



Government of India  
Ministry of Earth Sciences  
India Meteorological Department



Press Release

Date: 06<sup>th</sup> May, 2024

Time of Issue: 1300 hours IST

**Subject:**

- i. Heat wave conditions very likely to abate over East India from today and over south Peninsular India from tomorrow onwards.
- ii. A fresh Heat Wave spell likely over Western India covering Gujarat, Rajasthan and west Madhya Pradesh during next 5 days.
- iii. Heavy rainfall spell accompanied with thunderstorms & gusty winds very likely to continue over Northeast India till 07<sup>th</sup> May.
- iv. Wet spell accompanied with thunderstorms & gusty winds very likely over East & south Peninsular India till 10<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 Gangetic West Bengal & Tamil Nadu and heat wave conditions in isolated pockets over Odisha, Rayalaseema, interior Karnataka and Telangana. **Heat wave conditions have been prevailing over Odisha since 15<sup>th</sup>, Gangetic West Bengal since 17<sup>th</sup>, Rayalaseema since 24<sup>th</sup> April, 2024.**
- ❖ **Isolated heavy to very heavy rainfall occurred over Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.**
- ❖ Yesterday, **highest maximum temperature of 45.1°C** was reported at **Saraikela (Jharkhand)** over the country.

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

- ❖ A cyclonic circulation lies over northeast Assam, another cyclonic circulation lies over northeast Bihar in lower tropospheric levels. Strong southwesterly winds from Bay of Bengal to Northeast India are very likely to continue to prevail at lower tropospheric levels till 07<sup>th</sup> May, 2024. Under their influence:
  - ✓ Fairly widespread to 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 06<sup>th</sup> & 10<sup>th</sup>; Assam & Meghalaya on 07<sup>th</sup> & 10<sup>th</sup>; and over Nagaland, Manipur, Mizoram & Tripura, Gangetic West Bengal on 06<sup>th</sup> & 07<sup>th</sup>. over Odisha during 07<sup>th</sup>-09<sup>th</sup> May. **Isolated very heavy rainfall also very likely over Assam & Meghalaya on 06<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 06<sup>th</sup> – 10<sup>th</sup>; scattered to fairly widespread rainfall accompanied with **thunderstorm, lightning & gusty winds (40-50 kmph)** over Bihar, Jharkhand, Odisha during 06<sup>th</sup>- 10<sup>th</sup>; isolated to scattered rainfall accompanied with **thunderstorm, lightning & gusty winds (40-50 kmph)** over West Madhya Pradesh on 06<sup>th</sup>; over East Madhya Pradesh during 06<sup>th</sup> – 09<sup>th</sup>; over Vidarbha and Chhattisgarh during 06<sup>th</sup>- 10<sup>th</sup> May,2024.

- ✓ **Hailstorm activity** very likely over Sub-Himalayan West Bengal & Sikkim on 06<sup>th</sup>; over East Madhya Pradesh and Jharkhand on 07<sup>th</sup>; over Vidarbha on 07<sup>th</sup> & 08<sup>th</sup> May, 2024.
- ❖ A cyclonic circulation lies over Marathwada and a trough/wind discontinuity runs from east Vidarbha to south Tamil Nadu in lower tropospheric levels. Under their 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, Lakshadweep during 08<sup>th</sup> – 12<sup>th</sup> May, 2024.
  - ✓ **Isolated heavy rainfall very likely over Tamil Nadu, Puducherry & Karaikal & South Interior Karnataka on 07<sup>th</sup> & 08<sup>th</sup>; over Coastal Andhra Pradesh & Yanam, Telangana on 07<sup>th</sup> and over Kerala & Mahe on 09<sup>th</sup> & 10<sup>th</sup> May, 2024.**
  - ✓ **Hailstorm activity** very likely over South Interior Karnataka on 07<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.
  - ✓ Isolated light to moderate rainfall very likely over Haryana-Chandigarh, Punjab and Rajasthan and isolated to scattered light to moderate rainfall activity over West Uttar Pradesh during 09<sup>th</sup> – 12<sup>th</sup> May, 2024.
  - ✓ **Duststorm** likely to prevail over East Uttar Pradesh on 07<sup>th</sup>, 08<sup>th</sup> & 10<sup>th</sup>; over Haryana and West Uttar Pradesh on 10<sup>th</sup> May, 2024.
  - ✓ **Strong surface winds (25-35 kmph)** very likely to prevail over Uttar Pradesh, Rajasthan during next 3-4 days.

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

- ❖ Yesterday, maximum temperatures were in the range of 44-45°C in isolated pockets over Telangana, Rayalaseema, Vidarbha, North Interior Karnataka, north Madhya Pradesh; in the range of 42-44°C in some parts of Marathwada, south east Uttar Pradesh, northeast Madhya Pradesh, Chhattisgarh, north Odisha, Gangetic West Bengal, Jharkhand, Tamil Nadu and Coastal Andhra Pradesh. These were above normal 4-7°C in some parts of Gangetic West Bengal and 2-5°C over some parts of Uttar Pradesh, Odisha, Telangana, Rayalaseema, Tamil Nadu and in isolated pockets over Kerala & Mahe, Interior Karnataka, Chhattisgarh, Bihar and Jharkhand.
- ❖ Rise in maximum temperatures by about 2°C very likely over most parts of plains of Northwest India (except east Uttar Pradesh where temperatures are likely to fall by 2-3°C) and no significant change thereafter.
- ❖ No significant change in maximum temperatures very likely over Gujarat state during next 24 hours and rise by 2-3°C thereafter.
- ❖ Fall in maximum temperatures by about 3-5°C very likely over East India during next 3 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:

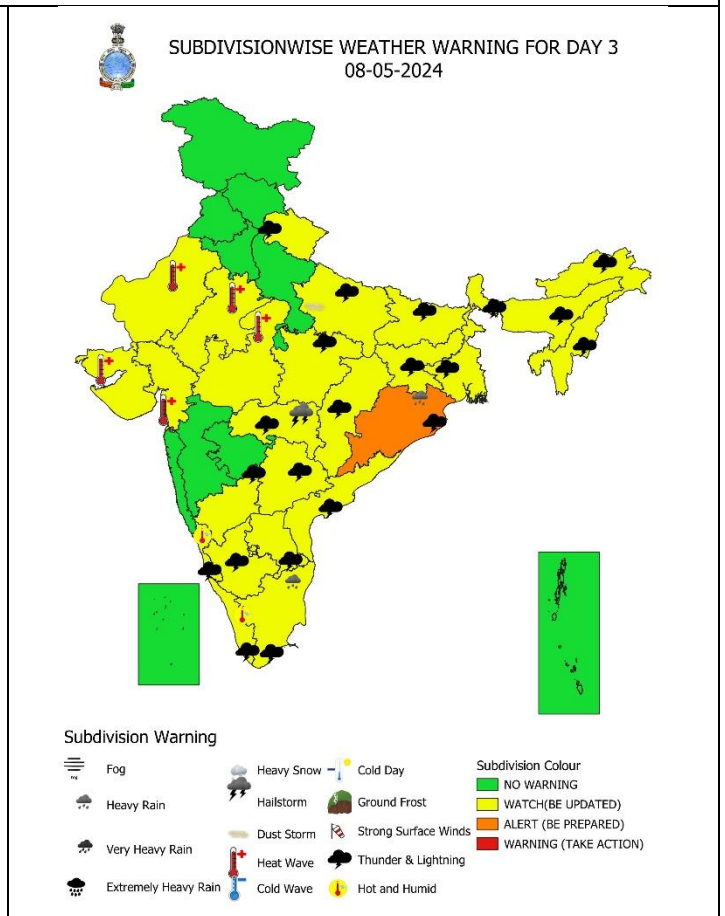
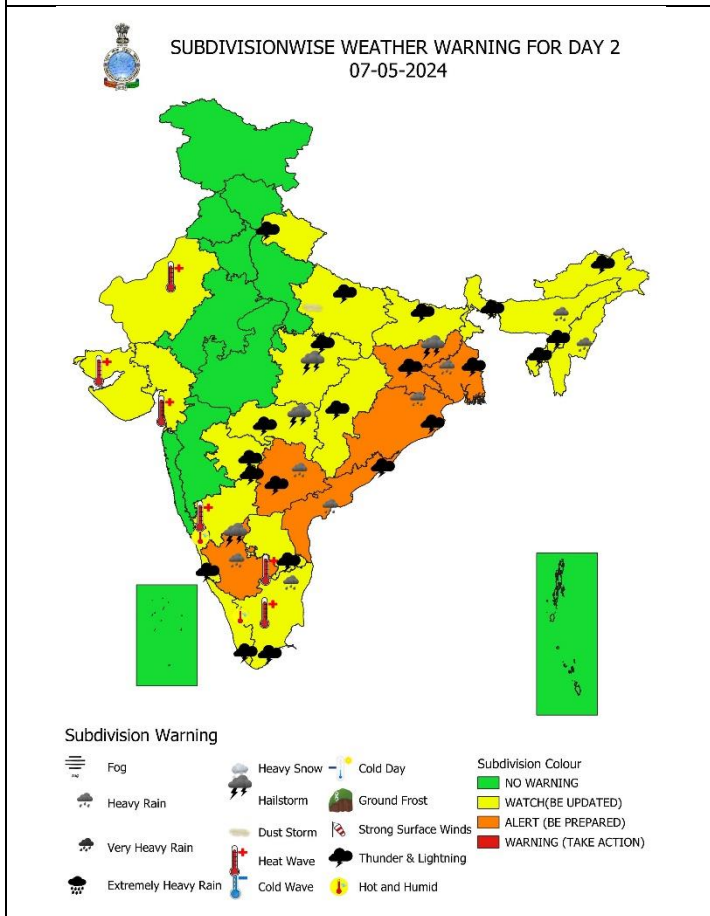
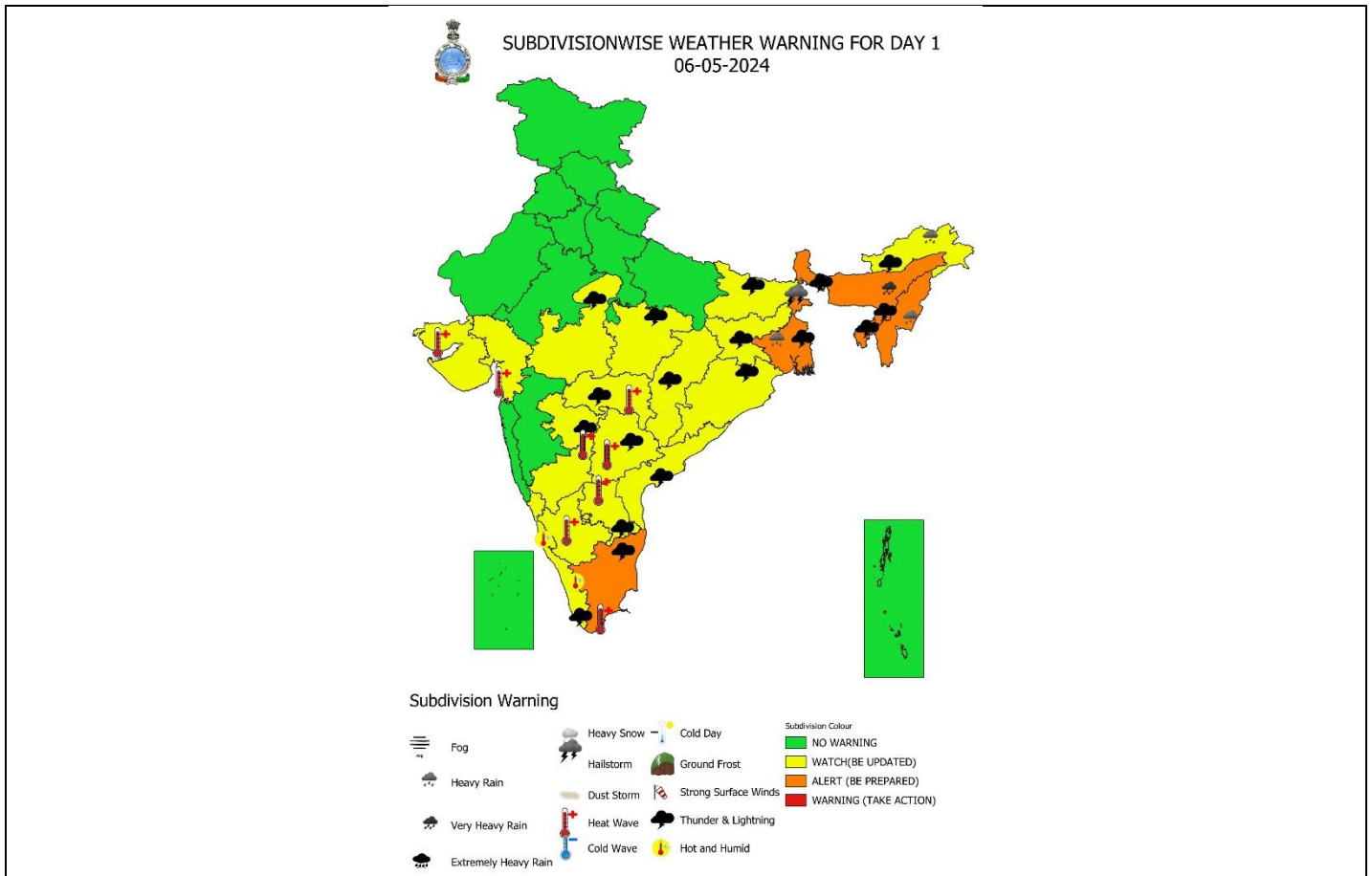
- ❖ **Heat wave conditions** in isolated pockets over Saurashtra & Kutch and Gujarat Region during next 5 days, over Vidarbha, Rayalaseema, Telangana on 06<sup>th</sup>; over Tamil Nadu, Puducherry & Karaikal and Interior Karnataka on 06<sup>th</sup> & 07<sup>th</sup>; over West Rajasthan during 07<sup>th</sup> – 10<sup>th</sup>; over East 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 Kerala & Mahe and Coastal Karnataka during next 3 days.

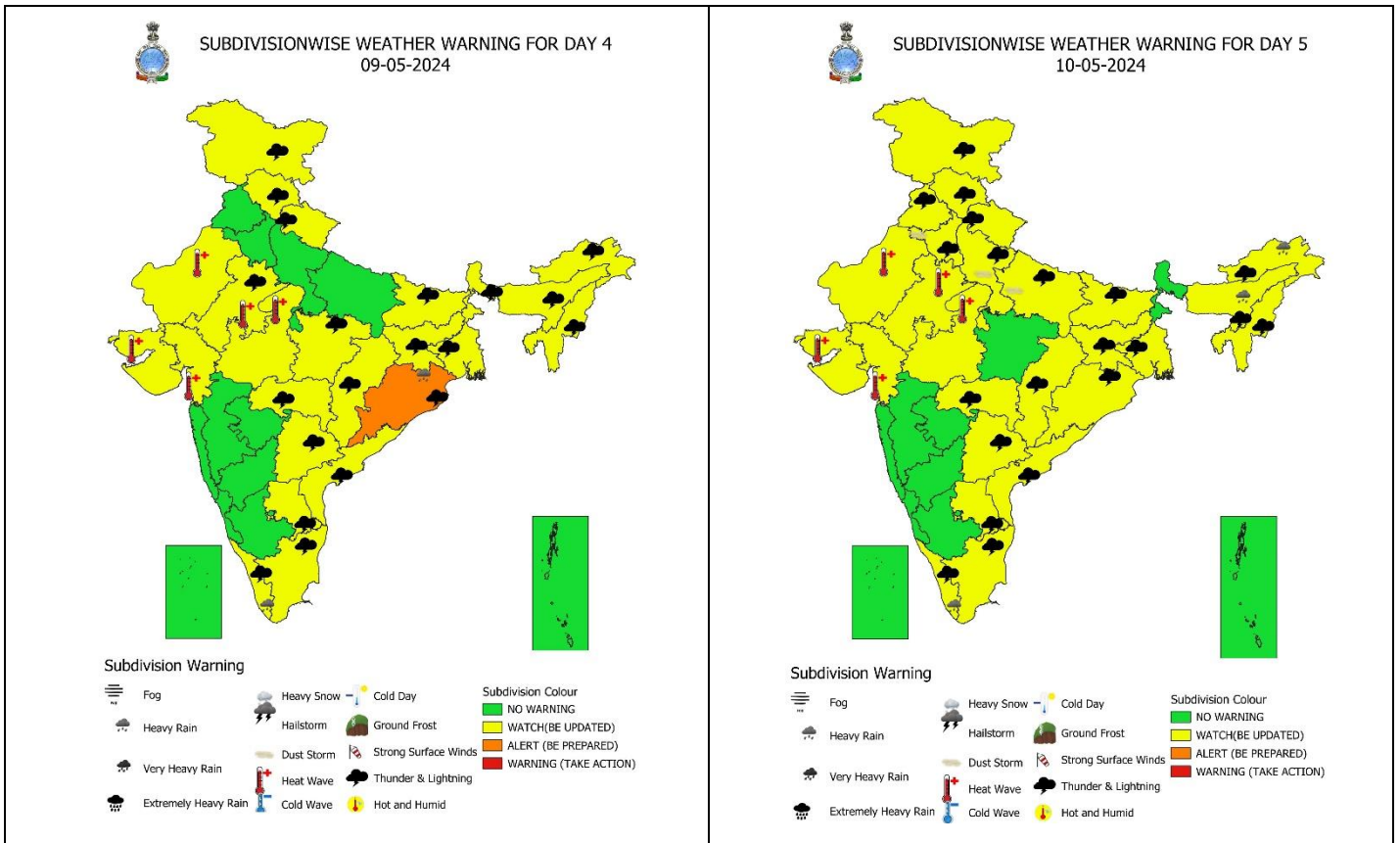
For more details, kindly refer: [https://mausam.imd.gov.in/responsive/all\\_india\\_forecast\\_bulletin.php](https://mausam.imd.gov.in/responsive/all_india_forecast_bulletin.php)

- ❖ Light to moderate rainfall accompanied with isolated thunderstorm & lightning observed at most places over Arunachal Pradesh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura; at isolated places over Uttarakhand, Sub-Himalayan West Bengal & Sikkim, Odisha, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe, Coastal Andhra Pradesh & Yanam and Telangana.

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

- ❖ **Assam & Meghalaya:** Williamnagar (dist East Garo Hills) 12, Cherrapunji (dist East Khasi Hills) 9, Cherrapunji(rkm) (dist East Khasi Hills) 9, Mawkyrwat\_arg (dist South West Khasi Hills) 8, Umrangso (dist N. C. Hills) 7, Dhemaji (dist Dhemaji) 7, Mawkyrwat (dist South West Khasi Hills) 7, Khliehriat (dist East Jaintia Hills) 7, Sarupathar Arg (dist Golaghat) 5, Guwahati City Aws (dist Kamrup Metropolitan) 4, Guwahati Ap (dist Kamrup Metropolitan) 4, Kamakhya Arg (dist Kamrup Metropolitan) 4, Bhaghmara (dist South Garo Hills) 4, Shillong C.s.o. (dist East Khasi Hills) 4, Shillong\_ Aws (dist East Khasi Hills) 4, Mawphlang (dist East Khasi Hills) 4, Jowai\_aws (dist West Jaintia Hills) 4;
- ❖ **Nagaland, Manipur, Mizoram & Tripura:** Kanchanpur (dist North Tripura) 8, Khowai\_ Aws (dist Khowai) 7, Kamalpur\_aws (dist Dhalai) 7, Khowai (dist Khowai) 7, Tamenglong (dist Tamenglong) 6, Dharmanagar/ Panisagar (dist North Tripura) 6, Thoubal (dist Thoubal) 5, Kailashahar Aero (dist Unakoti) 5, Chhamonu (dist Dhalai) 5, Kolasib Agri (dist Kolasib) 4, Ashapara Aws (dist North Tripura) 4, Lengpui (dist Aizawl) 4, Dm Office Arg (dist West Tripura) 4, Churachandpur (dist Churachandpur) 4, Kvk Dhalai (dist Dhalai) 4, Mamit Agri (dist Mamit) 4, Aizwal (dist Aizawl) 4;
- ❖ **Arunachal Pradesh:** Geku Arg (dist West Siang) 4, Seppa\_ Aws (dist East Kameng) 4, Itanagar (dist Papumpara) 2, Namsai Kvk Aws (dist Lohit) 2, Miao (dist Changlang) 2;
- ❖ **Tamil Nadu:** Kamatchipuram (dist Dindigul), Peraiyur (dist Madurai) 5 each, Andipatti (dist Theni) 4, Mayanur (dist Karur), Tobacco Station (VDR) (dist Dindigul), Vedasandur (dist Dindigul) 3 each, Chinnakalar (dist Coimbatore), Dindigul (dist Dindigul), Kadavur (dist Karur), Ponnaniyar Dam (dist Thiruchirappalli), Thekkadi (dist Theni), Kadavur AWS (dist Karur) 2 each;
- ❖ **Telangana:** Gundala (dist B. Kothagudem) 4, Devaruppal (dist Jangaon) 4, Noothankal (dist Suryapet) 2, Kampasagar(a) (dist Nalgonda) 2, Nalgonda(arg) (dist Nalgonda) 2, Suryapet (dist Suryapet) 2, Nidamanur (dist Nalgonda) 2;
- ❖ **Kerala:** Peerumedu & Kundala Dam AWS (both in Idukki district) 1 each.





**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 Sub-Himalayan West Bengal & Sikkim on 06<sup>th</sup>; over East Madhya Pradesh, Jharkhand and South Interior Karnataka 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 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**

- (i) Isolated heavy to very heavy rainfall over Assam & Meghalaya on 06<sup>th</sup>;**  
**(ii) heavy rainfall** over Arunachal Pradesh on 06<sup>th</sup> & 10<sup>th</sup>; Assam & Meghalaya on 07<sup>th</sup> & 10<sup>th</sup>; and over Nagaland, Manipur, Mizoram & Tripura, Gangetic West Bengal on 06<sup>th</sup> & 07<sup>th</sup>. over Odisha during 07<sup>th</sup>-09<sup>th</sup>; over *Tamil Nadu, Puducherry & Karaikal & South Interior Karnataka on 07<sup>th</sup> & 08<sup>th</sup>; over Coastal Andhra Pradesh & Yanam, Telangana on 07<sup>th</sup> and over Kerala & Mahe on 09<sup>th</sup> & 10<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 kutchha 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 Gangetic West Bengal, Odisha, Tamil Nadu, Andhra Pradesh, Telangana, South Interior Karnataka and North Eastern States.
- In Arunachal Pradesh, postpone sowing of Jhum paddy, maize and soybean.
- Use hail nets or hail caps in fruit orchards to prevent mechanical damage and provide mechanical support to horticultural crops & staking to vegetables in Sub Himalayan West Bengal, Sikkim, Jharkhand, East Madhya Pradesh, Vidarbha and South Interior Karnataka.
- Apply light and frequent irrigation to standing crops to avoid heat stress; provide mulching to conserve soil moisture and minimise evaporation in Gujarat, Vidarbha, West Rajasthan, Tamil Nadu, Interior Karnataka, Rayalaseema 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.

<b>SPATIAL DISTRIBUTION</b> (% 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)



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



## LEGENDS

### WARNING

<b>WARNING (TAKE ACTION)</b>
<b>ALERT ( BE PREPARED)</b>
<b>WATCH (BE UPDATED)</b>
<b>NO WARNING ( NO ACTION)</b>

### 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)
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**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)