



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



Press Release

Date: 09th February, 2024

Time of Issue: 1230 hours IST

Subject: Light to moderate rainfall activity likely over Central India during 10th-13th and East India during 13th-15th 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 Punjab, Haryana-Chandigarh-Delhi, plains of Uttarakhand, Rajasthan, Uttar Pradesh, Bihar, Jharkhand, north Chhattisgarh and Madhya Pradesh which are below normal over the region. **Today, the lowest minimum temperature of 2.7°C reported at Sikar (East Rajasthan).**
- ❖ **Cold wave** observed in isolated pockets of Punjab and Himachal Pradesh.

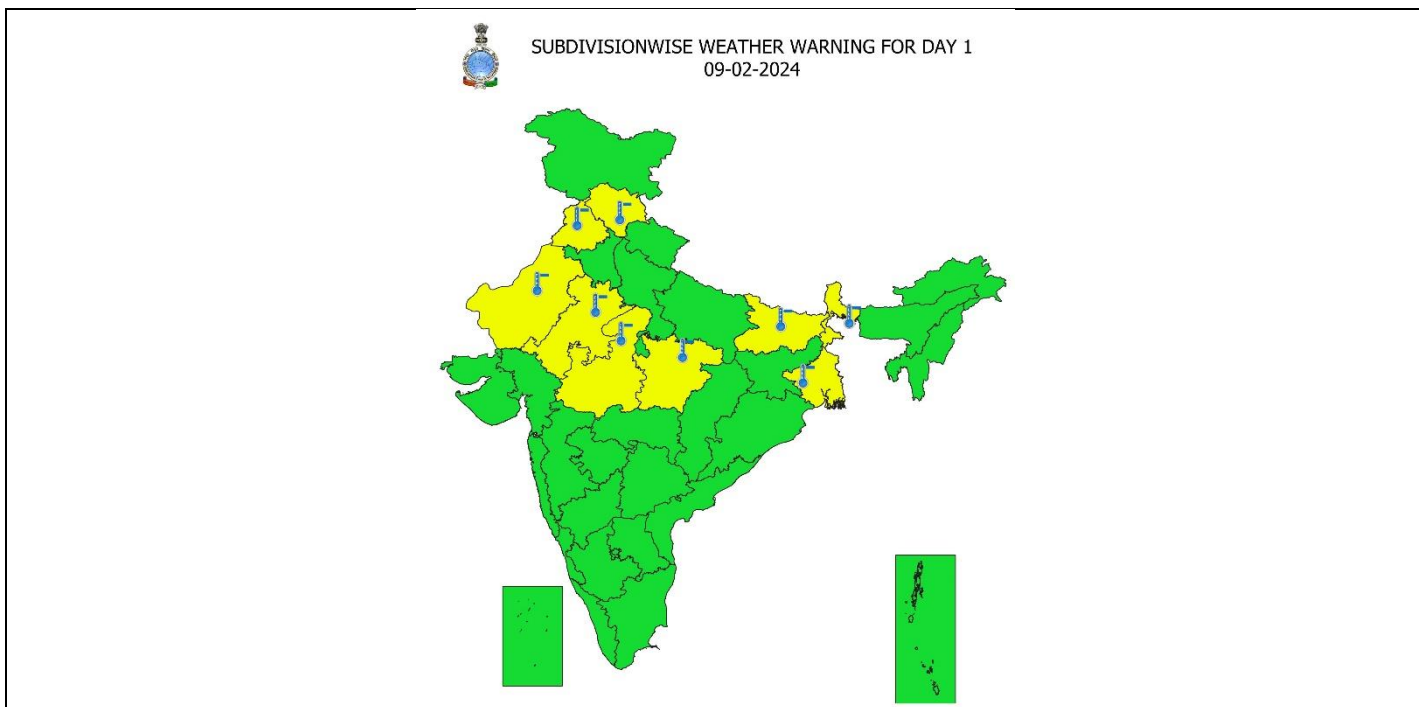
Weather Systems and Forecast & Warnings during next 5 days:

- ❖ Light isolated rainfall/snowfall very likely over Arunachal Pradesh and Sub-Himalayan West Bengal & Sikkim on 09th February, 2024.
- ❖ Under the influence of a likely formation of trough/cyclonic circulation over central parts of country; isolated to scattered light rainfall activity is likely over East Madhya Pradesh, Vidarbha, Chhattisgarh during 10th-14th, Madhya Maharashtra, Marathwada on 10th & 11th; Odisha on 11th & 12th; over Uttar Pradesh, Bihar, Jharkhand 12th-15th and Gangetic West Bengal during 13th-15th February, 2024.
- ❖ Isolated light thunderstorm accompanied with lightning very likely over East Madhya Pradesh, Vidarbha and Chhattisgarh during 10th-12th February, 2024.
- ❖ Light isolated rainfall very likely over Coastal Andhra Pradesh on 09th; Tamil Nadu on 12th & 13th; Telangana on 10th & 11th and Kerala on 14th & 15th February.

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

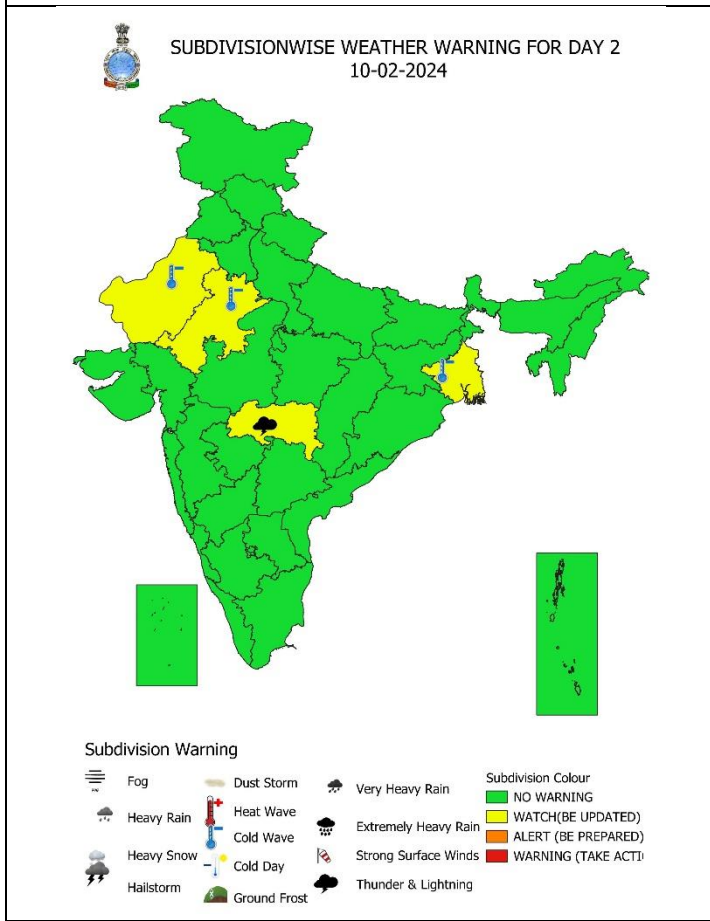
- ❖ No significant change in minimum temperatures very likely over many parts of Northwest, Central & East India during next 2 days and rise by 2-3°C thereafter.
- ❖ **Cold wave** conditions very likely in isolated pockets over Himachal Pradesh, Punjab, Madhya Pradesh, Bihar and Sub-Himalayan West Bengal & Sikkim on 09th and over north Rajasthan & Gangetic West Bengal on 09th & 10th February, 2024.

For more details kindly refer: https://mausam.imd.gov.in/responsive/all_india_forecast_bulletin.php



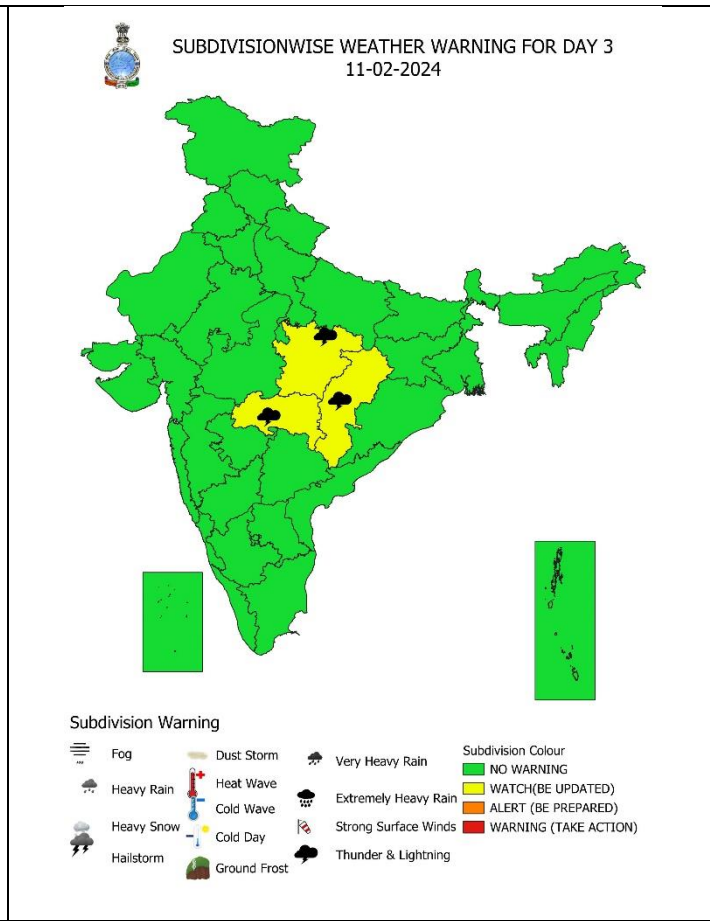
Subdivision Warning

Fog	Dust Storm	Very Heavy Rain	Subdivision colour
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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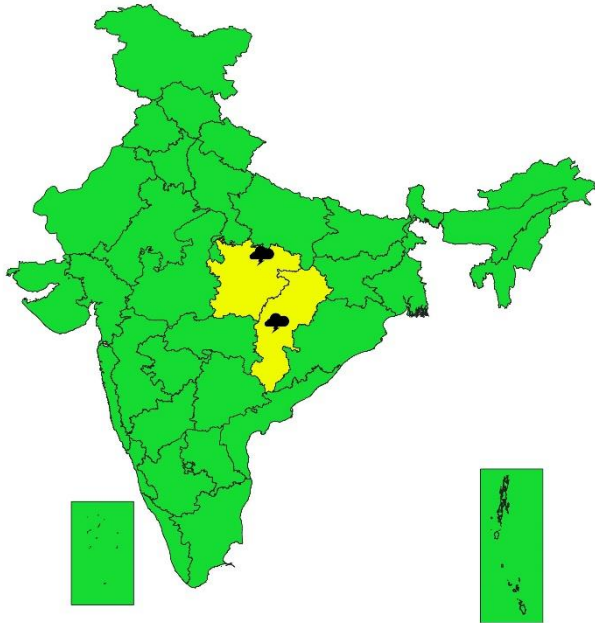


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SUBDIVISIONWISE WEATHER WARNING FOR DAY 4
12-02-2024

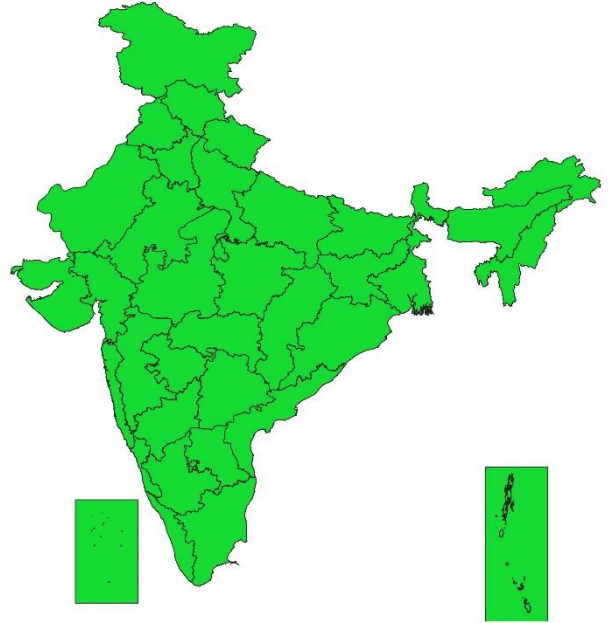


Subdivision Warning

- | | | | |
|--------------|------------|----------------------|---------------------------|
| Fog | Dust Storm | Very Heavy Rain | Subdivision Colour |
| 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
13-02-2024



Subdivision Warning

- | | | | |
|--------------|------------|----------------------|---------------------------|
| Fog | Dust Storm | Very Heavy Rain | Subdivision Colour |
| 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	 NO WARNING
Heavy Snow	Heat Wave	 WATCH (BE UPDATED)
Thunderstorms & Lightning	Cold wave	 ALERT (BE PREPARED)
Hailstorm	Fog	 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°C to -6.4°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°C to -6.4°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