

Tuesday, April 23, 2024  
Time of Issue: 2000 hours IST  
(NIGHT)

## All India Impact Based Weather Warning Bulletin

### 23 April (Day 1):

- ❖ **Thunderstorm accompanied with lightning & hail** very likely at isolated places over Haryana-Chandigarh, West Uttar Pradesh; **with lightning & Squally winds (speed reaching 50-60 kmph)** very likely at isolated places over Interior Karnataka; **with lightning & gusty winds (speed reaching 40-50 kmph)** at isolated places over Vidarbha, Chhattisgarh, Assam & Meghalaya, Madhya Maharashtra, Telangana; **with lightning & gusty winds (speed reaching 30-40 kmph)** at isolated places over Haryana-Chandigarh-Delhi, Uttar Pradesh, Madhya Pradesh, Jharkhand, Gangetic West Bengal, Nagaland, Manipur, Marathwada and Kerala & Mahe; **with lightning** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Punjab, Sub-Himalayan West Bengal & Sikkim, Odisha and Arunachal Pradesh.
- ❖ **Heavy to very heavy rainfall** very likely at isolated places over Arunachal Pradesh.
- ❖ **Hot and humid weather** very likely to prevail over Assam & Meghalaya, Tripura, Bihar, Konkan & Goa, Rayalaseema, Coastal Andhra Pradesh & Yanam, Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe.
- ❖ **Heat wave to severe heat wave conditions** very likely to prevail in some pockets over Gangetic West Bengal and in isolated pockets over coastal Odisha; **heat wave conditions** in isolated pockets over Sub-Himalayan West Bengal, Tamil Nadu, Puducherry & Karaikal and Rayalaseema.

### 24 April (Day 2):

- ❖ **Thunderstorm accompanied with lightning & gusty winds (speed reaching 40-50 kmph)** very likely at isolated places over Assam & Meghalaya; **with lightning & gusty winds (speed reaching 30-40 kmph)** at isolated places over Vidarbha, Chhattisgarh, Nagaland, Manipur, Madhya Maharashtra, Marathwada, Telangana, Interior Karnataka; **with lightning** at isolated places over Odisha, Arunachal Pradesh, Kerala & Mahe and Lakshadweep.
- ❖ **Heavy rainfall** very likely at isolated places over Arunachal Pradesh.
- ❖ **Hot and humid weather** very likely to prevail over Assam & Meghalaya, Tripura, Konkan & Goa, Rayalaseema, Coastal Andhra Pradesh & Yanam, Coastal Karnataka, Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe.
- ❖ **Heat wave to severe heat wave conditions** very likely to prevail in some pockets over Gangetic West Bengal and in isolated pockets over coastal Odisha; **heat wave conditions** in isolated pockets over East Uttar Pradesh, Sub-Himalayan West Bengal, Bihar, Jharkhand, Tamil Nadu, Puducherry & Karaikal, Rayalaseema, Telangana, Coastal Andhra Pradesh & Yanam and Interior Karnataka.

### 25 April (Day 3):

- ❖ **Thunderstorm accompanied with lightning & gusty winds (speed reaching 30-40 kmph)** likely at isolated places over Madhya Pradesh, Vidarbha, Chhattisgarh, Assam & Meghalaya, Madhya Maharashtra, Marathwada; **with lightning** at isolated places over Sub-Himalayan West Bengal & Sikkim, Nagaland, Manipur, Mizoram & Tripura.
- ❖ **Hot and humid weather** likely to prevail over Assam & Meghalaya, Tripura, Konkan & Goa, Coastal Karnataka, Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe.
- ❖ **Heat wave to severe heat wave conditions** likely to prevail in some pockets over Gangetic West Bengal and in isolated pockets over coastal Odisha; **heat wave conditions** in isolated pockets over Uttar Pradesh, Sub-Himalayan West Bengal, Jharkhand, Bihar, Coastal Andhra Pradesh & Yanam, Rayalaseema, Telangana and Interior Karnataka.
- ❖ **Warm Night conditions** likely to prevail in isolated pockets over Odisha.

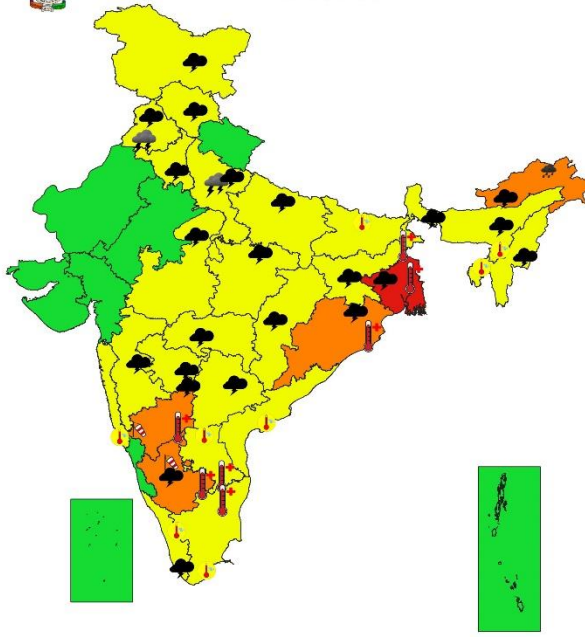
### 26 April (Day 4):

- ❖ **Thunderstorm accompanied with lightning & gusty winds (speed reaching 40-50 kmph) with hailstorm** very likely at isolated places over Haryana-Chandigarh-Delhi; **with gusty winds (speed reaching 30-40 kmph) and hailstorm** likely at isolated places over Punjab; **with lightning and hailstorm** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad; **with gusty winds (speed reaching 30-40 kmph)** at isolated places over Uttarakhand, East Rajasthan, Madhya Pradesh, Chhattisgarh and Nagaland, Manipur, Mizoram & Tripura; **with lightning** at isolated places over Himachal Pradesh, West Uttar Pradesh, Vidarbha, Assam & Meghalaya and Sub-Himalayan West Bengal & Sikkim.
- ❖ **Hot and humid weather** likely to prevail over Assam & Meghalaya, Tripura, Konkan & Goa, Coastal Karnataka, Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe.
- ❖ **Heat wave to severe heat wave conditions** likely to prevail in some pockets over Gangetic West Bengal and in isolated pockets over coastal Odisha; **heat wave conditions** in isolated pockets over Uttar Pradesh, Sub-Himalayan West Bengal, Jharkhand, Bihar, Coastal Andhra Pradesh & Yanam, Rayalaseema, Telangana and Interior Karnataka.
- ❖ **Warm Night conditions** likely to prevail in isolated pockets over Odisha.

### 27 April (Day 5):

- ❖ **Thunderstorm accompanied with lightning & gusty winds (speed reaching 40-50 kmph) with hailstorm** likely at isolated places over Haryana-Chandigarh-Delhi and Punjab; **with gusty winds (speed reaching 30-40 kmph) and hailstorm** at isolated places over Uttarakhand; **with lightning and hailstorm** at isolated places over Himachal Pradesh; **with lightning** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Vidarbha, Chhattisgarh, Arunachal Pradesh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.
- ❖ **Heavy rainfall** likely at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad and Arunachal Pradesh.
- ❖ **Hot and humid weather** likely to prevail over Coastal Karnataka, Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe.
- ❖ **Heat wave to severe heat wave conditions** likely to prevail in some pockets over Gangetic West Bengal and in isolated pockets over coastal Odisha; **heat wave conditions** in isolated pockets over Uttar Pradesh, Sub-Himalayan West Bengal, Jharkhand, Bihar, Konkan & Goa, Coastal Andhra Pradesh & Yanam, Rayalaseema, Telangana and Interior Karnataka.
- ❖ **Warm Night conditions** likely to prevail in isolated pockets over Odisha.

SUBDIVISIONWISE WEATHER WARNING FOR DAY 1  
 23-04-2024



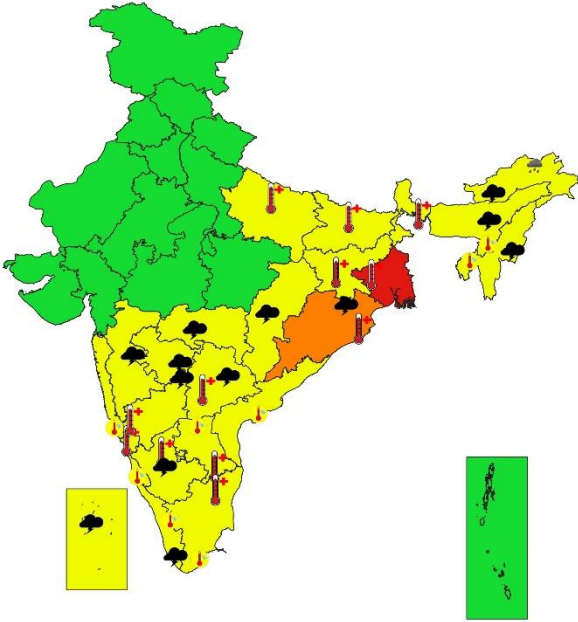
**Subdivision Warning**

Fog	Heavy Rain	Very Heavy Rain	Extremely Heavy Rain	Heavy Snow	Hailstorm	Ground Frost	Dust Storm	Heat Wave	Cold Wave	Cold Day	Ground Frost	Strong Surface Winds	Thunder & Lightning	Hot and Humid

**Subdivision Colour**

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

SUBDIVISIONWISE WEATHER WARNING FOR DAY 2  
 24-04-2024



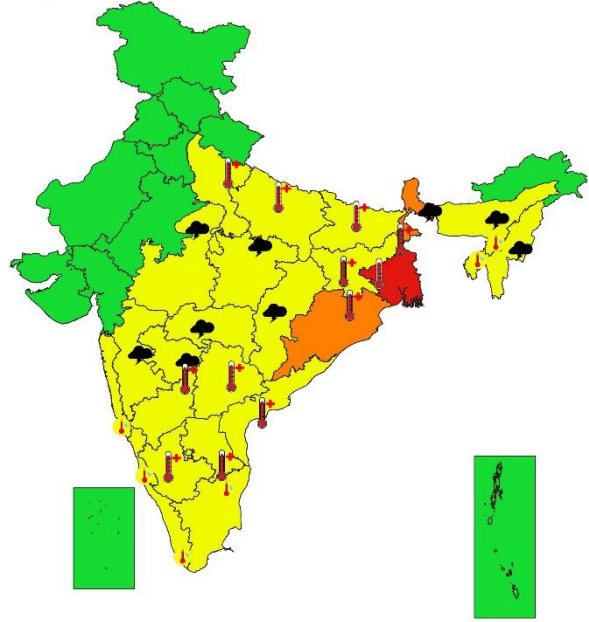
**Subdivision Warning**

Fog	Heavy Rain	Very Heavy Rain	Extremely Heavy Rain	Heavy Snow	Hailstorm	Ground Frost	Dust Storm	Heat Wave	Cold Wave	Cold Day	Ground Frost	Strong Surface Winds	Thunder & Lightning	Hot and Humid

**Subdivision Colour**

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

SUBDIVISIONWISE WEATHER WARNING FOR DAY 3  
 25-04-2024



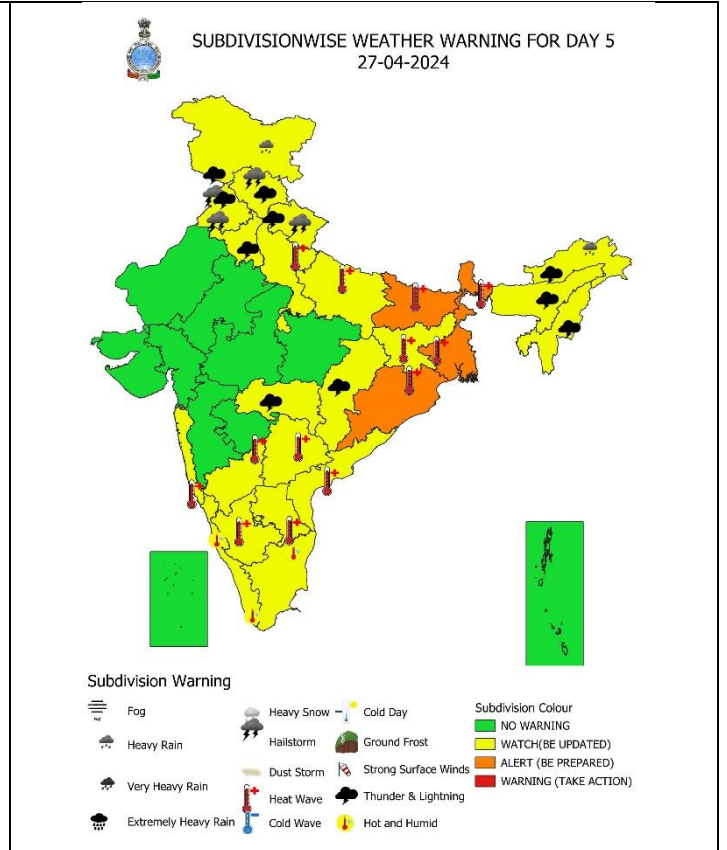
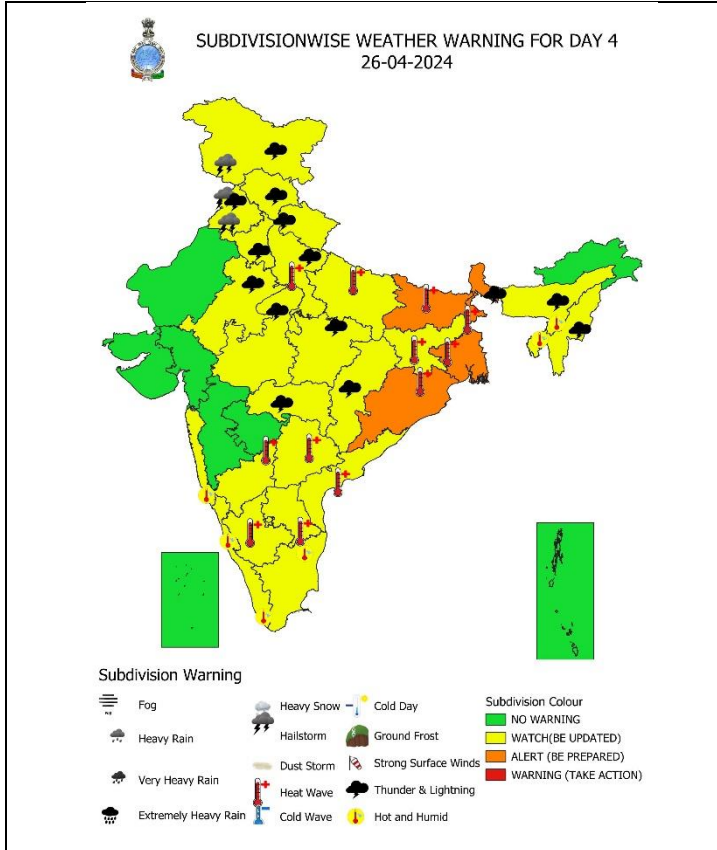
**Subdivision Warning**

Fog	Heavy Rain	Very Heavy Rain	Extremely Heavy Rain	Heavy Snow	Hailstorm	Ground Frost	Dust Storm	Heat Wave	Cold Wave	Cold Day	Ground Frost	Strong Surface Winds	Thunder & Lightning	Hot and Humid

**Subdivision Colour**

NO WARNING	WATCH (BE UPDATED)	ALERT (BE PREPARED)	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 thunderstorm accompanied with lightning/gusty winds & Hailstorm** over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad on 26th, Himachal Pradesh & Uttarakhand on 27th 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.

**Impact & Action Suggested due to heavy/very heavy rainfall** over Arunachal Pradesh on 23nd, 24th & 27th April, 2024.

**Impacts Expected for Rainfall/Snowfall over above regions:**

- 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:**

**Red alert Areas (Gangetic West Bengal)**

- ❖ Very high likelihood of developing heat illness and heat stroke in all ages.
- ❖ Extreme care needed for vulnerable people.

**Orange alert Areas (Odisha)**

- ❖ 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.
- ❖ Avoid heat exposure– keep cool. Avoid dehydration.
- ❖ Drink sufficient water- even if not thirsty.
- ❖ Use ORS, homemade drinks like lassi, torani (rice water), lemon water, buttermilk, etc. to keep yourself hydrated

- ❖ **Yellow alert Areas** (Interior Karnataka, Rayalaseema, Sub-Himalayan West Bengal, Tamil Nadu, Jharkhand, Bihar, Telangana, East Uttar Pradesh, West Uttar Pradesh, Coastal Andhra Pradesh & Yanam, Konkan)
- ❖ 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.

**Agromet advisories for Heavy Rainfall, Hailstorm, Gusty Winds and Heat Wave likely over various parts of the country:**

- Drain out excess water from crop field to avoid water stagnation in Arunachal Pradesh and Assam & Meghalaya. Postpone sowing of maize and cowpea in Arunachal Pradesh.
- Use hail nets or hail caps in fruit orchards to prevent mechanical damage and provide mechanical support to horticultural crops & staking to vegetables in Himachal Pradesh, Odisha, Madhya Pradesh, Vidarbha and Chhattisgarh. Provide mechanical support to horticultural crops & staking to vegetables.
- Apply light and frequent irrigation to standing crops to avoid heat stress; provide mulching to conserve soil moisture and minimize evaporation in Odisha, Gangetic West Bengal, Bihar, East Uttar Pradesh, Interior Karnataka and Tamilnadu.

### LEGENDS

#### WARNING

<b>WARNING (TAKE ACTION)</b>
<b>ALERT ( BE PREPARED)</b>
<b>WATCH (BE UPDATED)</b>
<b>NO WARNING ( NO ACTION)</b>

#### 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.