

Wednesday, April 24, 2024
Time of Issue: 2000 hours IST
(NIGHT)

All India Impact Based Weather Warning Bulletin

24 April (Day 1):

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

25 April (Day 2):

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

26 April (Day 3):

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

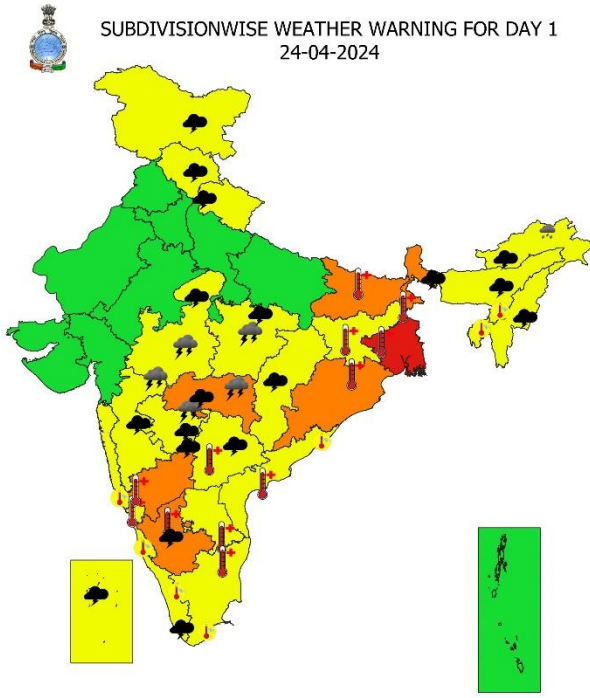
27 April (Day 4):

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

28 April (Day 5):

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

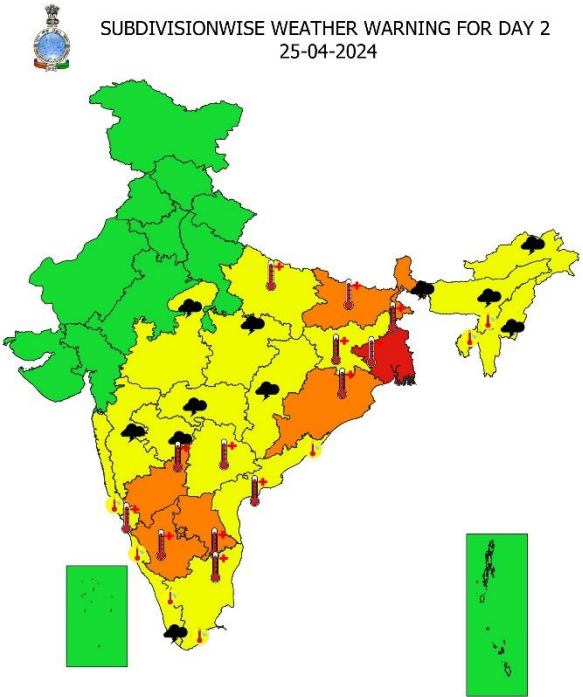
SUBDIVISIONWISE WEATHER WARNING FOR DAY 1
 24-04-2024



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)

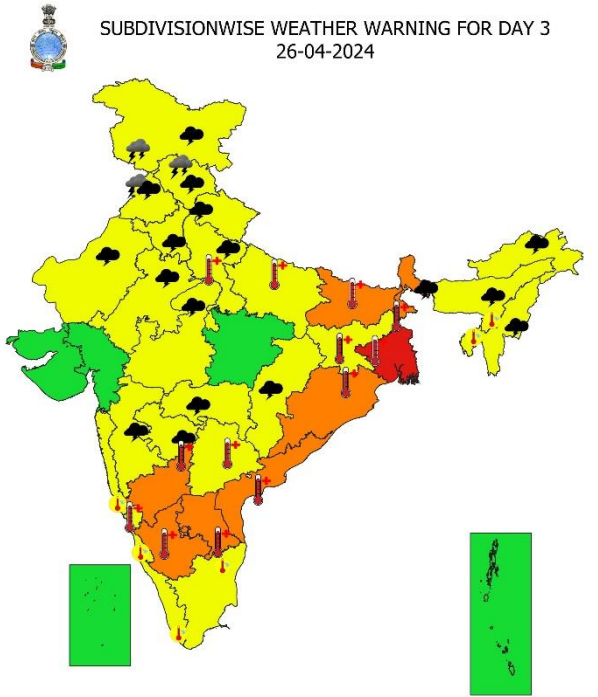
SUBDIVISIONWISE WEATHER WARNING FOR DAY 2
 25-04-2024



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)

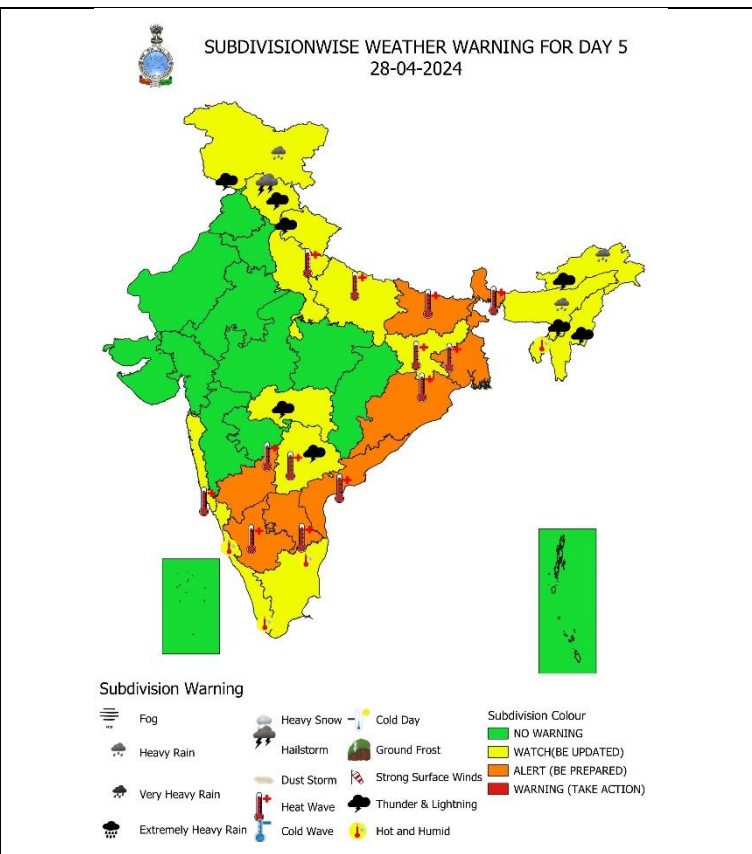
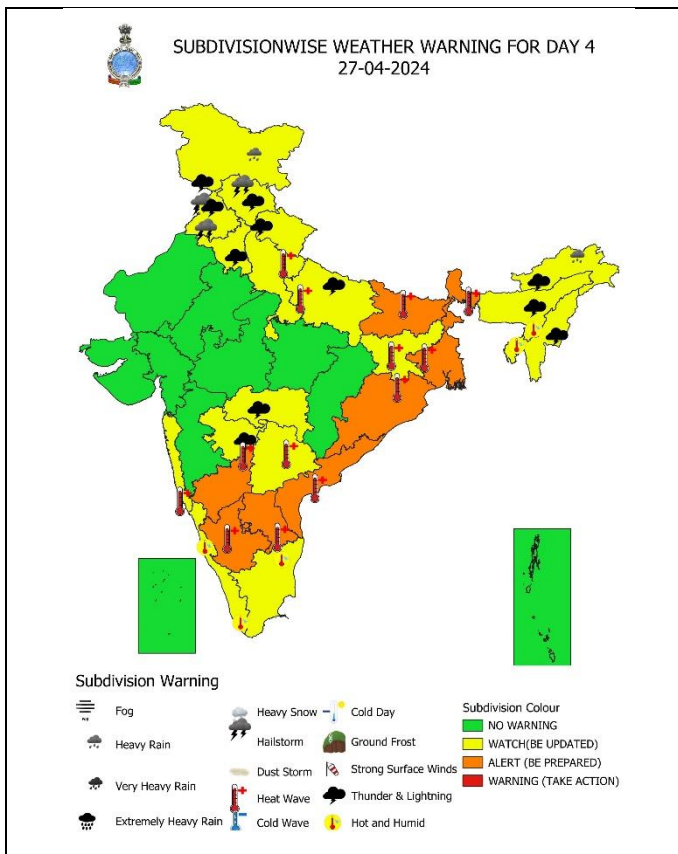
SUBDIVISIONWISE WEATHER WARNING FOR DAY 3
 26-04-2024



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 thunderstorm accompanied with lightning/gusty winds & Hailstorm over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad on 26th, Himachal Pradesh during 26th -28th; over Punjab on 26th & 27th; over Haryana on 27th; South Madhya Pradesh, Madhya Maharashtra, Marathwada and Vidarbha on 24th 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.

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Impact & Action Suggested due to very heavy/heavy rainfall over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad on 27th & 28th; over Arunachal Pradesh on 24th, 27th & 28th; over Assam & Meghalaya on 28th 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, Bihar, Coastal Andhra Pradesh & Yanam, Interior Karnataka, Rayalaseema)

- ❖ 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 (Jharkhand, Telangana, Coastal Karnataka, Tamil Nadu, Uttar Pradesh, 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:

- Postpone sowing of maize and cowpea and drain out excess water from crop fields to avoid water stagnation 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 Madhya Maharashtra and Marathwada.
- Apply light and frequent irrigation to standing crops to avoid heat stress; provide mulching to conserve soil moisture and minimize evaporation in West Bengal, Odisha, Bihar, Jharkhand, Uttar Pradesh, Tamil Nadu, Karnataka, Andhra Pradesh and Telangana.
- Provide mechanical support to horticultural crops & staking to vegetables.

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 *



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 < 1km

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.

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