



Government of India  
Ministry of Earth Sciences  
India Meteorological Department



Date: 09<sup>th</sup> April, 2024  
Time of Issue: 1315 hours IST

**Special Message (No.- 1)**

FROM: INDIA METEOROLOGICAL DEPARTMENT  
TO: CONTROL ROOM, NDM, MINISTRY OF HOME AFFAIRS  
CONTROL ROOM NDMA  
SECRETARY, MOES  
DIRECTOR GENERAL, DOORDARSHAN  
DIRECTOR GENERAL, AIR  
PIB MOES  
CHIEF SECRETARY, GOVT. OF JAMMU & KASHMIR  
CHIEF SECRETARY, GOVT. OF LADAKH  
CHIEF SECRETARY, GOVT. OF HIMACHAL PRADESH  
CHIEF SECRETARY, GOVT. OF UTTARAKHAND  
CHIEF SECRETARY, GOVT. OF PUNJAB  
CHIEF SECRETARY, GOVT. OF HARYANA  
CHIEF SECRETARY, GOVT. OF CHANDIGARH  
CHIEF SECRETARY, GOVT. OF DELHI  
CHIEF SECRETARY, GOVT. OF UTTAR PRADESH  
CHIEF SECRETARY, GOVT. OF RAJASTHAN

**Subject: Light to moderate rainfall accompanied with thunderstorm over Northwest India during 13<sup>th</sup>-16<sup>th</sup> April, 2024.**

**Weather Systems and Forecast & Warnings: (Annexure I)**

- ❖ A **Western Disturbance** as a trough in middle tropospheric westerlies runs along Long. 60°E to the north of Lat. 30°N. An **Active Western Disturbance** is likely to affect Northwest India from **12<sup>th</sup> April, 2024**. Under the influence of these systems:
  - ✓ Isolated light rainfall/snowfall very likely over Jammu-Kashmir, Himachal Pradesh, Uttarakhand during 10<sup>th</sup>-12<sup>th</sup> and fairly widespread to widespread light to moderate rainfall/snowfall with **thunderstorm, lightning** over the region during 13<sup>th</sup>-16<sup>th</sup> April, 2024.
  - ✓ Scattered to fairly widespread rainfall with **thunderstorm, lightning** over Uttar Pradesh, Punjab and Haryana during 13<sup>th</sup>-15<sup>th</sup> April and isolated to scattered light to moderate rainfall with **thunderstorm, lightning** very likely over Rajasthan during 10<sup>th</sup>-15<sup>th</sup> April, 2024.
  - ✓ **Isolated heavy rainfall/snowfall very likely over Jammu & Kashmir on 13<sup>th</sup> & 14<sup>th</sup> April, 2024.**
  - ✓ **Isolated hailstorm very likely over Himachal Pradesh and Uttarakhand on 13<sup>th</sup> April, 2024.**
  - ✓ **Dust storm/thundersquall** (50-60 kmph gusting to 70kmph) very likely over Rajasthan on 13<sup>th</sup> April, 2024.

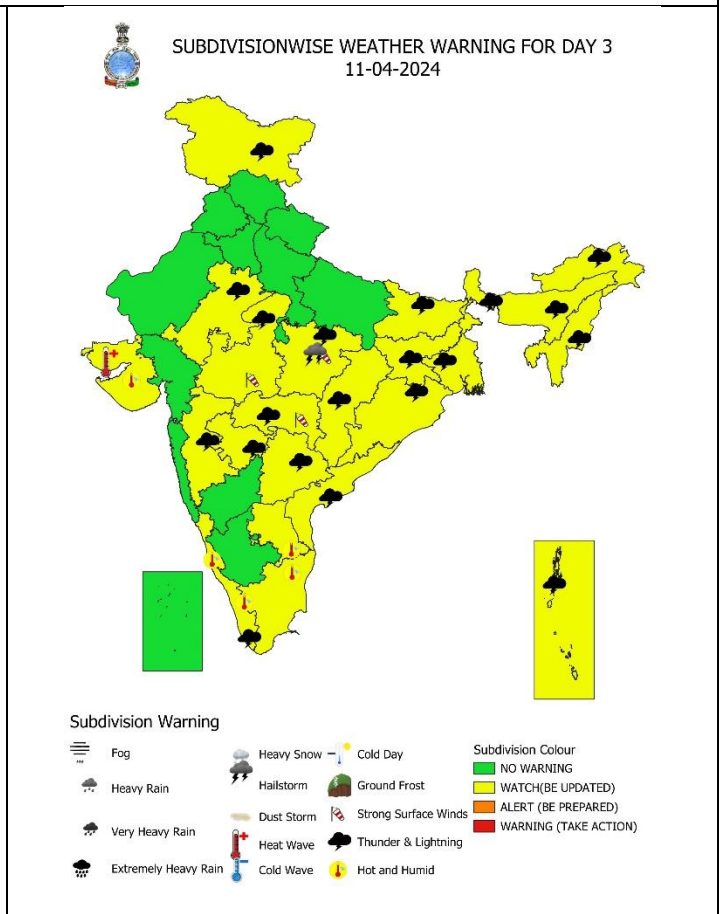
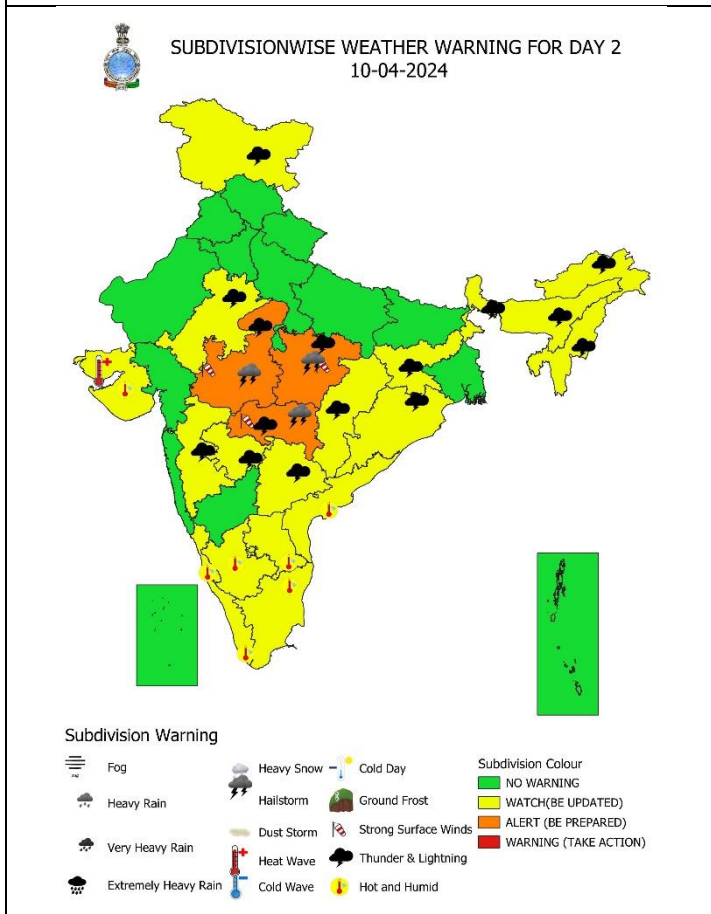
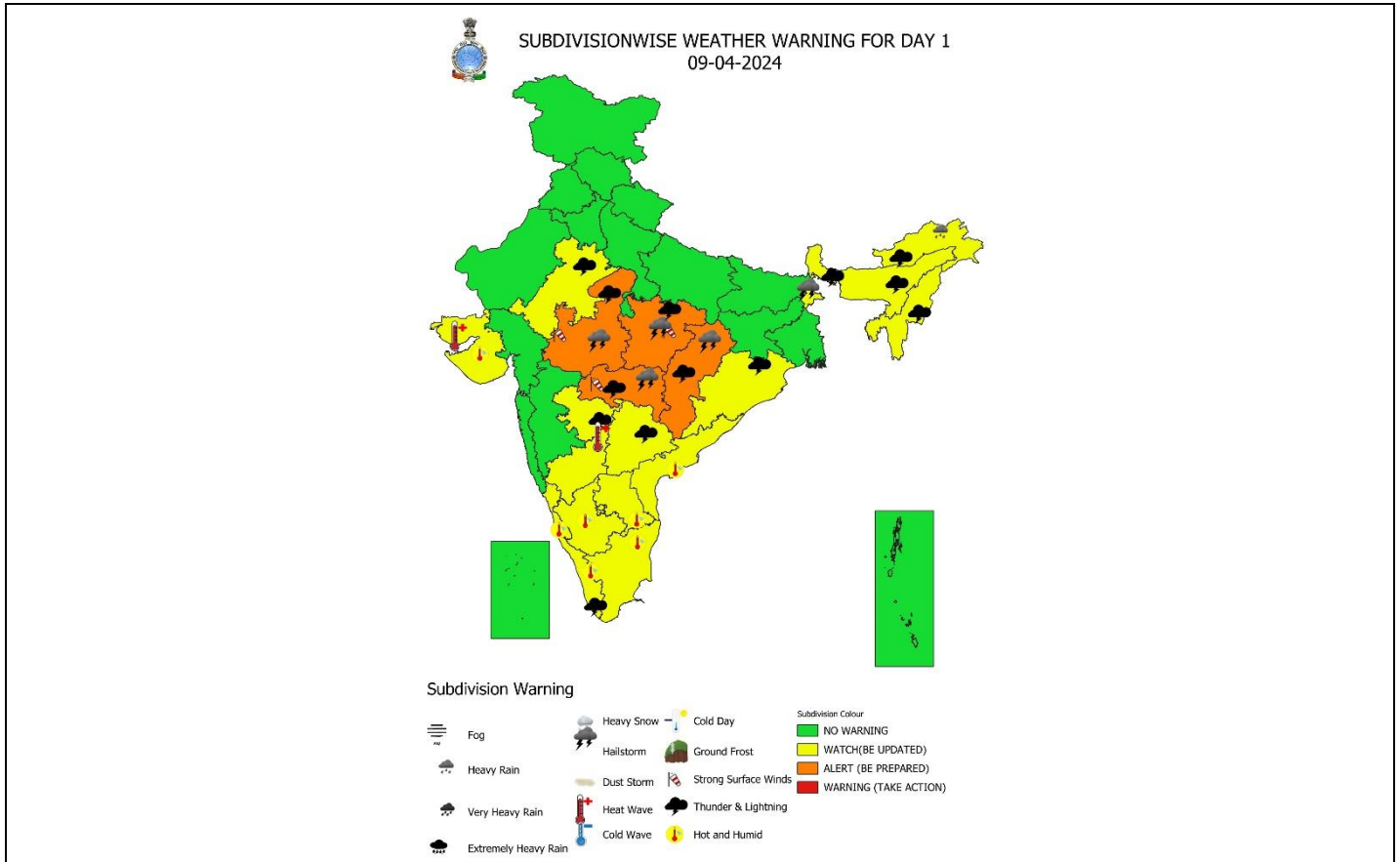
The state-wise forecast is given below: (Warning graphics are given at ANNEXURE-I)

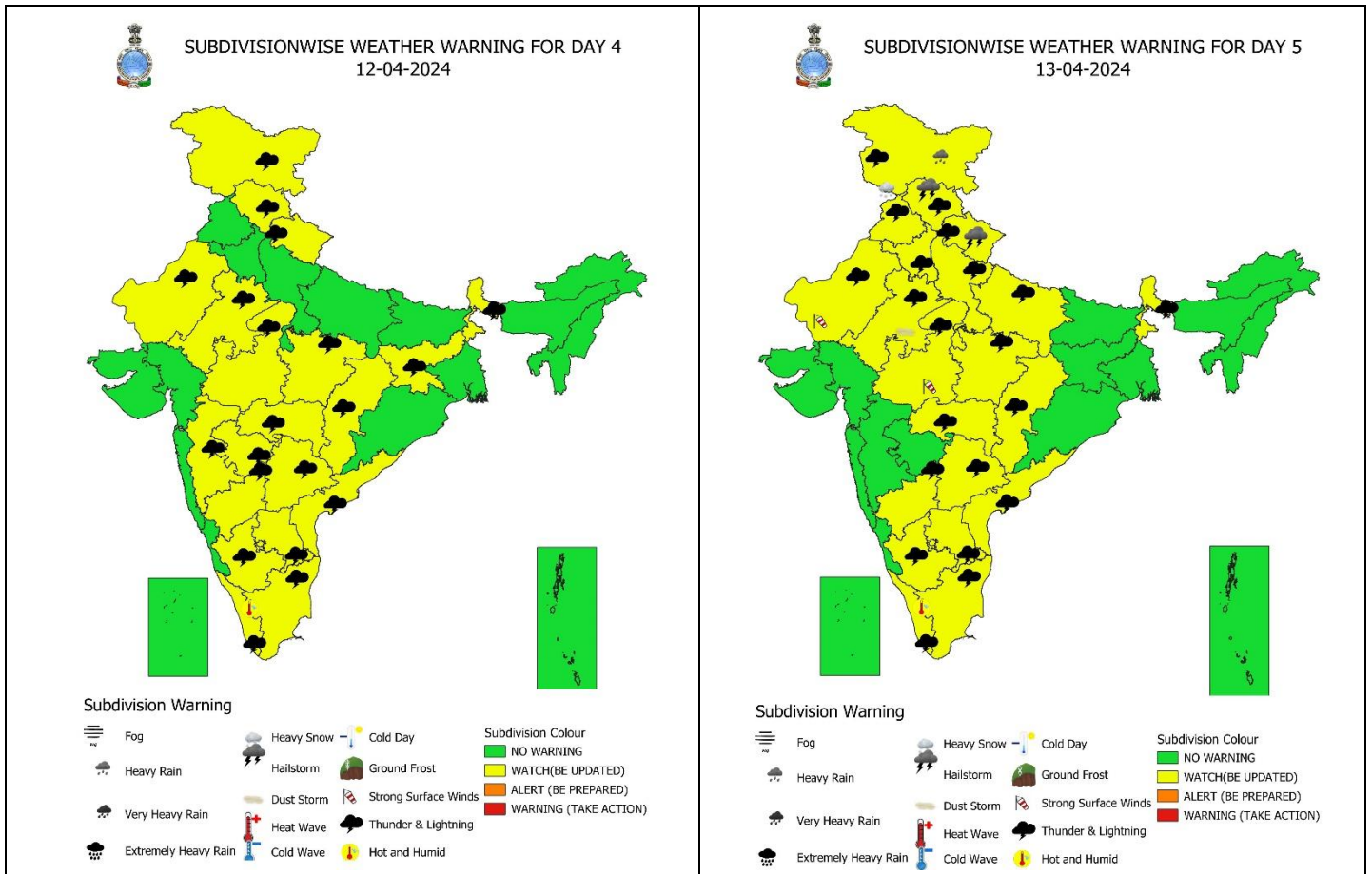
S. No.	State/sub-division	Forecast
1.	Jammu, Kashmir and Ladakh	<ul style="list-style-type: none"><li>• Light to moderate rain/snowfall accompanied with thunderstorm &amp; lightning at many places on 13<sup>th</sup> April.</li><li>• Light to moderate rain at most places on 14<sup>th</sup>; at many places on 15<sup>th</sup> April.</li><li>• <b>Heavy rainfall/snowfall at isolated places also likely on 13<sup>th</sup> &amp; 14<sup>th</sup> April.</b></li></ul>

2.	Himachal Pradesh	<ul style="list-style-type: none"> <li>• Light to moderate rain/snowfall accompanied with thunderstorm &amp; lightning at many places on 13<sup>th</sup> April.</li> <li>• Light to moderate rain at most places on 14<sup>th</sup> &amp; 15<sup>th</sup> April.</li> <li>• <b>Hailstorm also likely at isolated places on 13<sup>th</sup> April.</b></li> </ul>
3.	Uttarakhand	<ul style="list-style-type: none"> <li>• Light to moderate rain/snowfall accompanied with thunderstorm &amp; lightning at many places on 13<sup>th</sup> April.</li> <li>• Light to moderate rain at most places on 14<sup>th</sup> &amp; 15<sup>th</sup> April.</li> <li>• <b>Hailstorm also likely at isolated places on 13<sup>th</sup> April.</b></li> </ul>
4.	Punjab	<ul style="list-style-type: none"> <li>• Light rain accompanied with thunderstorm, lightning &amp; gusty winds (30-40 kmph) at many places on 13<sup>th</sup> April.</li> <li>• Light to moderate rain at many places on 14<sup>th</sup> and at some places on 15<sup>th</sup> April.</li> </ul>
5.	Haryana, Chandigarh & Delhi	<ul style="list-style-type: none"> <li>• Light rain accompanied with thunderstorm, lightning &amp; gusty winds (30-40 kmph) at many places on 13<sup>th</sup> April.</li> <li>• Light to moderate rain at many places on 14<sup>th</sup> and at some places on 15<sup>th</sup> April.</li> </ul>
6.	West Uttar Pradesh	<ul style="list-style-type: none"> <li>• Light rain accompanied with thunderstorm, lightning &amp; gusty winds (30-40 kmph) at some places on 13<sup>th</sup> April.</li> <li>• Light to moderate rain at some places on 14<sup>th</sup> and at isolated places on 15<sup>th</sup> April.</li> </ul>
7.	East Uttar Pradesh	<ul style="list-style-type: none"> <li>• Light rain accompanied with thunderstorm, lightning &amp; gusty winds (30-40 kmph) at isolated places on 13<sup>th</sup> April.</li> <li>• Light to moderate rain at some places on 14<sup>th</sup> April.</li> </ul>
8.	Rajasthan	<ul style="list-style-type: none"> <li>• Light rain accompanied with thunderstorm, lightning &amp; squally winds (50-60 kmph) at some places on 13<sup>th</sup> April.</li> <li>• Light to moderate rain at some places on 14<sup>th</sup> and at isolated places on 15<sup>th</sup> April.</li> </ul>

For more details, kindly refer: [https://mausam.imd.gov.in/responsive/all\\_india\\_forecast\\_bulletin.php](https://mausam.imd.gov.in/responsive/all_india_forecast_bulletin.php)

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**Impact & Action Suggested due to heavy rainfall/snowfall: Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad on 13<sup>th</sup> & 14<sup>th</sup> April, 2024.**

**Impacts Expected:**

- 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.














**Action Suggested:**

- 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.

<b>SPATIAL DISTRIBUTION</b> (% 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)

<b>Probabilistic Forecast</b>	
Terms	Probability of Occurrence (%)
Unlikely	< 25
Likely	25 - 50
Very Likely	50 - 75
Most Likely	> 75

<b>Flash Flood Risk</b>	
	High Risk (Take Action)
	Moderate Risk (Be Prepared)
	Low Risk (Be Updated)