

Friday, May 17, 2024  
Time of Issue: 0800 hours IST  
(MORNING)

## All India Impact Based Weather Warning Bulletin

### 17 May (Day 1):

- ❖ **Thunderstorm accompanied with lightning & gusty winds (speed reaching 40-50 kmph)** very likely at isolated places over East Madhya Pradesh, Assam & Meghalaya, Coastal Andhra Pradesh & Yanam, Rayalaseema, Interior Karnataka, Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe; **with lightning & gusty winds (speed reaching 30-40 kmph)** at isolated places over Vidarbha, Chhattisgarh, Odisha, Nagaland, Manipur, Mizoram & Tripura and Telangana; **with lightning** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand, West Madhya Pradesh, Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh, Konkan & Goa, Madhya Maharashtra, Marathwada and Coastal Karnataka.
- ❖ **Heavy to very Heavy rainfall** very likely at isolated places over Tamil Nadu, Puducherry & Karaikal; **Heavy rainfall** at isolated places over Arunachal Pradesh, Assam & Meghalaya, Coastal Karnataka, South Interior Karnataka and Kerala & Mahe.
- ❖ **Heat Wave to severe heat wave Conditions** very likely to prevail in some parts of West Rajasthan, **Heat Wave conditions** very likely in some parts of Punjab, Haryana; in isolated pockets Uttar Pradesh, East Rajasthan, Bihar and Gujarat State.
- ❖ **Hot and humid weather** very likely to prevail over West Bengal.
- ❖ **Squally weather with wind speed 40 kmph to 45 kmph gusting to 55 kmph** very likely to prevail Comorin area, Gulf of Mannar, along and off south Tamil Nadu coast, along and off Sri Lanka coast and adjoining southwest Bay of Bengal. Fishermen are advised not to venture into these areas.

### 18 May (Day 2):

- ❖ **Thunderstorm accompanied with lightning & gusty winds (speed reaching 40-50 kmph)** very likely at isolated places over Coastal Andhra Pradesh & Yanam, Rayalaseema, Interior Karnataka, Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe; **with lightning & gusty winds (speed reaching 30-40 kmph)** at isolated places over Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Telangana and Chhattisgarh; **with lightning** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand, Marathwada, Konkan & Goa, Sub-Himalayan West Bengal & Sikkim, Odisha, Arunachal Pradesh, Coastal Karnataka and Lakshadweep.
- ❖ **Heavy to very heavy rainfall** very likely at isolated places over Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe and South Interior Karnataka and **Heavy rainfall** at isolated places over Arunachal Pradesh, Assam & Meghalaya and Coastal Karnataka.
- ❖ **Heat Wave to severe heat wave Conditions** very likely to prevail in many parts of Punjab and Haryana; in some parts of West Rajasthan and **heat wave conditions** in some parts of Uttar Pradesh; in isolated pockets over Delhi, West Bengal, Bihar, Jharkhand, Gujarat State and north Madhya Pradesh.
- ❖ **Squally weather with wind speed 40 kmph to 45 kmph gusting to 55 kmph** Likely to Prevailing Over Maldives Area and Adjoining Lakshadweep Area, along and off south Kerala Coast, Comorin Area, Gulf of Mannar. Fishermen are advised not to venture into these areas.

### 19 May (Day 3):

- ❖ **Thunderstorm accompanied with lightning & gusty winds (speed reaching 40-50 kmph)** likely at isolated places over Sub-Himalayan West Bengal & Sikkim, Bihar, Tamil Nadu, Puducherry & Karaikal and Interior Karnataka; **with lightning & gusty winds (speed reaching 30-40 kmph)** at isolated places over Jharkhand, Assam & Meghalaya, Coastal Andhra Pradesh & Yanam, Rayalaseema, Telangana, Chhattisgarh and Kerala & Mahe; **with lightning** at isolated places over Marathwada, Gangetic West Bengal, Arunachal Pradesh, Nagaland, Manipur, Mizoram & Tripura, Coastal Karnataka and Lakshadweep.
- ❖ **Heavy to very heavy rainfall** likely at isolated places over Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe and South Interior Karnataka and **Heavy rainfall** at isolated places over Arunachal Pradesh, Assam & Meghalaya, Coastal Karnataka, Lakshadweep and Sikkim.
- ❖ **Heat Wave to severe heat wave Conditions** likely to prevail in many parts over Punjab and Haryana; in some parts over West Rajasthan; and **heat wave conditions** in some parts of Uttar Pradesh; in isolated pockets over Delhi, East Rajasthan, Gangetic West Bengal, Bihar, Jharkhand, Odisha and north Madhya Pradesh.
- ❖ **Squally weather with wind speed 40 kmph to 45 kmph gusting to 55 kmph** Likely to Prevailing Over Maldives Area and Adjoining Lakshadweep Area, along and off south Kerala Coast, Comorin Area, Gulf of Mannar. Fishermen are advised not to venture into these areas.

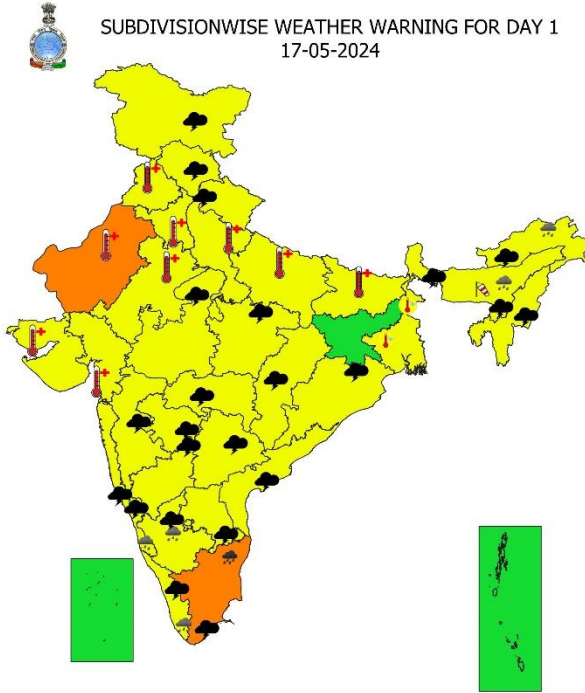
### 20 May (Day 4):

- ❖ **Thunderstorm accompanied with lightning & gusty winds (speed reaching 40-50 kmph)** likely at isolated places over Sub-Himalayan West Bengal & Sikkim, Bihar and Tamil Nadu, Puducherry & Karaikal; **with lightning & gusty winds (speed reaching 30-40 kmph)** at isolated places over Chhattisgarh, Gangetic West Bengal, Jharkhand, Kerala & Mahe, Coastal Andhra Pradesh & Yanam, Rayalaseema and Telangana; **with lightning** at isolated places over Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Lakshadweep and Interior Karnataka.
- ❖ **Heavy to very Heavy rainfall with extremely heavy falls** likely at isolated places over Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe; **Heavy to very heavy rainfall** at isolated places over South Interior Karnataka and **Heavy rainfall** at isolated places over Sikkim, Assam & Meghalaya, Lakshadweep and Nicobar Islands.
- ❖ **Heat Wave to severe heat wave Conditions** likely to prevail in many parts over Punjab and Haryana; in some parts over West Rajasthan; and **heat wave conditions** in some parts of Uttar Pradesh; in isolated pockets over Delhi, East Rajasthan, Gangetic West Bengal, Bihar, Jharkhand, Odisha and north Madhya Pradesh.
- ❖ **Squally weather with wind speed 40 kmph to 45 kmph gusting to 55 kmph** Likely to Prevailing Over Maldives Area and Adjoining Lakshadweep Area, along and off south Kerala Coast, Comorin Area, Gulf of Mannar. Fishermen are advised not to venture into these areas.

### 21 May (Day 5):

- ❖ **Thunderstorm accompanied with lightning & gusty winds (speed reaching 40-50 kmph)** likely at isolated places over Sub-Himalayan West Bengal & Sikkim, Bihar and Tamil Nadu, Puducherry & Karaikal; **with lightning & gusty winds (speed reaching 30-40 kmph)** at isolated places over Chhattisgarh, Gangetic West Bengal, Jharkhand, Kerala & Mahe, Coastal Andhra Pradesh & Yanam, Rayalaseema and Telangana; **with lightning** at isolated places over Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Lakshadweep and Interior Karnataka.
- ❖ **Heavy to very Heavy rainfall** likely at isolated places over South Interior Karnataka, Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe and **Heavy rainfall** at isolated places over Sikkim, Assam & Meghalaya, Lakshadweep and Nicobar Islands.
- ❖ **Heat Wave to severe heat wave Conditions** likely to prevail in many parts over Punjab and Haryana; in some parts over West Rajasthan; and **heat wave conditions** in some parts of Uttar Pradesh; in isolated pockets over Delhi, East Rajasthan, Gangetic West Bengal, Bihar, Jharkhand, Odisha and north Madhya Pradesh.
- ❖ **Squally weather with wind speed 40 kmph to 45 kmph gusting to 55 kmph** Likely to Prevailing Over Maldives Area and Adjoining Lakshadweep Area, along and off south Kerala Coast, Comorin Area, Gulf of Mannar. Fishermen are advised not to venture into these areas.

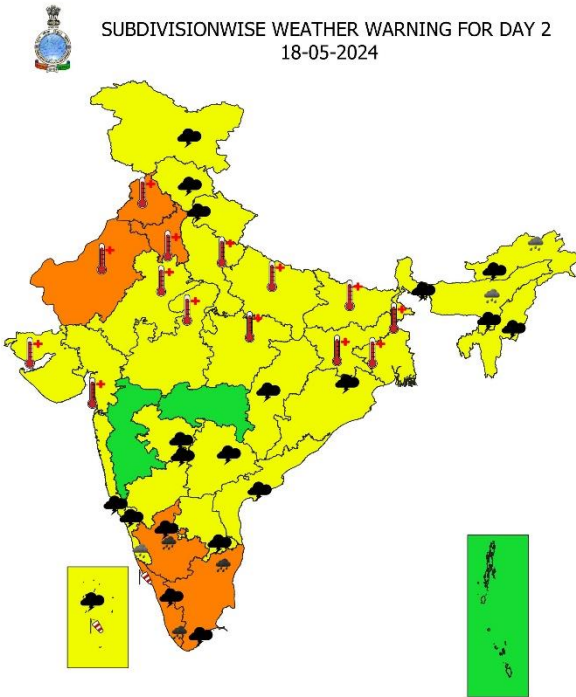
SUBDIVISIONWISE WEATHER WARNING FOR DAY 1  
 17-05-2024



**Subdivision Warning**

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

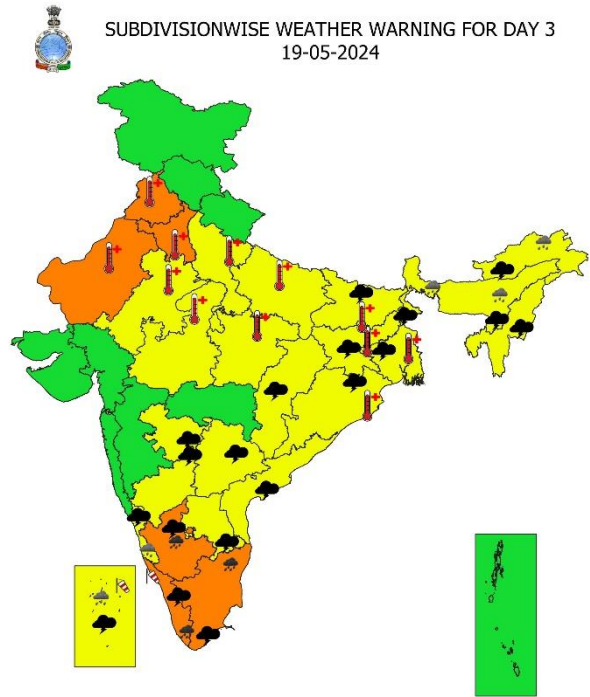
SUBDIVISIONWISE WEATHER WARNING FOR DAY 2  
 18-05-2024



**Subdivision Warning**

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

SUBDIVISIONWISE WEATHER WARNING FOR DAY 3  
 19-05-2024

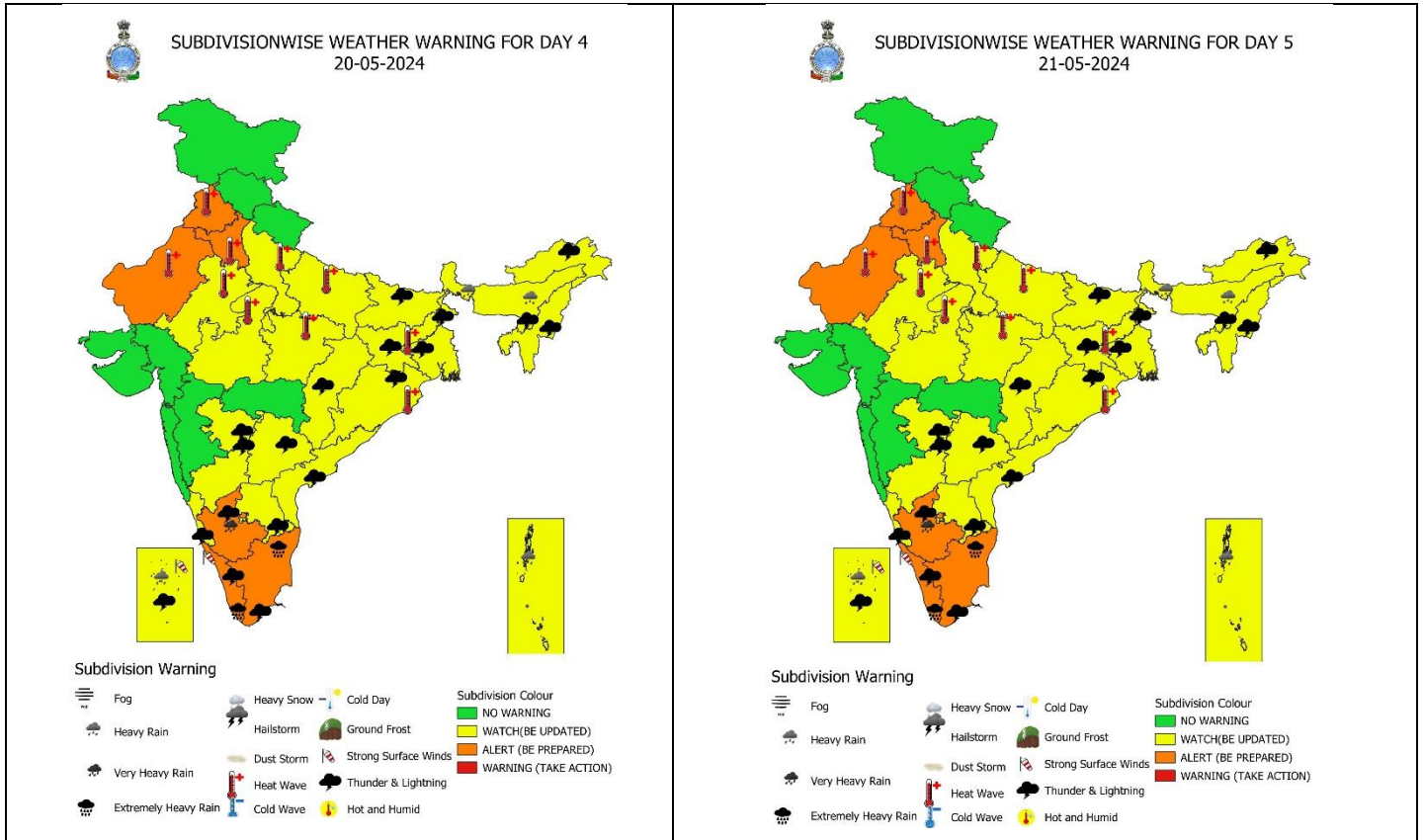


**Subdivision Warning**

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

**\* 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 & ACTION SUGGESTED due to very heavy rainfall/extremely falls over Tamil Nadu, Puducherry & Karaikal during 17<sup>th</sup>-21<sup>st</sup>; Kerala & South Interior Karnataka during 18<sup>th</sup>-21<sup>st</sup> May 2024.**

**A. Impact Expected**

- Localized Flooding of roads, water logging in low lying areas and closure of underpasses mainly in urban areas of the above region.
- Occasional reduction in visibility due to heavy rainfall.
- Disruption of traffic in major cities due to water logging in roads leading to increased travel time.
- Minor damage to kutcha roads.
- Possibilities of damage to vulnerable structure.
- Localized Landslides/Mudslides
- Damage to horticulture and standing crops in some areas due to inundation.
- It may lead to riverine flooding in some river catchments (for riverine flooding please visit Web page of CWC)

**B. Action Suggested**

- Check for traffic congestion on your route before leaving for your destination.
- Follow any traffic advisories that are issued in this regard.
- Avoid going to areas that face the water logging problems often.
- Avoid staying in vulnerable structure.

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

### **Orange alert Areas (Punjab, Haryana, West Rajasthan)**

- ✓ 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 (East Rajasthan, Uttar Pradesh, Madhya Pradesh, Bihar, Konkan, Gujarat State, Jharkhand, Gangetic West Bengal, Odisha)**

- ✓ 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 likely over various parts of the country:**

- Make provision for draining out excess water from crop fields to avoid water stagnation in Tamil Nadu, Kerala, South Interior Karnataka, Coastal Karnataka, Arunachal Pradesh, Assam & Meghalaya, Odisha, Andhra Pradesh and Telangana.
- Apply light and frequent irrigation to standing crops to avoid heat stress; provide mulching to conserve soil moisture and minimise evaporation in Punjab, Haryana, Uttar Pradesh, Rajasthan, Jharkhand, Bihar, Gujarat and Konkan.
- 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.