



Government of India
Ministry of Earth Sciences
India Meteorological Department



Press Release

Date: 28th February, 2024

Time of Issue: 1315 hours IST

Subject: Intense spell of rainfall/snowfall over Western Himalayan Region from night of 29th February and rainfall over plains of northwest India from 01st March to 03rd March with peak intensity of 1st & 2nd March, 2024.

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

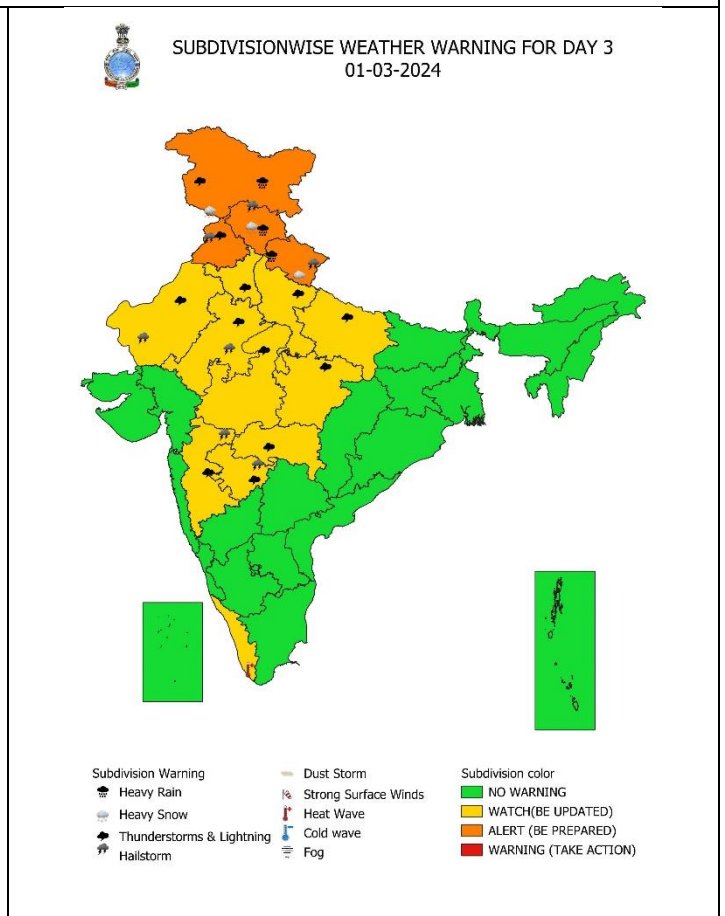
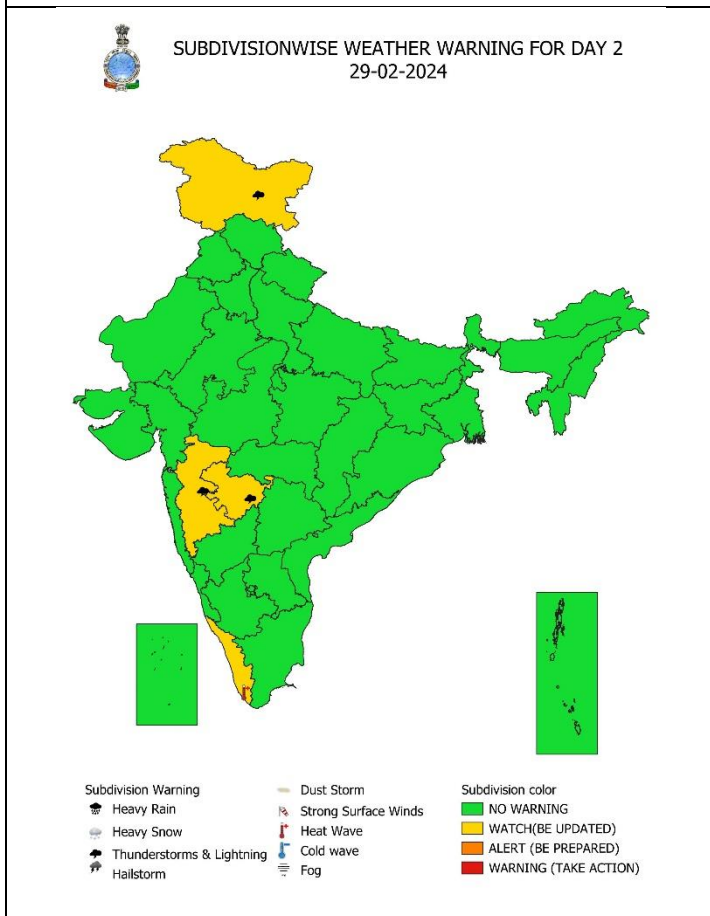
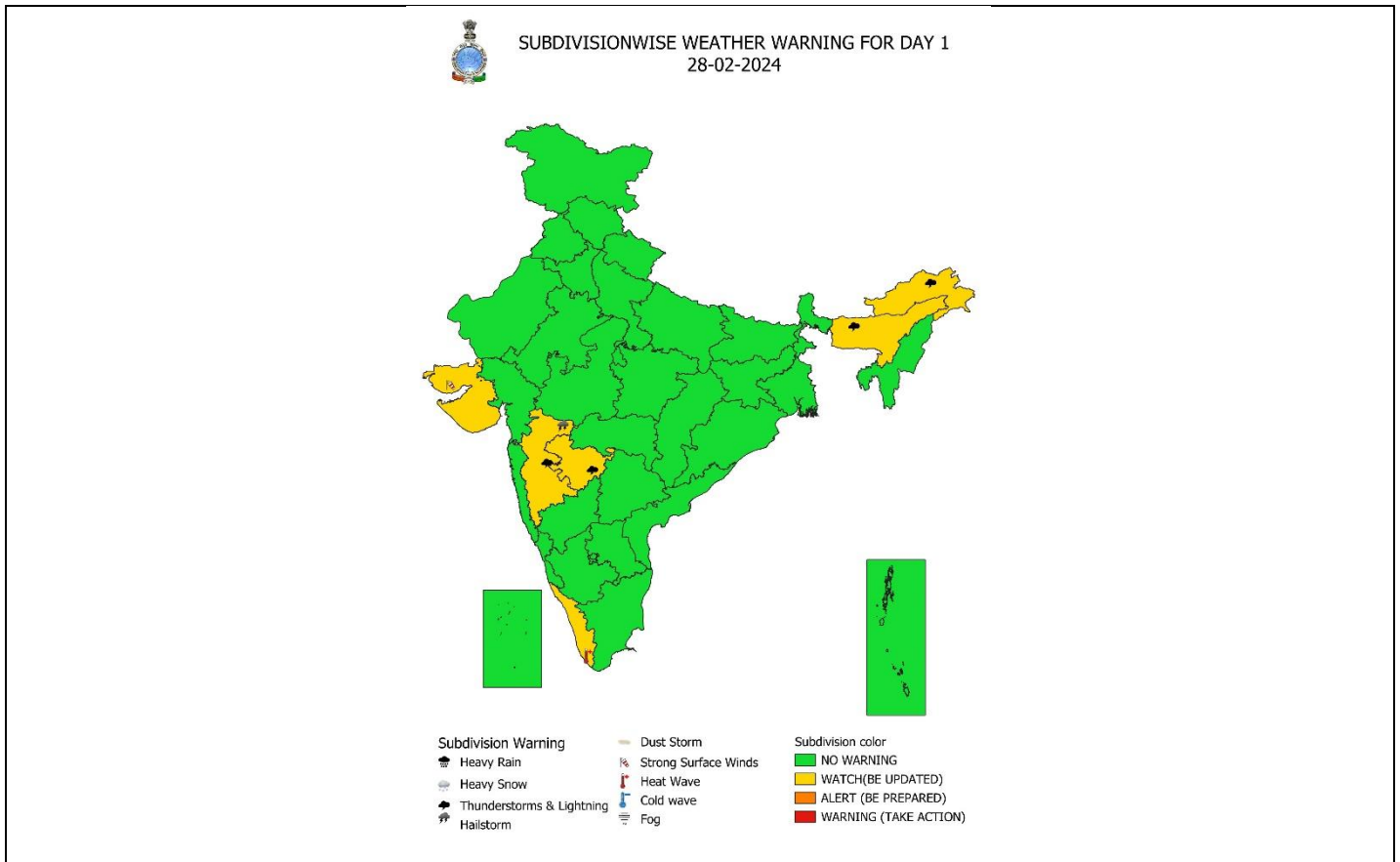
- ❖ **Light to moderate rainfall/snowfall** at a few places over Uttarakhand; at isolated places over Arunachal Pradesh, Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad and Himachal Pradesh.
- ❖ **Light to moderate rainfall** at many places over East Madhya Pradesh; at a few places over West Madhya Pradesh, Chhattisgarh, Jharkhand, Gangetic West Bengal, Odisha; at isolated places over Punjab, Haryana, Uttar Pradesh, Vidarbha, Bihar, Sub-Himalayan West Bengal & Sikkim, Madhya Maharashtra and Marathwada.
- ❖ **Hailstorm** occurred at isolated places over Madhya Pradesh, Chhattisgarh, Marathwada and Jharkhand.
- ❖ **Gusty wind (in kmph)** observed: **Chhattisgarh:** Bilaspur- 70, Koriya- 50, Jainjar- 50, Korba- 45 and Jashpur-42; **Madhya pradesh-** Bhopal-74, Singrauli-65, Chhatarpur-50, Sehore-48, Shajapur-43 and Rewa & Shahdol- 41 each.
- ❖ **Significant rainfall (in cm): East Madhya Pradesh:** Ajaigarh (dist Panna) 5, Anuppur-aws (dist Anuppur) 5, Kotma (dist Anuppur), Palera(dist Tikamgarh) 4 each; **West Madhya Pradesh:** Navibagh Aet (dist Bhopal) 5, Salwani (dist Raisen) 4; **Chhattisgarh:** Manora (dist Jashpur) 4, Bilaspur (dist Bilaspur), Marwahi (dist Bilaspur) 3 each, **Jharkhand:** Mandar, Khunti-4 each, West Singhbhum, Ramgarh, Lohardaga-2 each.

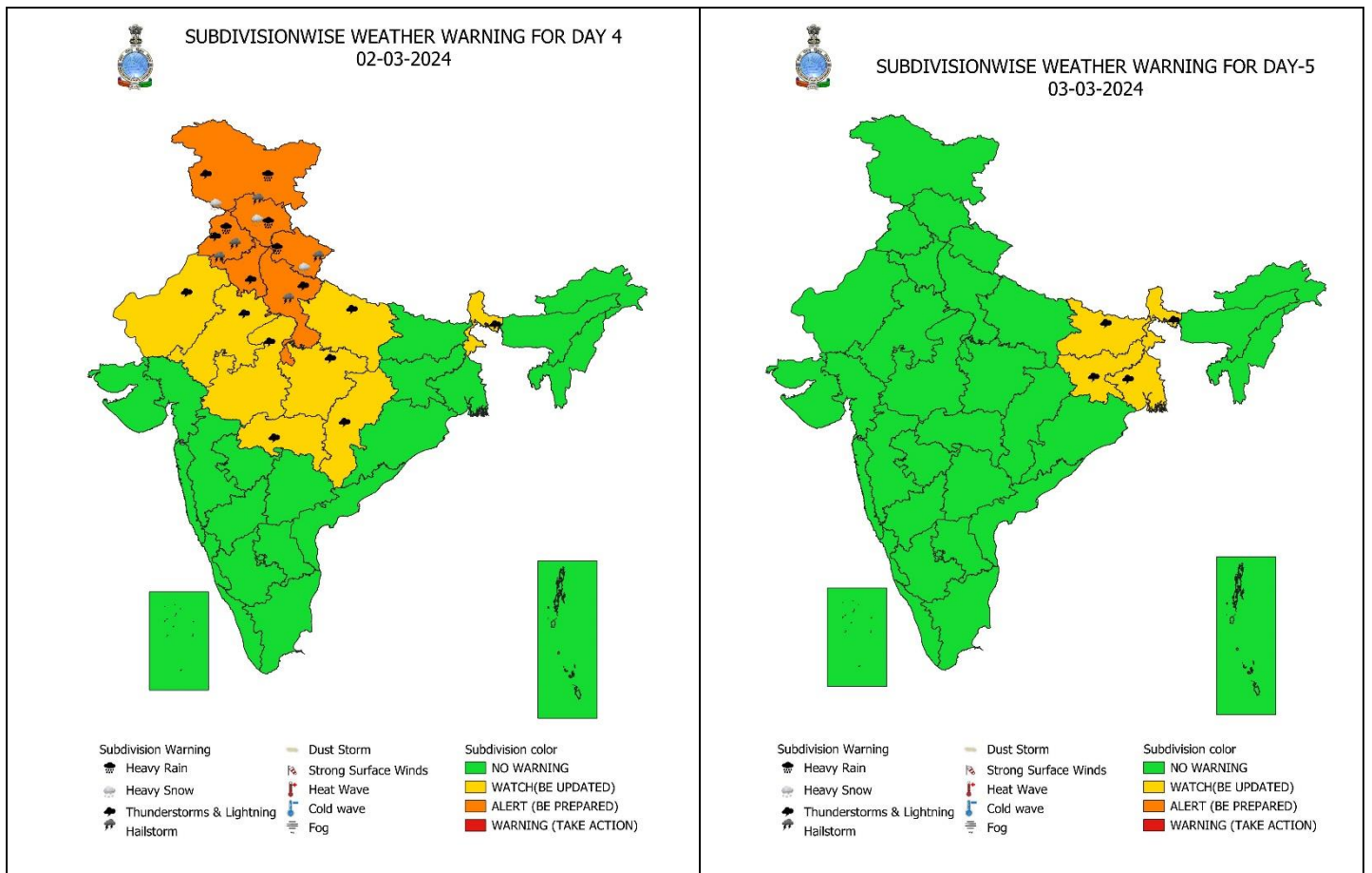
Weather Systems and Forecast & Warnings during next 5 days: (Annexure I)

- ❖ A Western Disturbance as a cyclonic circulation lies over northeast Iran & neighbourhood to lower to upper tropospheric levels. High moisture feeding from Arabian Sea to northwest India is also likely during 1st to 2nd March. It is very likely to affect Western Himalayan Region from 29th February and plains of northwest India from 1st March to 3rd March with peak intensity on 1st & 2nd March, 2024. Under its influence:
 - Fairly widespread to widespread light/moderate rainfall accompanied with thunderstorms & lightning very likely over Western Himalayan Region during night of 29th February to 3rd March, 2024.

- Scattered to fairly widespread light/moderate rainfall accompanied with **thunderstorms, lightning & gusty winds (30-40 kmph)** very likely over Punjab, Haryana-Chandigarh-Delhi and scattered light/moderate rainfall over Uttar Pradesh, Rajasthan and north Madhya Pradesh on 1st & 2nd March, 2024.
- *Isolated heavy rainfall/snowfall very likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad and Himachal Pradesh on 1st and isolated heavy to very heavy rainfall/snowfall on 2nd March 2024. Isolated heavy rainfall/snowfall also very likely over Uttarakhand on 1st & 2nd March and isolated heavy rainfall over Punjab on 02nd March, 2024.*
- **Hailstorm activity also very likely at isolated places over Himachal Pradesh, Uttarakhand & Punjab on 1st & 2nd March; over Rajasthan on 1st and over Haryana & West Uttar Pradesh on 2nd March, 2024.**
- **Strong surface winds (30-40 kmph)** likely over Northwest India on 1st & 2nd March.
- ❖ 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 during 28th February-1st March, 2024. Isolated **hailstorm** also likely over north Madhya Maharashtra on 28th February; over Marathwada on 28th & 29th February.
- ❖ A Cyclonic circulation lies over northeast Bangladesh and neighbourhood in lower tropospheric levels. Under its influence:
 - ❖ Isolated to scattered light/moderate rainfall/snowfall very likely over Arunachal Pradesh during next 7 days.
 - ❖ Isolated light/moderate rainfall over the Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura on 28th February and 3rd-5th March, 2024.
- ❖ **Hot and humid weather** very likely to prevail over Kerala during next 3 days and over Rayalaseema during 1st-3rd March, 2024.

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 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 in North Madhya Maharashtra.
- ❖ Make necessary arrangements for draining out excess water from crop fields to avoid water stagnation in Jammu & Kashmir, Himachal Pradesh, Uttarakhand and Punjab.
- ❖ Keep harvested produce in safe places.
- ❖ Provide mechanical support to horticultural crops and staking to vegetables in Himachal Pradesh, Uttarakhand, Punjab, Haryana, Uttar Pradesh, North Rajasthan, Madhya Maharashtra and Marathwada.

Impact expected and action suggested due to thunderstorm with lightning/gusty winds & Hailstorm over Himachal Pradesh, Uttarakhand, Punjab on 1st & 2nd March; over Rajasthan on 1st; over Haryana-Chandigarh and West Uttar Pradesh on 2nd 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 1st & 2nd 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 kuchcha 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)