

Friday, May 17, 2024
Time of Issue: 1945 hours IST
(NIGHT)

All India Impact Based Weather Warning Bulletin

17 May (Day 1):

- ❖ **Thunderstorm accompanied with lightning & squally winds (speed reaching 50-60 kmph) & hailstorm** very likely at isolated places over Madhya Maharashtra; **with lightning & gusty winds (speed reaching 40-50 kmph)** at isolated places over East Madhya Pradesh, Assam & Meghalaya, Marathwada, Kerala & Mahe, Coastal Andhra Pradesh & Yanam, Rayalaseema, Telangana, North Interior Karnataka; **with lightning & gusty winds (speed reaching 30-40 kmph)** at isolated places over West Madhya Pradesh, Sub-Himalayan West Bengal & Sikkim, Vidarbha, Chhattisgarh, Konkan & Goa, Tamil Nadu, Puducherry & Karaikal, Nagaland, Manipur, Mizoram & Tripura and South Interior Karnataka; **with lightning** at isolated places over Punjab, Haryana, East Rajasthan, Gujarat State, Andaman & Nicobar Islands, Odisha, Arunachal Pradesh, Lakshadweep and Coastal Karnataka.
- ❖ **Heavy to very Heavy rainfall** very likely at isolated places over Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe, Coastal Andhra Pradesh & Yanam and Rayalaseema; **Heavy rainfall** at isolated places over Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Telangana, Coastal Karnataka and South Interior Karnataka.
- ❖ **Heat Wave to severe heat wave Conditions** very likely to prevail in many parts of West Rajasthan, in some parts of Punjab, Haryana-Chandigarh; **Heat Wave conditions** very likely in isolated pockets over Delhi, Uttar Pradesh, East Rajasthan, Bihar and Gujarat state.
- ❖ **Hot and humid weather** very likely to prevail over Goa, West Bengal & Sikkim, Jharkhand, Assam & Meghalaya and Tripura.
- ❖ **Warm night conditions** very likely to prevail in isolated pockets over Uttar Pradesh.
- ❖ **Squally weather with wind speed 40 kmph to 45 kmph gusting to 55 kmph** very likely to prevail over Comorin area, Gulf of Mannar, along and off south Tamil Nadu coast, along and off south Kerala 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 East Madhya Pradesh, Kerala & Mahe, Coastal Andhra Pradesh & Yanam, Rayalaseema, North Interior Karnataka; **with lightning & gusty winds (speed reaching 30-40 kmph)** at isolated places over Vidarbha, Chhattisgarh, Sub-Himalayan West Bengal & Sikkim, Assam & Meghalaya, Madhya Maharashtra, Marathwada, Nagaland, Manipur, Mizoram & Tripura, Tamil Nadu, Puducherry & Karaikal, Telangana and South Interior Karnataka; **with lightning** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Odisha, Arunachal Pradesh, Konkan & Goa, Lakshadweep and Coastal Karnataka.
- ❖ **Heavy to very heavy rainfall** very likely at isolated places over Tamil Nadu, Puducherry & Karaikal, Lakshadweep and **Heavy rainfall** at isolated places over Arunachal Pradesh, Assam & Meghalaya, Coastal & South Interior Karnataka.
- ❖ **Heat Wave to severe heat wave Conditions** very likely to prevail in many parts of Punjab and Haryana-Chandigarh, West Rajasthan; in some parts of East Rajasthan and **heat wave conditions** in some parts of Delhi, Uttar Pradesh; in isolated pockets over West Bengal & Sikkim, Bihar, Madhya Pradesh and Gujarat state.
- ❖ **Hot and humid weather** very likely to prevail over Goa, Jharkhand, Odisha, Assam & Meghalaya and Tripura.
- ❖ **Warm night conditions** very likely to prevail in isolated pockets over Uttar Pradesh.
- ❖ **Squally weather with wind speed 40 kmph to 45 kmph gusting to 55 kmph** likely to prevail over Comorin area, Gulf of Mannar, along and off south Tamil Nadu coast, along and off Kerala coast, along and off north Sri Lanka coast. Fishermen are advised not to venture into these areas.

19 May (Day 3):

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

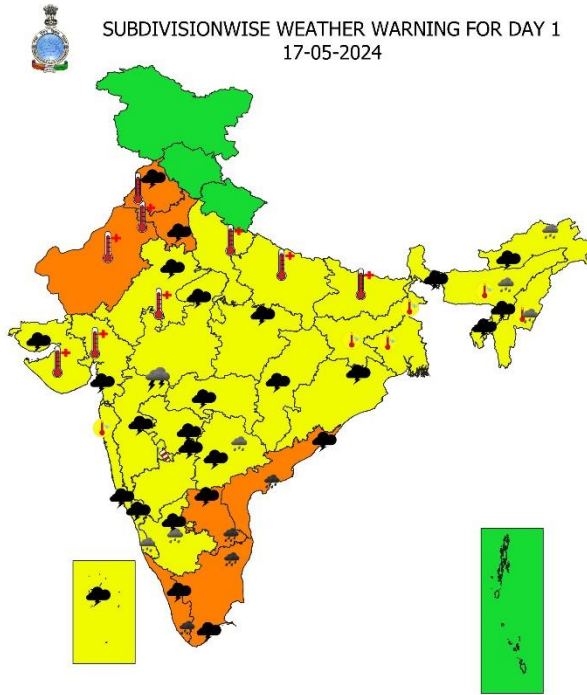
20 May (Day 4):

- ❖ **Thunderstorm accompanied with lightning & gusty winds (speed reaching 40-50 kmph)** likely at isolated places over Gangetic West Bengal, Bihar and North Interior Karnataka; **with lightning & gusty winds (speed reaching 30-40 kmph)** at isolated places over Chhattisgarh, Sub-Himalayan West Bengal & Sikkim, Jharkhand, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe, Coastal Andhra Pradesh & Yanam, Rayalaseema, Telangana and South Interior Karnataka; **with lightning** at isolated places over Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Lakshadweep, Coastal Karnataka .
- ❖ **Heavy to very Heavy rainfall with extremely heavy falls** likely at isolated places over Kerala & Mahe; **Heavy to very heavy rainfall** at isolated places over Assam & Meghalaya, Tamil Nadu, Puducherry & Karaikal, South Interior Karnataka and **Heavy rainfall** at isolated places over Andaman & Nicobar Islands, Sub-Himalayan West Bengal & Sikkim, Lakshadweep, Coastal Karnataka.
- ❖ **Heat Wave to severe heat wave Conditions** likely to prevail in many parts over Punjab and Haryana-Chandigarh; in some parts over West Rajasthan and **heat wave conditions** in some parts of Uttar Pradesh, East Rajasthan; in isolated pockets over Madhya Pradesh, Gangetic West Bengal, Bihar, Jharkhand, Odisha, Gujarat state.
- ❖ **Squally weather with wind speed 40 kmph to 45 kmph gusting to 55 kmph** very likely to prevail over Comorin area, Gulf of Mannar, along and off south Tamil Nadu coast, along and off Kerala and adjoining Karnataka coasts, along and off north Sri Lanka coast. 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 Gangetic West Bengal, Jharkhand; **with lightning & gusty winds (speed reaching 30-40 kmph)** at isolated places over Chhattisgarh, Bihar, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe, Coastal Andhra Pradesh & Yanam, Rayalaseema, Telangana; **with lightning** at isolated places over Sub-Himalayan West Bengal & Sikkim, Odisha, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura and Lakshadweep.
- ❖ **Heavy to very Heavy rainfall with extremely heavy falls** likely at isolated places over Kerala & Mahe; **Heavy to very heavy rainfall** at isolated places over Tamil Nadu, Puducherry & Karaikal, South Interior Karnataka and **Heavy rainfall** at isolated places over Andaman & Nicobar Islands, Coastal Karnataka and Lakshadweep.
- ❖ **Heat Wave to severe heat wave Conditions** likely to prevail in many parts over Punjab and Haryana-Chandigarh; in some parts over West Rajasthan and **heat wave conditions** in some parts of Uttar Pradesh, East Rajasthan; in isolated pockets over Madhya Pradesh, Odisha, Gujarat state.
- ❖ **Squally weather with wind speed 45 kmph to 55 kmph gusting to 65 kmph** likely to prevail over Comorin area, Gulf of Mannar, along and off south Tamil Nadu coast, along and off Kerala and adjoining Karnataka coasts, off north Odisha coast and adjoining northwest Bay of Bengal, along and off Somalia coast; **with wind speed 40 kmph to 45 kmph gusting to 55 kmph** prevailing over along and off north Sri Lanka coast, Andaman Sea. Fishermen are advised not to venture into these areas.

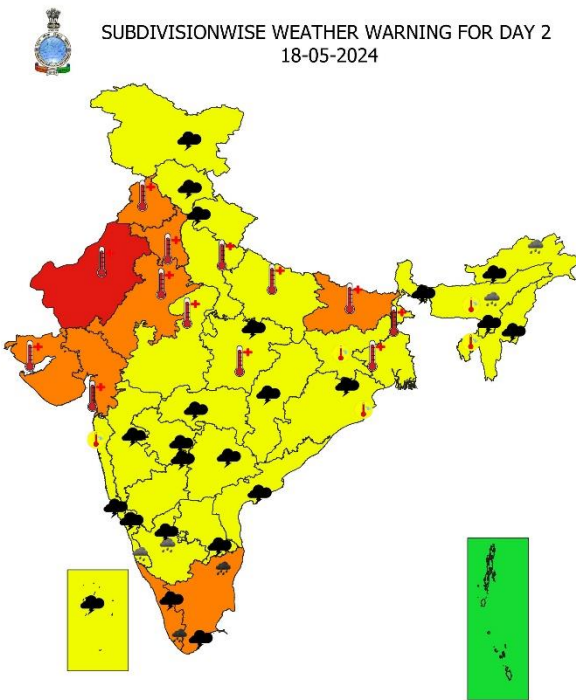
SUBDIVISIONWISE WEATHER WARNING FOR DAY 1
 17-05-2024



Subdivision Warning

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

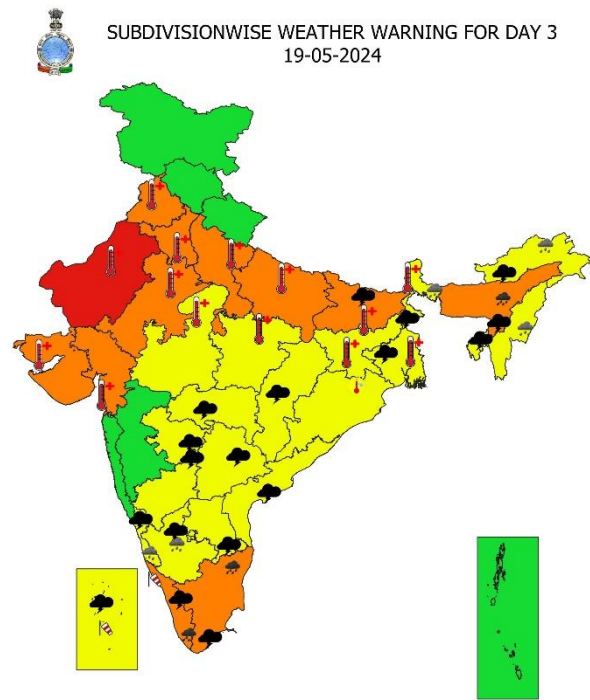
SUBDIVISIONWISE WEATHER WARNING FOR DAY 2
 18-05-2024



Subdivision Warning

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

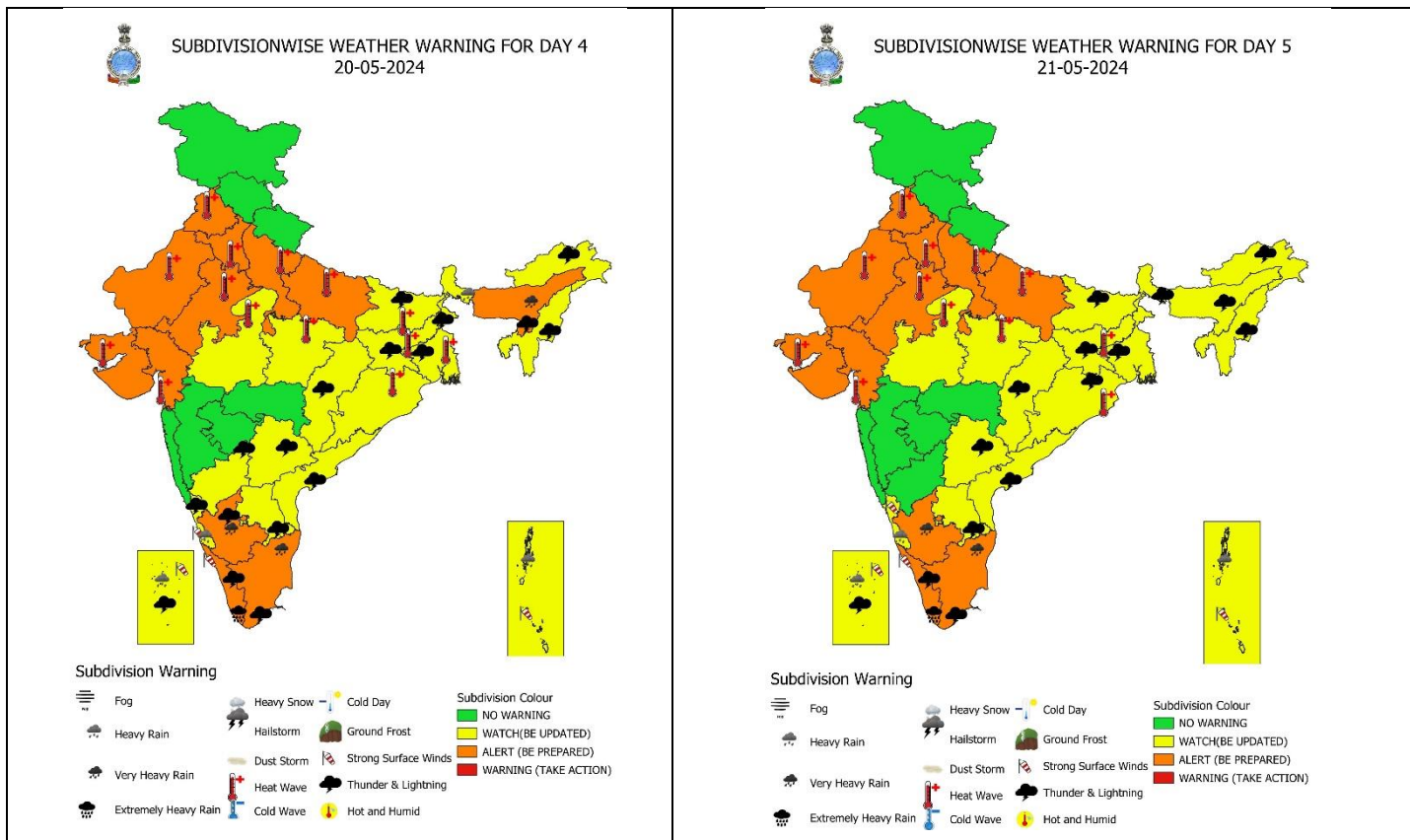
SUBDIVISIONWISE WEATHER WARNING FOR DAY 3
 19-05-2024



Subdivision Warning

			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)



IMPACT & ACTION SUGGESTED due to very heavy rainfall/extremely falls over Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe during 17th-21st; Coastal Andhra Pradesh, Rayalaseema on 17th; South Interior Karnataka on 20th & 21st 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:

Red alert Areas: (West Rajasthan)

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

Orange alert Areas (Punjab, Haryana, Delhi, East Rajasthan, Uttar Pradesh, Bihar, Gujarat State)

- ✓ 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 (Madhya Pradesh, 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:

- Use hail nets or hail caps in fruit orchards to prevent mechanical damage and provide mechanical support to horticultural crops & staking to vegetables in Madhya Maharashtra.
- Make provision for draining out excess water from crop fields to avoid water stagnation in Arunachal Pradesh, Assam & Meghalaya, Nagaland, Tamil Nadu, Kerala, South Interior Karnataka, Coastal Karnataka and Andhra Pradesh.
- 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, Gangetic West Bengal, Sub Himalayan West Bengal, Bihar and Gujarat.
- 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°C to 6.4°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°C

Warm Night: When minimum temperature departure 4.5°C to 6.4°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°C to -6.4°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°C to -6.4°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.