



Government of India
Ministry of Earth Sciences
India Meteorological Department



Press Release

Date: 04th May, 2024

Time of Issue: 1330 hours IST

Subject:

- i. **Heat wave conditions with reduced intensity likely to continue in isolated pockets over East India till 05th and some places over south Peninsular India till 06th May and abate thereafter.**
- ii. **Heavy to very heavy rainfall spell accompanied with thunderstorms and gusty winds very likely over Northeast India on 05th & 06th May.**
- iii. **Wet spell accompanied with thunderstorms and gusty winds very likely over East India during 05th-09th with maximum intensity on 06th & 07th May.**
- iv. **Wet spell accompanied with thunderstorms and gusty winds very likely over south Peninsular India during 05th-09th with maximum intensity on 07th & 08th May.**

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

- ❖ Yesterday, **heat wave to severe heat wave conditions** prevailed in some parts of Gangetic West Bengal and **heat wave conditions** in some parts of Rayalaseema and in isolated pockets of Sub-Himalayan West Bengal, Odisha, Telangana, Coastal Andhra Pradesh and Tamil Nadu. ***Heat wave conditions have been prevailing over Odisha since 15th, Gangetic West Bengal since 17th, Rayalaseema since 24th April, 2024.***
- ❖ Yesterday, **highest maximum temperature** of 46.3°C was reported at **Nandyal (Rayalaseema)** over the country.
- ❖ Light to moderate rainfall accompanied with isolated thunderstorm & lightning observed at many places over Nagaland, Manipur, Mizoram & Tripura; at a few places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad; at isolated places over Arunachal Pradesh, Assam & Meghalaya, Himachal Pradesh, Coastal Andhra Pradesh & Yanam, Telangana, Rayalaseema, Tamil Nadu, Puducherry & Karaikal, South Interior Karnataka and Kerala & Mahe.

Weather Systems and Forecast & Warnings: (Annexure II)

- ❖ A cyclonic circulation lies over Sub-Himalayan West Bengal and another over Marathwada and a trough runs from Meghalaya to the cyclonic circulation over Marathwada in lower tropospheric levels. Strong southwesterly winds from Bay of Bengal to Northeast India are very likely to prevail at lower tropospheric levels on 05th & 06th May, 2024. Under their influence:
 - ✓ Fairly widespread to widespread, light to moderate rainfall accompanied with isolated **thunderstorm & lightning & gusty winds (40-50 kmph)** very likely over Arunachal Pradesh, Assam, Meghalaya, Sikkim and Nagaland, Manipur, Mizoram & Tripura during next 5 days.
 - ✓ **Isolated heavy rainfall** very likely over Arunachal Pradesh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura during 05th-07th and Sikkim on 05th. **Isolated very heavy rainfall** very likely over Arunachal Pradesh on 05th; Assam & Meghalaya and Mizoram-Tripura on 05th & 06th and isolated **extremely heavy rainfall** likely over Meghalaya on 06th May, 2024.
- ❖ A Western Disturbance seen as a trough along Long. 64°E to the north of Lat. 30°N and another along Long. 52°E to the north of Lat. 25°N in middle & upper tropospheric westerlies. Under their influence:

- ✓ Isolated to scattered light to moderate rainfall accompanied with **thunderstorm and lightning** very likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Uttarakhand and Himachal Pradesh during 04th-05th May 2024.
- ✓ Isolated very light/light rainfall very likely over Haryana-Chandigarh and Punjab on 04th May, 2024.
- ✓ **Strong surface winds (30-40 kmph)** very likely to prevail over Uttar Pradesh, south Rajasthan and Haryana & Delhi on 04th May, 2024.
- ❖ Isolated light to moderate rainfall accompanied with **thunderstorm & lightning** likely over Odisha, Gangetic West Bengal, Bihar & Jharkhand on 04th & 05th and increase thereafter with scattered to fairly widespread rainfall accompanied with **thunderstorm, lightning & gusty winds (40-50 kmph)** during 06th-09th May. Isolated **heavy rainfall** likely over Gangetic West Bengal on 06th & 07th May, 2024.
- ❖ Isolated to scattered light to moderate rainfall accompanied with **thunderstorm & lightning** very likely over East Uttar Pradesh, Haryana-Chandigarh-Delhi, Madhya Pradesh, Vidarbha and Chhattisgarh during 06th-10th May, 2024.
- ❖ Isolated to scattered light to moderate rainfall accompanied with **thunderstorm & lightning** very likely over Coastal Andhra Pradesh & Yanam, Rayalaseema, Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe during 04th-08th; Telangana and Karnataka during 06th-09th May, 2024. **Isolated heavy rainfall very likely over Coastal Andhra Pradesh and Rayalaseema on 07th and Tamil Nadu, South Interior Karnataka and Kerala on 07th & 08th May, 2024. Isolated hailstorm also likely over Interior Karnataka on 07th & 08th May, 2024.**

Maximum temperature observation and forecast for next 5 days:

- ❖ Yesterday, maximum temperatures were in the range of 43-46°C in many parts of Rayalaseema and Telangana; in some parts of Odisha; in isolated pockets of Vidarbha, Madhya Maharashtra and Coastal Andhra Pradesh; in the range of 40-43°C in over many parts of Gangetic West Bengal, Marathwada and North Interior Karnataka; in some parts of Rajasthan, Uttar Pradesh, Jharkhand, Chhattisgarh, Madhya Pradesh and Gujarat State. These were above normal by 3-5°C in many parts of West Bengal, Bihar, Odisha, Telangana, Rayalaseema, Coastal Andhra Pradesh and Tamil Nadu.
- ❖ Rise in maximum temperatures by 2-4°C very likely over many parts of Northwest India (except Uttar Pradesh) during next 5 days.
- ❖ Rise in maximum temperatures by 2-3°C very likely over many parts of Central India during next 3 days and no significant change thereafter.
- ❖ No significant change in maximum temperatures very likely over East India during next 2 days and fall by 4-5°C thereafter.
- ❖ No significant change in maximum temperatures very likely over south peninsular India during next 2 days and fall by 2-4°C thereafter.
- ❖ No significant change in maximum temperatures very likely over rest parts of the country.

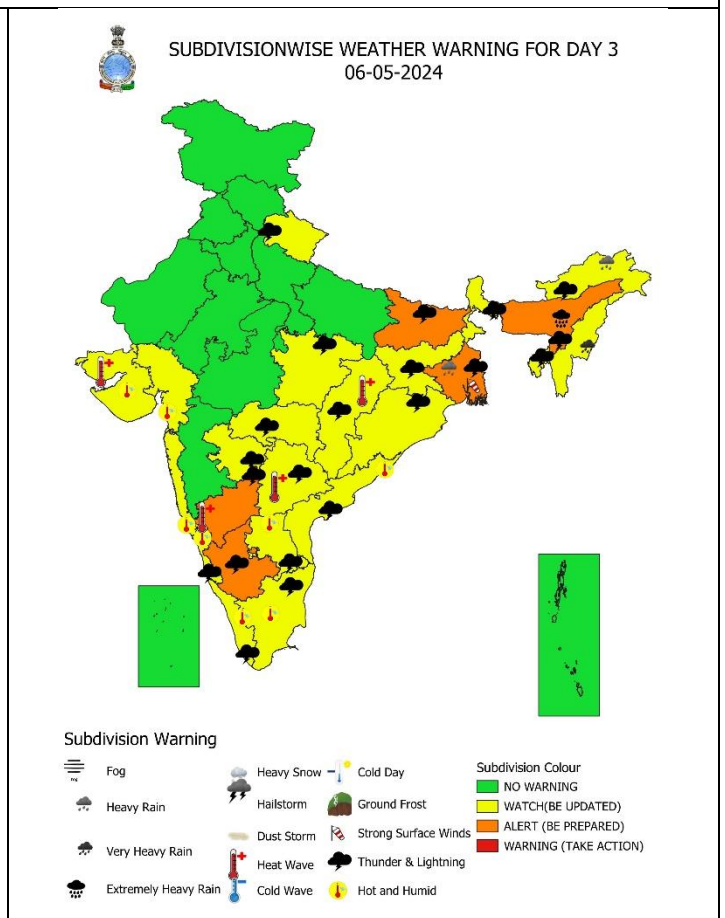
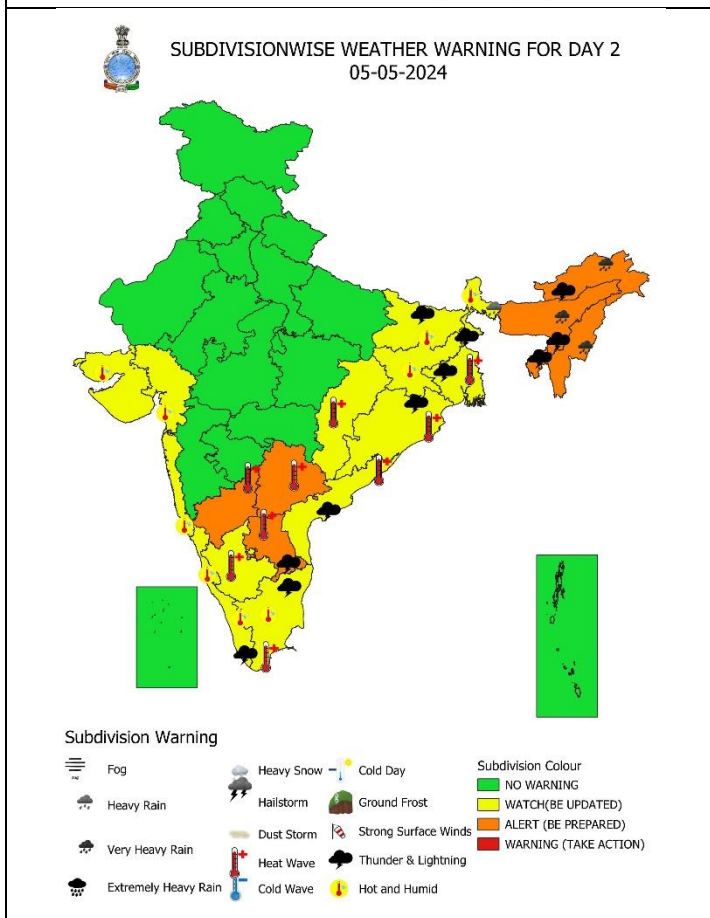
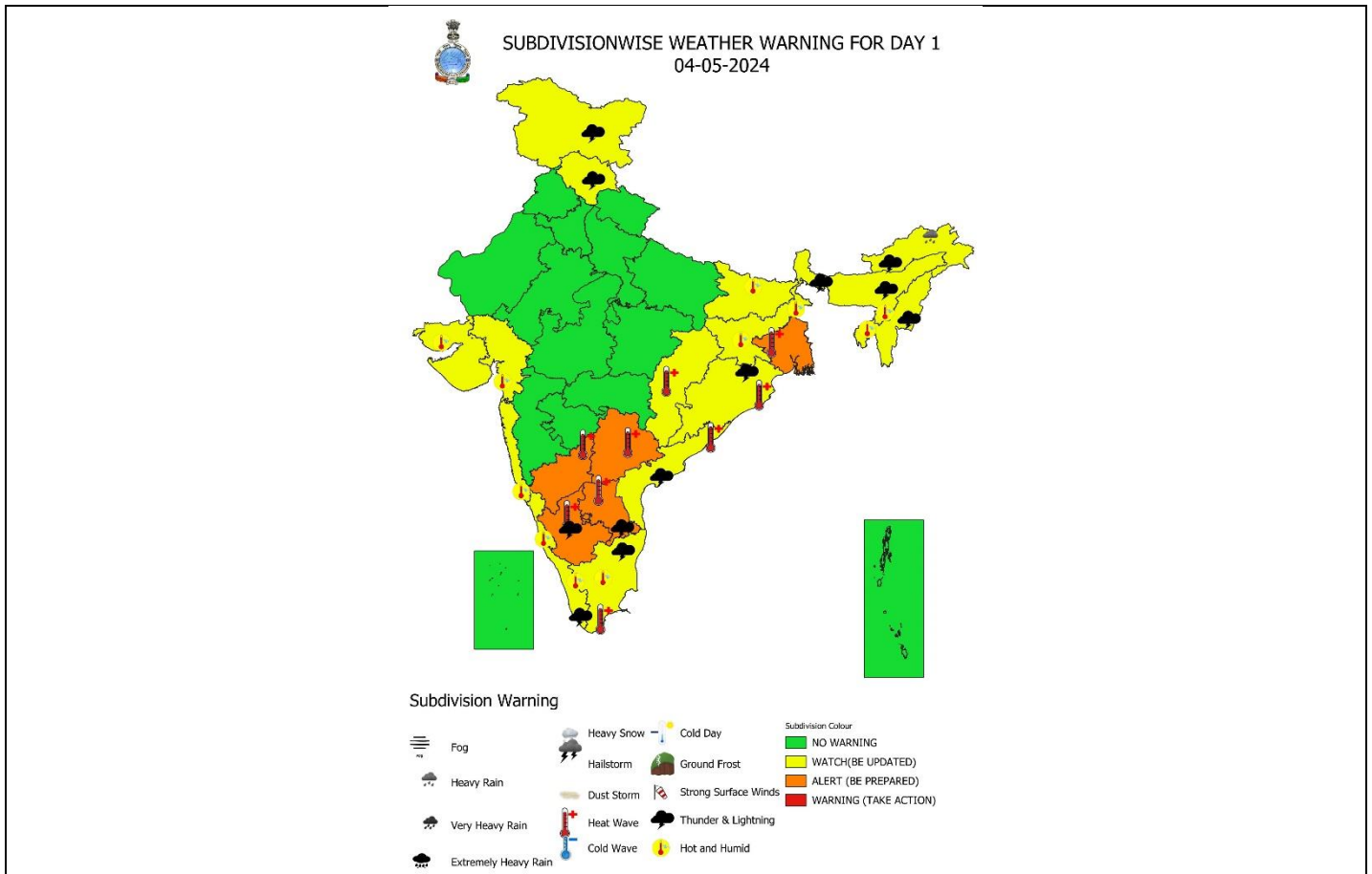
Heat Wave, Warm Night and Hot & Humid weather warning for next 5 days:

- ❖ **Heat wave conditions** very likely in isolated pockets over Gangetic West Bengal, Odisha, Tamil Nadu, Puducherry & Karaikal, Coastal Andhra Pradesh & Yanam, Rayalaseema on 04th & 05th; Interior Karnataka during 04th-07th; Chhattisgarh and Telangana during 04th-06th; West Rajasthan and West Madhya Pradesh on 07th & 08th; East Rajasthan on 08th and Saurashtra & Kutch during 06th-08th May, 2024.
- ❖ **Hot and humid weather** very likely to prevail in isolated pockets over Gujarat State, Konkan & Goa, Coastal Andhra Pradesh & Yanam, Rayalaseema, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe and Coastal Karnataka during 04th-08th; Sub-Himalayan West Bengal, Bihar & Jharkhand on 04th & 05th and west Assam and Tripura on 04th May, 2024.
- ❖ **Warm night** very likely to prevail over Rayalaseema and Coastal & South Interior Karnataka during 04th-07th and Kerala & Mahe on 04th May, 2024.

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

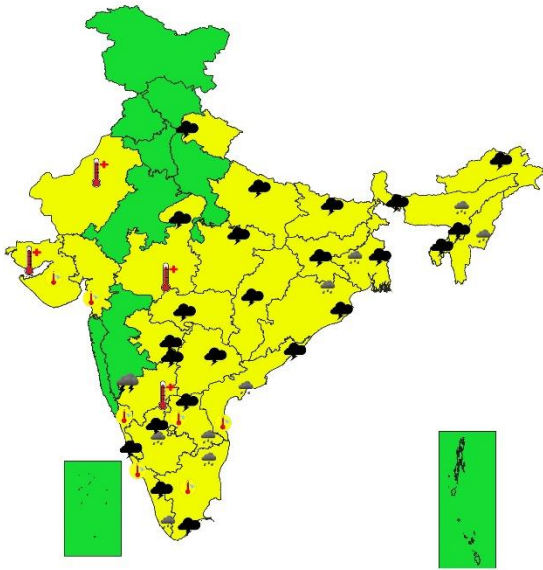
Significant amount of rainfall (in cm):

- ❖ **South Interior Karnataka:** Hoskote (dist Bangaluru Rural) 6, Mysuru 6, Mandya 3;
- ❖ **Coastal Andhra Pradesh & Yanam:** Vepada (dist Vizianagaram) 4, Narsipatnam (dist Anakapalli) 1
- ❖ **Nagaland, Manipur, Mizoram & Tripura:** Kvk Dhalai (dist Dhalai) 3, Khowai (dist Khowai) 2, Bagafa (dist South Tripura) 2, Amarpur Arg (dist Gomati) 2, Sabroom (dist South Tripura) 1, Kadamtala Arg (dist North Tripura) 1, Sabroom Aws (dist South Tripura) 1, Khowai_ Aws (dist Khowai) 1, Kanchanpur (dist North Tripura) 1;
- ❖ **Telangana: Mulakalapalle (dist Kothagudem) 2;**
- ❖ **Kerala:** Mananthavady (Wayanad district), Chemberi AWS (Kannur district), Peruvannamuzhi ARG (Kozhikode district), Kannur Airport AWS & Cheruthazham ARG (Kannur district) 2 each
- ❖ **Rayalaseema:** Palamaner (dist Chittoor) 1.





SUBDIVISIONWISE WEATHER WARNING FOR DAY 4
07-05-2024

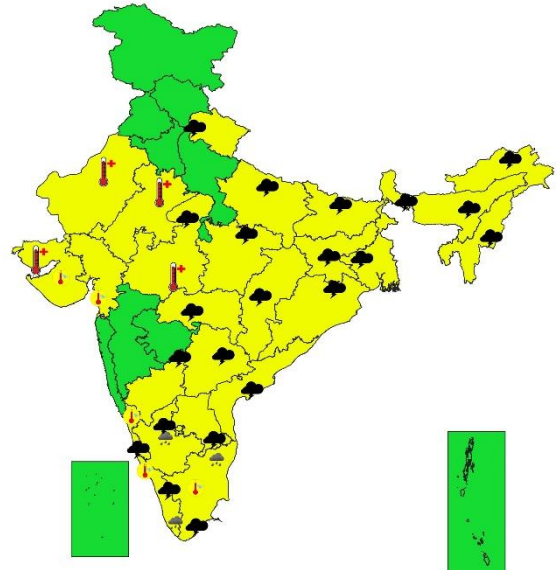


Subdivision Warning

- | | | | |
|----------------------|------------|----------------------|---------------------------|
| 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 5
08-05-2024



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) |

IMPACT & 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.

Impact & Action Suggested due to Isolated heavy/very heavy rainfall over Sikkim on 05th; Arunachal Pradesh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura during 05th-07th; Gangetic West Bengal on 06th & 07th; Coastal Andhra Pradesh and Rayalaseema on 07th and Tamil Nadu, South Interior Karnataka and Kerala on 07th & 08th 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 and Heat Wave likely over various parts of the country:

- Make necessary arrangements for draining out excess water from crop fields to avoid water stagnation in North-Eastern States and Sikkim.
- In Arunachal Pradesh, postpone sowing of *Jhum* paddy, maize and soybean.
- Apply light and frequent irrigation to standing crops to avoid heat stress; provide mulching to conserve soil moisture and minimise evaporation in Gangetic West Bengal, Odisha, Tamil Nadu, Interior Karnataka, Andhra Pradesh and Telangana.
- Provide mechanical support to horticultural crops & staking to vegetables to prevent damage from gusty winds.

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 Marathawada.
 - **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)



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 < 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



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)