



Government of India  
Ministry of Earth Sciences  
India Meteorological Department



Press Release

Date: 08<sup>th</sup> April, 2024.

Time of Issue: 1230 hours IST

- Subject:** i) **Light to moderate rainfall spell accompanied with thunderstorms, gusty winds likely over East India today and Central & adjoining Peninsular India during 08<sup>th</sup>-11<sup>th</sup> 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 24 hours and abate thereafter.**  
iv) **A wet spell of rainfall likely over Northwest India during 13<sup>th</sup>-15<sup>th</sup> April, 2024.**

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

- ❖ **Heat wave to severe heat wave conditions** prevailed in some parts of south Coastal Andhra Pradesh and **heat wave conditions** in isolated pockets over Tamil Nadu, North Interior Karnataka, Rayalaseema and Telangana.
- ❖ **Heavy rainfall** observed over Odisha.
- ❖ **Light/Moderate rain** accompanied with **thunderstorm** observed over many parts of Madhya Pradesh and Chhattisgarh; over some parts of Vidarbha and at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand, West Uttar Pradesh, East Rajasthan, West Bengal & Sikkim, Jharkhand and Odisha.

**Weather Systems and Forecast & Warnings: (Annexure II)**

- ❖ A cyclonic circulation lies over northeast Assam in lower tropospheric levels. Under the influence of this system:
  - ✓ Scattered to fairly widespread light/moderate rainfall/snowfall with isolated **thunderstorms & lightning** very likely over Arunachal Pradesh; scattered light to moderate rainfall with isolated **thunderstorms, lightning & gusty winds** over Sub-Himalayan West Bengal & Sikkim, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura during next 7 days.
  - ✓ **Isolated heavy rainfall also very likely over Arunachal Pradesh on 08<sup>th</sup> & 09<sup>th</sup> April, 2024.**
- ❖ The trough/wind discontinuity runs from north Coastal Andhra Pradesh to south Tamil Nadu across Rayalaseema 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 Gangetic West Bengal, Jharkhand, Odisha and isolated rainfall over Bihar today and decrease in intensity thereafter.
  - ✓ Scattered to fairly widespread light/moderate rainfall accompanied with **thunderstorms, lightning & gusty winds (30-50 kmph)** very likely over East Madhya Pradesh, Chhattisgarh, Vidarbha and isolated to scattered over West Madhya Pradesh, Marathwada, Madhya Maharashtra during 08<sup>th</sup>-12<sup>th</sup> April, 2024.
  - ✓ Isolated light/moderate rainfall accompanied with **thunderstorms, lightning & gusty winds (30-50 kmph)** very likely over Coastal Andhra Pradesh & Yanam, Telangana, Kerala & Mahe, Tamil Nadu, Puducherry & Karaikal during 08<sup>th</sup>-14<sup>th</sup> April, 2024.
  - ✓ **Hailstorm activity also very likely at isolated places over Vidarbha and Chhattisgarh on 08<sup>th</sup> April, 2024.**

- ❖ Two Western Disturbances are likely to affect northwest India, the 1<sup>st</sup> from 10<sup>th</sup> April and the 2<sup>nd</sup> from 13<sup>th</sup> April, 2024. Under the influence of these systems:
  - ✓ Isolated to scattered light rainfall/snowfall with **thunderstorms, lightning** very likely over Jammu-Kashmir, Himachal Pradesh, Uttarakhand on 10<sup>th</sup> & 11<sup>th</sup> and scattered to fairly widespread light to moderate rainfall/snowfall during 13<sup>th</sup>-15<sup>th</sup> April, 2024.
  - ✓ Isolated light to moderate rainfall with **thunderstorms, lightning** very likely over Rajasthan during 10<sup>th</sup>-14<sup>th</sup> and scattered to fairly widespread rainfall with **thunderstorms, lightning** over Uttar Pradesh, Punjab and Haryana during 13<sup>th</sup>-15<sup>th</sup> April, 2024.

#### Maximum temperature observation and forecast for next 5 days:

- ❖ Yesterday, maximum temperatures were in the range of 42-44°C over many parts of Rayalaseema; in isolated pockets over south coastal Andhra Pradesh & North Interior Karnataka and in the range of 40-42°C over many parts of Telangana & north Tamil Nadu, in isolated pockets over Kerala, Coastal Andhra Pradesh, Madhya Maharashtra, Marathwada & southwest Madhya Pradesh. They were above normal by 2-5°C over the region.
- ❖ Yesterday, the maximum temperature exceeded 98<sup>th</sup> percentile over some parts of Vidarbha, Madhya Maharashtra, South Interior Karnataka & south interior Odisha and in isolated pockets over Kerala, north Interior Tamil Nadu & Rayalaseema. The maximum temperature likely to exceed 98<sup>th</sup> percentile at isolated pockets over north Interior Tamil Nadu on 08<sup>th</sup>; Kerala, & Interior Karnataka during 08<sup>th</sup>-11<sup>th</sup> and over Rayalaseema on 08<sup>th</sup> & 09<sup>th</sup> April, 2024
- ❖ Today, Minimum temperatures are above normal by 2-5°C at isolated places over Telangana, north Coastal Andhra Pradesh & Yanam, Kerala & Mahe, north Madhya Maharashtra, Marathwada, West Rajasthan and west Assam.
- ❖ Gradual fall by about 2°C in maximum temperatures very likely over many parts of Northwest India during next 5 days.
- ❖ No significant change in maximum temperatures very likely over many parts of East India during next 24 hours and gradual rise by 3-5°C thereafter.
- ❖ Gradual fall by 2-4°C in maximum temperatures very likely over Maharashtra during next 5 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:

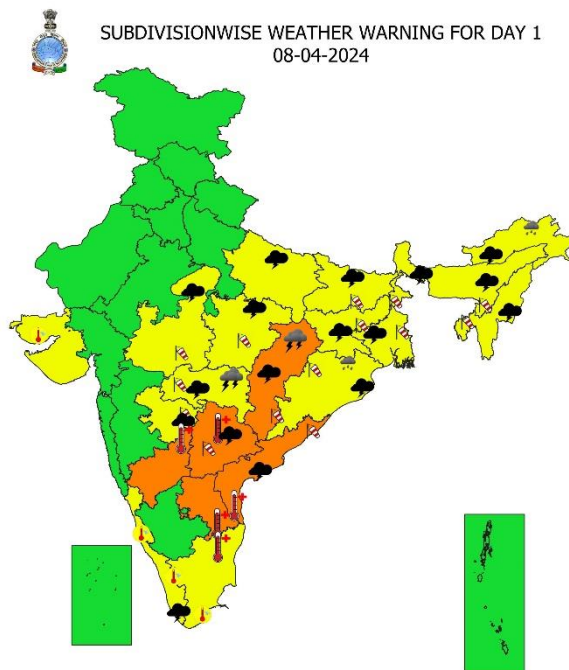
- ❖ **Heat wave conditions** very likely in isolated pockets over Coastal Andhra Pradesh & Yanam, Rayalaseema, Telangana on 08<sup>th</sup> and North Interior Karnataka on 08<sup>th</sup> & 09<sup>th</sup> April, 2024.
- ❖ **Warm night conditions** very likely to prevail in isolated pockets over North Interior Karnataka on 08<sup>th</sup> & 09<sup>th</sup> April, 2024.
- ❖ **Hot and humid weather** very likely to prevail over Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe, coastal areas of Gujarat during 08<sup>th</sup>-12<sup>th</sup>, Coastal Karnataka during 08<sup>th</sup>-10<sup>th</sup> and over Coastal Andhra Pradesh & Yanam and Rayalaseema during 09<sup>th</sup>-12<sup>th</sup> April, 2024.

For more details, kindly refer: [https://mausam.imd.gov.in/responsive/all\\_india\\_forecast\\_bulletin.php](https://mausam.imd.gov.in/responsive/all_india_forecast_bulletin.php)

**Significant amount of rainfall (in cm):**

- ❖ **Odisha:** Bhuban (dist Dhenkanal) 9, Hindol (dist Dhenkanal) 5, Gondia (dist Dhenkanal) 3, Dhenkanal (dist Dhenkanal) 3, Digapahandi (dist Ganjam) 3, Mahanga (Dist Cuttack) 3, Niali (dist Cuttack) 2, Kantapada (dist Cuttack) 2, Banarpal (dist Angul) 2;
- ❖ **Assam & Meghalaya:** Jonai Arg (dist Dhemaji) 3, Naharkatia Arg (dist Dibrugarh) 2, Nahar Katia (dist Dibrugarh) 2, Harinagar Arg (dist Karimganj) 1, Matijuri (dist Hailakandi) 1, Jiagaon (dist Tinsukia) 1, Margherita (dist Tinsukia) 1, Dholla Bazar (dist Tinsukia) 1, N.lakhimpur/lilabari (dist Lakhimpur) 1;
- ❖ **Arunachal Pradesh:** Nachu Arg (dist Upper Subansiri) 5, Tuting (dist Upper Siang) 5, Kamba Aws (dist West Siang) 3, Kibithu (dist Anjaw) 3, Hawaii (dist Anjaw) 2, Oyan Arg (dist East Siang) 2, Mukto\_arg (dist Tawang) 1, Pasighat\_ Aero (dist East Siang) 1;
- ❖ **Nagaland, Manipur, Mizoram & Tripura:** Kadamtala Arg (dist North Tripura) 3, Kolasib Agri (dist Kolasib) 2, Saiha Agri (dist Saiha) 2, Lawngtlai Agri (dist Lawngtlai) 1, Kolasib\_aws (dist Kolasib) 1, Thoubal (dist Thoubal) 1, Tamenglong (dist Tamenglong) 1, Lamphet\_agri (dist Imphal West) 1, Saiha (dist Saiha) 1, Bishnupur (dist Bishnupur) 1;
- ❖ **Gangetic West Bengal:** AMFU Kakdwip (dist South 24 Parganas) 2, AMFU Kakdwip (dist North 24 Parganas) 1;
- ❖ **Sub-Himalayan West Bengal & Sikkim:** Mangan (dist North Sikkim) 1, Singhik (dist North Sikkim) 1;
- ❖ **Chhattisgarh:** Manpur (dist Rajnandgaon) 3, Gurur (dist Balod) 2, Dhamtari (dist Dhamtari) 2, Kurud (dist Dhamtari) 2, Dondilohara (dist Balod) 2;

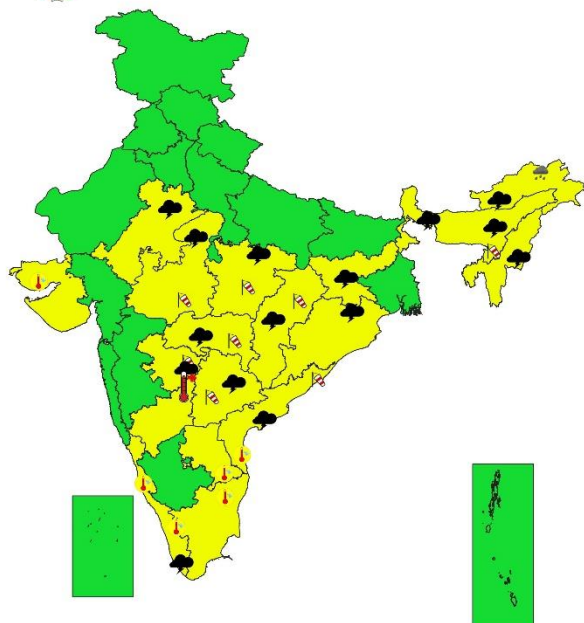
**SUBDIVISIONWISE WEATHER WARNING FOR DAY 1**  
08-04-2024



**Subdivision Warning**



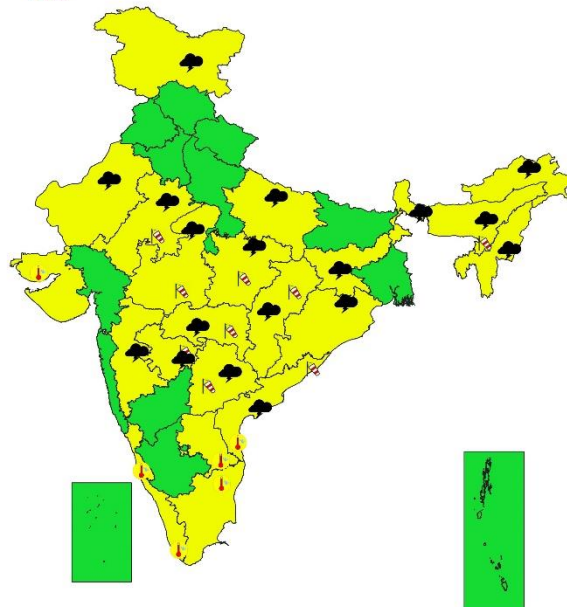
**SUBDIVISIONWISE WEATHER WARNING FOR DAY 2**  
09-04-2024



**Subdivision Warning**

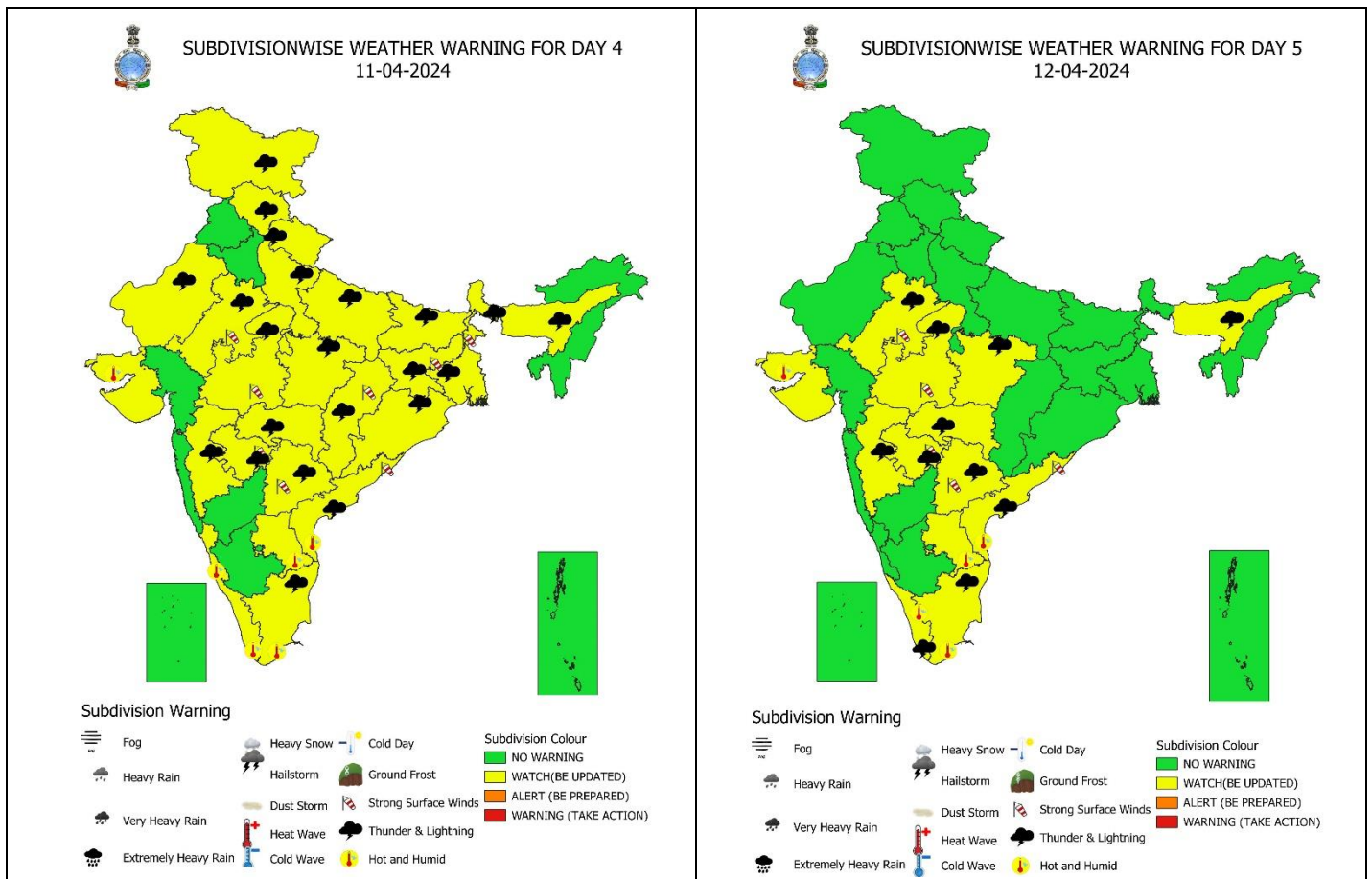


**SUBDIVISIONWISE WEATHER WARNING FOR DAY 3**  
10-04-2024



**Subdivision Warning**





**Impact & Action Suggested due to heavy rainfall over Arunachal Pradesh on 08<sup>th</sup> & 09<sup>th</sup> 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, Northeast & North peninsular India during next 4 days and east India today.**

**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 Heat Wave Conditions during next 2 days:**

**Orange alert Areas (Coastal Andhra Pradesh, Rayalaseema, Telangana, 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)**

- ❖ 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.
- 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.
- Use hail nets or hail caps in fruit orchards to protect them from mechanical damage in Vidarbha and Chhattisgarh.
- Provide mechanical support to horticultural crops and staking to vegetables in Central India, East India, Coastal Andhra Pradesh, Telangana and North-Eastern States.
- Apply light and frequent irrigation to standing crops to avoid heat stress; provide mulching to conserve soil moisture and minimise evaporation in Tamil Nadu, North Interior Karnataka, Andhra Pradesh and Telangana.<sup>3</sup>
- 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  $4.5^{\circ}\text{C}$  to  $6.4^{\circ}\text{C}$ .  
 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  $40^{\circ}\text{C}$

Warm Night: When minimum temperature departure  $4.5^{\circ}\text{C}$  to  $6.4^{\circ}\text{C}$ .  
 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  $-4.5^{\circ}\text{C}$  to  $-6.4^{\circ}\text{C}$ .  
 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  $-4.5^{\circ}\text{C}$  to  $-6.4^{\circ}\text{C}$ .  
 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 Storm: Wind speed  $> 220$  kmph ( $> 119$  knots)