



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 forcast 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:** Bhubaneshwar-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:** Diamond 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:

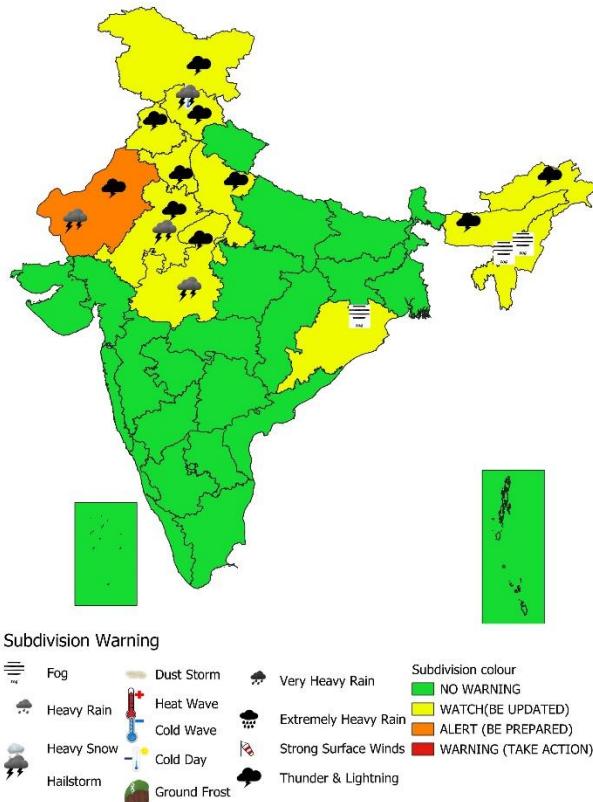
- ❖ Strong wind/hail may damage plantation, horticulture and standing crops.
- ❖ Hail may injure people and cattle at open places.
- ❖ Partial damage to vulnerable structures due to strong winds.
- ❖ Minor damage to kutcha houses/walls and huts.
- ❖ Loose objects may fly.

Action suggested:

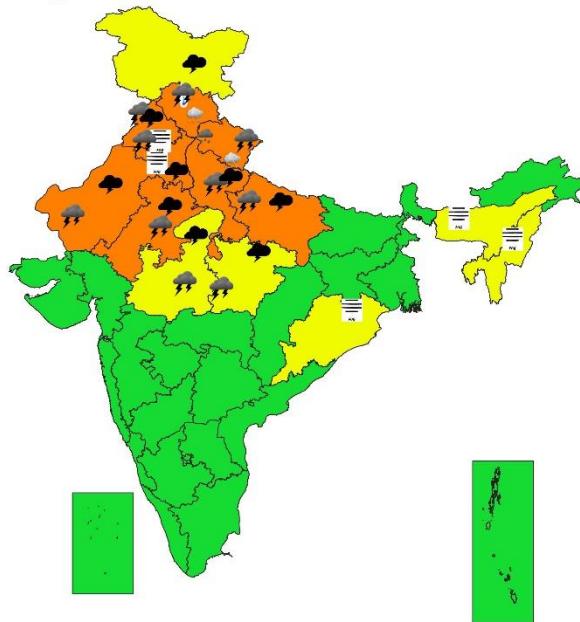
- ❖ Stay indoors, close windows & doors and avoid travel if possible.
- ❖ Take safe shelters; do not take shelter under trees.
- ❖ Do not lie on concrete floors and do not lean against concrete walls.
- ❖ Unplug electrical/ electronic appliances.
- ❖ Immediately get out of water bodies.
- ❖ Keep away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



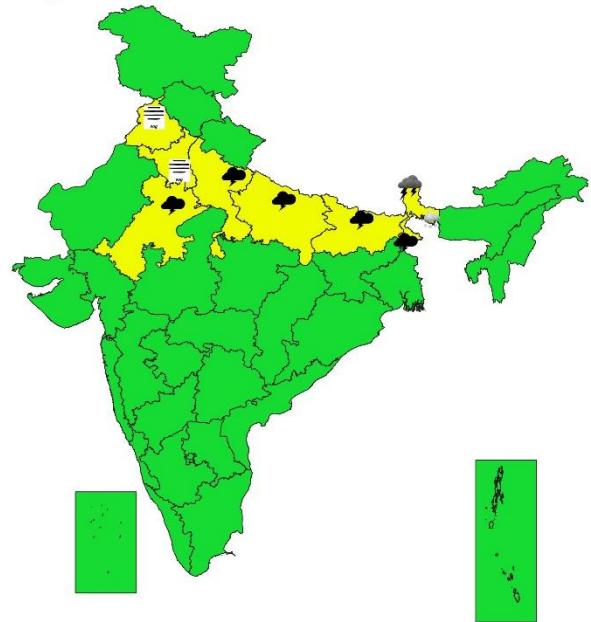
SUBDIVISIONWISE WEATHER WARNING FOR DAY 1
03-02-2024



SUBDIVISIONWISE WEATHER WARNING FOR DAY 2
04-02-2024

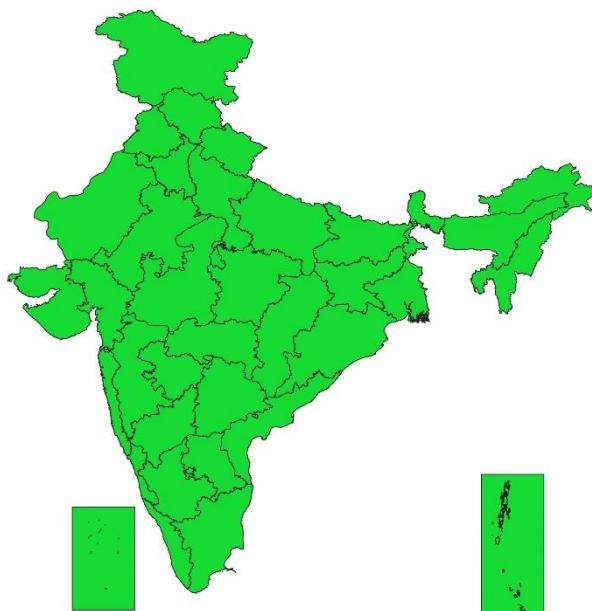


SUBDIVISIONWISE WEATHER WARNING FOR DAY 3
05-02-2024





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		WATCH(BE UPDATED)
	Cold Wave		Cold Day		Strong Surface Winds		ALERT (BE PREPARED)
	Heavy Snow		Ground Frost		Thunder & Lightning		WARNING (TAKE ACT!)
	Hailstorm						



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		WATCH(BE UPDATED)
	Cold Wave		Cold Day		Strong Surface Winds		ALERT (BE PREPARED)
	Heavy Snow		Ground Frost		Thunder & Lightning		WARNING (TAKE ACT!)
	Hailstorm						

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 Widespred (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:

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

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 $\leq -6.5^{\circ}\text{C}$

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