



Government of India  
Ministry of Earth Sciences  
India Meteorological Department



Press Release

Date: 07<sup>th</sup> May, 2024

Time of Issue: 1300 hours IST

**Subject:**

- i. Heat wave conditions very likely to prevail over south Peninsular India today, the 07<sup>th</sup> May and abate thereafter.
- ii. A fresh Heat Wave spell likely over Rajasthan and West Madhya Pradesh during 08<sup>th</sup> to 10<sup>th</sup> May, 2024.
- iii. Wet spell accompanied with thunderstorms & gusty winds very likely over East & south Peninsular India till 11<sup>th</sup> May.

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

- ❖ Yesterday, **heat wave to severe conditions** in isolated pockets of Tamil Nadu and heat wave conditions in isolated pockets over Rayalaseema, interior Karnataka and Telangana. **Heat wave conditions have been prevailing over Rayalaseema since 24<sup>th</sup> April, 2024.**
- ❖ **Isolated heavy rainfall occurred over Assam & Meghalaya, Gangetic West Bengal, Odisha and Kerala & Mahe.**
- ❖ **Hailstorm activity occurred at isolated places over Odisha, Coastal Andhra Pradesh, Jharkhand and Assam.**
- ❖ **Thundersquall occurred over Gangetic West Bengal and Odisha.**
- ❖ Yesterday, **highest maximum temperature of 46.0°C** was reported at **Nandyal (Rayalaseema)** over the country.

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

- ❖ A cyclonic circulation lies over northeast Assam, another over northeast Madhya Pradesh in lower tropospheric levels. Strong southwesterly/southerly winds from Bay of Bengal to East & Northeast India are very likely to continue to prevail at lower tropospheric levels during next 3-4 days. Under their influence:
  - ✓ Scattered to Fairly widespread light to moderate rainfall accompanied with isolated **thunderstorm, lightning & gusty winds (30-40 kmph)** very likely over Arunachal Pradesh, Assam, Meghalaya, Nagaland, Manipur, Mizoram & Tripura during next 7 days.
  - ✓ **Isolated heavy rainfall** very likely over Arunachal Pradesh on 10<sup>th</sup> & 11<sup>th</sup>; Assam & Meghalaya on 07<sup>th</sup>, 10<sup>th</sup> & 11<sup>th</sup>; over Odisha during 07<sup>th</sup>-09<sup>th</sup>; over Jharkhand on 07<sup>th</sup>; over Gangetic West Bengal on 07<sup>th</sup> & 10<sup>th</sup>; over Sub-Himalayan West Bengal & Sikkim on 10<sup>th</sup> May, 2024.
  - ✓ Fairly widespread to widespread light to moderate rainfall accompanied with **thunderstorm, lightning & squally winds (40-50 kmph)** very likely over West Bengal & Sikkim during 07<sup>th</sup> – 11<sup>th</sup>; scattered to fairly widespread rainfall accompanied with **thunderstorm, lightning & gusty winds (40-50 kmph)** over Bihar, Jharkhand, Odisha during 07<sup>th</sup>- 11<sup>th</sup>; isolated to scattered rainfall accompanied with **thunderstorm, lightning & gusty winds (40-50 kmph)** over Marathwada on 07<sup>th</sup> & 08<sup>th</sup>; over West Madhya Pradesh on 09<sup>th</sup> & 10<sup>th</sup>; over East Madhya Pradesh, Vidarbha and Chhattisgarh during 07<sup>th</sup>- 11<sup>th</sup> May, 2024.

- ✓ **Hailstorm activity** very likely over Chhattisgarh and Jharkhand on 07<sup>th</sup>; over Vidarbha on 07<sup>th</sup> & 08<sup>th</sup> May, 2024.
- ❖ A trough/wind discontinuity runs from east Vidarbha to north Tamil Nadu in lower tropospheric levels. Under its influence;
  - ✓ Isolated to scattered light to moderate rainfall accompanied with **thunderstorm & lightning & gusty winds (30-40 kmph)** very likely over Tamil Nadu, Puducherry & Karaikal, Coastal Andhra Pradesh & Yanam, Rayalaseema, Telangana and Karnataka during next 5 days; scattered to fairly widespread rainfall accompanied with **thunderstorm, lightning & gusty winds (30-40 kmph)** over Kerala & Mahe during 07<sup>th</sup> – 12<sup>th</sup> May, 2024.
  - ✓ **Isolated heavy rainfall very likely over Coastal Andhra Pradesh & Yanam, Rayalaseema on 07<sup>th</sup> & 08<sup>th</sup>; over Telangana on 07<sup>th</sup>, over Tamil Nadu, Puducherry & Karaikal on 08<sup>th</sup> & 09<sup>th</sup>, over Kerala & Mahe on 08<sup>th</sup> & 11<sup>th</sup> and over South Interior Karnataka on 08<sup>th</sup> May, 2024.**
- ❖ A fresh Western Disturbance likely to affect northwest India from 09<sup>th</sup> May. Under its influence:
  - ✓ Scattered to fairly widespread rainfall activity accompanied with **thunderstorm, lightning & gusty winds (30-40 kmph)** very likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh and Uttarakhand during 09<sup>th</sup>-12<sup>th</sup> May, 2024.
  - ✓ Isolated light to moderate rainfall very likely over Haryana-Chandigarh, Punjab and Rajasthan on 11<sup>th</sup> & 12<sup>th</sup>; over Uttar Pradesh during 09<sup>th</sup> – 12<sup>th</sup> May, 2024.
  - ✓ **Duststorm/thunderstorm with gusty winds (30-40 kmph)** likely to prevail over East Uttar Pradesh during 07<sup>th</sup> – 09<sup>th</sup>; over Haryana and Rajasthan on 10<sup>th</sup> & 11<sup>th</sup> May, 2024.
  - ✓ **Strong surface winds (30-40 kmph)** very likely to prevail over Uttar Pradesh, south Rajasthan during next 3 days.

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

- ❖ Yesterday, maximum temperatures were in the range of 42-44°C at many places over West Rajasthan, Chhattisgarh, Vidarbha, Rayalaseema, Telangana, Coastal Andhra Pradesh & Yanam and a few places over Marathwada, and in isolated pockets over East Madhya Pradesh, Jharkhand, Odisha, Interior Karnataka, Tamil Nadu, Puducherry & Karaikal, Gangetic West Bengal and East Rajasthan. These were above normal 4-7°C in some parts of Tamil Nadu, Puducherry & Karaikal and Rayalaseema; in isolated pockets of east Telangana and 2-4°C over many parts of interior Karnataka and remaining parts of Telangana; some parts of north interior Odisha, Kerala & Mahe and Jharkhand and in isolated pockets over West Uttar Pradesh, north Punjab, north Haryana, Himachal Pradesh, Uttarakhand, Jammu division, south Marathwada and south Madhya Maharashtra.
- ❖ No significant change in maximum temperatures very likely over most parts of plains of Northwest India (except West Rajasthan where temperatures are likely to rise by 2-3°C during next 3 days).
- ❖ Fall in maximum temperatures by about 3-4°C very likely over East India during 24 hours and no significant change thereafter.
- ❖ Fall in maximum temperatures by about 2-3°C very likely over Maharashtra during next 4 days no significant change 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:

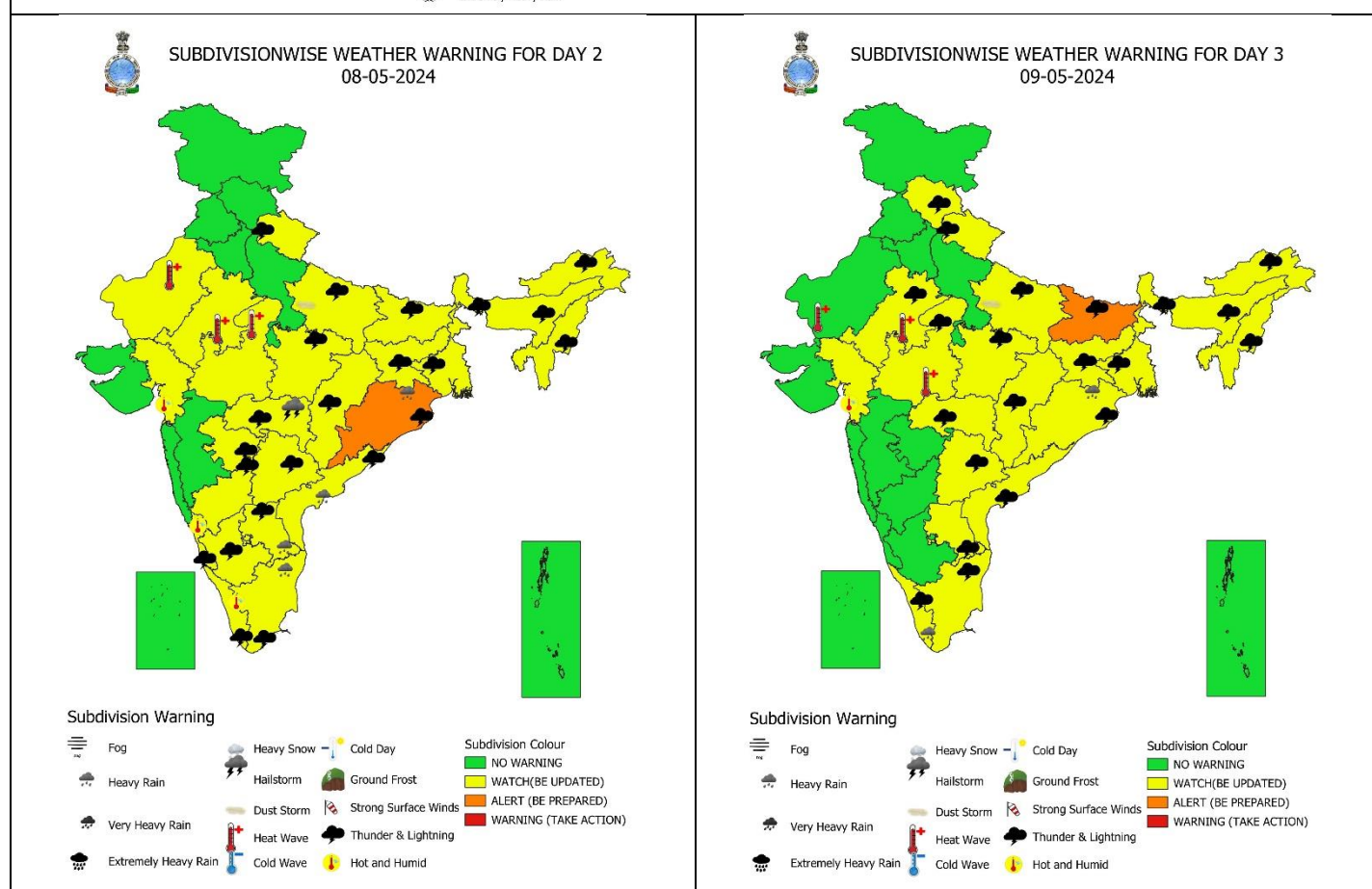
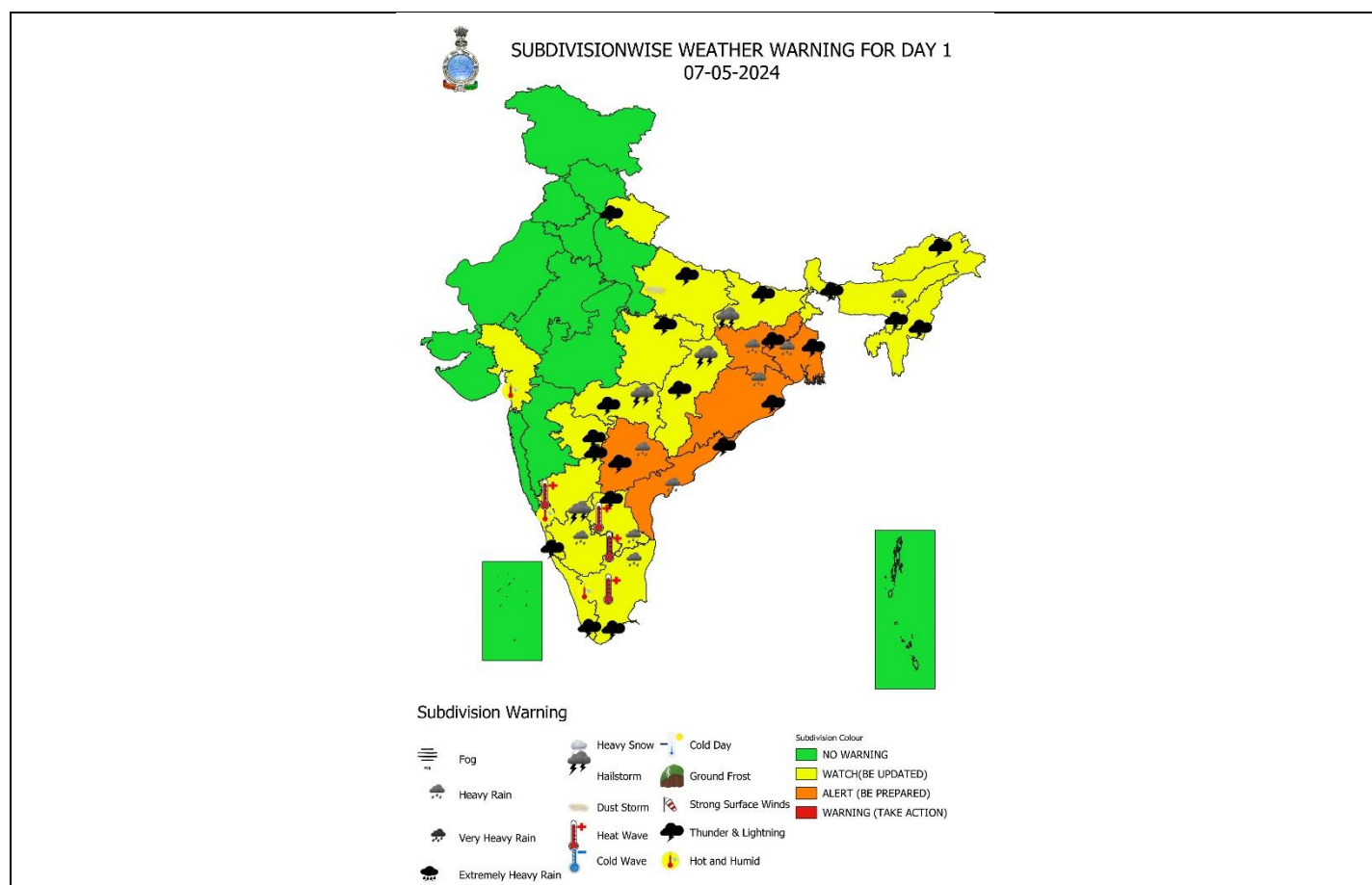
- ❖ **Heat wave conditions** in isolated pockets over Rayalaseema, Tamil Nadu, Puducherry & Karaikal, South Interior Karnataka and Kerala & Mahe on 07<sup>th</sup>; over Interior Karnataka on 07<sup>th</sup> & 08<sup>th</sup>; over East Rajasthan on 08<sup>th</sup> & 09<sup>th</sup>; over West Rajasthan and West Madhya Pradesh during 08<sup>th</sup> – 10<sup>th</sup> May, 2024.
- ❖ **Hot and humid weather** very likely to prevail in isolated pockets over Gujarat Region during next 5 days; Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe on 07<sup>th</sup> & 08<sup>th</sup> and Coastal Karnataka on 07<sup>th</sup> May, 2024.
- ❖ **Warm night conditions** likely to prevail at isolated places over Kerala & Mahe on 07<sup>th</sup> May, 2024.

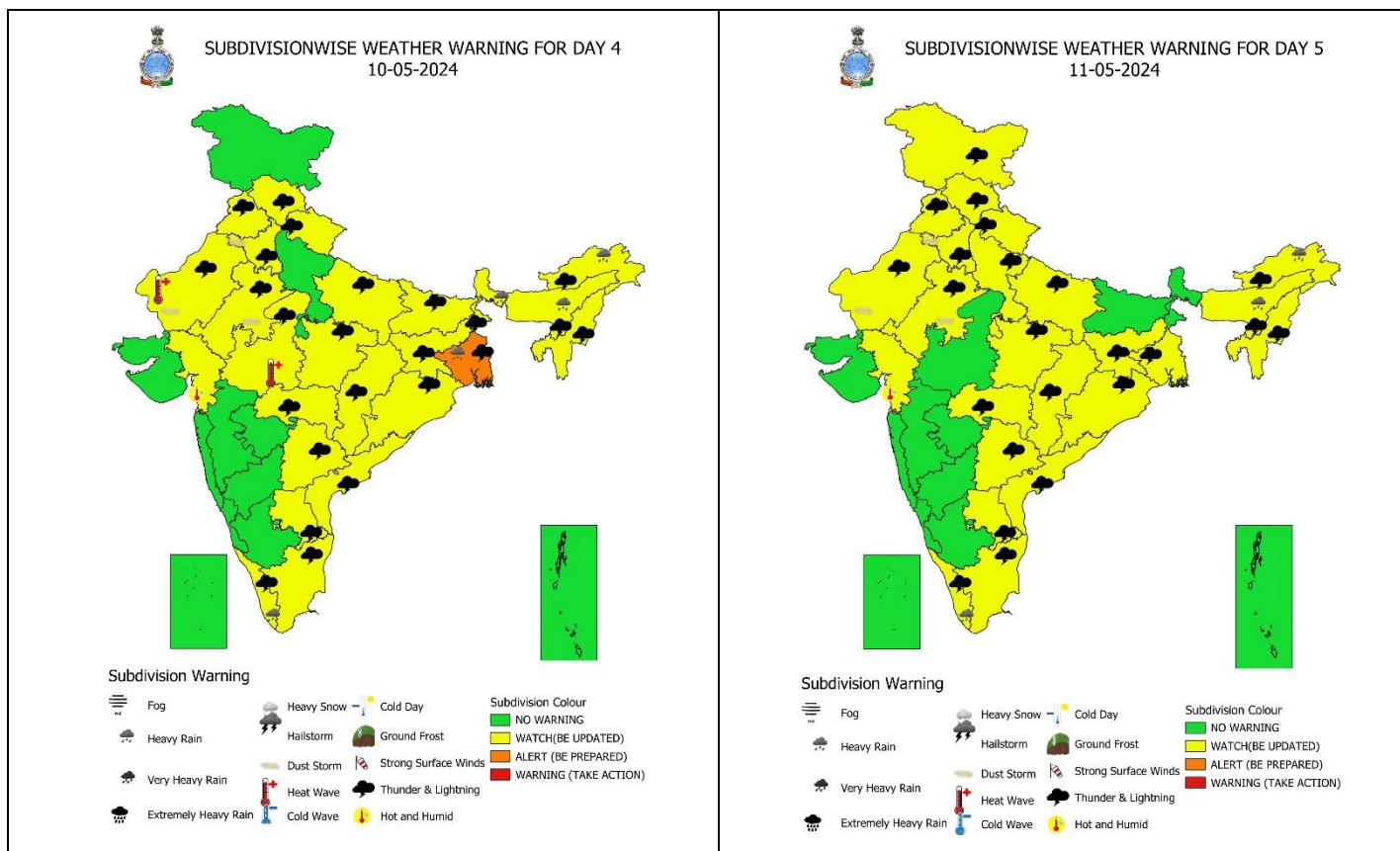
For more details, kindly refer: [https://mausam.imd.gov.in/responsive/all\\_india\\_forecast\\_bulletin.php](https://mausam.imd.gov.in/responsive/all_india_forecast_bulletin.php)

- ❖ Light to moderate rainfall accompanied with isolated thunderstorm & lightning observed at most places over Nagaland, Manipur, Mizoram & Tripura and Gangetic West Bengal; at many places over Assam & Meghalaya, Sub-Himalayan West Bengal & Sikkim; at a few places over Assam & Meghalaya, Odisha, Coastal Andhra Pradesh & Yanam; at isolated places over Uttarakhand, Himachal Pradesh, East Madhya Pradesh, Jharkhand, Vidarbha, Chhattisgarh, Telangana, Rayalaseema, Tamil Nadu, Puducherry & Karaikal, South Interior Karnataka and Kerala & Mahe.

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

- ❖ **Kerala:** Padannakkad Aws (dist Kasargod) 9, Vellarikkundu Aws (dist Kasargod) 4, PilicodeAws (dist Kasargod) 3;
- ❖ **Coastal Andhra Pradesh & Yanam:** Palasa (dist Srikakulam) 6, Tekkali (dist Srikakulam) 5, Parvathipuram (dist Parvathipuram Manyam) 4, Vepada (dist Vizianagaram) 3, Pathapatnam (dist Srikakulam) 3, Anakapalle (dist Anakapalli) 3, Veeraghattam (dist Parvathipuram Manyam) 3, Kalingapatnam (dist Srikakulam) 3, Araku Valley (dist Alluri Sitharamaraju) 3, Bheemunipatnam (dist Vishakhapatnam) 3, Anakapalle(a) (dist Anakapalli) 3, Komarada (dist Parvathipuram Manyam) 3,
- ❖ **Rayalaseema:** Palamaner (dist Chittoor) 6, Atmakur (dist Nandyal) 5, Arogyavaram (dist Annamayya District) 5, Madanapalle (dist Annamayya District) 4, Atlur (dist Ysr District) 4;
- ❖ **Chhattisgarh:** Lohandiguda (dist Bastar) 3, Manpur (dist Rajnandgaon) 3;
- ❖ **Assam & Meghalaya:** Mawkyrwat (dist South West Khasi Hills) 5, Mirza Circle Office Arg (dist Kamrup (rural)) 4, Cherrapunji(rkm) (dist East Khasi Hills) 4
- ❖ **Nagaland, Manipur, Mizoram & Tripura:** Bishnupur (dist Bishnupur) 5, Belonia (dist South Tripura) 4, Sabroom (dist South Tripura) 3, Lawngtlai Agri (dist Lawngtlai) 3, Lawngtlai (dist Lawngtlai) 3, Sabroom Aws (dist South Tripura) 3, Kolasib Agri (dist Kolasib) 3, Jiribam\_ Aws (dist Imphal East) 3
- ❖ **Arunachal Pradesh:** Tawang Chamgbu Kvk Aws (dist Tawang) 2, Tawang\_ Aws (dist Tawang) 2





## 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 expected and action suggested due to thunderstorm accompanied with lightning/gusty winds & Hailstorm over Chhattisgarh and Jharkhand on 07<sup>th</sup>; over Vidarbha on 07<sup>th</sup> & 08<sup>th</sup> May,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.

**Impact & Action Suggested due to heavy rainfall** over Arunachal Pradesh on 10<sup>th</sup> & 11<sup>th</sup>; Assam & Meghalaya on 07<sup>th</sup>, 10<sup>th</sup> & 11<sup>th</sup>; over Odisha during 07<sup>th</sup>-09<sup>th</sup>; over Jharkhand, *Telangana* on 07<sup>th</sup>; over Gangetic West Bengal on 07<sup>th</sup> & 10<sup>th</sup>; over Sub-Himalayan West Bengal & Sikkim on 10<sup>th</sup>; *over Coastal Andhra Pradesh & Yanam, Rayalaseema on 07<sup>th</sup> & 08<sup>th</sup>; over Tamil Nadu, Puducherry & Karaikal on 08<sup>th</sup> & 09<sup>th</sup>, over Kerala & Mahe on 08<sup>th</sup> & 11<sup>th</sup> and over South Interior Karnataka on 08<sup>th</sup> 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:**

- Drain out excess water from crop fields to avoid water stagnation in Gangetic West Bengal, Odisha, Jharkhand, Tamil Nadu, Kerala, South Interior Karnataka, Andhra Pradesh, Telangana and Assam & Meghalaya.
- Use hail nets or hail caps in fruit orchards to prevent mechanical damage and provide mechanical support to horticultural crops & staking to vegetables in Vidarbha and Chhattisgarh.
- Apply light and frequent irrigation to standing crops to avoid heat stress; provide mulching to conserve soil moisture and minimise evaporation in Gujarat, Rajasthan, West Madhya Pradesh, Tamil Nadu, Kerala, Interior Karnataka and Rayalaseema.
- 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  $4.5^{\circ}\text{C}$  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)