

Tuesday, December 05, 2023
Time of Issue: 2045 hours IST
(NIGHT)

All India Impact Based Weather Warning Bulletin

05 December (Day 1):

- ❖ **Heavy to very heavy rainfall** at a few places **with isolated extremely heavy rainfall** very likely over Coastal Andhra Pradesh & Yanam, **Exceptionally Heavy rainfall** at one or two places over North coastal & adjoining South coastal Andhra Pradesh & Yanam. **Heavy to very heavy rainfall with isolated extremely heavy rainfall** very likely over Telangana; **Heavy to very heavy rainfall at isolated places likely** over South coastal & adjoining south interior Odisha; **Heavy rainfall** at isolated places over north Tamil Nadu Chhattisgarh and Rayalaseema.
- ❖ **Thunderstorm accompanied with lightning** very likely at isolated places over north coastal Andhra Pradesh & Yanam, Rayalaseema, Telangana, Chhattisgarh and Kerala & Mahe.
- ❖ **Dense fog** very likely at isolated places over Punjab.
- ❖ **Gale wind** speed reaching **65-75 kmph gusting to 85 kmph** likely to prevail over Westcentral Bay of Bengal and along & off Bapatla district & **55-65 kmph gusting to 75 kmph** along and off remaining districts of south Andhra Pradesh coast during next 06 hours and decrease thereafter. **Squally wind** speed reaching **50-60 kmph gusting to 65 kmph** is prevailing along & off north Andhra Pradesh coast, it is likely to continue during next 06 hours. It would gradually decrease thereafter. **Squally wind** speed reaching **40-50 kmph gusting to 60 kmph** is prevailing over Northwest Bay of Bengal and along & off Odisha coast and likely to continue during next 12 hours. It would gradually decrease thereafter.

06 December (Day 2):

- ❖ **Heavy rainfall** very likely at isolated places over Chhattisgarh, Odisha, Vidarbha, north Coastal Andhra Pradesh & Yanam and Telangana.
- ❖ **Thunderstorm accompanied with lightning & gusty winds (speed 30-40 kmph)** very likely at isolated places over Vidarbha, Kerala & Mahe and Telangana.

07 December (Day 3):

- ❖ **Heavy rainfall** very likely at isolated places over Chhattisgarh.
- ❖ **Thunderstorm accompanied with lightning** very likely at isolated places over Kerala & Mahe.

08 December (Day 4):

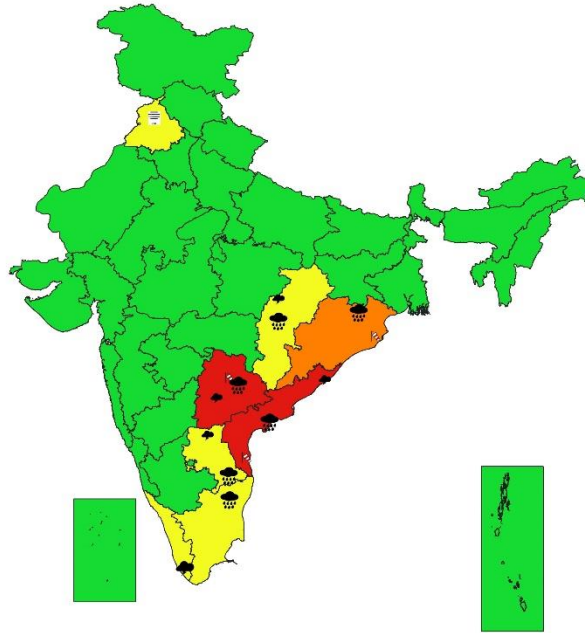
- ❖ **Thunderstorm accompanied with lightning & gusty winds (speed 30-40 kmph)** very likely at isolated places over Kerala & Mahe.

09 December (Day 5):

- ❖ **Heavy rainfall** very likely at isolated places over Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe.
- ❖ **Thunderstorm accompanied with lightning & gusty winds (speed 30-40 kmph)** very likely at isolated places over Kerala & Mahe.



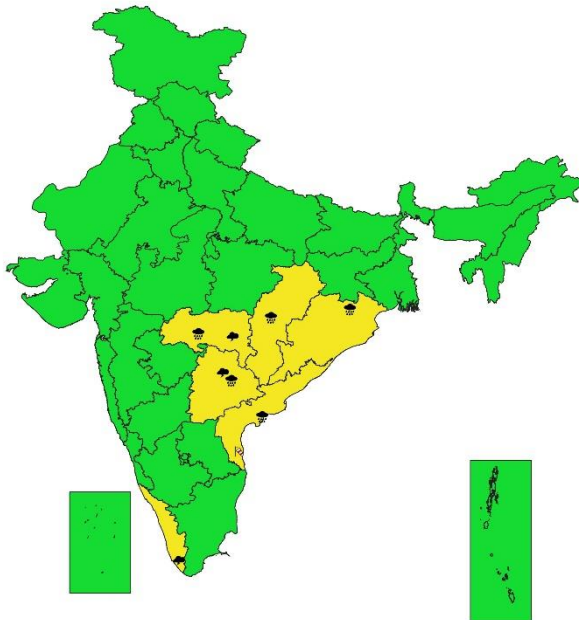
SUBDIVISIONWISE WEATHER WARNING FOR DAY 1
(5-12-2023)



Subdivision Warning	Dust Storm	WATCH (BE UPDATED)
Heavy Rain	Strong Surface Winds	ALERT (BE PREPARED)
Heavy Snow	Heat Wave	WARNING (TAKE ACTION)
Thunderstorms & Lightning	Cold wave	
Hailstorm	Fog	
	Subdivision color	



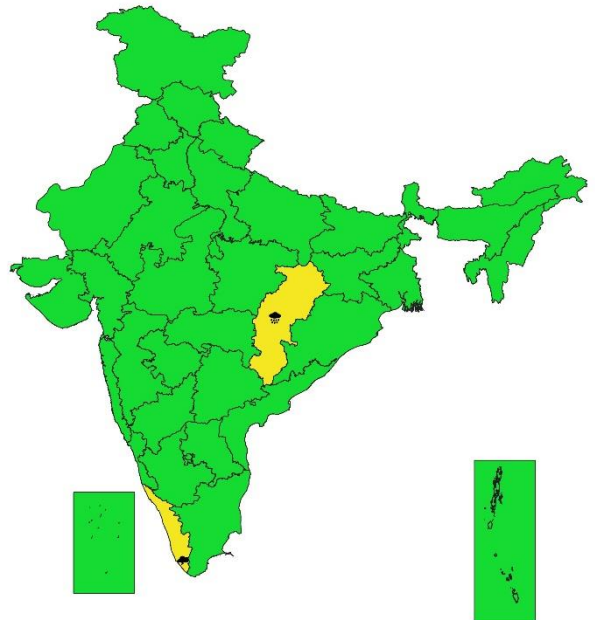
SUBDIVISIONWISE WEATHER WARNING FOR DAY 2
(6-12-2023)



Subdivision Warning	Dust Storm	Subdivision color
Heavy Rain	Strong Surface Winds	NO WARNING
Heavy Snow	Heat Wave	WATCH (BE UPDATED)
Thunderstorms & Lightning	Cold wave	ALERT (BE PREPARED)
Hailstorm	Fog	WARNING (TAKE ACTION)

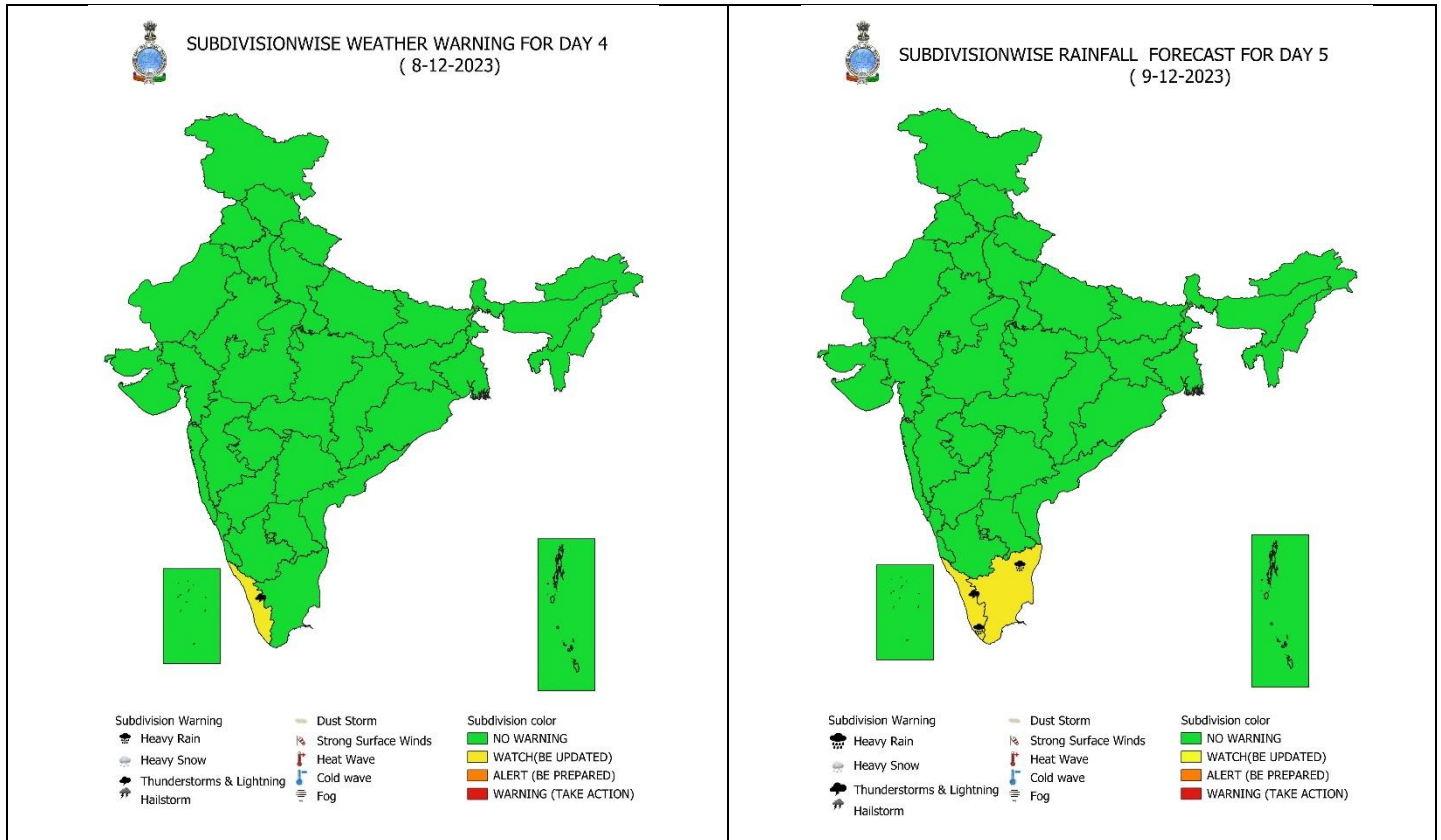


SUBDIVISIONWISE WEATHER WARNING FOR DAY 3
(7-12-2023)



Subdivision Warning	Dust Storm	Subdivision color
Heavy Rain	Strong Surface Winds	NO WARNING
Heavy Snow	Heat Wave	WATCH (BE UPDATED)
Thunderstorms & Lightning	Cold wave	ALERT (BE PREPARED)
Hailstorm	Fog	WARNING (TAKE ACTION)

*** Red color warning does not mean "Red Alert" Red color 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)



Damage Expected over coastal districts of South Andhra Pradesh (Nellore, Tirupati Prakasam, Bapatla, Guntur, Krishna and West Godavari) and adjoining coastal districts of North Tamil Nadu:

- Major damage to thatched houses/ huts. Roof tops may blow off. Unattached metal sheets may fly.
- Possibilities of damage to vulnerable structure.
- Breaking of tree branches, uprooting of large avenue trees. Major damage to banana and papaya trees. Large dead limbs blown from trees.
- Minor damage to power and communication lines due to breaking of branches and uprooting of trees.
- Major damage to Kutchha and minor damage to Pucca roads due to heavy rain.
- Damage to paddy crops, horticultural crops and orchards.
- Sea water inundation in low lying areas after erosion of Kutchha embankments
- Inundation of low lying areas in coastal districts due to heavy rainfall and flash flood
- Localized Flooding of roads and closure of underpasses mainly in urban areas of the above region.
- Occasional reduction in visibility due to heavy rainfall.
- Disruption of traffic due to water logging and squally winds
- Localized Landslides/Mudslides
- It may lead to riverine flooding in some river catchments (for riverine flooding please visit Web page of CWC)

Action Suggested for coastal districts of South Andhra Pradesh and adjoining coastal districts of North Tamil Nadu:

- Total suspension of fishing operations.
- Surface transport and shipping operations need to be regulated
- Onshore & Offshore operation need to be regulated as per guidelines
- Coastal hutment dwellers to be in safer places.
- People in affected areas to remain indoors.
- Avoid going to areas that face the water logging problems often.
- Avoid staying in vulnerable structure

Fishermen Warning: Fishermen are advised not to venture into:

- Southwest Bay of Bengal and along & off North Tamil Nadu Coasts till 5th December.
- Westcentral Bay of Bengal and along & off Andhra Pradesh Coast till 6th December.
- Northwest Bay of Bengal and along & off Odisha coast till 6th December.

Flash Flood Guidance

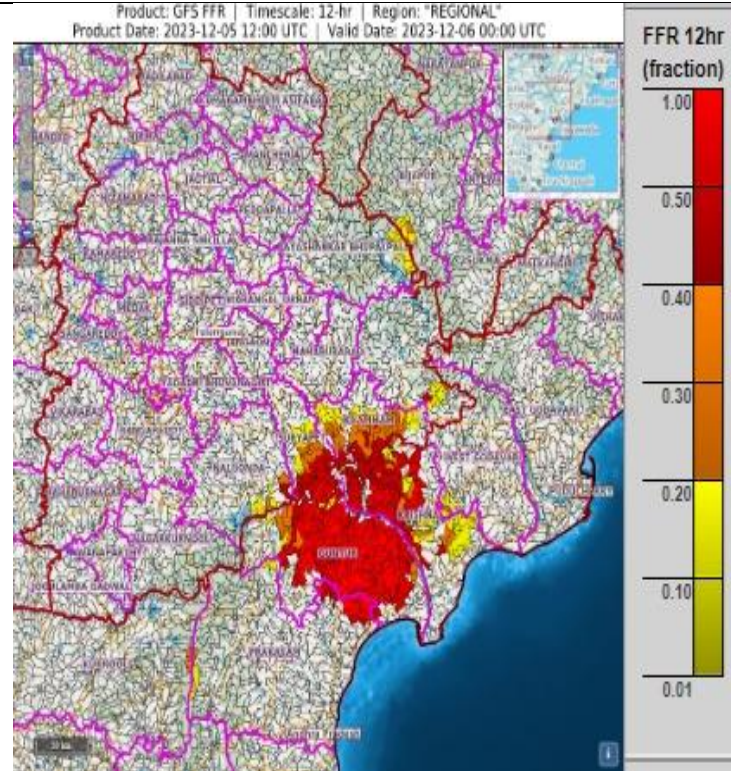
12 hours Outlook for the Flash Flood Risk (FFR) till 0530 IST of 06-12-2023 :

Low flash flood risk likely over few watersheds & neighbourhoods of following districts of coastal **Andhra Pradesh and adjoining Telangana** due to **Cyclonic Storm Michaung** during next 12 hours.

Guntur and Krishna (20 to 50 %) districts of **Andhra Pradesh**.

Suryapet and Khammam (<20%) districts of **Telangana**.

Surface runoff/ Inundation may occur at some fully saturated watersheds & low-lying areas over AoC as depicted in map due to Severe Cyclonic Storm 'Michaung' during next 12 hours.



Agromet advisories for Tamil Nadu, Andhra Pradesh, Telangana, Odisha and Chhattisgarh in view of Severe Cyclonic Storm "MICHAUNG" (Based on the IBF and advisories issued by different AMFUs and DAMUs)

- Postpone harvesting of matured rice, late sown kharif groundnut and chilli in Andhra Pradesh; rice and finger millet in Odisha; rice in Chhattisgarh and picking of matured cotton bolls in Andhra Pradesh, Odisha and Telangana.
- Keep already harvested produce of crops in safer places or cover the harvested produce in the fields with tarpaulin/polythene sheets.
- Make necessary arrangements for adequate drainage in crop fields to avoid water logging.
- Postpone sowing of Bengal gram in Andhra Pradesh; rabi groundnut in Rayalaseema; sunflower, green gram and maize in Telangana and toria/mustard, rabi groundnut and rabi maize in Odisha.
- Provide mechanical support to young fruit plants and staking in vegetables to avoid lodging.

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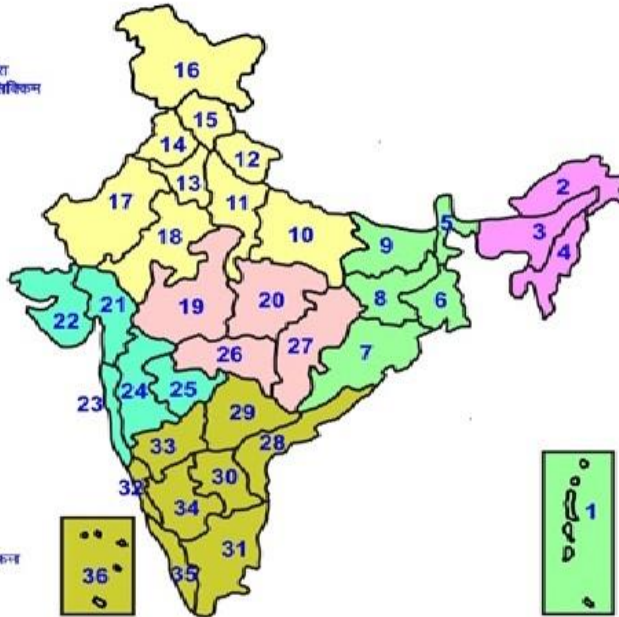
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LEGENDS

- 1 अंडमान और निकोबार द्वीप समूह
- 2 अरुणाचल प्रदेश
- 3 असम और मेघालय
- 4 नागालैंड, मणिपुर, मिजोरम और त्रिपुरा
- 5 उप हिमालय पश्चिम बंगाल एवं सिक्किम
- 6 पश्चिम बंगाल
- 7 ओडिशा
- 8 झारखंड
- 9 बिहार
- 10 पूर्वी उत्तर प्रदेश
- 11 पश्चिम उत्तर प्रदेश
- 12 उत्तराखंड
- 13 हरियाणा, चंडीगढ़ एवं दिल्ली
- 14 पंजाब
- 15 हिमाचल प्रदेश
- 16 जम्मू एवं कश्मीर एवं लद्दाख
- 17 पश्चिम राजस्थान
- 18 पूर्वी राजस्थान
- 19 पश्चिम मध्य प्रदेश
- 20 पूर्वी मध्य प्रदेश
- 21 गुजरात क्षेत्र
- 22 सोराष्ट्र एवं कच्छ
- 23 कोंकण एवं गोवा
- 24 मध्य महाराष्ट्र
- 25 मराठवाड़ा
- 26 विदर्भ
- 27 छत्तीसगढ़
- 28 तटीय आंध्र प्रदेश एवं यानम
- 29 तेलंगाना
- 30 तमिलनाडु, पुदुचेरी एवं काराईकल
- 31 तटिय कर्नाटक
- 32 आंतरिक उत्तरी कर्नाटक
- 33 आंतरिक दक्षिणी कर्नाटक
- 34 केरल एवं माहे
- 35 लक्षद्वीप
- 36



1. Andaman & Nicobar Islands
2. Arunachal Pradesh
3. Assam & Meghalaya
4. Nagaland, Manipur, Mizoram & Tripura
5. Sub-Himalayan West Bengal & Sikkim
6. Gangetic West Bengal
7. Odisha
8. Jharkhand
9. Bihar
10. East Uttar Pradesh
11. West Uttar Pradesh
12. Uttarakhand
13. Haryana, Chd & Delhi
14. Punjab
15. Himachal Pradesh
16. Jammu & Kashmir and Ladakh
17. West Rajasthan
18. East Rajasthan
19. West Madhya Pradesh
20. East Madhya Pradesh
21. Gujarat
22. Saurashtra
23. Konkan & Goa
24. Madhya Maharashtra
25. Marathawada
26. Vidharbha
27. Chhattisgarh
28. Coastal Andhra Pradesh & Yanam
29. Telangana
30. Rayalaseema
31. Tamilnadu, Puducherry & Karaikal
32. Coastal Karnataka
33. North Interior Karnataka
34. South Interior Karnataka
35. Kerala & Mahe
36. Lakshadweep

SPATIAL DISTRIBUTION (% of Stations reporting)

% Stations	Category	% Stations	Category
76-100	Widespread (WS/ Most Places)	26-50	Scattered (SCT/ A Few Places)
51-75	Fairly Widespread (FWS/ Many Places)	1-25	Isolated (ISOL)

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 Rain	 Heavy Snow	 Thunderstorm	 Dust Storm
 Strong Winds	 Visibility	 Cyclone	 Squall/ Hail
 Frost	 Cold Wave	 Heat Wave	 Sea State

LEGENDS

WARNING

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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 < 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.