



Government of India
Ministry of Earth Sciences
India Meteorological Department



Press Release

Date: 03rd February, 2024

Time of Issue: 1245 hours IST

Subject: Wet spell with thunderstorm and hailstorm at isolated places is likely over Northwest & adjoining Central India during 03rd to 05th with peak activity on 04th February, 2024.

Realized weather during past 24 hours till 0830 hours IST of today: (Details given in Annexure I)

- ❖ **Minimum temperatures:** Minimum temperatures are in the range of 6-10°C in many parts of Punjab, Haryana, Chandigarh, Delhi, plains of Uttarakhand, north Rajasthan, north Madhya Pradesh, Uttar Pradesh and Sub-Himalayan West Bengal & Sikkim. These are normal to above normal over northern parts of the country except over Haryana and Delhi where it is below normal by 2-3°C. **Today, the lowest minimum temperature of 5.4 °C reported at Karnal (Haryana).**
- ❖ **Fog conditions observed** (at 0530 & 0830 hours IST of today): **Dense fog** in isolated pockets of northeast Madhya Pradesh, plains of Uttarakhand, Gangetic West Bengal and Odisha.
- ❖ Light to moderate rainfall/snowfall occurred **at many places over** Arunachal Pradesh; **at isolated places over** Himachal Pradesh, Uttarakhand and Sub-Himalayan West Bengal & Sikkim. Light to moderate rainfall also occurred **at many places over** Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura and **at isolated places over** Punjab, Rajasthan, Vidarbha, Gangetic West Bengal, Odisha, Tamil Nadu and Kerala & Mahe.
- ❖ Isolated **heavy rainfall/snowfall** observed over Arunachal Pradesh.
- ❖ Isolated **hailstorm** observed over Sikkim (Gangtok).

Weather Systems and Forecast & Warnings during next 5 days:

- ❖ **A fresh Western Disturbance seen as a trough in middle tropospheric westerlies roughly along Long. 60°E to the north Lat. 32°N with an induced cyclonic circulation over southwest Rajasthan & adjoining Pakistan in lower tropospheric levels.** Under the influence of these systems:
 - Light to moderate fairly widespread to widespread rainfall/snowfall accompanied by thunderstorm, gusty winds and hailstorms at isolated places is very likely over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad, Himachal Pradesh and Uttarakhand on 03rd & 04th; decreasing to isolated to scattered rainfall/snowfall on 05th February, 2024 and dry weather thereafter.
 - Light to moderate scattered to fairly widespread rainfall accompanied by thunderstorm, gusty winds and hailstorms at isolated places very likely over Punjab, Haryana-Chandigarh-Delhi & Rajasthan on 03rd & 04th and over Uttar Pradesh on 04th & 05th February, 2024.
 - Isolated **heavy rainfall/snowfall** also likely over Himachal Pradesh and Uttarakhand on 04th February.

- **Strong Surface winds (speed reaching 30-40 kmph)** very likely over Northwest India on 03rd & 04th February.
- Light to moderate scattered to fairly widespread rainfall/snowfall very likely over Arunachal Pradesh during 03rd to 06th; isolated to scattered rainfall over West Bengal & Sikkim, Assam & Meghalaya and Nagaland, Mizoram, Manipur & Tripura on 03rd & 06th February, 2024.
- Isolated **heavy rainfall/snowfall accompanied by hailstorm** also likely over Sub-Himalayan West Bengal & Sikkim on 05th February.

Dense fog warning and cold day: (graphics in Annexure II)

- ❖ **Dense to very dense fog** conditions very likely to prevail in morning hours in isolated pockets of Punjab, Haryana-Chandigarh-Delhi on 05th & 06th February, 2024.
- ❖ **Dense fog** conditions very likely to prevail in morning hours in isolated pockets of Odisha, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura on 04th & 05th February, 2024.
- ❖ **Cold day conditions** very likely in isolated pockets of Himachal Pradesh on 03rd & 04th February, 2024.

Minimum Temperature Forecast:

- ❖ Rise by 2-3°C in minimum temperatures likely over many parts of Northwest India during next 2 days and fall by 2-3°C thereafter.
- ❖ No significant change in minimum temperatures likely over many parts of East India during next 2 days and rise by 2-4°C thereafter.

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

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

- ❖ Yesterday, **Maximum temperatures** were in the range of 16-20°C in many parts of Punjab, Haryana, Chandigarh, Delhi, plains of Uttarakhand and some parts of West Uttar Pradesh. These were below normal by 2-5°C over south Haryana and Delhi.
- ❖ **Visibility recorded (at 0530 hours IST of today) (≤200 metres):** **Delhi:** Palam-100; **West Rajasthan:** Churu-50; **East Uttar Pradesh:** Varanasi-500; **Bihar:** Purnea-200; **Gangetic West Bengal:** Diamond Harbour-200; Kolkata-500; **Odisha:** Bhubaneswar-100; Chandbali-100; Koraput-100, Dhenkanal-100.
- ❖ **Visibility recorded (at 0830 hours IST of today) (≤200 metres):** **Uttarakhand:** Pantnagar-50; **East Madhya Pradesh:** Khajuraho-50, Damoh & Tikamgarh-200 each; **Bihar:** Supaul-200; **Gangetic West Bengal:** Daimond Harbour & Haldia-200 each.

Impact & Action Suggested due to heavy rainfall/snowfall over:

1. **Himachal Pradesh and Uttarakhand on 04th February**
2. **Sub-Himalayan West Bengal & Sikkim on 05th February**

Impacts Expected for Rain/Snow

- Disruption of Electricity.
- Landslide, rock fall and mudslides, Blocking/washout of roads/highways/bridges Nallahs.
- Disruption of traffic flow.
- Damage to Kuccha and unsecured structures.

Suggested Actions

- Avoid roadway underpasses, drainage ditches, low lying areas and areas where water collects – they can unexpectedly flood or overflow.
- Stay away from power lines or electrical wires.
- Don't stay in kuchha houses during heavy rainfall as it may collapse anytime soon
- Drive carefully.

Impact expected and action suggested due to thunderstorm with lightning/gusty winds & Hailstorm:

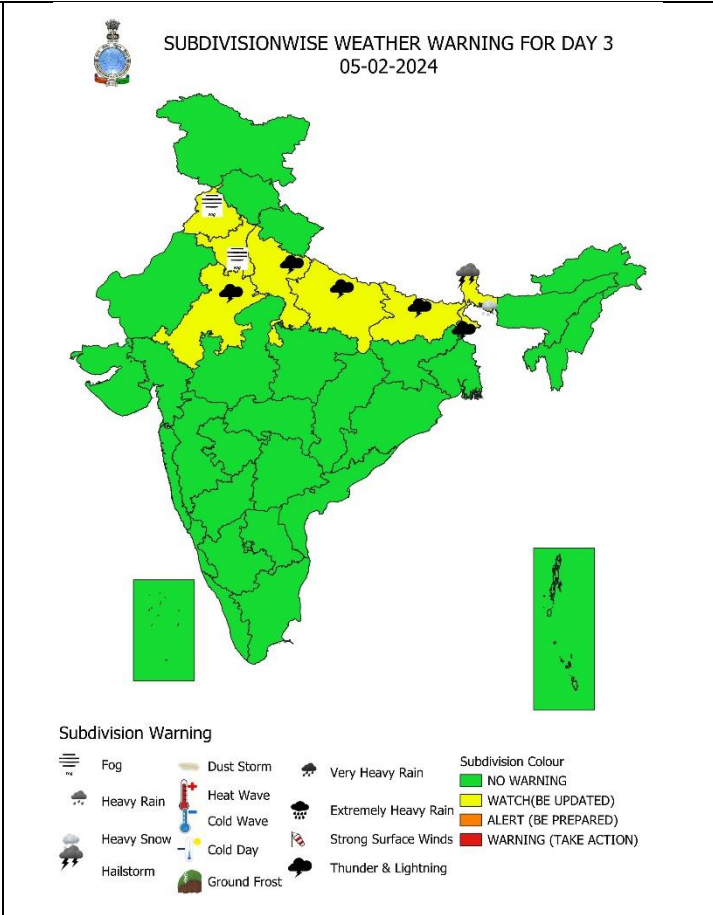
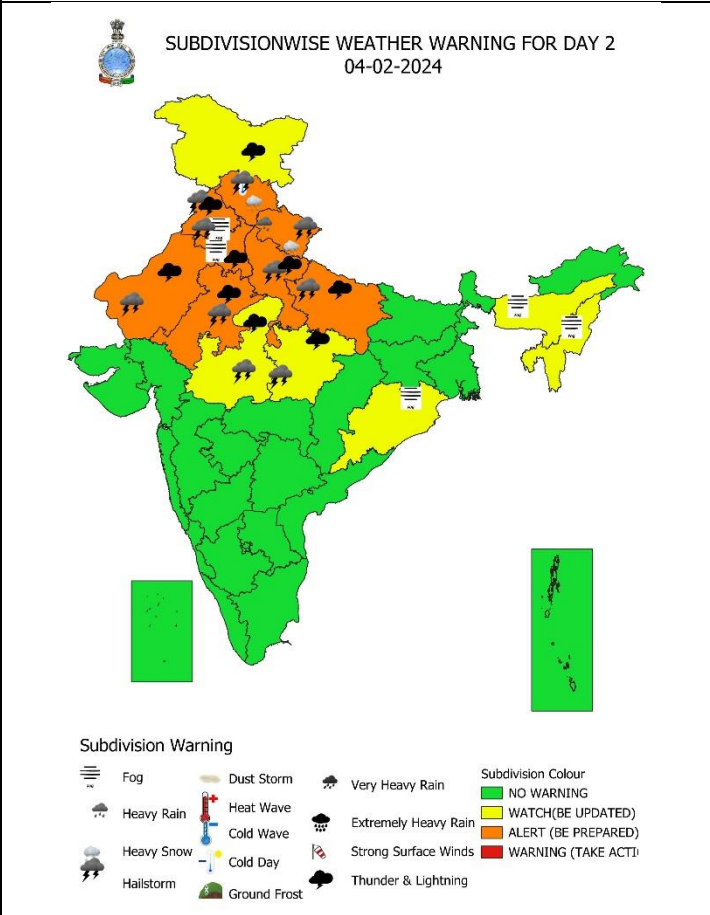
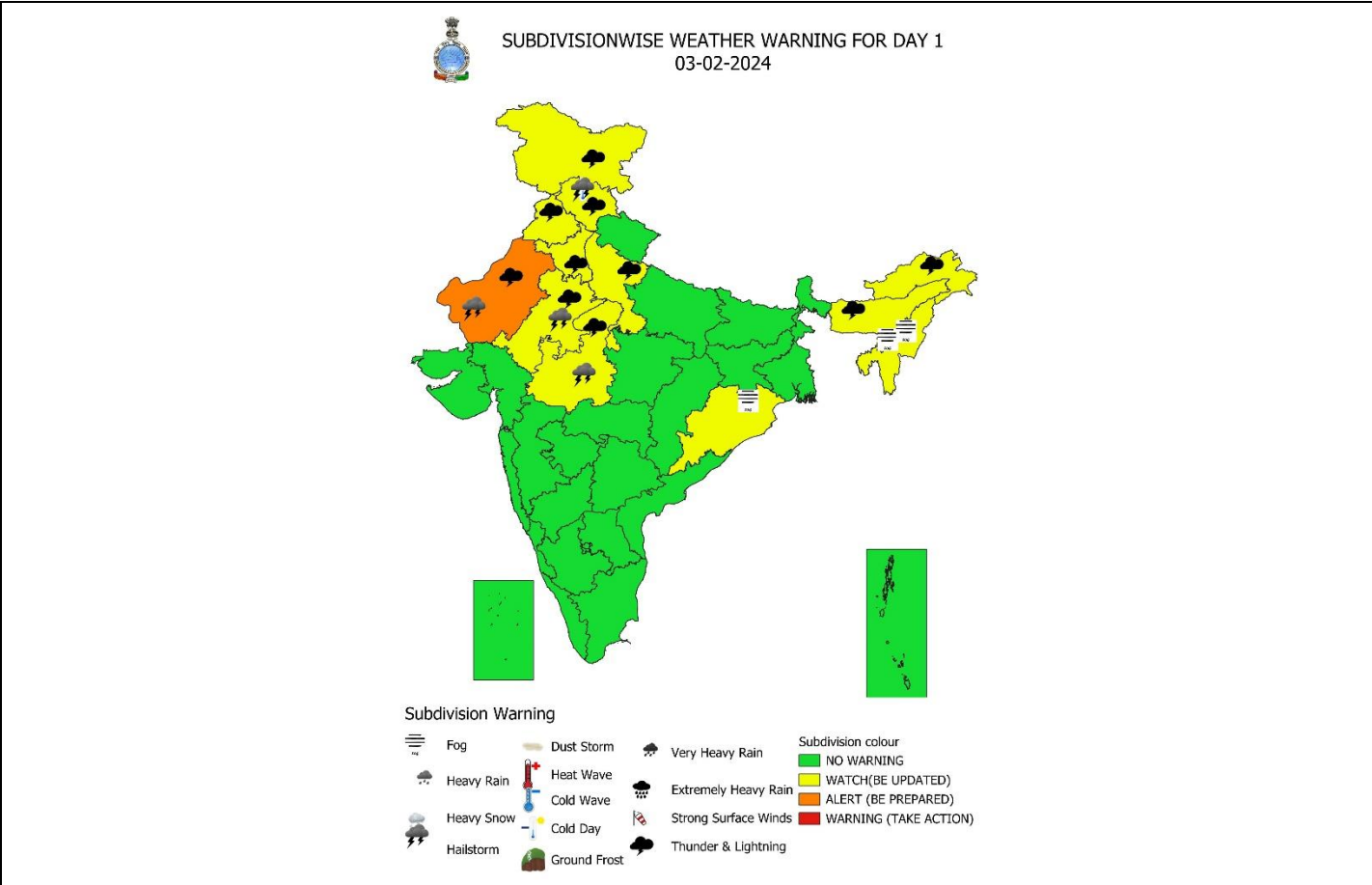
- ❖ **03rd February:** Himachal Pradesh, northwest Rajasthan, northwest Madhya Pradesh
- ❖ **04th February:** Himachal Pradesh, Uttarakhand, Punjab, Haryana-Chandigarh, Delhi, Uttar Pradesh, Rajasthan and Madhya Pradesh
- ❖ **05th February:** Sub-Himalayan West Bengal & Sikkim

Impact expected:

- ❖ Strong wind/hail may damage plantation, horticulture and standing crops.
- ❖ Hail may injure people and cattle at open places.
- ❖ Partial damage to vulnerable structures due to strong winds.
- ❖ Minor damage to kutcha houses/walls and huts.
- ❖ Loose objects may fly.

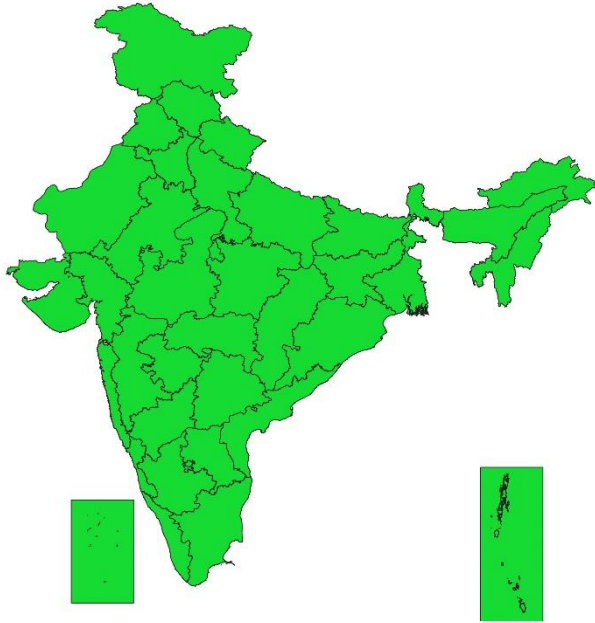
Action suggested:

- ❖ Stay indoors, close windows & doors and avoid travel if possible.
- ❖ Take safe shelters; do not take shelter under trees.
- ❖ Do not lie on concrete floors and do not lean against concrete walls.
- ❖ Unplug electrical/ electronic appliances.
- ❖ Immediately get out of water bodies.
- ❖ Keep away from all the objects that conduct electricity.





SUBDIVISIONWISE WEATHER WARNING FOR DAY 4
06-02-2024

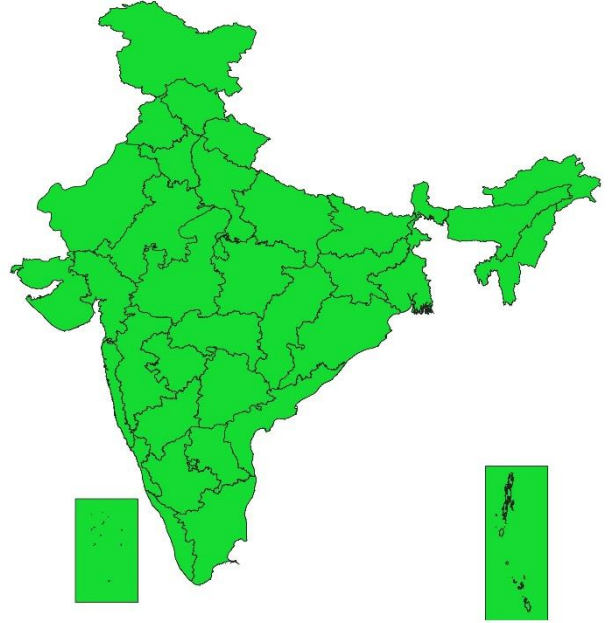


Subdivision Warning

- | | | | |
|------------|--------------|----------------------|---------------------------|
| 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
07-02-2024
















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		Flash Flood Risk	
Terms	Probability of Occurrence (%)		
Unlikely	< 25	 High Risk (Take Action)	
Likely	25 - 50	 Moderate Risk (Be Prepared)	
Very Likely	50 - 75	 Low Risk (Be Updated)	
Most Likely	> 75		

Definition of Cold wave, Cold Day and Fog Conditions:

 Cold Wave	<p>When minimum temperature of a station $\leq 10^{\circ}\text{C}$ for plains and $\leq 0^{\circ}\text{C}$ for hilly regions.</p> <p>(a) Based on departure</p> <p>Cold Wave: Minimum Temperature Departure from normal -4.5°C to -6.4°C.</p> <p>Severe Cold Wave: Minimum Temperature Departure from normal $\leq -6.5^{\circ}\text{C}$</p> <p>(b) Based on actual Minimum Temperature (for Plains only)</p> <p>Cold Wave: When Minimum Temperature is $\leq 4.0^{\circ}\text{C}$</p> <p>Severe Cold Wave: When Minimum Temperature is $\leq 2.0^{\circ}\text{C}$</p> <p>(c) For Coastal Stations</p> <p>When Minimum Temperature departure is $\leq -4.5^{\circ}\text{C}$ & actual Minimum Temperature is $\leq 15^{\circ}\text{C}$</p>
 Cold Day	<p>When minimum temperature of a station $\leq 10^{\circ}\text{C}$ for plains and $\leq 0^{\circ}\text{C}$ for hilly regions</p> <p>Based on departure</p> <p>Cold Day: Maximum Temperature Departure from normal -4.5°C to -6.4°C.</p> <p>Severe Cold Day: Maximum Temperature Departure from normal $\leq -6.5^{\circ}\text{C}$</p>
 Fog	<p>Phenomenon of small droplets suspended in air and the horizontal visibility $< 1\text{km}$</p> <p>Moderate Fog: When the visibility between 500-200 metres</p> <p>Dense Fog: when the visibility between 50-200 metres</p> <p>Very Dense Fog: when the visibility < 50 metres</p>