light intensity **thunderstorm accompanied with lightning** very likely over East Madhya Pradesh, Vidarbha and Chhattisgarh during 11<sup>th</sup>-12<sup>th</sup> and Bihar, Jharkhand, Gangetic West Bengal during 13<sup>th</sup>-14<sup>th</sup> February, 2024.
- ❖ Light isolated rainfall likely over Telangana on 10<sup>th</sup> & 11<sup>th</sup> February, 2024.

**Minimum Temperature Forecast and Cold Wave warning: (graphics in Annexure I)**

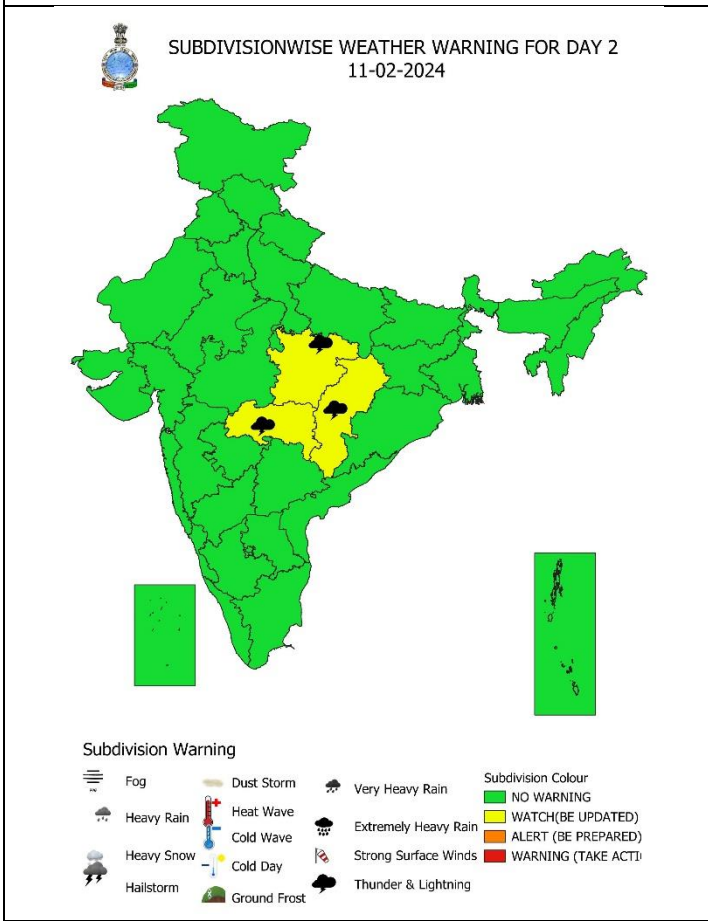
- ❖ Rise in minimum temperatures by 3-5°C very likely over some to many parts of Northwest, Central, East & West India during next 5 days.
- ❖ **Cold wave** conditions very likely in isolated pockets over south Bihar on 10<sup>th</sup> February, 2024.

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)



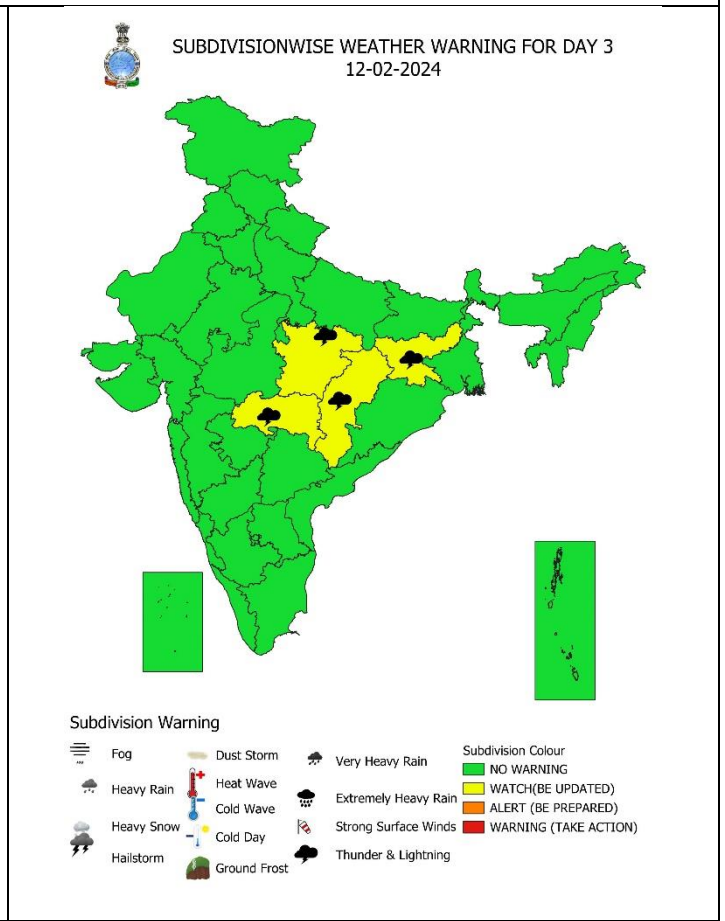
**Subdivision Warning**

Fog	Dust Storm	Very Heavy Rain	<b>Subdivision colour</b>
Heavy Rain	Heat Wave	Extremely Heavy Rain	NO WARNING
Heavy Snow	Cold Wave	Strong Surface Winds	WATCH (BE UPDATED)
Hailstorm	Cold Day	Thunder & Lightning	ALERT (BE PREPARED)
	Ground Frost		WARNING (TAKE ACTION)



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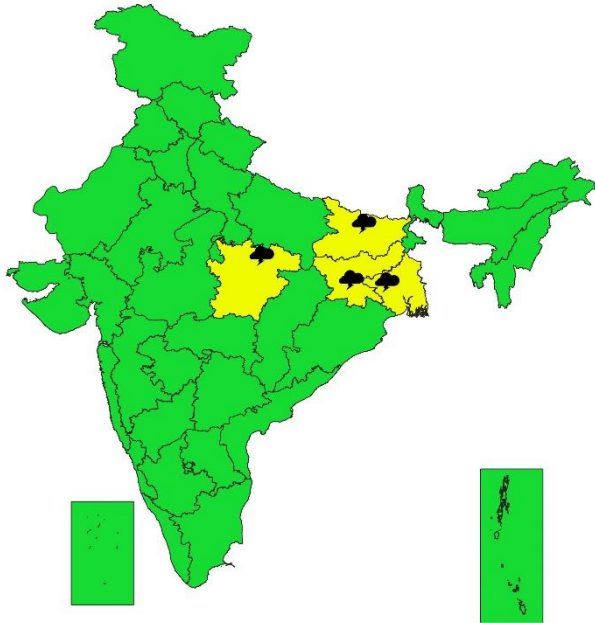


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**SUBDIVISIONWISE WEATHER WARNING FOR DAY 4**  
13-02-2024

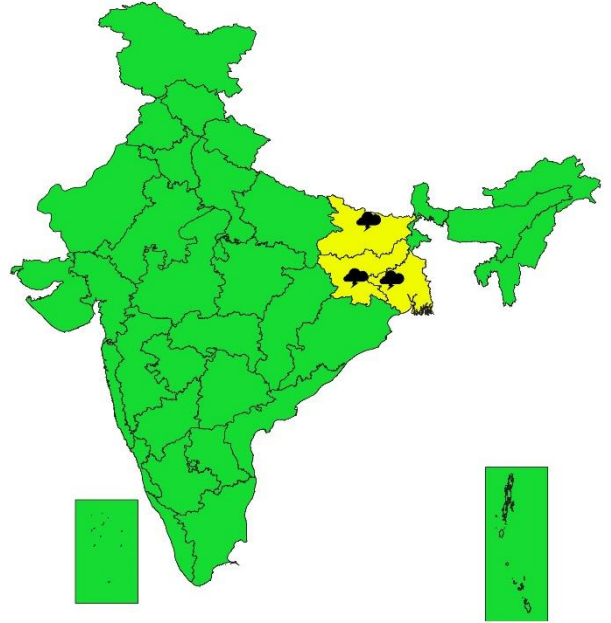


**Subdivision Warning**

- |            |              |                      |                           |
|------------|--------------|----------------------|---------------------------|
| Fog        | Dust Storm   | Very Heavy Rain      | <b>Subdivision Colour</b> |
| Heavy Rain | Heat Wave    | Extremely Heavy Rain | NO WARNING                |
| Heavy Snow | Cold Wave    | Strong Surface Winds | WATCH(BE UPDATED)         |
| Hailstorm  | Cold Day     | Thunder & Lightning  | ALERT (BE PREPARED)       |
|            | Ground Frost |                      | WARNING (TAKE ACTION)     |



**SUBDIVISIONWISE WEATHER WARNING FOR DAY 5**  
14-02-2024



**Subdivision Warning**

- |            |              |                      |                           |
|------------|--------------|----------------------|---------------------------|
| Fog        | Dust Storm   | Very Heavy Rain      | <b>Subdivision Colour</b> |
| Heavy Rain | Heat Wave    | Extremely Heavy Rain | NO WARNING                |
| Heavy Snow | Cold Wave    | Strong Surface Winds | WATCH(BE UPDATED)         |
| Hailstorm  | Cold Day     | Thunder & Lightning  | ALERT (BE PREPARED)       |
|            | Ground Frost |                      | 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	Subdivision color
Heavy Rain	Strong Surface Winds	<span style="background-color: #00FF00; border: 1px solid black; display: inline-block; width: 20px; height: 10px;"></span> NO WARNING
Heavy Snow	Heat Wave	<span style="background-color: #FFD700; border: 1px solid black; display: inline-block; width: 20px; height: 10px;"></span> WATCH(BE UPDATED)
Thunderstorms & Lightning	Cold wave	<span style="background-color: #FFA500; border: 1px solid black; display: inline-block; width: 20px; height: 10px;"></span> ALERT (BE PREPARED)
Hailstorm	Fog	<span style="background-color: #FF0000; border: 1px solid black; display: inline-block; width: 20px; height: 10px;"></span> WARNING (TAKE ACTION)

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

Flash Flood Risk	
	High Risk (Take Action)
	Moderate Risk (Be Prepared)
	Low Risk (Be Updated)

Definition of Cold wave, Cold Day and Fog Conditions:

**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 $\leq 15^{\circ}\text{C}$
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**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