

Wednesday, April 17, 2024  
Time of Issue: 0800 hours IST  
(MORNING)

## All India Impact Based Weather Warning Bulletin

### 17 April (Day 1):

- ❖ **Thunderstorm accompanied with lightning & gusty winds (speed reaching 30-40 kmph)** very likely at isolated places over Sub-Himalayan West Bengal & Sikkim, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura; **with lightning** at isolated places over Arunachal Pradesh, Madhya Maharashtra, Marathwada, Coastal Andhra Pradesh & Yanam, Rayalaseema and Kerala & Mahe.
- ❖ **Heavy rainfall/snowfall** very likely at isolated places over Arunachal Pradesh; **Heavy rainfall** at isolated places over Assam & Meghalaya.
- ❖ **Hot and humid weather** very likely to prevail over coastal areas of Gujarat, Gangetic West Bengal, Coastal Karnataka, Rayalaseema, Coastal Andhra Pradesh & Yanam, Kerala & Mahe and Tamil Nadu, Puducherry & Karaikal.
- ❖ **Heat wave** very likely to prevail in isolated pockets over Gangetic West Bengal, Odisha, north Konkan, Saurashtra & Kutch, Coastal Andhra Pradesh & Yanam and Telangana.
- ❖ **Warm Night** very likely to prevail in isolated pockets over Odisha and Madhya Maharashtra.
- ❖ **Squally weather with wind speed 45 kmph to 55 kmph gusting to 65 kmph** very likely to prevail over Gulf of Oman and adjoining Northwest Arabian Sea. Fishermen are advised not to venture into these areas.

### 18 April (Day 2):

- ❖ **Thunderstorm accompanied with lightning & gusty winds (speed reaching 40-50 kmph)** very likely at isolated places over Sub-Himalayan West Bengal & Sikkim; **with lightning & hailstorm** at isolated places over Himachal Pradesh; **with lightning & gusty winds (speed reaching 30-40 kmph)** at isolated places over Punjab, West Rajasthan, Coastal & South Interior Karnataka and Kerala & Mahe; **with lightning** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Uttarakhand, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Madhya Maharashtra, Marathwada, Tamil Nadu, Puducherry & Karaikal, Coastal Andhra Pradesh & Yanam and Rayalaseema.
- ❖ **Heavy rainfall/snowfall** very likely at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad and Arunachal Pradesh; **Heavy rainfall** at isolated places over Kerala & Mahe.
- ❖ **Hot and humid weather** very likely to prevail over coastal areas of Gujarat, Gangetic West Bengal, Bihar, Coastal Karnataka, Rayalaseema, Coastal Andhra Pradesh & Yanam, Konkan & Goa and Tamil Nadu, Puducherry & Karaikal.
- ❖ **Heat wave** very likely to prevail in isolated pockets over Odisha, Gangetic West Bengal, Coastal Andhra Pradesh & Yanam and Telangana.
- ❖ **Warm Night** very likely to prevail in isolated pockets over Odisha and Madhya Maharashtra.

### 19 April (Day 3):

- ❖ **Thunderstorm accompanied with lightning & gusty winds (speed reaching 30-40 kmph) & hailstorm** likely at isolated places over Himachal Pradesh, Uttarakhand and Punjab; **with lightning & gusty winds (speed reaching 30-40 kmph)** at isolated places over Haryana-Chandigarh-Delhi, West Uttar Pradesh, Rajasthan, Assam & Meghalaya, Coastal & South Interior Karnataka and Kerala & Mahe; **with lightning** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh, Nagaland, Manipur, Mizoram & Tripura, Tamil Nadu, Puducherry & Karaikal, Coastal Andhra Pradesh & Yanam, Rayalaseema and Telangana.
- ❖ **Heavy rainfall/snowfall** likely at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Arunachal Pradesh; **Heavy rainfall** at isolated places over Assam & Meghalaya and Kerala & Mahe.
- ❖ **Hot and humid weather** likely to prevail over Gangetic West Bengal, Bihar, Coastal Karnataka, Rayalaseema, Coastal Andhra Pradesh & Yanam, Konkan & Goa and Tamil Nadu, Puducherry & Karaikal.
- ❖ **Heat wave** likely to prevail in isolated pockets over Gangetic West Bengal, Odisha and Telangana.
- ❖ **Warm Night** likely to prevail in isolated pockets over Odisha.

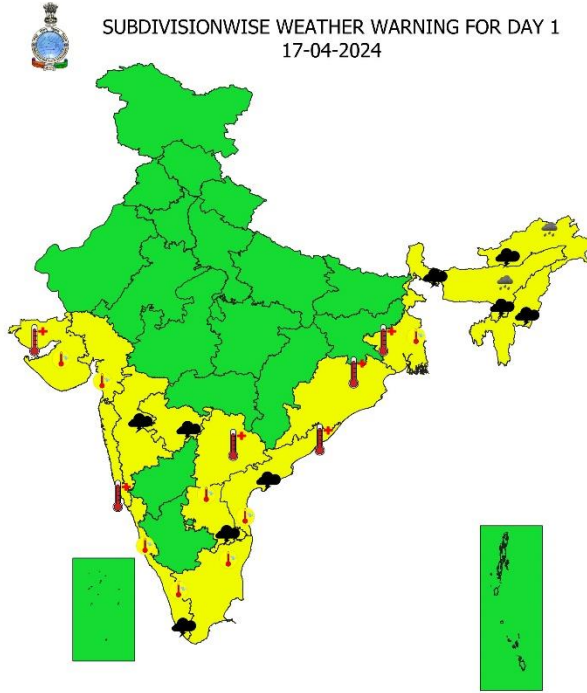
### 20 April (Day 4):

- ❖ **Thunderstorm accompanied with lightning & gusty winds (speed reaching 30-40 kmph) & hailstorm** likely at isolated places over Punjab, Haryana-Chandigarh-Delhi, Vidarbha, Chhattisgarh, Assam & Meghalaya and Kerala & Mahe; **with lightning** at isolated places over Himachal Pradesh, Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh, Nagaland, Manipur, Mizoram & Tripura, Coastal Andhra Pradesh & Yanam, Rayalaseema and Telangana.
- ❖ **Heavy rainfall/snowfall** likely at isolated places over Arunachal Pradesh; **Heavy rainfall** at isolated places over Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.
- ❖ **Hot and humid weather** likely to prevail over Gangetic West Bengal, Bihar, Rayalaseema, Konkan & Goa and Tamil Nadu, Puducherry & Karaikal.
- ❖ **Heat wave** likely to prevail in isolated pockets over Gangetic West Bengal and Odisha.
- ❖ **Warm Night** likely to prevail in isolated pockets over Odisha.

### 21 April (Day 5):

- ❖ **Thunderstorm accompanied with lightning & gusty winds (speed reaching 30-40 kmph) & hailstorm** likely at isolated places over Punjab, Haryana-Chandigarh-Delhi, Vidarbha, Chhattisgarh, Assam & Meghalaya and Kerala & Mahe; **with lightning** at isolated places over Himachal Pradesh, Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh, Nagaland, Manipur, Mizoram & Tripura, Coastal Andhra Pradesh & Yanam, Rayalaseema and Telangana.
- ❖ **Heavy rainfall/snowfall** likely at isolated places over Arunachal Pradesh; **Heavy rainfall** at isolated places over Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.
- ❖ **Hot and humid weather** likely to prevail over Gangetic West Bengal, Bihar, Rayalaseema, Konkan & Goa and Tamil Nadu, Puducherry & Karaikal.
- ❖ **Heat wave** likely to prevail in isolated pockets over Gangetic West Bengal and Odisha.
- ❖ **Warm Night** likely to prevail in isolated pockets over Odisha.

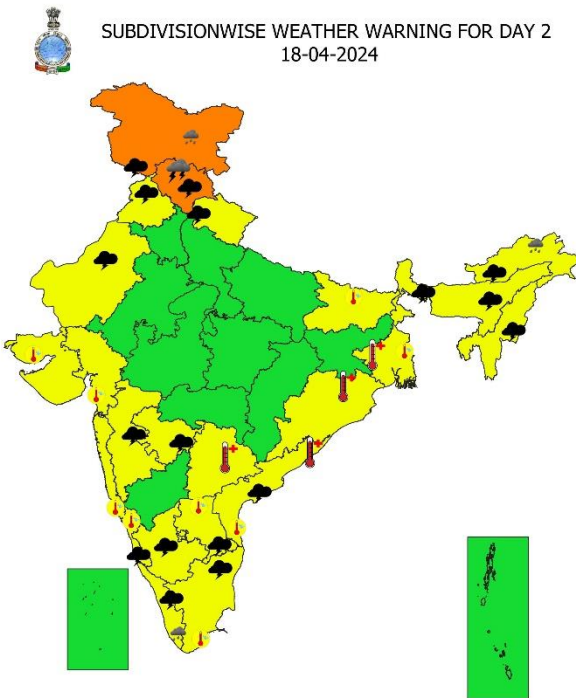
SUBDIVISIONWISE WEATHER WARNING FOR DAY 1  
 17-04-2024



**Subdivision Warning**

Fog	Heavy Snow	Cold Day	<b>Subdivision Colour</b>
Heavy Rain	Hailstorm	Ground Frost	NO WARNING
Very Heavy Rain	Dust Storm	Strong Surface Winds	WATCH (BE UPDATED)
Extremely Heavy Rain	Heat Wave	Thunder & Lightning	ALERT (BE PREPARED)
	Cold Wave	Hot and Humid	WARNING (TAKE ACTION)

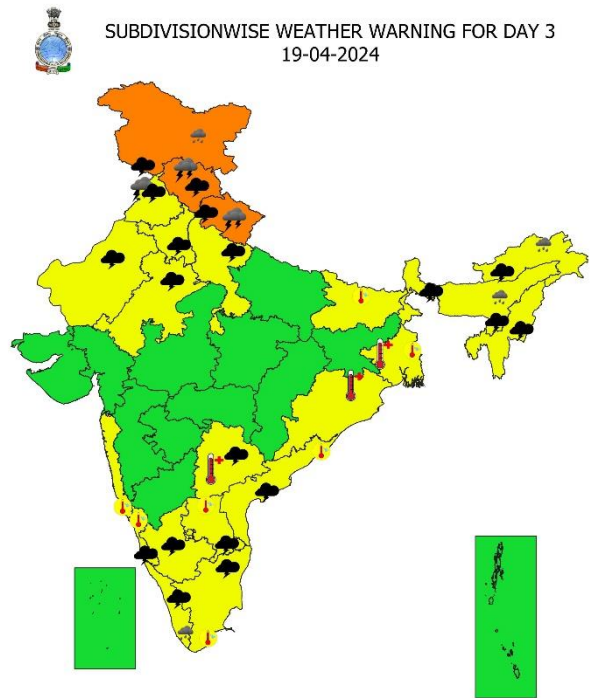
SUBDIVISIONWISE WEATHER WARNING FOR DAY 2  
 18-04-2024



**Subdivision Warning**

Fog	Heavy Snow	Cold Day	<b>Subdivision Colour</b>
Heavy Rain	Hailstorm	Ground Frost	NO WARNING
Very Heavy Rain	Dust Storm	Strong Surface Winds	WATCH (BE UPDATED)
Extremely Heavy Rain	Heat Wave	Thunder & Lightning	ALERT (BE PREPARED)
	Cold Wave	Hot and Humid	WARNING (TAKE ACTION)

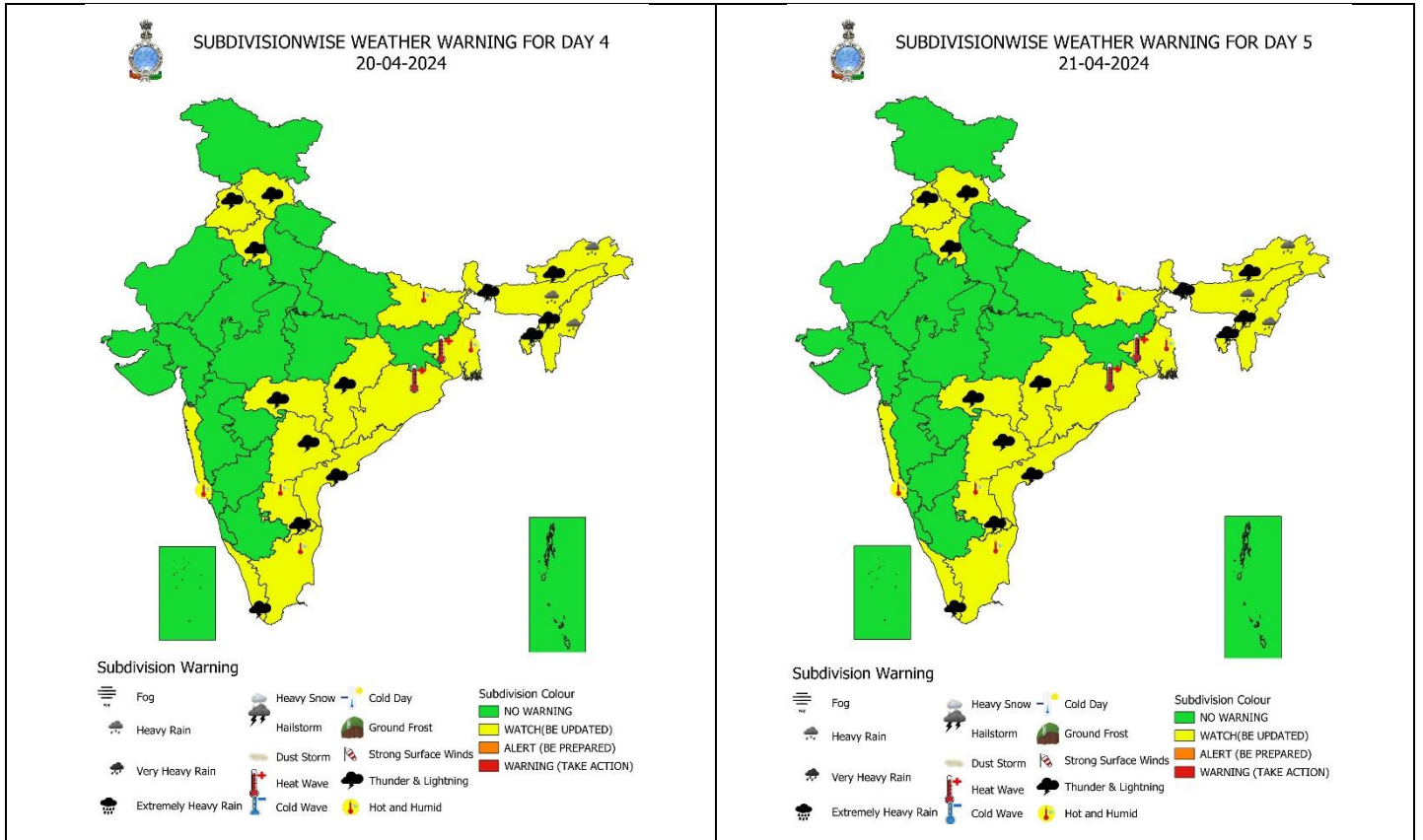
SUBDIVISIONWISE WEATHER WARNING FOR DAY 3  
 19-04-2024



**Subdivision Warning**

Fog	Heavy Snow	Cold Day	<b>Subdivision Colour</b>
Heavy Rain	Hailstorm	Ground Frost	NO WARNING
Very Heavy Rain	Dust Storm	Strong Surface Winds	WATCH (BE UPDATED)
Extremely Heavy Rain	Heat Wave	Thunder & Lightning	ALERT (BE PREPARED)
	Cold Wave	Hot and Humid	WARNING (TAKE ACTION)

**\* Red colour warning does not mean "Red Alert", Red colour warning means "Take Action".**  
 Forecast and Warning for any day is valid from 0830 hours IST of day till 0830 hours IST of next day.  
 For more details, kindly visit <https://mausam.imd.gov.in> or contact: 011-2434-4599  
 (Service to the Nation since 1875)



**Impact expected and action suggested due to thunderstorm accompanied with lightning/gusty winds & Hailstorm over Himachal Pradesh on 18<sup>th</sup> & 19<sup>th</sup> and Uttarakhand & Punjab 19<sup>th</sup> April, 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.

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**Impact & Action Suggested due to heavy rainfall/snowfall over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad on 18<sup>th</sup> & 19<sup>th</sup> April, 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.

**IMPACT & ACTION SUGGESTED due to Heat Wave Conditions:**

**Yellow alert Areas (Gangetic West Bengal, coastal Odisha, North Konkan, Saurashtra & Kutch, Telangana and Coastal Andhra Pradesh & Yanam)**

- ❖ Moderate temperature & heat is tolerable for general public but moderate health concern likely for vulnerable people e.g. infants, elderly, people with chronic diseases.
- ❖ Avoid heat exposure.
- ❖ Wear lightweight, light colour, loose, cotton clothes.
- ❖ Cover your head, use a cloth, hat or umbrella.

## LEGENDS

### WARNING

WARNING (TAKE ACTION)
ALERT ( BE PREPARED)
WATCH (BE UPDATED)
NO WARNING ( NO ACTION)

### Probabilistic Forecast

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



Rain/ Snow \*

Heavy: 64.5 to 115.5 mm/cm \*  
Very Heavy: 115.6 to 204.4 mm/cm\*  
Extremely Heavy: > 204.4 mm/cm \*



Heat Wave

When maximum temperature of a station reaches  $\geq 40^\circ\text{C}$  for plains and  $\geq 30^\circ\text{C}$  for hilly regions  
(a) Based on Departure from normal

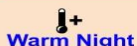
Heat Wave: Maximum Temperature Departure from normal  $4.5^\circ\text{C}$  to  $6.4^\circ\text{C}$ .  
Severe Heat Wave: Maximum Temperature Departure from normal  $\geq 6.5^\circ\text{C}$

(b). Based on Actual maximum temperature

Heat Wave: When actual maximum temperature  $\geq 45^\circ\text{C}$ .  
Severe Heat Wave: When actual maximum temperature  $\geq 47^\circ\text{C}$

( c ). Criteria for heat wave for coastal stations

When maximum temperature departure is  $>4.5^\circ\text{C}$  from normal. Heat Wave may be described provided maximum temperature  $\geq 37^\circ\text{C}$



Warm Night

When maximum temperature remains  $40^\circ\text{C}$

Warm Night: When minimum temperature departure  $4.5^\circ\text{C}$  to  $6.4^\circ\text{C}$ .  
Severe Warm Night: When minimum temperature departure  $>6.4^\circ\text{C}$ .



Cold Wave

When minimum temperature of a station  $\leq 10^\circ\text{C}$  for plains and  $\leq 0^\circ\text{C}$  for hilly regions.  
(a). Based on departure

Cold Wave: Minimum Temperature Departure from normal  $-4.5^\circ\text{C}$  to  $-6.4^\circ\text{C}$ .  
Severe Cold Wave: Minimum Temperature Departure from normal  $\leq -6.5^\circ\text{C}$

(b) Based on actual Minimum Temperature (for Plains only)

Cold Wave : When Minimum Temperature is  $\leq 4.0^\circ\text{C}$   
Severe Cold Wave: When Minimum Temperature is  $\leq 2.0^\circ\text{C}$

( c ) For Coastal Stations

When Minimum Temperature departure is  $\leq -4.5^\circ\text{C}$  & actual Minimum Temperature is  $\leq 15^\circ\text{C}$



Cold Day

When minimum temperature of a station  $\leq 10^\circ\text{C}$  for plains and  $\leq 0^\circ\text{C}$  for hilly regions  
Based on departure

Cold Day: Maximum Temperature Departure from normal  $-4.5^\circ\text{C}$  to  $-6.4^\circ\text{C}$ .  
Severe Cold Day: Maximum Temperature Departure from normal  $\leq -6.5^\circ\text{C}$



Fog

Phenomenon of small droplets suspended in air and the horizontal visibility  $< 1\text{km}$

Moderate Fog: When the visibility between 500-200 metres  
Dense Fog: when the visibility between 50- 200 metres  
Very Dense Fog: when the visibility  $< 50$  metres



Thunderstorm

Sudden electrical discharges manifested by a flash of light (Lightning) and a sharp rumbling sound (thunder)



Dust/Sand Storm

An ensemble of particles of dust or sand energetically lifted to great heights by a strong and turbulent wind.



Frost

Ice deposits on ground

Air temperature  $\leq 4^\circ\text{C}$  ( over Plains)



Squall

A strong wind that rises suddenly, lasts for atleast 1 minute.

Moderate: Wind speed 52-61 kmph  
Severe: Wind speed 62-87 kmph  
Very Severe: Wind speed  $>87$  kmph



Sea State

Effect of various waves in the sea over specific area

Rough to very rough: Wind speed 41-62 kmph (22-33 knots) & Wave height 2.5-6 metre  
High to very high: Wind speed 63-117 kmph ( 34-63 knots) & Wave height 6-14 metre  
Phenomenal: Wind speed  $>117$  kmph ( $>63$  knots) & Wave height  $>14$  metre



Cyclone

Cyclonic Storm: Wind speed 62-87 kmph (34-47 knots)  
Severe Cyclonic Storm: Wind speed 88-117 kmph (48-63 knots)  
Very Severe Cyclonic Storm: Wind speed 118-165 kmph (64 - 89 knots)  
Extremely Severe Cyclonic Storm: Wind speed 166-220 kmph (90 -119 knots)  
Super Cyclone Storm: Wind speed  $>220$  kmph ( $>119$  knots)

Kindly download MAUSAM APP for location specific forecast & warning, MEGHDOOT APP for Agromet advisory and DAMINI APP for Lightning Warning & visit state MC/RMC websites for district wise warning.

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