



Government of India
Ministry of Earth Sciences
India Meteorological Department



Press Release

Date: 29th February, 2024

Time of Issue: 1245 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 1st March to 3rd 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 Arunachal Pradesh.
- ❖ **Light to moderate rainfall** at isolated places over East Madhya Pradesh, Vidarbha, Madhya Maharashtra, Marathwada, Sub-Himalayan West Bengal & Sikkim, Odisha, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura and Coastal Andhra Pradesh.
- ❖ **Hailstorm** occurred at isolated places over East Madhya Pradesh and Marathwada.
- ❖ **Significant rainfall amount (in cm): Odisha:** Phiringia (dist Kandhamal) 3, Digapahandi (dist Ganjam) 1, **East Madhya Pradesh:** Pandhurna (dist Chindwara) 2.

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

- ❖ A Western Disturbance as a cyclonic circulation lies over northeast Iran & neighbourhood in lower to upper tropospheric levels. High moisture feeding from Arabian Sea to northwest India is also likely on 1st & 2nd March. It is very likely to affect Western Himalayan Region from night of 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 (40-50 kmph gusting to 60 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 to very heavy rainfall/snowfall very likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad on 1st & 2nd March. Isolated heavy rainfall/snowfall over Himachal Pradesh on 1st & heavy to very heavy rainfall/snowfall on 2nd March. Isolated heavy rainfall/snowfall over Uttarakhand on 1st & 2nd March. Isolated heavy rainfall over Punjab on 02nd March, 2024.**

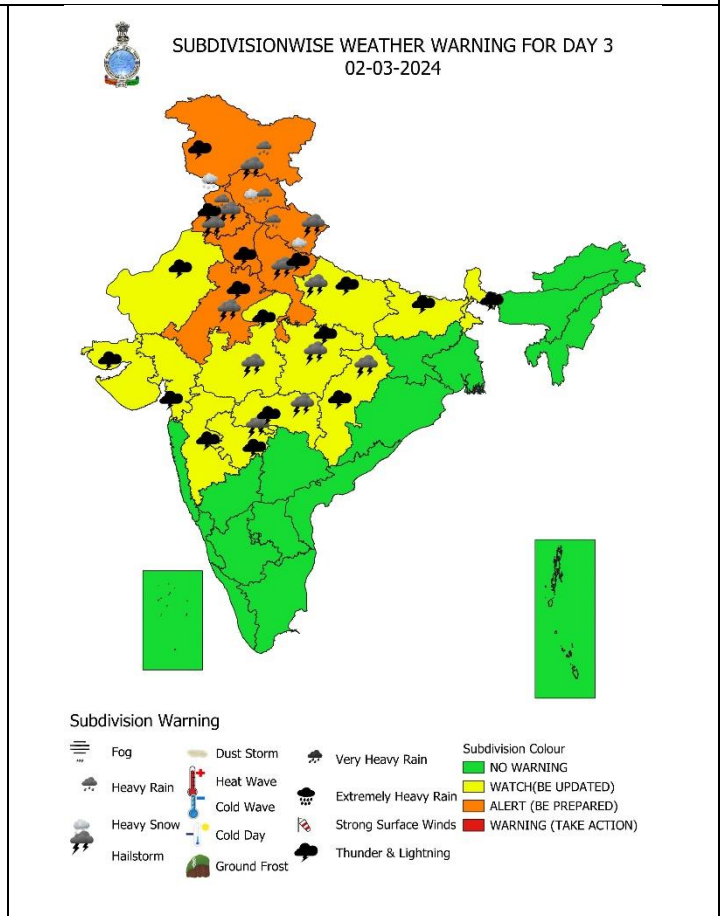
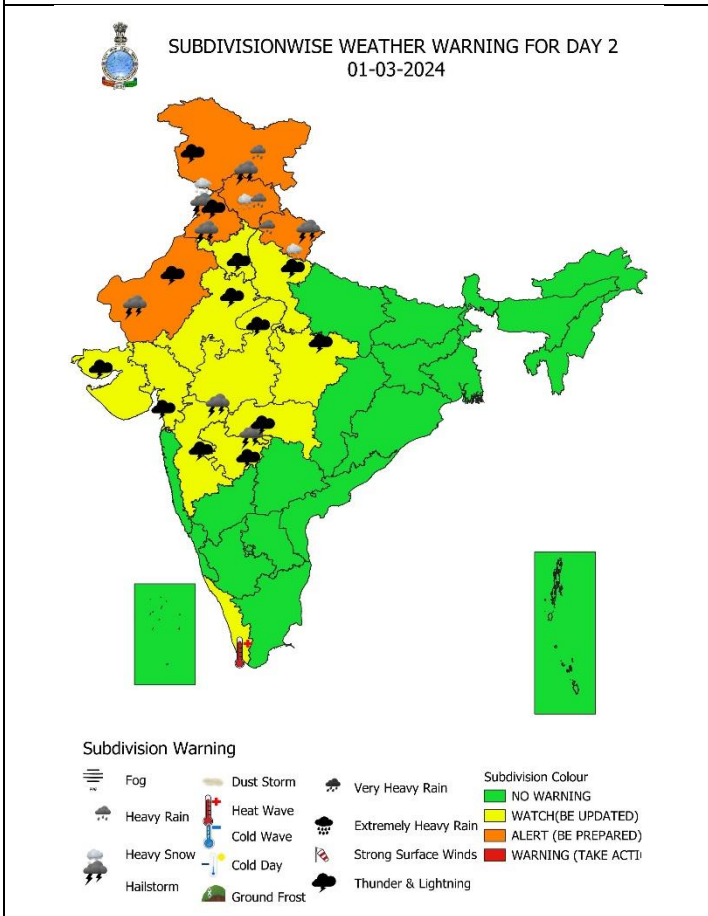
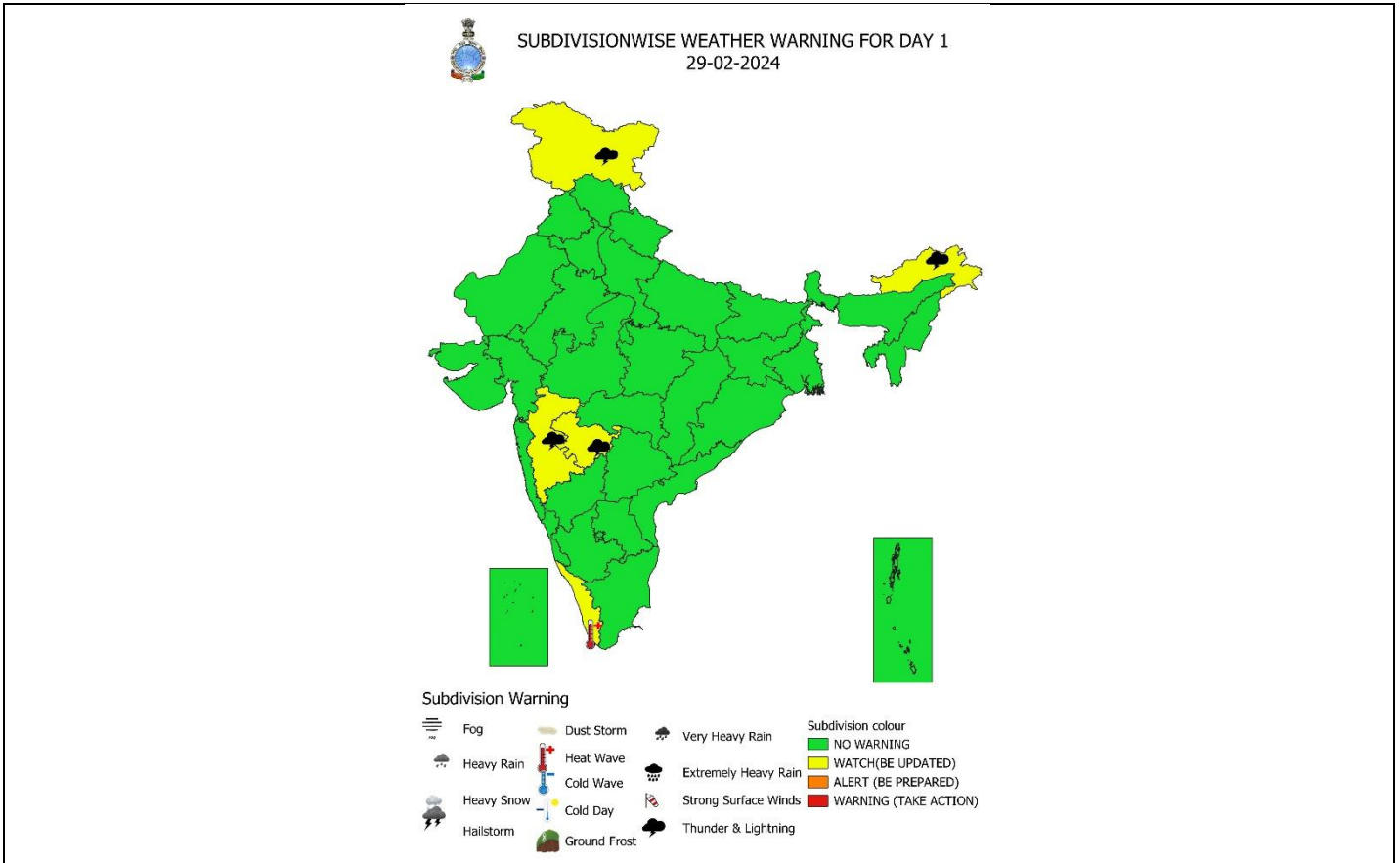
- **Hailstorm activity also very likely at isolated places over Himachal Pradesh, Uttarakhand, Punjab on 1st & 2nd March; over West Rajasthan on 1st and over Haryana, Chandigarh, East Rajasthan, Uttar Pradesh and north Madhya Pradesh on 2nd March, 2024.**
- **Strong surface winds (40-50 kmph gusting to 60 kmph) likely over Northwest India on 1st & 2nd March.**

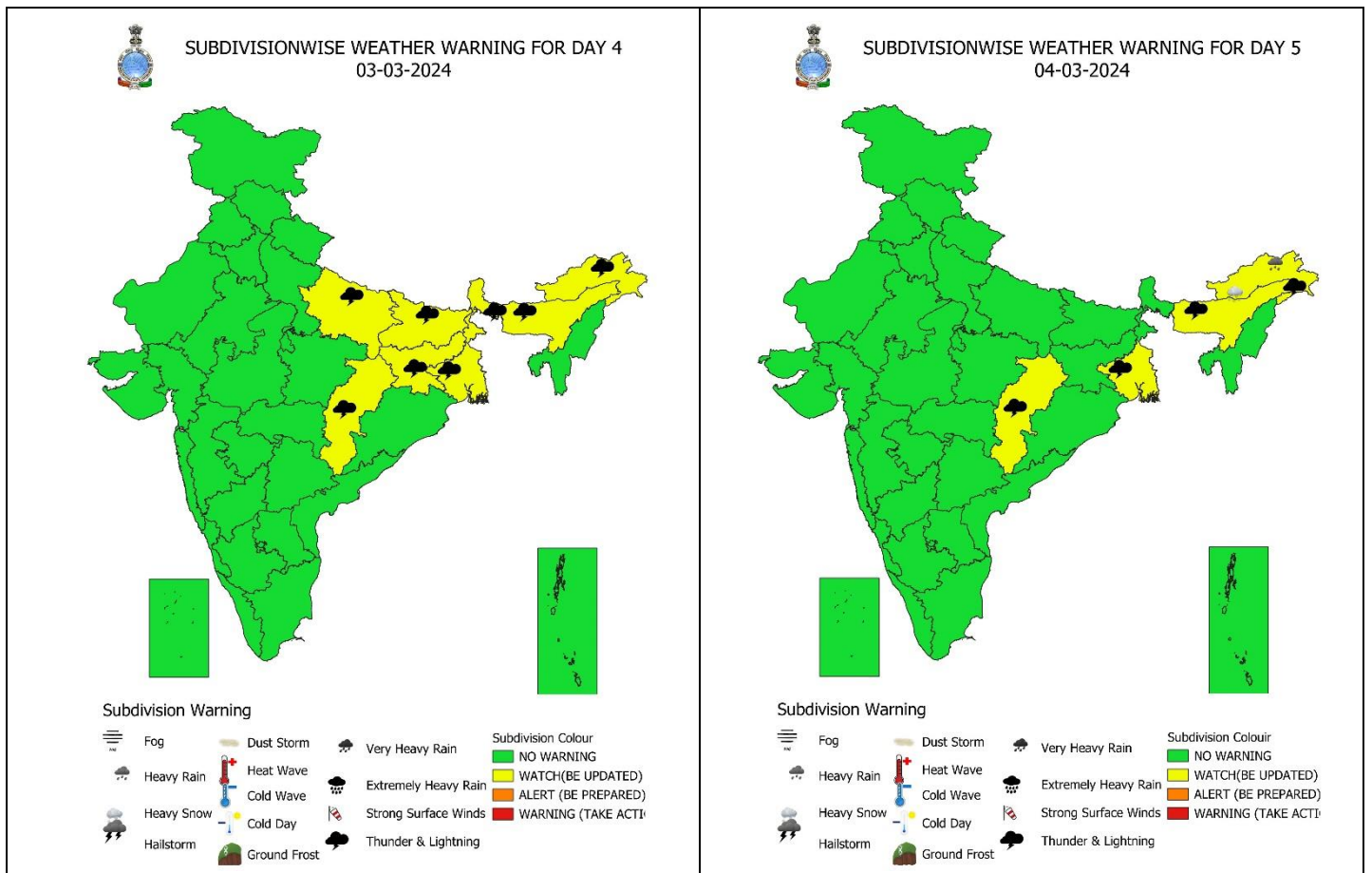
- ❖ Due to trough or confluence of winds in central parts of the country at lower tropospheric levels, isolated light/moderate rainfall accompanied with **thunderstorms, lightning** very likely over Madhya Maharashtra, Marathwada during 29th February-2nd March; Vidarbha on 1st & 2nd and Chhattisgarh during 2nd-5th March, 2024. Isolated **hailstorm** also likely over Madhya Maharashtra on 1st March; Marathwada on 1st & 2nd; Vidarbha and Chhattisgarh on 2nd March.

- ❖ A trough in westerlies runs roughly along Long. 93°E to the north of Lat. 25°N 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 **thunderstorms, lightning** very likely over Arunachal Pradesh on 29th February. Isolated **heavy rainfall/snowfall** likely over Arunachal Pradesh on 4th March, 2024.
 - ❖ Isolated light/moderate rainfall over the Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura during 3rd-6th March, 2024.

- ❖ **Hot and humid weather** very likely to prevail over Kerala during next 2 days and over Rayalaseema during 1st-4th 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, north Madhya Pradesh, Vidarbha, Chhattisgarh, 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 West Rajasthan on 1st; and over Haryana-Chandigarh, East Rajasthan, Uttar Pradesh, north Madhya 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 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.

Impact & Action Suggested due to heavy to very 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)