



Government of India
Ministry of Earth Sciences
India Meteorological Department



Press Release

Date: 07th April, 2024.

Time of Issue: 1330 hours IST

- Subject:** i) Light to moderate rainfall spell accompanied with thunderstorms, gusty winds & hail likely over East, Central & Peninsular India during 07th-09th April, 2024.
ii) Enhanced rainfall/thunderstorm activity likely to continue over Northeast India during next 2 days and decrease in intensity thereafter.
iii) Heat wave conditions likely to continue to prevail over parts of peninsular India during next 2 days and abate thereafter.

Realised weather during past 24 hours till 0830 hours IST of today: (details in Annexure I)

- ❖ **Heat wave conditions** prevailed in some parts of interior Odisha, Gangetic West Bengal, east Jharkhand, Coastal Andhra Pradesh, Rayalaseema, east Telangana, North Interior Tamil Nadu and North Interior Karnataka.
- ❖ **Warm night** prevailed in isolated pockets of Odisha.
- ❖ **Gusty winds observed** over Gangetic West Bengal, Tamil Nadu and North Interior Karnataka.
- ❖ **Hot and Humid condition prevailed in** some parts of Kerala.
- ❖ **Heavy rainfall observed** over Meghalaya
- ❖ **Light/Moderate rainfall/snowfall** accompanied with **thunderstorm** observed at most places over Arunachal Pradesh; at isolated places over Sub-Himalayan West Bengal & Sikkim; **light rainfall/snowfall** at isolated places over Jammu-Kashmir and Himachal Pradesh.
- ❖ **Light/Moderate rainfall** accompanied with **thunderstorm and gusty winds** observed at a few places over Gangetic West Bengal; at isolated places over Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura; **Light rainfall** accompanied with **thunderstorm and gusty winds** observed at isolated places over Odisha, Jharkhand, Madhya Pradesh, Vidarbha, Chhattisgarh, Sub-Himalayan West Bengal & Sikkim, Tamil Nadu, Kerala, Coastal Andhra Pradesh and Telangana.

Weather Systems and Forecast & Warnings: (Annexure II)

- ❖ A cyclonic circulation lies over east Assam in lower tropospheric levels. Under the influence of this system:
 - ✓ Fairly widespread to widespread light/moderate rainfall/snowfall with isolated **thunderstorms & lightning** very likely over Arunachal Pradesh; scattered to fairly widespread light to moderate rainfall with isolated **thunderstorms, lightning & gusty winds** over Sub-Himalayan West Bengal & Sikkim, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura during 07th to 10th April.
 - ✓ **Isolated heavy rainfall also very likely over Arunachal Pradesh on 07th & 08th April, 2024.**
- ❖ The trough/wind discontinuity runs from interior Odisha to north Tamil Nadu across Chhattisgarh, Vidarbha and interior Karnataka in lower tropospheric levels. Under its influence;
 - ✓ Scattered to fairly widespread light/moderate rainfall accompanied with **thunderstorms, lightning & gusty winds (30-50 kmph)** very likely over Madhya Pradesh, Chhattisgarh, Marathwada, Vidarbha Jharkhand and Gangetic West Bengal during 07th-11th; Odisha and Bihar during 07th-08th; and Madhya Maharashtra during 09th-11th April, 2024.

- ✓ Isolated light/moderate rainfall accompanied with **thunderstorms, lightning & gusty winds (30-50 kmph)** very likely over Coastal Andhra Pradesh & Yanam and Telangana during 07th-11th; Kerala & Mahe on 08th & 09th; Tamil Nadu, Puducherry & Karaikal on 10th & 11th April, 2024.
- ✓ **Hailstorm activity also very likely at isolated places over Odisha on 07th; Madhya Pradesh on 08th & 09th; Vidarbha, Chhattisgarh and Marathwada on 07th & 08th April, 2024.**
- ❖ Two Western Disturbances are likely to affect northwest India, the 1st from 10th April and the 2nd from 13th April, 2024. Under the influence of these systems:
 - ✓ Scattered to fairly widespread light rainfall/snowfall with **thunderstorms, lightning** very likely over Jammu-Kashmir, Himachal Pradesh during 10th-13th; and isolated light rainfall/snowfall over Uttarakhand during 08th to 13th April, 2024.
 - ✓ Isolated light to moderate rainfall with **thunderstorms, lightning** very likely over Rajasthan and Uttar Pradesh during 10th-13th; Punjab and Haryana on 13th April, 2024.

Maximum temperature observation and forecast for next 5 days:

- ❖ Yesterday, Maximum temperatures were in the range of 40-44°C over many parts of Tamil Nadu, Andhra Pradesh, Telangana, Chhattisgarh, Interior Odisha; at some parts over east Jharkhand, West Gangetic West Bengal and Isolated pockets over southeast Uttar Pradesh and Saurashtra, these were above normal by 2-4°C.
- ❖ Today, Minimum temperatures are above normal by 3-5°C at isolated places over Bihar, Jharkhand, Gangetic West Bengal, Nagaland, Manipur, Mizoram & Tripura, Odisha, North Interior Karnataka and Madhya Maharashtra.
- ❖ Gradual fall by 2-4°C in maximum temperatures very likely over many parts of Central India during next 3 days and no significant change thereafter.
- ❖ Fall by 2-4°C in maximum temperatures very likely over many parts of East India during next 2 days and gradual rise about 2°C for subsequent 3 days.
- ❖ No significant change in maximum temperatures very likely over many parts of South India during next 2 days then gradual fall by 2-3°C for subsequent 3 days.
- ❖ No significant change in maximum temperatures very likely over rest parts of the country.

Heat wave, Warm Night and Hot & Humid weather warning for next 5 days:

- ❖ **Heat wave conditions** very likely in isolated pockets over North Tamil Nadu, South Coastal Andhra Pradesh on 07th; Rayalaseema, Telangana and Interior Karnataka on 07th & 08th April, 2024.
- ❖ **Warm night conditions** very likely to prevail in isolated pockets over North Interior Karnataka on 07th & 08th and over Odisha on 07th April, 2024.
- ❖ **Hot and humid weather** very likely to prevail over Kerala & Mahe, coastal areas of Gujarat during 07th-11th; Karnataka on 07th and Coastal Andhra Pradesh & Yanam and Rayalaseema during 08th-11th April, 2024.

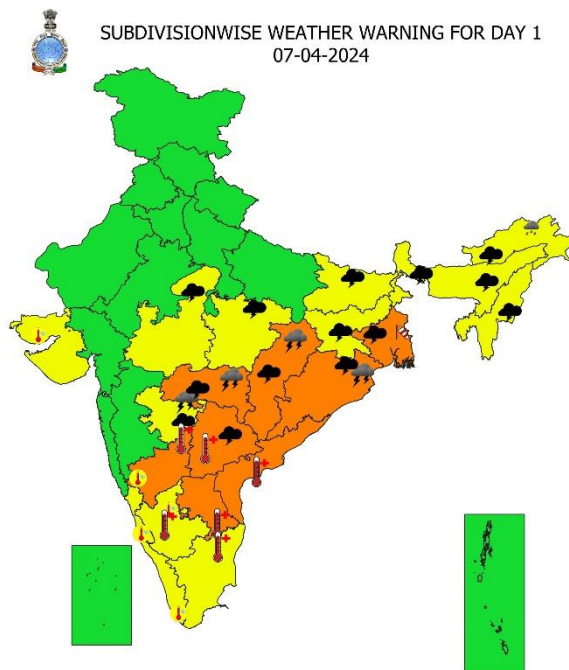
For more details, kindly refer: https://mausam.imd.gov.in/responsive/all_india_forecast_bulletin.php

ANNEXURE I

Significant amount of rainfall (in cm):

- ❖ **Assam & Meghalaya:** Cherrapunji (dist East Khasi Hills) 11, Cherrapunji (dist East Khasi Hills) 3, Jiagaon (dist Tinsukia) 2, Dhemaji (dist Dhemaji) 2, mohanbari (dist Dibrugarh) 2.
- ❖ **Arunachal Pradesh:** Namsai (dist Lohit) 4, Hawaii (dist Anjaw) 4, Roing (dist Lower Dibang Valley) 3, Tawang (dist Tawang) 2;
- ❖ **Gangetic West Bengal:** Barrackpur (dist. North 24 Parganas)-4;

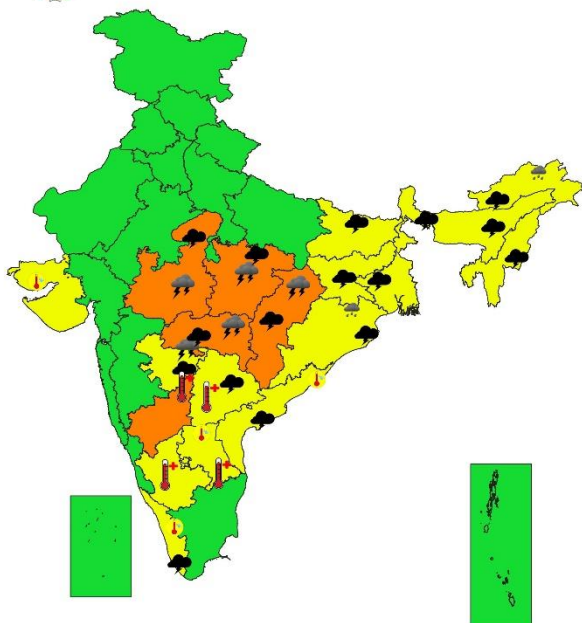
SUBDIVISIONWISE WEATHER WARNING FOR DAY 1
07-04-2024



Subdivision Warning



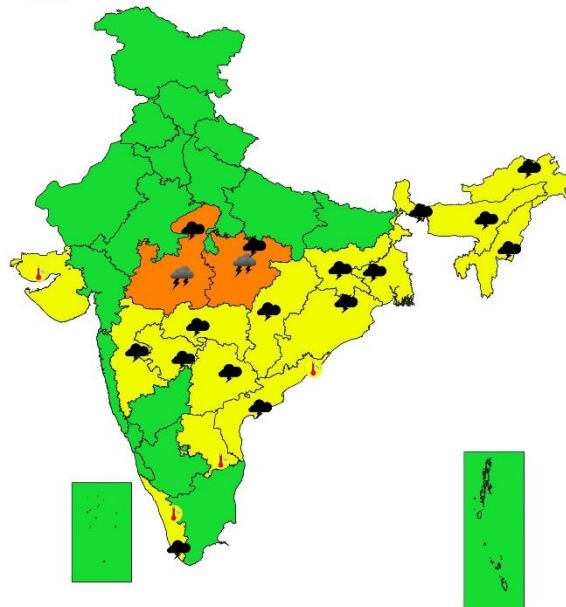
SUBDIVISIONWISE WEATHER WARNING FOR DAY 2
08-04-2024



Subdivision Warning

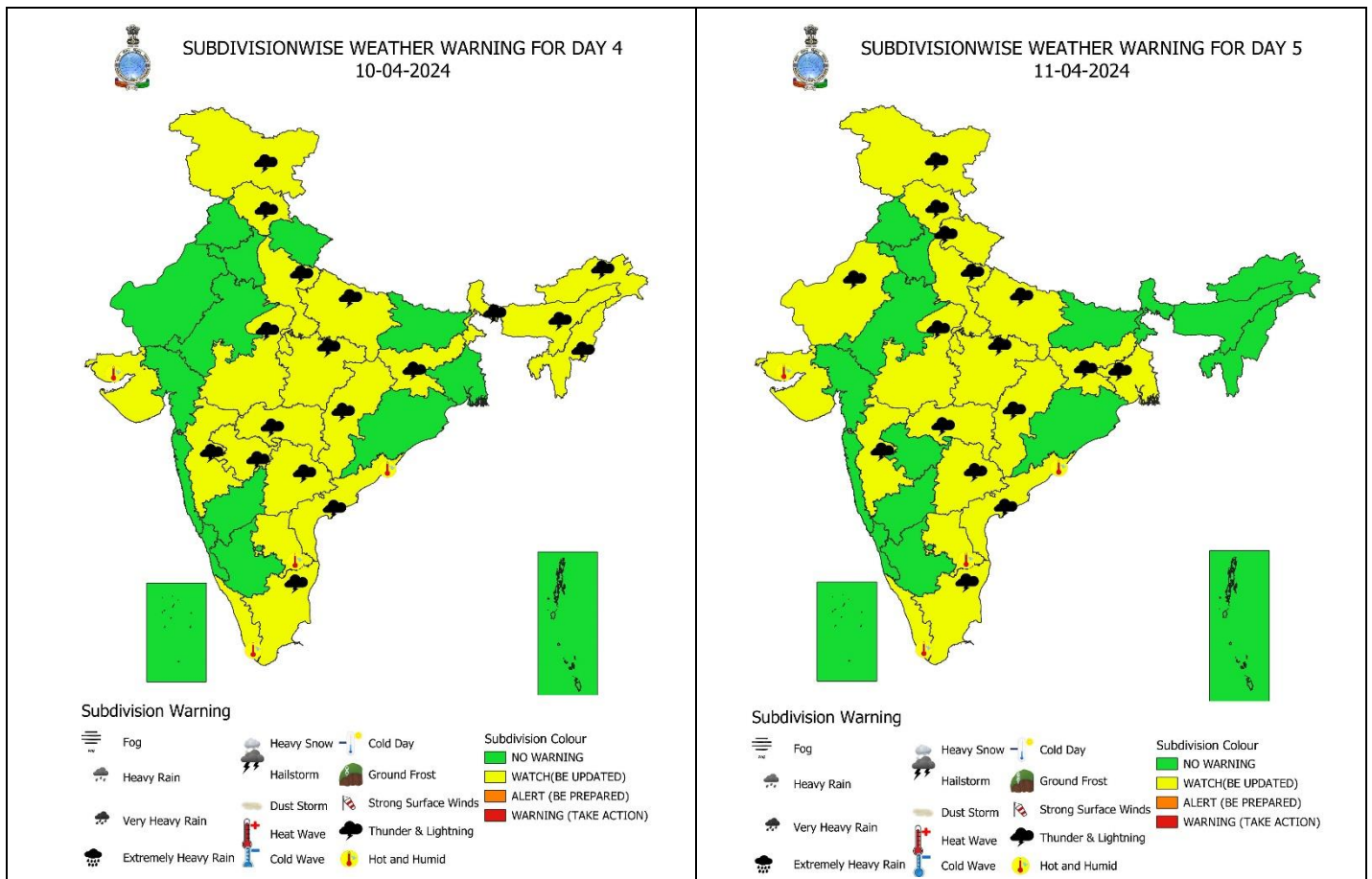


SUBDIVISIONWISE WEATHER WARNING FOR DAY 3
09-04-2024



Subdivision Warning





Impact & Action Suggested due to heavy rainfall over Arunachal Pradesh on 07th & 08th April, 2024.

Impacts Expected for Rain/Snow

- ❖ 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 expected and action suggested due to thunderstorm accompanied with lightning/gusty winds & Hailstorm over Central, East, Northeast & North peninsular India during next 3 days.

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 kutchha 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 Heat Wave Conditions during next 2 days:

Orange alert Areas (Coastal Andhra Pradesh, Rayalaseema, Telangana and North Interior Karnataka)

- ❖ 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– 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 (North Interior Tamil Nadu and South Interior Karnataka)

- ❖ 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, Gusty Winds, Hailstorm and Heat Wave likely over various parts of the country:

- Harvest the matured crops, fruits and vegetables at the earliest and keep the harvested produce at safer places or cover the heaps of harvested produce in the fields with tarpaulin sheets.
- Use hail nets or hail caps in fruit orchards to protect them from mechanical damage and provide mechanical support to horticultural crops & staking to vegetables in Odisha, Madhya Pradesh, Chhattisgarh, Vidarbha and Marathwada.
- Drain out excess water from crop fields to avoid water stagnation in Arunachal Pradesh and postpone fresh sowing of rice, cowpea/ lobia, soybean, vegetables and maize in *Jhum* and cover the already-sown crops with farm residues or paddy straw.
- Provide mechanical support to horticultural crops and staking to vegetables in Gangetic West Bengal, Odisha, Madhya Pradesh, Chhattisgarh, Vidarbha and Telangana.
- Apply light and frequent irrigation to standing crops to avoid heat stress; provide mulching to conserve soil moisture and minimise evaporation in Tamil Nadu, Interior Karnataka, Andhra Pradesh, Telangana and Odisha.

Legends & abbreviations:

- ❖ **Heavy Rain:**64.5-115.5mm; **Very Heavy Rain:**115.6-204.4mm; **Extremely Heavy Rain:** >204.4mm.
- ❖ **Obsy:** Observatory; **AWS:** Automatic Weather Station; **dist:** District; **NH:** National Highway; **KVK:** Krishi Vigyan Kendra; **DVC:** Damodar Valley Corporation; **PTO:** Part Time Office.
- ❖ **Region wise classification of meteorological Sub-Divisions:**
 - **Northwest India:** Western Himalayan Region (Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh and Uttarakhand); Punjab, Haryana-Chandigarh-Delhi; West Uttar Pradesh, East Uttar Pradesh, West Rajasthan and East Rajasthan.
 - **Central India:** West Madhya Pradesh, East Madhya Pradesh, Vidarbha and Chhattisgarh.
 - **East India:** Bihar, Jharkhand, Sub-Himalayan West Bengal & Sikkim; Gangetic West Bengal, Odisha and Andaman & Nicobar Islands.
 - **Northeast India:** Arunachal Pradesh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.
 - **West India:** Gujarat Region, Saurashtra & Kutch, Konkan & Goa, Madhya Maharashtra and Marathwada.
 - **South India:** Coastal Andhra Pradesh & Yanam, Telangana, Rayalaseema, Coastal Karnataka, North Interior Karnataka, South Interior Karnataka, Kerala & Mahe, Tamil Nadu, Puducherry & Karaikal and 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)

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)

Probabilistic Forecast	
Terms	Probability of Occurrence (%)
Unlikely	< 25
Likely	25 - 50
Very Likely	50 - 75
Most Likely	> 75

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 Strom: Wind speed > 220 kmph (> 119 knots)