

**Saturday, May 11, 2024**  
**Time of Issue: 0800 hours IST**  
**(MORNING)**

## All India Impact Based Weather Warning Bulletin

### 11 May (Day 1):

- ❖ **Thunderstorm accompanied with lightning, gusty winds (speed reaching 50-60 kmph) & hailstorm** very likely at isolated places over Madhya Pradesh and Uttarakhand; **with lightning, gusty winds (speed reaching 40-50 kmph) & hailstorm** at isolated places over Madhya Maharashtra; **with lightning & hailstorm** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad; **with lightning & gusty winds (speed reaching 50-60 kmph)** at isolated places Gangetic West Bengal; **with lightning & gusty winds (speed reaching 40-50 kmph)** at isolated places over **Himachal Pradesh, Punjab, Bihar, Nagaland, Manipur, Mizoram & Tripura, Marathwada and Kerala & Mahe; with lightning, gusty winds (speed reaching 30-40 kmph)** at isolated places over Vidarbha, Chhattisgarh, Andaman & Nicobar Islands, Sub-Himalayan West Bengal & Sikkim, Jharkhand, Odisha, Assam & Meghalaya, Konkan & Goa, Gujarat Region, Tamil Nadu, Puducherry & Karaikal, Coastal Andhra Pradesh & Yanam, Rayalaseema, Telangana and Coastal Karnataka; **with lightning** at isolated places over Arunachal Pradesh and Lakshadweep.
- ❖ **Dust Storm/Thunderstorm with gusty winds (speed 40-50 kmph)** very likely at isolated places over Rajasthan, Haryana-Chandigarh-Delhi, West Uttar Pradesh; **with gusty winds (speed 30-40 kmph)** at isolated places over in isolated pockets over East Uttar Pradesh.
- ❖ **Heavy rainfall** very likely at isolated places over Gangetic West Bengal, Odisha, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe, Coastal Karnataka and South Interior Karnataka.
- ❖ **Hot and humid weather** very likely to prevail over Saurashtra & Kutch.

### 12 May (Day 2):

- ❖ **Thunderstorm accompanied with lightning, gusty winds (speed reaching 50-60 kmph) & hailstorm** very likely at isolated places over East Madhya Pradesh; **with lightning, squall wind (speed reaching 50-60 kmph) & hailstorm** very likely at isolated places over Uttarakhand; **with lightning, gusty winds (speed reaching 40-50 kmph) & hailstorm** at isolated places over West Madhya Pradesh, Vidarbha, Madhya Maharashtra, Marathwada; **with lightning & gusty winds (speed reaching 50-60 kmph)** at isolated places Interior Karnataka; **with lightning & gusty winds (speed reaching 40-50 kmph)** at isolated places over Himachal Pradesh, East Rajasthan, Chhattisgarh, Andaman & Nicobar Islands, Gangetic West Bengal, Odisha, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Kerala & Mahe and Telangana; **with lightning, gusty winds (speed reaching 30-40 kmph)** at isolated places over Punjab, West Rajasthan, Sub-Himalayan West Bengal & Sikkim, Bihar, Jharkhand, Konkan & Goa, Gujarat Region, Tamil Nadu, Puducherry & Karaikal, Lakshadweep, Coastal Andhra Pradesh & Yanam, Rayalaseema, Coastal Karnataka; **with lightning** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Arunachal Pradesh.
- ❖ **Dust Storm/Thunderstorm with gusty winds (speed 40-50 kmph)** very likely at isolated places over East Uttar Pradesh; **with gusty winds (speed 30-40 kmph)** at isolated places over in isolated pockets over Haryana-Chandigarh-Delhi and West Uttar Pradesh.
- ❖ **Heavy rainfall** very likely at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Odisha, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe and Karnataka.
- ❖ **Hot and humid weather** very likely to prevail over Saurashtra & Kutch.

### 13 May (Day 3):

- ❖ **Thunderstorm accompanied with lightning, squall wind (speed reaching 50-60 kmph) & hailstorm** likely at isolated places over Uttarakhand; **with lightning, gusty winds (speed reaching 40-50 kmph) & hailstorm** at isolated places over Vidarbha; **with lightning & gusty winds (speed reaching 40-50 kmph)** at isolated places over Himachal Pradesh, Madhya Pradesh, Chhattisgarh, Sub-Himalayan West Bengal & Sikkim, Odisha, Assam & Meghalaya, Madhya Maharashtra, Marathwada, Lakshadweep, Coastal Andhra Pradesh & Yanam, Rayalaseema, Telangana and Interior Karnataka; **with lightning, gusty winds (speed reaching 30-40 kmph)** at isolated places over Punjab, East Rajasthan, Gangetic West Bengal, Nagaland, Manipur, Mizoram & Tripura, Konkan & Goa, Gujarat state, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe, Lakshadweep, Coastal Karnataka; **with lightning** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Jharkhand and Arunachal Pradesh.
- ❖ **Dust Storm/Thunderstorm with gusty winds (speed 40-50 kmph)** very likely at isolated places over East Uttar Pradesh; **with gusty winds (speed 30-40 kmph)** at isolated places over in isolated pockets over Haryana-Chandigarh-Delhi and West Uttar Pradesh.
- ❖ **Heavy rainfall** likely at isolated places over Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe and Karnataka.

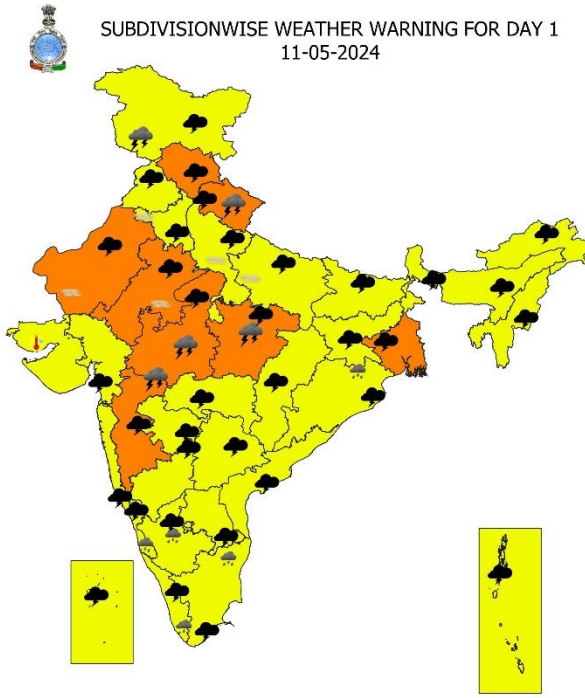
### 14 May (Day 4):

- ❖ **Thunderstorm accompanied with lightning & gusty winds (speed reaching 40-50 kmph)** likely at isolated places over Chhattisgarh, Assam & Meghalaya, Coastal Andhra Pradesh & Yanam, Rayalaseema, Telangana and Interior Karnataka; **with lightning & gusty winds (speed reaching 30-40 kmph)** at isolated places over Vidarbha, Nagaland, Manipur, Mizoram & Tripura, Madhya Maharashtra, Marathwada, Gujarat state, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe, Lakshadweep and Coastal Karnataka; **with lightning** at isolated places Odisha and Arunachal Pradesh.
- ❖ **Heavy rainfall** likely at isolated places over Tamil Nadu, Puducherry & Karaikal.

### 15 May (Day 5):

- ❖ **Thunderstorm accompanied with lightning & gusty winds (speed reaching 40-50 kmph)** likely at isolated places over Chhattisgarh, Assam & Meghalaya, Coastal Andhra Pradesh & Yanam, Rayalaseema, Telangana and Interior Karnataka; **with lightning & gusty winds (speed reaching 30-40 kmph)** at isolated places over Vidarbha, Nagaland, Manipur, Mizoram & Tripura, Madhya Maharashtra, Marathwada, Gujarat state, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe, Lakshadweep and Coastal Karnataka; **with lightning** at isolated places Odisha and Arunachal Pradesh.
- ❖ **Heavy rainfall** likely at isolated places over Tamil Nadu, Puducherry & Karaikal.

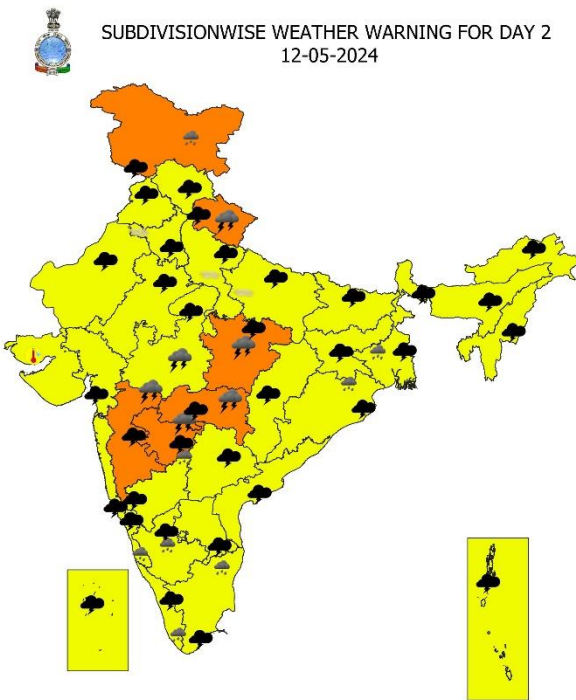
**SUBDIVISIONWISE WEATHER WARNING FOR DAY 1**  
 11-05-2024



**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)

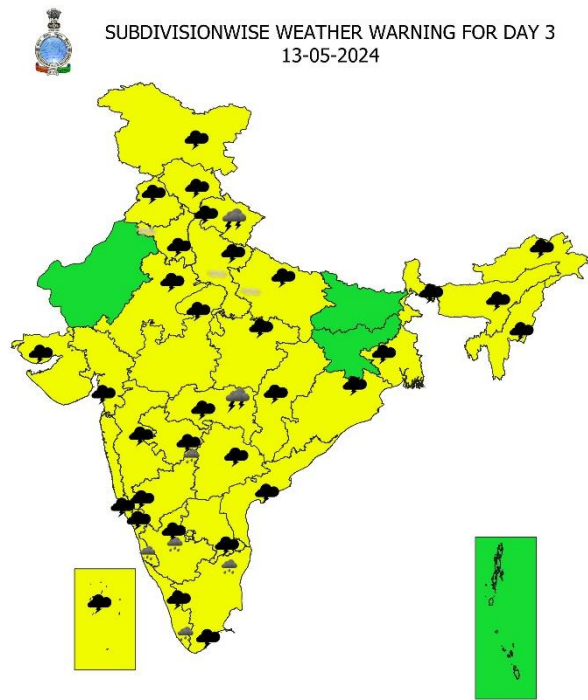
**SUBDIVISIONWISE WEATHER WARNING FOR DAY 2**  
 12-05-2024



**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)

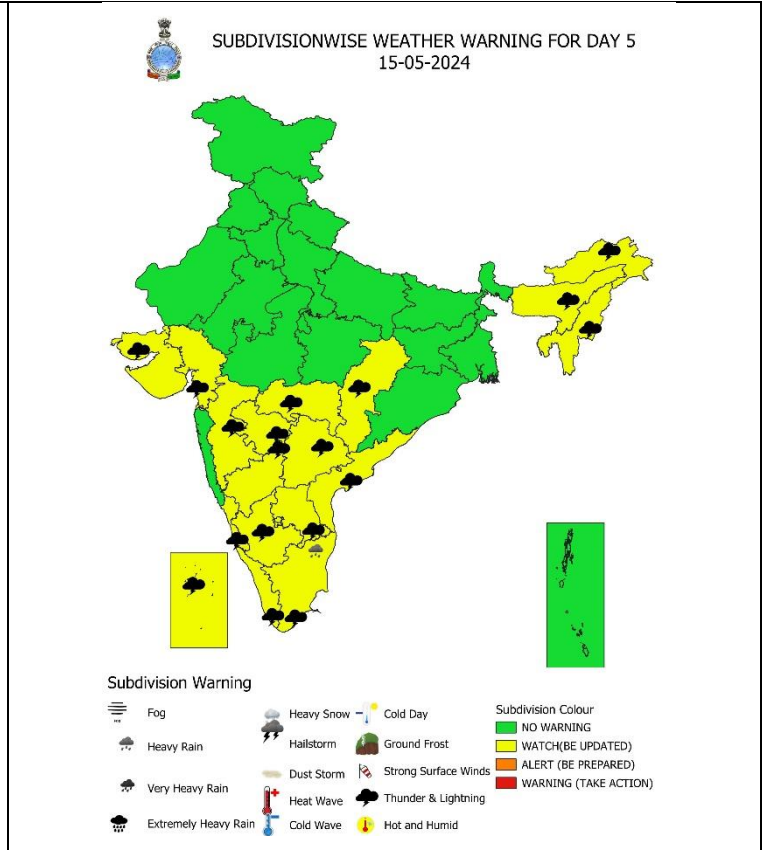
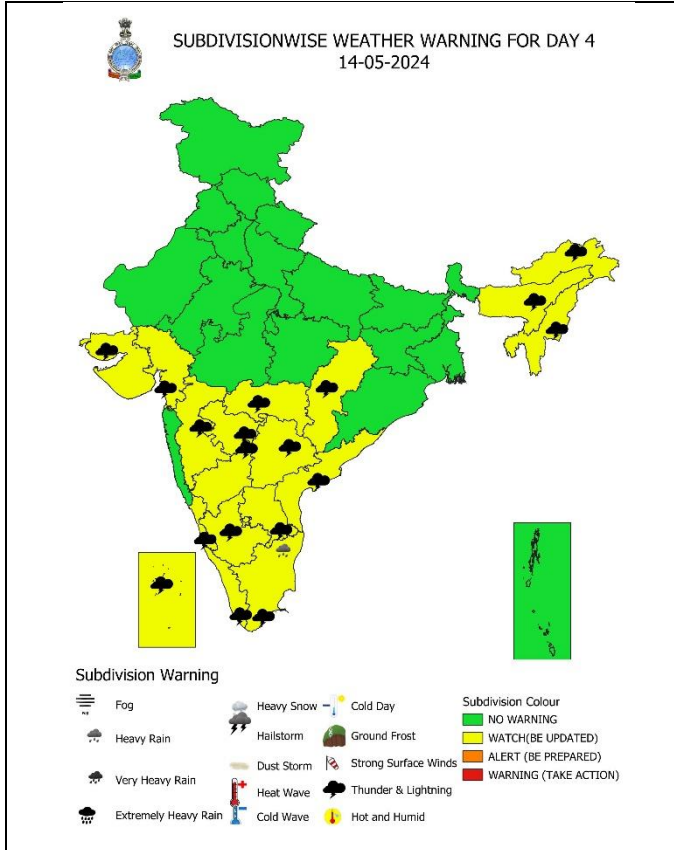
**SUBDIVISIONWISE WEATHER WARNING FOR DAY 3**  
 13-05-2024



**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)



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## Impact expected and action suggested due to Heat Wave Conditions:

### Yellow alert Areas

- ✓ 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.

**Impact expected and action suggested due to thunderstorm accompanied with lightning/gusty winds & Hailstorm over Northwest, Central India & interior Maharashtra during next 2 days (Refer multi-hazards warning map).**

### 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.

## Agromet advisories for Heavy Rainfall, Gusty winds and Heat Wave likely over various parts of the country:

- Make arrangements to drain out excess water from crop fields to avoid water stagnation in Sub-Himalayan West Bengal, Odisha, Tamil Nadu, Kerala, South Interior Karnataka, Andhra Pradesh and Telangana.
- Use hail nets or hail caps in fruit orchards to prevent mechanical damage and provide mechanical support to horticultural crops & staking to vegetables in Uttarakhand, East Madhya Pradesh and Vidarbha.
- Apply light and frequent irrigation to standing crops to avoid heat stress; provide mulching to conserve soil moisture and minimise evaporation in Saurashtra & Kutch, Rajasthan, and West Madhya Pradesh.
- Provide mechanical support to horticultural crops & staking to vegetables to prevent damage from gusty winds.

## 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.