

Government of India
Ministry of Earth Sciences
India Meteorological Department



Press Release

Date: 01st March, 2024

Time of Issue: 1345 hours IST

Subject: Intense spell of rainfall/snowfall over Western Himalayan Region and rainfall over plains of northwest India till 03rd March with peak intensity on 01st & 02nd March, 2024.

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

- ❖ **Light to moderate rainfall/snowfall** at a few places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Arunachal Pradesh; at isolated places over Himachal Pradesh.
- ❖ **Light to moderate rainfall** at many places over; at a few places over, Jharkhand, Gangetic West Bengal, Odisha; at isolated places over Punjab, Madhya Pradesh, Vidarbha, Bihar, Sub-Himalayan West Bengal & Sikkim, Madhya Maharashtra, Konkan & Goa, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.

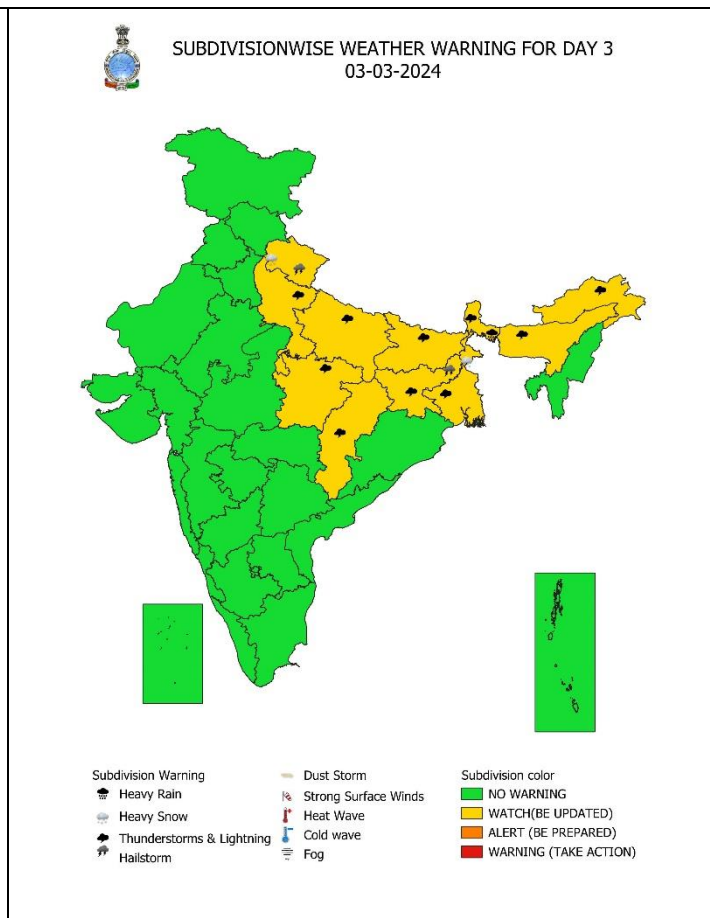
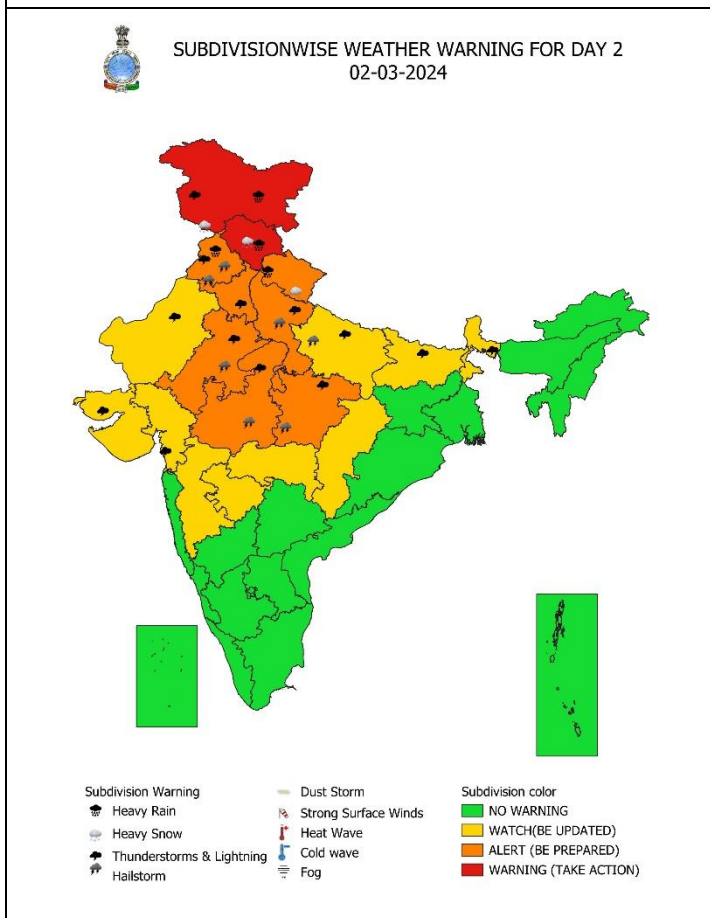
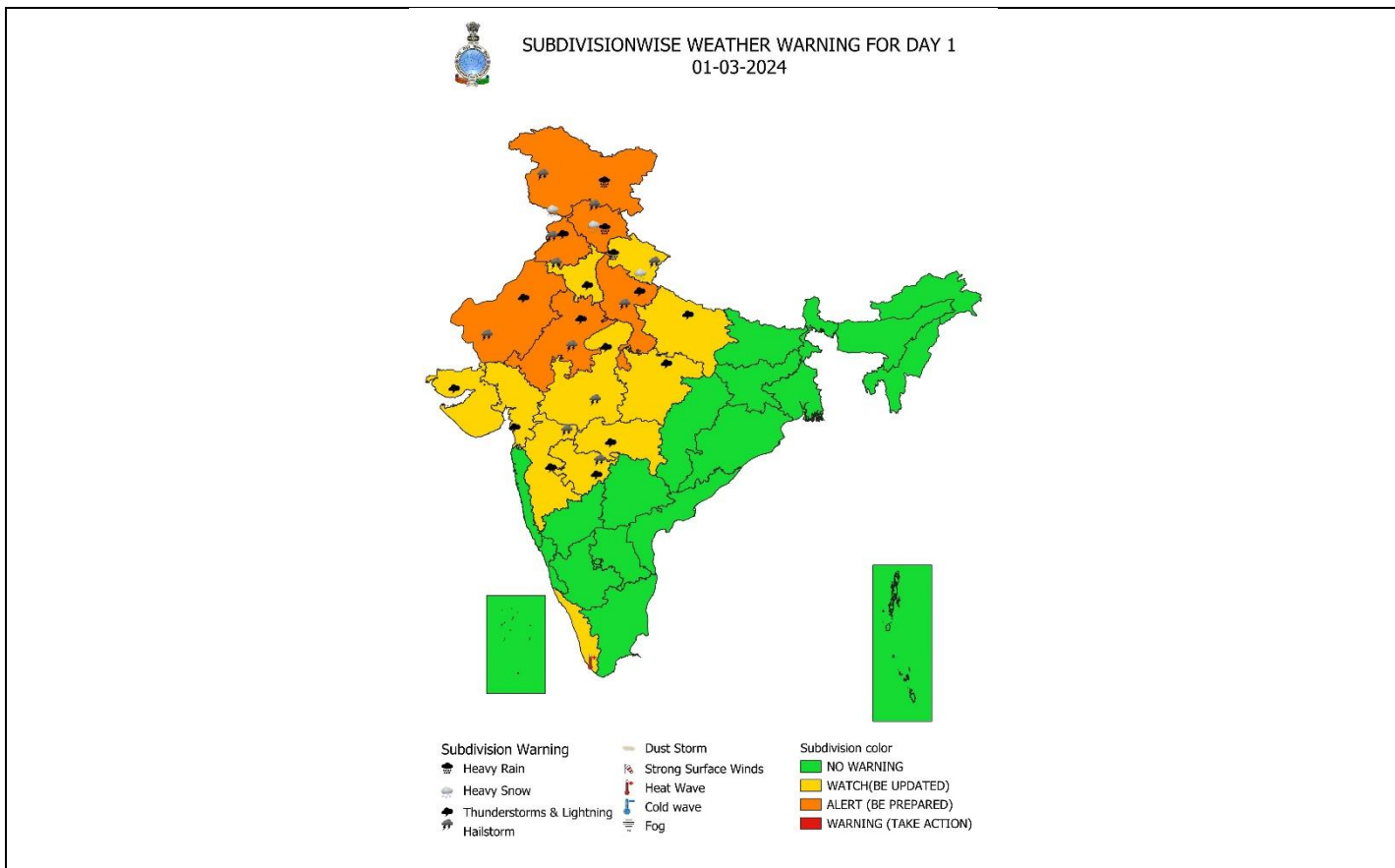
Weather Systems and Forecast & Warnings during next 5 days: (Annexure I)

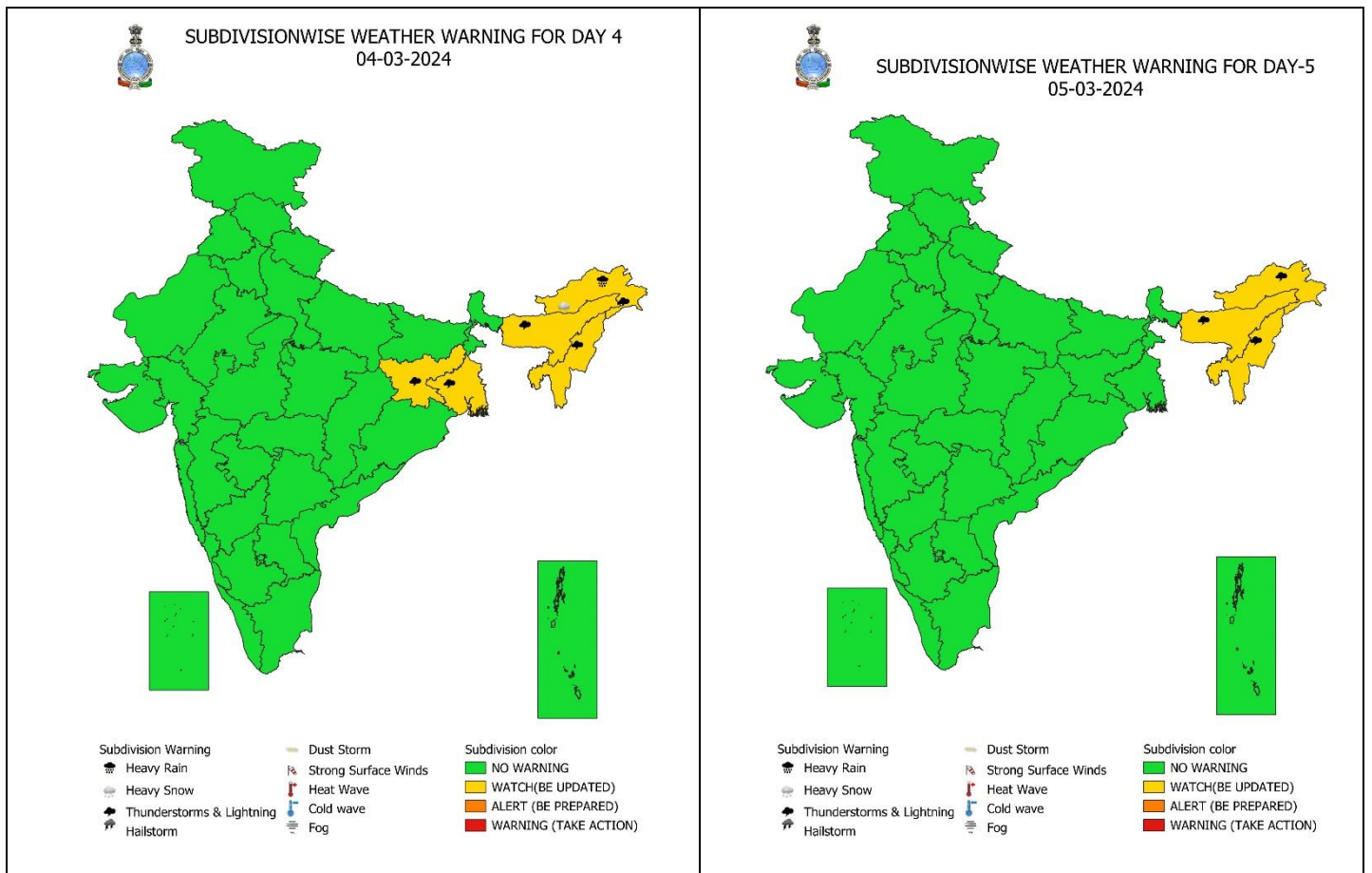
- ❖ **A Western Disturbance as a cyclonic circulation lies over northwest Afghanistan & neighbourhood and a trough runs from this cyclonic circulation to Northwest Arabian Sea in lower & middle tropospheric levels. An induced cyclonic circulation lies over southwest Rajasthan & adjoining Pakistan in lower tropospheric levels. High moisture feeding is taking place from Arabian Sea to northwest India and is likely to continue till 03rd March. Under their influence:**
 - **Fairly widespread to widespread light/moderate rainfall accompanied with thunderstorms & lightning very likely over Western Himalayan Region till 03rd March, 2024.**
 - **Scattered to fairly widespread light/moderate rainfall accompanied with thunderstorms, lightning & gusty winds (30-40 kmph gusting to 50 kmph) very likely over Punjab, Haryana-Chandigarh-Delhi and isolated to scattered light/moderate rainfall over Uttar Pradesh, Rajasthan and north Madhya Pradesh during 01st-03rd March, 2024.**
 - **Isolated heavy to very heavy rainfall/snowfall very likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad & Himachal Pradesh and isolated heavy rainfall/snowfall also very likely over Uttarakhand on 01st & 02nd March. Isolated heavy rainfall over Punjab on 02nd March, 2024.**
 - **Hailstorm activity also very likely at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand, West Rajasthan on 01st; Punjab, Haryana, Chandigarh, West Uttar Pradesh, north Madhya Pradesh,**

East Rajasthan on 01st & 02nd March and over East Uttar Pradesh on 02nd March, 2024.

- ❖ Due to trough or confluence of winds at lower tropospheric levels, isolated light/moderate rainfall accompanied with **thunderstorms, lightning** very likely over Madhya Maharashtra, Marathwada, Vidarbha on 01st & 02nd; Chhattisgarh during 02nd-05th; over Bihar, Jharkhand, Sub-Himalayan West Bengal & Sikkim during 02nd-04th; Gangetic West Bengal and Odisha on 03rd & 04th March, 2024. Isolated **hailstorm** also likely over Madhya Maharashtra, Marathwada on 01st & 02nd; Vidarbha and Chhattisgarh on 02nd March.
- ❖ A cyclonic circulation lies over Northeast Assam in lower tropospheric levels. Under its influence and eastward movement of current Western Disturbance:
 - ❖ Isolated to scattered light/moderate rainfall/snowfall very likely over Arunachal Pradesh during next 7 days. Isolated **heavy rainfall/snowfall** likely over Arunachal Pradesh on 04th & over Sikkim on 03rd March, 2024.
 - ❖ Isolated light/moderate rainfall accompanied with **thunderstorms, lightning** likely over the Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura during 03rd-06th March, 2024.
- ❖ **Hot and humid weather** very likely to prevail over Kerala on 01st March, 2024 and improve thereafter.

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





Agromet advisories for Heavy rainfall, Gusty winds and hailstorms likely over various parts of the country

(Based on the IBF and advisories issued by different AMFUs and DAMUs)

- ❖ Harvest the matured wheat, jowar and gram in Madhya Maharashtra and Marathwada; mustard in North Rajasthan and Madhya Pradesh as early as possible and keep the harvested produce at safer places.
- ❖ Use hail nets or hail caps in fruit orchards to protect them from mechanical damage and provide mechanical support to horticultural crops & staking to vegetables in Himachal Pradesh, Uttarakhand, Punjab, Haryana, Uttar Pradesh, North Rajasthan, Madhya Pradesh, Chhattisgarh, Madhya Maharashtra, Marathwada and Vidarbha.
- ❖ Make necessary arrangements for draining out excess water from crop fields to avoid water stagnation in Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Punjab and Sikkim.
- ❖ Keep harvested produce in safe places.

- **Impact expected and action suggested due to thunderstorm with lightning/gusty winds & Hailstorm** over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand, West Rajasthan on 01st; Punjab, Haryana, Chandigarh, West Uttar Pradesh, East Rajasthan, north Madhya Pradesh on 01st & 02nd March and over East Uttar Pradesh on 02nd March, 2024.

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 kutchha 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.

Impact & Action Suggested due to heavy rainfall/snowfall over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh and Uttarakhand on 01st & 02nd March, 2024.

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 kuccha houses during heavy rainfall as it may collapse anytime soon
- Drive carefully.

Legends & abbreviations:

- ❖ **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; **PTO:** Part Time Office.
- ❖ **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)