



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

**Press Release
Date: 19th April, 2023
Time of Issue: 1300 hours IST**

Subject: (i) Heat wave conditions likely to continue over East India during next 3 days and abate thereafter.

(ii) Wet spell over northwest India during 19th-21st with possibility of heavy spell over Western Himalayan Region on 19th April, 2023.

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

Significant Meteorological features:

- ❖ A Western Disturbance seen as a cyclonic circulation over Afghanistan with trough aloft in middle tropospheric westerlies roughly along Long. 65°E to the north of Lat. 25°N.
- ❖ An induced cyclonic circulation lies over north Pakistan & adjoining Punjab in lower tropospheric levels.
- ❖ A trough/wind discontinuity runs from 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 eastern parts of peninsular India; 35-40°C over many parts of rest of the country except over Western Himalayan Region (12-25°C) & Islands (30-34°C). Maximum Temperatures were above normal by 3-5°C over many parts of plains of northwest India, East & Northeast India, East Madhya Pradesh; in some parts of south peninsular India.
- ❖ Heat Wave conditions are prevailing in isolated pockets over Gangetic West Bengal since last 8 days; Coastal Andhra Pradesh since last 6 days, Bihar since last 5 days, Punjab and Haryana since last 3 days.

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

East India:

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

Warnings:-

- ❖ **Bihar:** - Heat wave conditions in some parts with severe heat wave condition in isolated pockets very likely during 19th-20th April and Heat wave conditions at isolated places very likely on 21st April.
- ❖ **West Bengal:** - Heat wave conditions in some parts with severe heat wave condition in isolated pockets very likely on 19th April and Severe Heat wave conditions in isolated pockets likely over Gangetic West Bengal on 20th-21st April and Isolated Heat Wave conditions very likely over Sub-Himalayan West Bengal on 20th April.
- ❖ **Odisha & Jharkhand:** - Heat wave conditions in isolated pockets very likely on 19th & 20th April.

Northwest India:

- ❖ Fall in Maximum Temperatures by 2-4°C very likely during next 2 days and gradual rise by 3-4°C thereafter for subsequent 3 days.

Warnings:-

- ❖ **East Uttar Pradesh:** - Heat wave conditions are very likely in isolated pockets on 19th April.

Central & West India:

- ❖ No significant change in Maximum Temperatures very likely during next 24 hours and fall by 2-4°C during subsequent 4 days.

Warnings:-

❖ **Konkan & Goa:- Heat wave conditions** are very likely in isolated pockets on 19th April.

South Peninsular India:

❖ No Large change in Maximum Temperatures likely during next 4-5 days.

Warnings:-

❖ **Coastal Andhra Pradesh:- Heat wave conditions** very likely in isolated pockets on 19th April.

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 and isolated to scattered rainfall with thunderstorm/lightning/gusty winds over Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh and Rajasthan during next 3 days.

❖ **Heavy rainfall** very likely at isolated places over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad, Himachal Pradesh and Uttarakhand on 19th April.

❖ Isolated **Hailstorm** very likely over Himachal Pradesh, Punjab on 19th; over Uttarakhand during 19th to 21st April, 2023.

❖ Isolated Thunderstorm/Duststorm/gusty winds very likely over Rajasthan during next 2 days.

Northeast India:

❖ Light/moderate scattered to fairly widespread rainfall with thunderstorm/lightning/gusty winds very likely over the region during next 5 days.

❖ **Heavy rainfall** very likely at isolated places over Arunachal Pradesh during 19th-22nd and over Assam & Meghalaya on 21st & 22nd April, 2023. Isolated **hailstorm** also likely over Assam & Meghalaya today.

Central India:

❖ Light/moderate isolated rainfall with thunderstorm/lightning/gusty winds very likely over Madhya Pradesh, Vidarbha and Chhattisgarh during next 5 days. Isolated hailstorm also likely over Vidarbha and Chhattisgarh on 20th April, 2023.

West India:

❖ Light isolated rainfall with thunderstorm/lightning/gusty winds very likely over parts of Maharashtra next 2-3 days and over Gujarat state on 19th April. Isolated hailstorm also likely over Marathawada today.

East India:

❖ Light isolated rainfall with thunderstorm/lightning very likely Bihar, Jharkhand, West Bengal and Odisha during 21st -23rd April, 2023.

No significant weather likely over rest parts of the country.

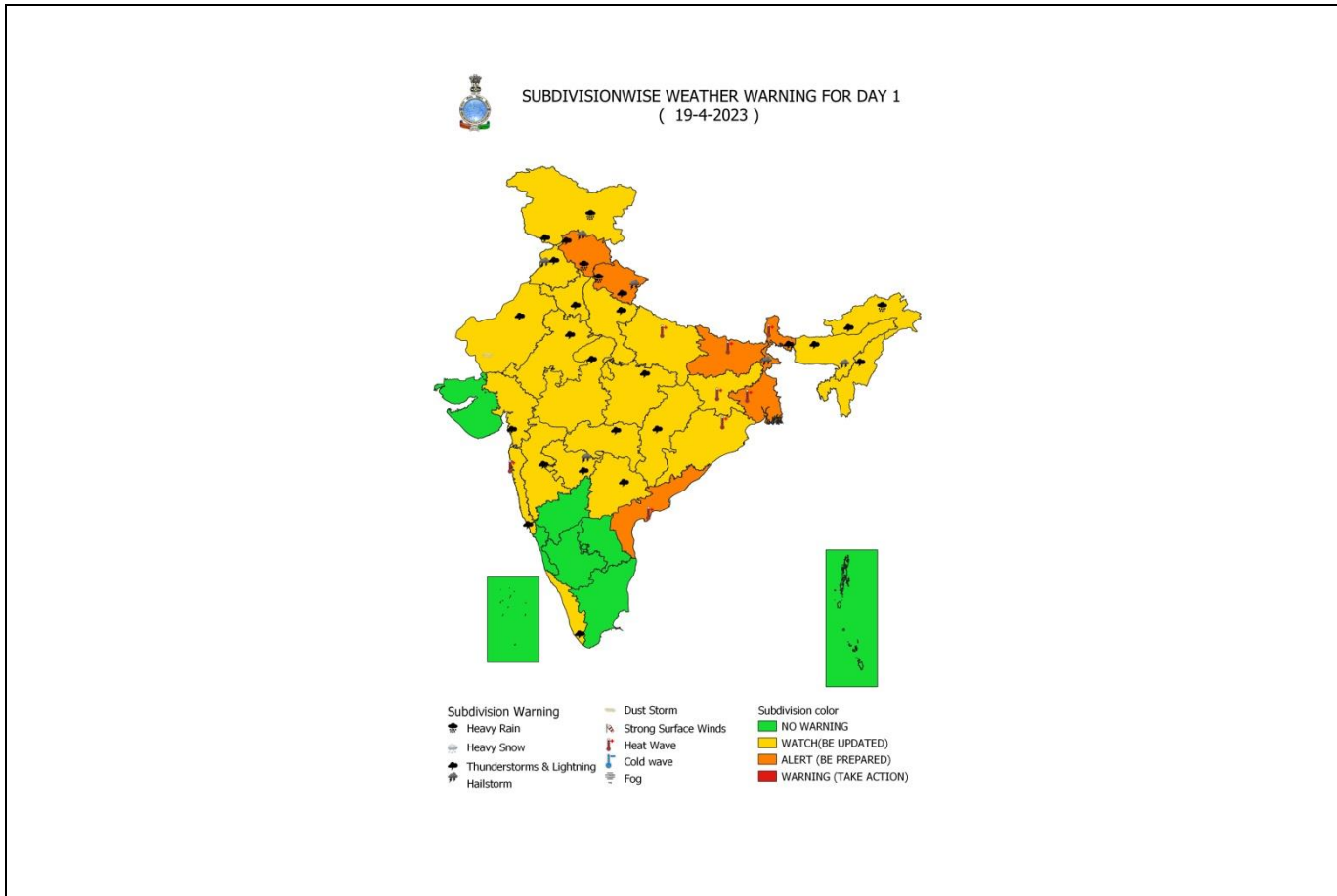
For more details kindly refer:

https://mausam.imd.gov.in/responsive/all_india_forcast_bulletin.php

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

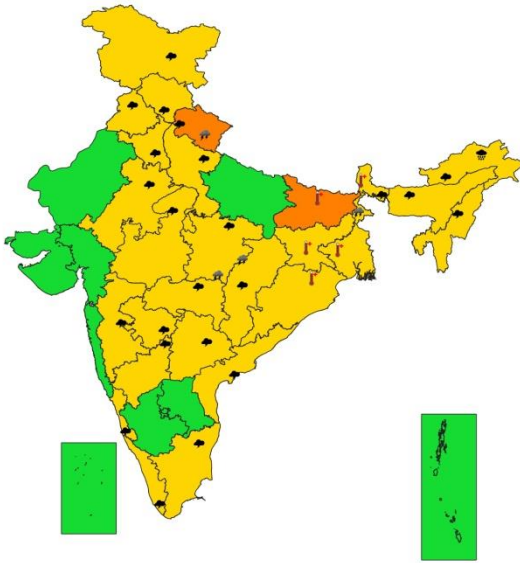
Observations: (from 0830 hours IST of yesterday to 0830 hours IST of today):

- ❖ **Rainfall/thundershowers observed at most places over** Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad, Himachal Pradesh; **at many places** over Punjab; **at a few places** over Arunachal Pradesh, Assam & Meghalaya **and at isolated places** over Uttarakhand, Haryana, West Rajasthan, West Madhya Pradesh, Vidarbha, Sub-Himalayan West Bengal & Sikkim, Odisha, Nagaland, Manipur, Mizoram & Tripura, Gujarat Region, Tamil Nadu, Coastal Andhra Pradesh, Telangana and Kerala.
- ❖ **Significant amount of rainfall (in cm): Jammu & Kashmir:** Nowgam (dist Kupwara) 7, Gulmarg R.s. (dist Baramula) 5, Banihal (dist Ramban) 5, Kupwara Kvk Aws (dist Kupwara) 5, Pahalgam (dist Anantnag) 4, Qazi Gund (dist Kulgam) 4, Verinag (dist Anantnag) 4, Pahalgam Aws (dist Anantnag) 3, Kulgam Aws (dist Kulgam) 3, Baramulla Aws (dist Baramula) 3, Bandipora Aws (dist Bandipore) 3, Gund (dist Ganderbal) 3, Tengmarg (dist Baramula) 3, Shopian Aws (dist Shopian) 3, Kupwara (dist Kupwara) 3, Bandipora Arg (dist Bandipore) 3, Kukernag (dist Anantnag) 3, Asham Arg (dist Bandipore) 3; **Himachal Pradesh:** Mandi, Kullu-5 each, Shimla-4, Chamba, Kangra, Lahaul & Spiti-3 each, **Uttarakhand:** Bagheshwar-2; **Arunachal Pradesh:** Deomali (dist Tirap) 7, Deomali_aws (dist Tirap) 7, Tezu (dist Lohit) 4; **Assam & Meghalaya:** Sivasagar (dist Sibsagar) 3.
- ❖ **Hailstorm observed** at isolated places over Himachal Pradesh and Assam & Meghalaya.
- ❖ **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, Haryana, Uttar Pradesh, Odisha, Jharkhand and Coastal Andhra Pradesh.





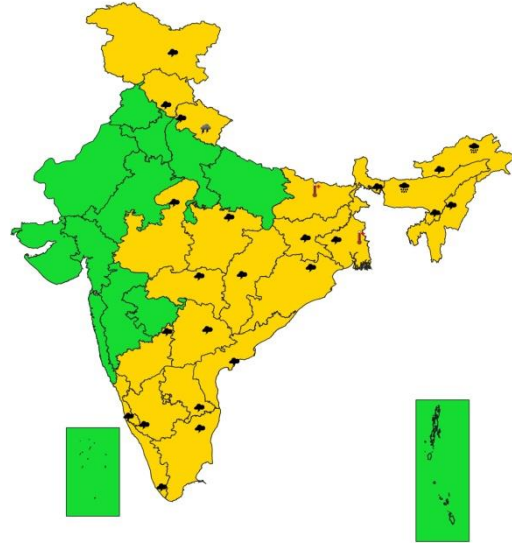
**SUBDIVISIONWISE WEATHER WARNING FOR DAY 2
(20-4-2023)**



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| <ul style="list-style-type: none"> ☁️ Subdivision Warning ☔ Heavy Rain ❄️ Heavy Snow ⚡ Thunderstorms & Lightning ☁️ Hailstorm | <ul style="list-style-type: none"> 🌪️ Dust Storm 🌪️ Strong Surface Winds 🔥 Heat Wave ❄️ Cold wave 🌫️ Fog | <ul style="list-style-type: none"> 🟢 Subdivision color 🟢 NO WARNING 🟡 WATCH(BE UPDATED) 🟠 ALERT (BE PREPARED) 🔴 WARNING (TAKE ACTION) |
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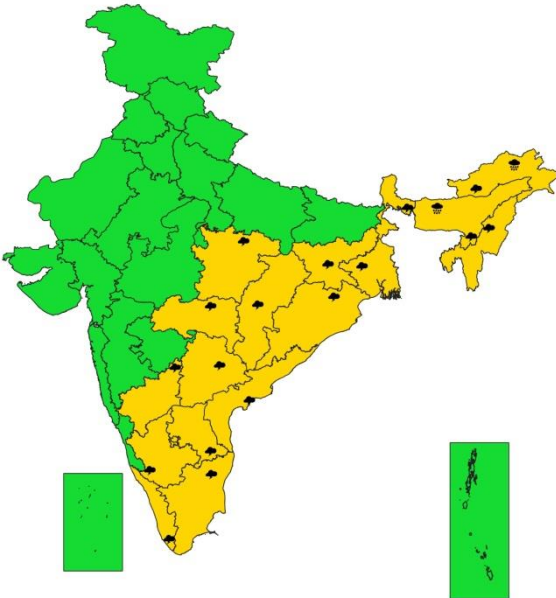
**SUBDIVISIONWISE WEATHER WARNING FOR DAY 3
(21-4-2023)**



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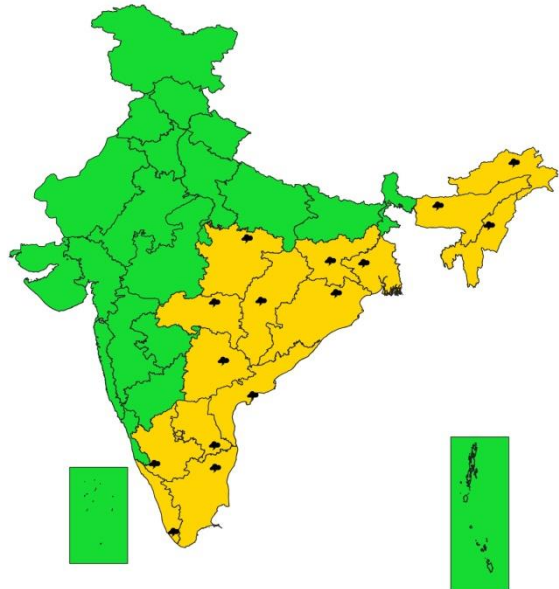
**SUBDIVISIONWISE WEATHER WARNING FOR DAY 4
(22-4-2023)**



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| <ul style="list-style-type: none"> ☁️ Subdivision Warning ☔ Heavy Rain ❄️ Heavy Snow ⚡ Thunderstorms & Lightning ☁️ Hailstorm | <ul style="list-style-type: none"> 🌪️ Dust Storm 🌪️ Strong Surface Winds 🔥 Heat Wave ❄️ Cold wave 🌫️ Fog | <ul style="list-style-type: none"> 🟢 Subdivision color 🟢 NO WARNING 🟡 WATCH(BE UPDATED) 🟠 ALERT (BE PREPARED) 🔴 WARNING (TAKE ACTION) |
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**SUBDIVISIONWISE WEATHER WARNING FOR DAY 5
(23-4-2023)**



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| <ul style="list-style-type: none"> ☁️ Subdivision Warning ☔ Heavy Rain ❄️ Heavy Snow ⚡ Thunderstorms & Lightning ☁️ Hailstorm | <ul style="list-style-type: none"> 🌪️ Dust Storm 🌪️ Strong Surface Winds 🔥 Heat Wave ❄️ Cold wave 🌫️ Fog | <ul style="list-style-type: none"> 🟢 Subdivision color 🟢 NO WARNING 🟡 WATCH(BE UPDATED) 🟠 ALERT (BE PREPARED) 🔴 WARNING (TAKE ACTION) |
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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, Himachal Pradesh, Uttarakhand and Arunachal Pradesh; keep the already harvested produce at safer places.
- Complete the harvesting of matured wheat in Punjab at the earliest and move the harvested produce to safer places.
- Make necessary arrangements for draining out excess water from the crop fields in Jammu & Kashmir, Himachal Pradesh and Arunachal Pradesh.
- Use hail nets to protect orchards in Himachal Pradesh, Uttarakhand, Sikkim, Punjab, Haryana, Chhattisgarh, Vidarbha and Marathwada.
- Provide mechanical support to horticultural crops and staking to vegetables.
- Provide light and frequent irrigation to crops in East Uttar Pradesh, West Bengal, Odisha, Jharkhand, Bihar and Coastal Andhra Pradesh during morning and evening hours.

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.

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