



**Government of India  
Ministry of Earth Sciences  
India Meteorological Department**

**Press Release  
Date: 18<sup>th</sup> April, 2023  
Time of Issue: 1300 hours IST**

**Subject: (i) Heat wave conditions likely to continue over East India during next 4 days and abate thereafter.**

**(ii) Wet spell over northwest India during 18<sup>th</sup>-20<sup>th</sup> with possibility of heavy spell over Western Himalayan Region on 18<sup>th</sup> & 19<sup>th</sup> April, 2023.**

**Weather observed during past 24 hours ending at 0830 hrs IST of today:** Refer Annexure I

**Significant Meteorological features:**

- ❖ A Western Disturbance as a trough in middle tropospheric westerlies runs roughly along Long. 64°E to the north of Lat. 21°N.
- ❖ An induced cyclonic circulation lies over north Pakistan & adjoining Punjab in lower tropospheric levels.
- ❖ A trough/wind discontinuity runs from south Madhya Maharashtra to south Tamil Nadu in lower tropospheric levels.

**Maximum Temperatures and Heat Wave observed:**

- ❖ Yesterday's, Maximum Temperatures were in the range of 40-44°C over most parts of Central & east India; in many parts of plains of Northwest India and some parts over northern parts of peninsular India; 35-40°C over many parts of rest of the country except over Western Himalayan Region (22-25°C) & Islands (30-34°C). Maximum Temperatures were above normal by 3-5°C over many parts of north India, in some parts of East & Northeast India and in isolated pockets over Madhya Pradesh & Coastal Andhra Pradesh.
- ❖ Heat Wave conditions are prevailing in isolated pockets over Gangetic West Bengal since last 7 days; Coastal Andhra Pradesh since last 5 days, Bihar since last 4 days, Punjab and Haryana since last 2 days.

**Maximum Temperatures Forecast and Heat Wave Warnings (Graphics in Annexure II):**

**East India:**

- ❖ No significant change in Maximum Temperatures very likely during next 3 days and gradual fall by 2-3°C thereafter.
- ❖ **Heat wave conditions in some parts with severe heat wave condition** in isolated pockets very likely over Gangetic West Bengal and Bihar during next 2 days and **Heat wave conditions** in isolated pockets thereafter during subsequent 2 days and abate thereafter.
- ❖ **Heat wave conditions** very likely in isolated pockets over Sub-Himalayan West Bengal & Sikkim, Odisha and Jharkhand during next 2 days and abate thereafter.

**Northwest India:**

- ❖ Gradual fall in Maximum Temperatures by 2-4°C very likely during next 3 days and rise by 2-3°C thereafter.
- ❖ **Heat wave conditions** are very likely in isolated pockets over Haryana and west Uttar Pradesh on 18<sup>th</sup>; over East Uttar Pradesh on 18<sup>th</sup> & 19<sup>th</sup> April and abate thereafter.

**Central India:**

- ❖ No significant change in Maximum Temperatures very likely during next 2 days and fall by 2-3°C during subsequent 3 days.

**South Peninsular India:**

- ❖ No significant change in Maximum Temperatures very likely during next 2 days and fall by 2-3°C during subsequent 3 days.
- ❖ **Heat wave conditions** very likely in isolated pockets over Coastal Andhra Pradesh during next 2 days.

## Rainfall Forecast and Warnings (Graphics in Annexure II):

### Northwest India:

- ❖ Light/moderate fairly widespread to widespread rainfall with thunderstorm/lightning very likely over Western Himalayan Region during next 4 days and isolated to scattered rainfall with thunderstorm/lightning/gusty winds over Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh and Rajasthan during 18<sup>th</sup>-21<sup>st</sup> April.
- ❖ **Heavy rainfall** very likely at isolated places over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad, Himachal Pradesh on 18<sup>th</sup> & 19<sup>th</sup> and over Uttarakhand on 19<sup>th</sup> April.
- ❖ Isolated **Hailstorm** very likely over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad on 18<sup>th</sup>; over Himachal Pradesh, Punjab on 18<sup>th</sup> & 19<sup>th</sup>; over Uttarakhand during 18<sup>th</sup> to 21<sup>st</sup> and over Haryana on 19<sup>th</sup> April, 2023.

### West India:

- ❖ Light isolated rainfall with thunderstorm/lightning/gusty winds very likely over parts of Maharashtra next 4 days. Isolated **hailstorm** also likely over Madhya Maharashtra today, on 18<sup>th</sup> April, 2023.

### East India:

- ❖ Light isolated rainfall with thunderstorm/lightning very likely Bihar, Jharkhand, West Bengal and Odisha from 21<sup>st</sup> April, 2023.

**No significant weather likely over rest parts of the country.**

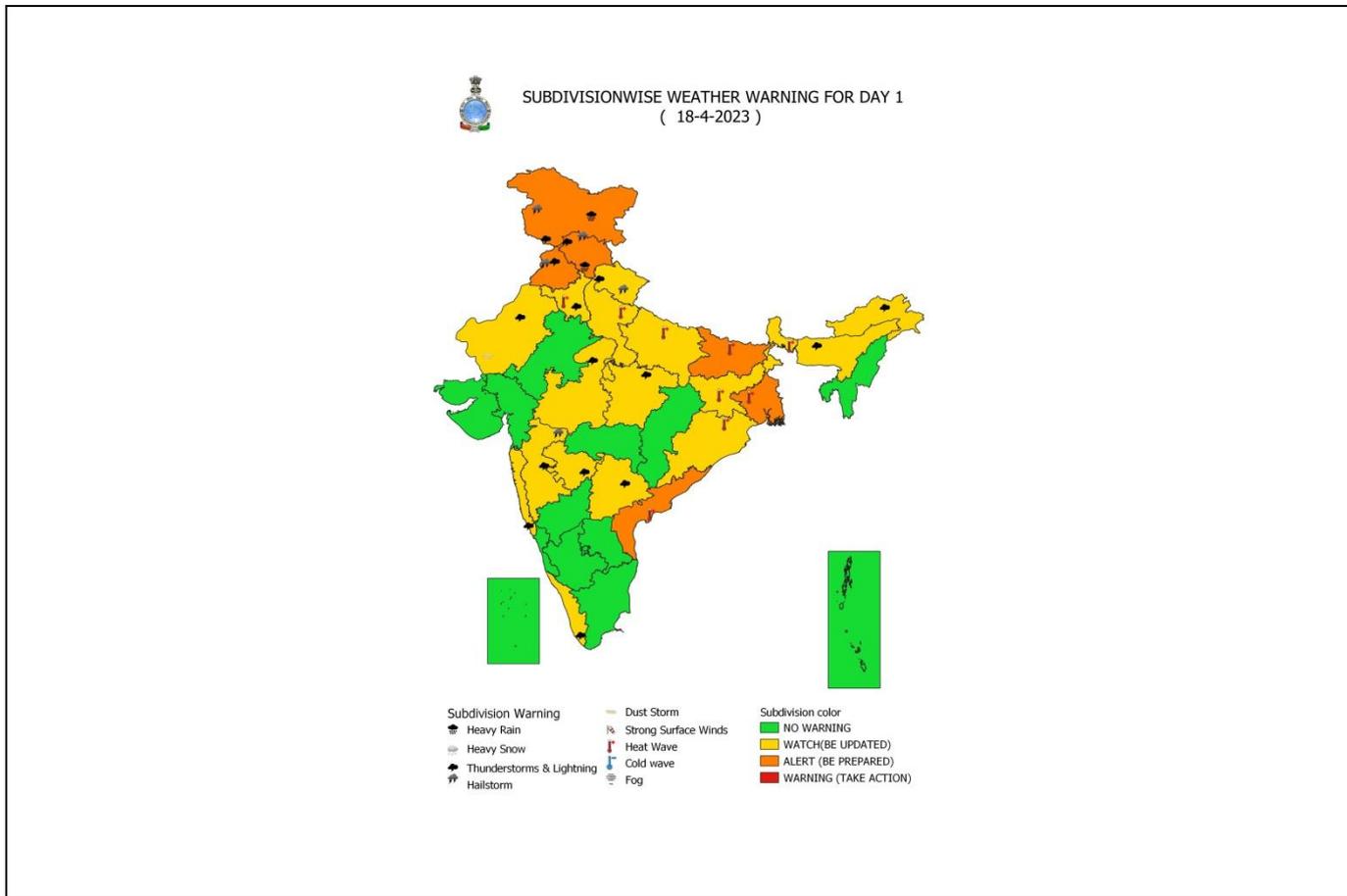
For more details kindly refer:

[https://mausam.imd.gov.in/responsive/all\\_india\\_forcast\\_bulletin.php](https://mausam.imd.gov.in/responsive/all_india_forcast_bulletin.php)

<https://mausam.imd.gov.in/responsive/districtWiseNowcast.php>

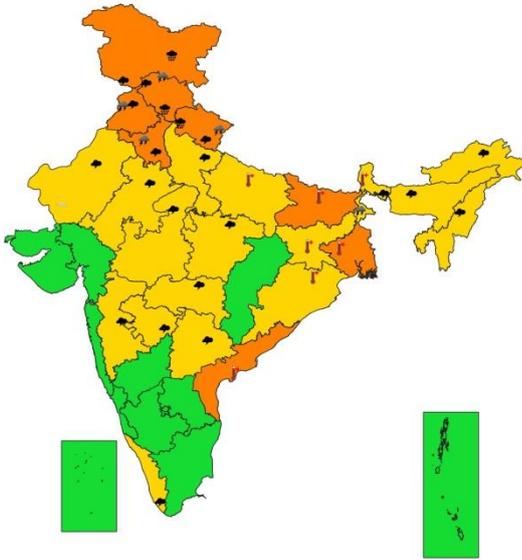
**Observations: (from 0830 hours IST of yesterday to 0830 hours IST of today):**

- ❖ **Rainfall/thundershowers observed at most places over** Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad **and at isolated places** over Himachal Pradesh, Punjab, Sub-Himalayan West Bengal & Sikkim, Odisha, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Konkan & Goa, Madhya Maharashtra, Telangana and North Interior Karnataka.
- ❖ **Thunderstorm observed** at isolated places over Arunachal Pradesh, Assam & Meghalaya, Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad, West Rajasthan, Marathwada, North Interior Karnataka and Madhya Maharashtra.
- ❖ **Hailstorm observed** at isolated places over Madhya Maharashtra.
- ❖ **Heat wave to severe heat wave conditions** observed in few pockets over West Bengal and Bihar; **heat wave conditions** observed in isolated pockets over Punjab, north Haryana, Chandigarh, Odisha and Coastal Andhra Pradesh.





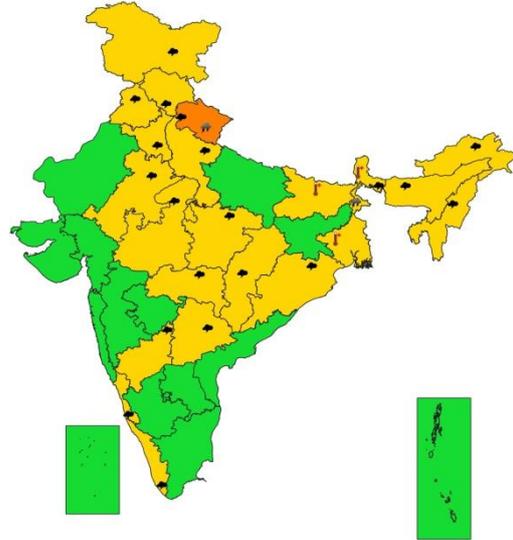
**SUBDIVISIONWISE WEATHER WARNING FOR DAY 2  
( 19-4-2023)**



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|--|---|--|
| <ul style="list-style-type: none"> <li>☁ Subdivision Warning</li> <li>☔ Heavy Rain</li> <li>❄ Heavy Snow</li> <li>⚡ Thunderstorms &amp; Lightning</li> <li>☁️ Hailstorm</li> </ul> | <ul style="list-style-type: none"> <li>☁ Dust Storm</li> <li>🌪 Strong Surface Winds</li> <li>🔥 Heat Wave</li> <li>❄ Cold wave</li> <li>🌫 Fog</li> </ul> | <ul style="list-style-type: none"> <li>🟢 Subdivision color</li> <li>🟢 NO WARNING</li> <li>🟡 WATCH(BE UPDATED)</li> <li>🟠 ALERT (BE PREPARED)</li> <li>🔴 WARNING (TAKE ACTION)</li> </ul> |
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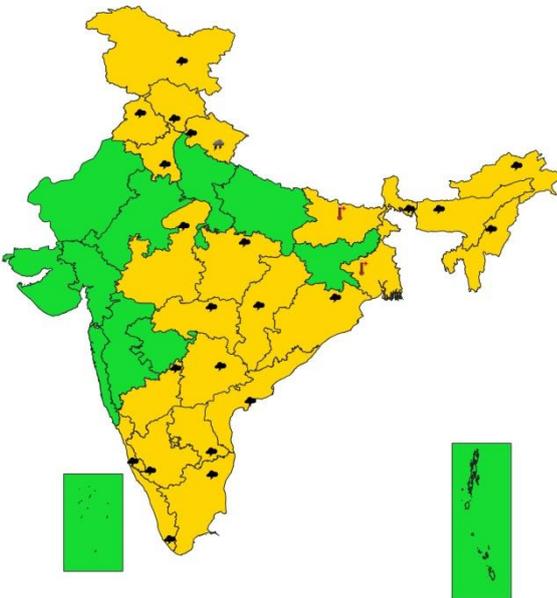
**SUBDIVISIONWISE WEATHER WARNING FOR DAY 3  
( 20-4-2023)**



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|--|---|--|
| <ul style="list-style-type: none"> <li>☁ Subdivision Warning</li> <li>☔ Heavy Rain</li> <li>❄ Heavy Snow</li> <li>⚡ Thunderstorms &amp; Lightning</li> <li>☁️ Hailstorm</li> </ul> | <ul style="list-style-type: none"> <li>☁ Dust Storm</li> <li>🌪 Strong Surface Winds</li> <li>🔥 Heat Wave</li> <li>❄ Cold wave</li> <li>🌫 Fog</li> </ul> | <ul style="list-style-type: none"> <li>🟢 Subdivision color</li> <li>🟢 NO WARNING</li> <li>🟡 WATCH(BE UPDATED)</li> <li>🟠 ALERT (BE PREPARED)</li> <li>🔴 WARNING (TAKE ACTION)</li> </ul> |
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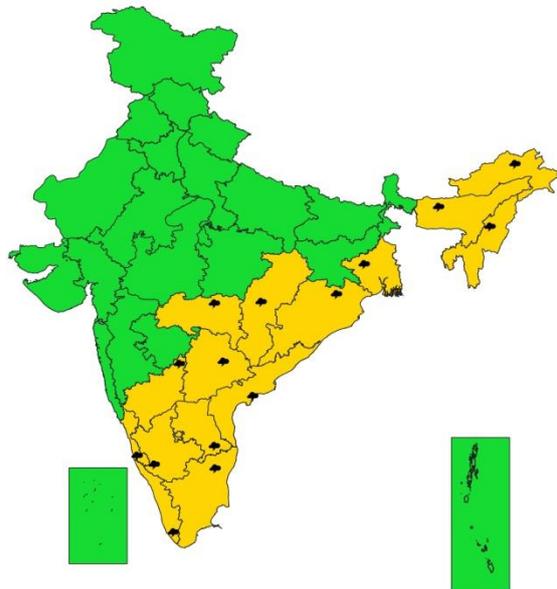
**SUBDIVISIONWISE WEATHER WARNING FOR DAY 4  
( 21-4-2023)**



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| <ul style="list-style-type: none"> <li>☁ Subdivision Warning</li> <li>☔ Heavy Rain</li> <li>❄ Heavy Snow</li> <li>⚡ Thunderstorms &amp; Lightning</li> <li>☁️ Hailstorm</li> </ul> | <ul style="list-style-type: none"> <li>☁ Dust Storm</li> <li>🌪 Strong Surface Winds</li> <li>🔥 Heat Wave</li> <li>❄ Cold wave</li> <li>🌫 Fog</li> </ul> | <ul style="list-style-type: none"> <li>🟢 Subdivision color</li> <li>🟢 NO WARNING</li> <li>🟡 WATCH(BE UPDATED)</li> <li>🟠 ALERT (BE PREPARED)</li> <li>🔴 WARNING (TAKE ACTION)</li> </ul> |
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**SUBDIVISIONWISE WEATHER WARNING FOR DAY 5  
( 22-4-2023)**



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|--|---|--|
| <ul style="list-style-type: none"> <li>☁ Subdivision Warning</li> <li>☔ Heavy Rain</li> <li>❄ Heavy Snow</li> <li>⚡ Thunderstorms &amp; Lightning</li> <li>☁️ Hailstorm</li> </ul> | <ul style="list-style-type: none"> <li>☁ Dust Storm</li> <li>🌪 Strong Surface Winds</li> <li>🔥 Heat Wave</li> <li>❄ Cold wave</li> <li>🌫 Fog</li> </ul> | <ul style="list-style-type: none"> <li>🟢 Subdivision color</li> <li>🟢 NO WARNING</li> <li>🟡 WATCH(BE UPDATED)</li> <li>🟠 ALERT (BE PREPARED)</li> <li>🔴 WARNING (TAKE ACTION)</li> </ul> |
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## **IMPACT & ACTION SUGGESTED:**

### **Yellow alert Areas:**

(1) Moderate temperature, Heat is tolerable for general public but moderate health concern for vulnerable people e.g. infants, elderly, people with chronic diseases. (2) Avoid heat exposure, Wear lightweight, light coloured, loose, cotton clothes, Cover your head, Use a cloth, hat or umbrella.

### **Orange alert Areas:**

(1) High temperature, Increased likelihood of heat illness symptoms in people who are either exposed to sun for a prolonged period or doing heavy work. High health concern for vulnerable people e.g. infants, elderly, people with chronic diseases.

(2) Drink sufficient water- even if not thirsty, Use ORS, homemade drinks like lassi, torani (rice water), lemon water, buttermilk, etc. to keep yourself hydrated.

For Districtwise heat wave warning visit:

<https://mausam.imd.gov.in/responsive/districtWiseHeatwaveWarning.php>

## **Agromet advisories for Heat wave and rainfall accompanied with thunderstorms/gusty winds and Hails likely over various parts of the country:**

- Postpone harvesting of matured wheat, mustard and vegetables in Jammu & Kashmir and Himachal Pradesh and keep the already harvested produce at safer places.
- Complete the harvesting of matured wheat and mustard in Uttarakhand and wheat in Punjab and Haryana at the earliest and move the harvested produce to safer places.
- Make necessary arrangements for draining out excess water from the crop fields.
- Use hail nets to protect orchards in Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Sikkim, Punjab, Haryana and Madhya Maharashtra.
- Provide mechanical support to horticultural crops and staking to vegetables.
- Provide light and frequent irrigation to crops in Haryana, Uttar Pradesh, West Bengal, Odisha, Jharkhand, Bihar and Coastal Andhra Pradesh during morning and evening.

**Legends:**

❖ **Heavy Rain:** 64.5 to 115.5 mm; **Very Heavy Rain:** 115.6 to 204.4 mm; **Extremely Heavy Rain:** >204.4mm.

❖ **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-Himalaya 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, Tamilnadu, 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