

Thursday, May 09, 2024
Time of Issue: 0800 hours IST
(MORNING)

All India Impact Based Weather Warning Bulletin

09 May (Day 1):

- ❖ **Thunderstorm accompanied with lightning, gusty winds (speed reaching 40-50 kmph) & hailstorm** very likely at isolated places over Uttarakhand, East Madhya Pradesh and Vidarbha; **with lightning & squally winds (speed reaching 50-60 kmph gusting to 70 kmph)** at isolated places over Sub-Himalayan West Bengal & Sikkim, Bihar; **with lightning, gusty winds (speed reaching 40-50 kmph)** at isolated places over Chhattisgarh, Gangetic West Bengal, Jharkhand, Odisha and Coastal Andhra Pradesh & Yanam; **with lightning & gusty winds (speed reaching 30-40 kmph)** at isolated places over Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Tamil Nadu, Puducherry & Karaikal, Rayalaseema, Telangana and Interior Karnataka; **with lightning** at isolated places over Himachal Pradesh, Arunachal Pradesh and Kerala & Mahe.
- ❖ **Dust Storm/Thunderstorm** very likely in isolated pockets over East Uttar Pradesh.
- ❖ **Heavy rainfall** very likely at isolated places over Sub-Himalayan West Bengal & Sikkim, Odisha and Tamil Nadu, Puducherry & Karaikal.
- ❖ **Hot and humid weather** very likely to prevail over coastal areas of Gujarat and Kerala & Mahe.
- ❖ **Heat wave to severe heat wave conditions** very likely to prevail in isolated pockets over West Rajasthan and **Heat wave conditions** very likely to prevail in isolated pockets over East Rajasthan, West Madhya Pradesh and Saurashtra & Kutch.

10 May (Day 2):

- ❖ **Thunderstorm accompanied with lightning, gusty winds (speed reaching 40-50 kmph) & hailstorm** very likely at isolated places over Uttarakhand; **with lightning & squally winds (speed reaching 50-60 kmph gusting to 70 kmph)** at isolated places Gangetic West Bengal; **with lightning, gusty winds (speed reaching 40-50 kmph)** at isolated places over Bihar, Chhattisgarh, Sub-Himalayan West Bengal & Sikkim and Jharkhand; **with lightning & gusty winds (speed reaching 30-40 kmph)** at isolated places over Himachal Pradesh, Punjab, East Madhya Pradesh, Vidarbha, Odisha, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Tamil Nadu, Puducherry & Karaikal, Coastal Andhra Pradesh & Yanam, Rayalaseema, Telangana and Interior Karnataka; **with lightning** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Arunachal Pradesh and Kerala & Mahe.
- ❖ **Dust Storm/Thunderstorm with gusty winds (speed 40-50 kmph)** very likely in isolated pockets over Rajasthan; **with gusty winds (speed 30-40 kmph)** in isolated pockets over in isolated pockets over Haryana-Chandigarh-Delhi and Uttar Pradesh.
- ❖ **Heavy rainfall** very likely at isolated places over Gangetic West Bengal, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura and Tamil Nadu, Puducherry & Karaikal.
- ❖ **Hot and humid weather** very likely to prevail over coastal areas of Gujarat and Kerala & Mahe.
- ❖ **Heat wave conditions** very likely to prevail in isolated pockets over West Rajasthan and West Madhya Pradesh.

11 May (Day 3):

- ❖ **Thunderstorm accompanied with lightning, squally winds (speed reaching 50-60 kmph gusting to 70 kmph) & hailstorm** likely at isolated places over Uttarakhand; **with lightning & gusty winds (speed reaching 40-50 kmph)** at isolated places over East Rajasthan, Chhattisgarh, Gangetic West Bengal and Nagaland, Manipur, Mizoram & Tripura; **with lightning & gusty winds (speed reaching 30-40 kmph)** at isolated places over Himachal Pradesh, Punjab, East Madhya Pradesh, Vidarbha, Sub-Himalayan West Bengal & Sikkim, Bihar, Jharkhand, Odisha, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe, Coastal Andhra Pradesh & Yanam, Rayalaseema, Telangana and Interior Karnataka; **with lightning** at isolated places Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Arunachal Pradesh, Assam & Meghalaya and Lakshadweep.
- ❖ **Dust Storm/Thunderstorm with gusty winds (speed 40-50 kmph)** likely in isolated pockets over West Uttar Pradesh and West Rajasthan; **with gusty winds (speed 30-40 kmph)** in isolated pockets over in isolated pockets over Haryana-Chandigarh-Delhi and East Uttar Pradesh.
- ❖ **Heavy rainfall** likely at isolated places over Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe.
- ❖ **Hot and humid weather** likely to prevail over coastal areas of Gujarat.

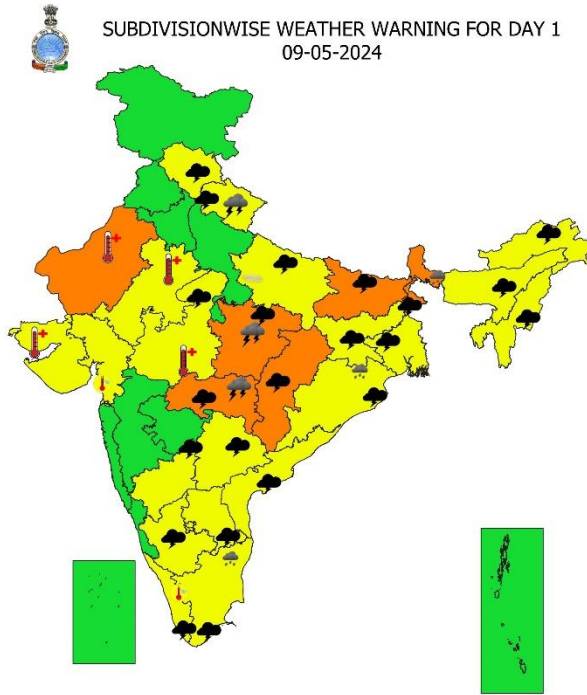
12 May (Day 4):

- ❖ **Thunderstorm accompanied with lightning, squally winds (speed reaching 50-60 kmph gusting to 70 kmph) & hailstorm** likely at isolated places over Uttarakhand; **with lightning & gusty winds (speed reaching 40-50 kmph)** at isolated places over East Rajasthan, Chhattisgarh, Gangetic West Bengal, Nagaland, Manipur, Mizoram & Tripura and Telangana; **with lightning & gusty winds (speed reaching 30-40 kmph)** at isolated places over Himachal Pradesh, Punjab, East Madhya Pradesh, Vidarbha, Odisha, Madhya Maharashtra, Marathwada, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe, Coastal Andhra Pradesh & Yanam, Rayalaseema and Interior Karnataka; **with lightning** at isolated places Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Bihar, Jharkhand, Arunachal Pradesh, Assam & Meghalaya and Lakshadweep.
- ❖ **Dust Storm/Thunderstorm with gusty winds (speed 40-50 kmph)** likely in isolated pockets over West Rajasthan; **with gusty winds (speed 30-40 kmph)** in isolated pockets over in isolated pockets over Haryana-Chandigarh-Delhi and Uttar Pradesh.
- ❖ **Hot and humid weather** likely to prevail over coastal areas of Gujarat.

13 May (Day 5):

- ❖ **Thunderstorm accompanied with lightning, squally winds (speed reaching 50-60 kmph gusting to 70 kmph) & hailstorm** likely at isolated places over Uttarakhand; **with lightning & gusty winds (speed reaching 40-50 kmph)** at isolated places over East Rajasthan, Chhattisgarh, Gangetic West Bengal, Nagaland, Manipur, Mizoram & Tripura and Telangana; **with lightning & gusty winds (speed reaching 30-40 kmph)** at isolated places over Himachal Pradesh, Punjab, East Madhya Pradesh, Vidarbha, Odisha, Madhya Maharashtra, Marathwada, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe, Coastal Andhra Pradesh & Yanam, Rayalaseema and Interior Karnataka; **with lightning** at isolated places Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Bihar, Jharkhand, Arunachal Pradesh, Assam & Meghalaya and Lakshadweep.
- ❖ **Dust Storm/Thunderstorm with gusty winds (speed 40-50 kmph)** likely in isolated pockets over West Rajasthan; **with gusty winds (speed 30-40 kmph)** in isolated pockets over in isolated pockets over Haryana-Chandigarh-Delhi and Uttar Pradesh.
- ❖ **Hot and humid weather** likely to prevail over coastal areas of Gujarat.

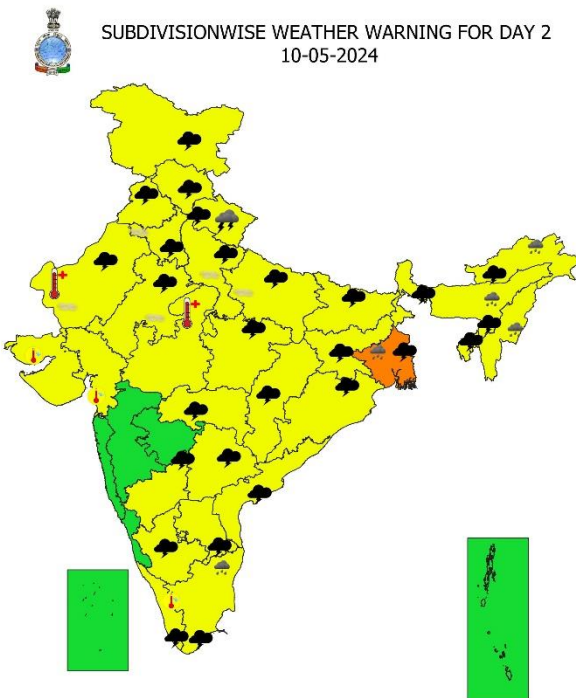
SUBDIVISIONWISE WEATHER WARNING FOR DAY 1
 09-05-2024



Subdivision Warning

- | | | | |
|----------------------|------------|----------------------|---------------------------|
| Fog | Heavy Snow | Cold Day | Subdivision Colour |
| 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) |

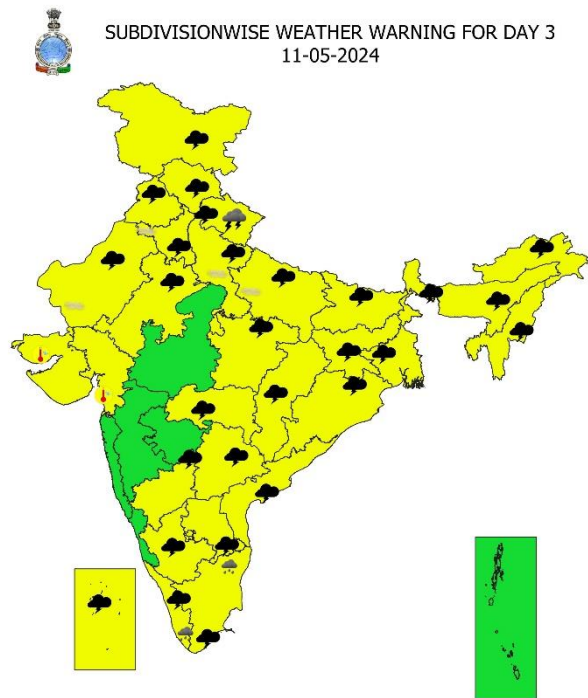
SUBDIVISIONWISE WEATHER WARNING FOR DAY 2
 10-05-2024



Subdivision Warning

- | | | | |
|----------------------|------------|----------------------|---------------------------|
| Fog | Heavy Snow | Cold Day | Subdivision Colour |
| 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) |

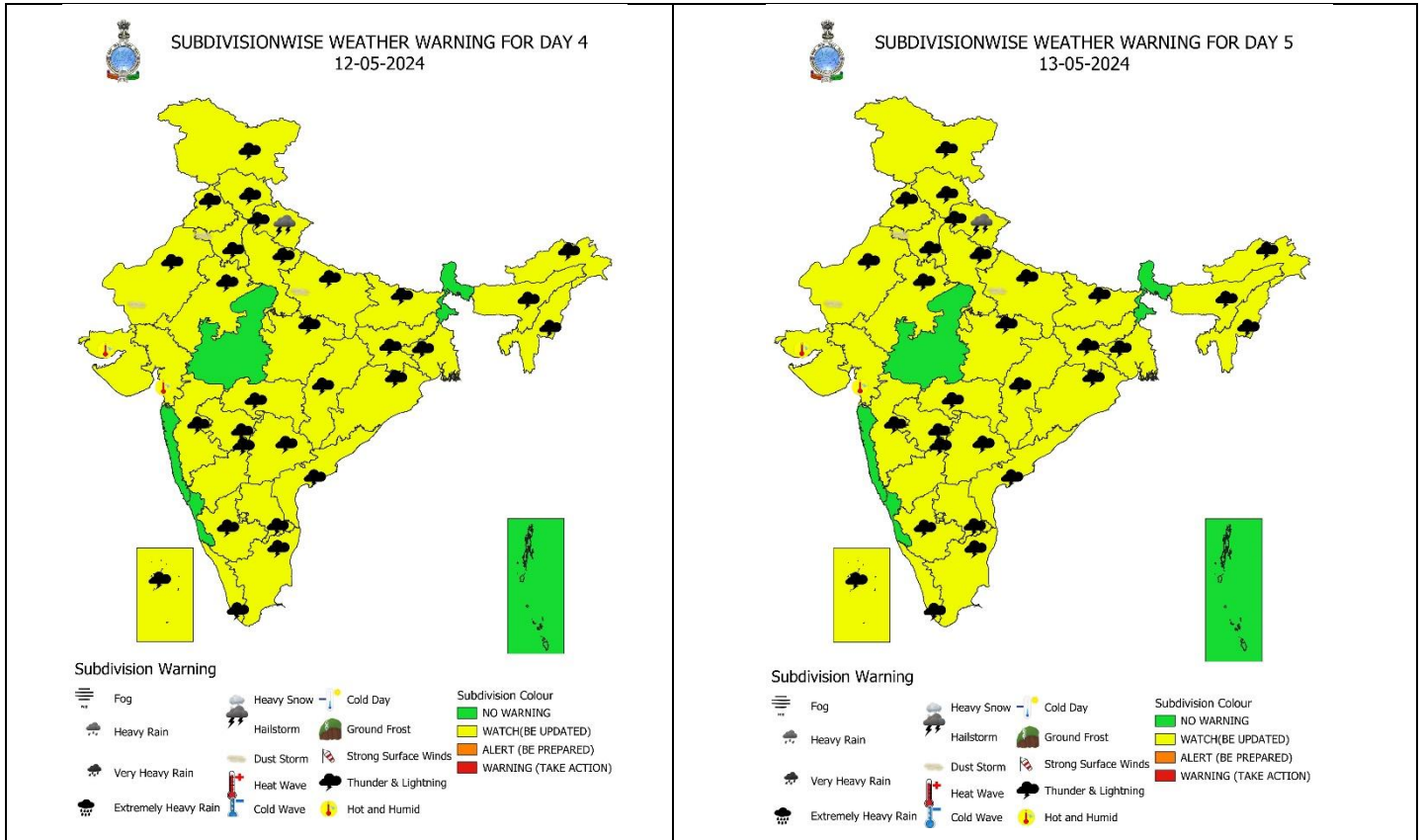
SUBDIVISIONWISE WEATHER WARNING FOR DAY 3
 11-05-2024



Subdivision Warning

- | | | | |
|----------------------|------------|----------------------|---------------------------|
| Fog | Heavy Snow | Cold Day | Subdivision Colour |
| 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 Heat Wave Conditions:

Orange alert Areas

- ✓ 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

- ✓ 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.

*** 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 Uttarakhand during next 5 days; Central India during next 2 days; East & South Peninsular India during next 4-5 days and Northwest India during 10th-12th May, 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 rainfall over Kerala & Mahe on 11th; Tamil Nadu, Puducherry & Karaikal during 09th-11th; Sub-Himalayan West Bengal & Sikkim and Odisha on 09th and Gangetic West Bengal, Arunachal Pradesh, Assam & Meghalaya & Nagaland, Manipur, Mizoram & Tripura on 10th May, 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.

Agromet advisories for Heavy Rainfall, Gusty winds, Hail 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



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



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 $\geq 37^\circ\text{C}$



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 $>6.4^\circ\text{C}$.



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 $\leq 15^\circ\text{C}$



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 $\leq -6.5^\circ\text{C}$



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



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



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



Ice deposits on ground

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



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



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



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.