

Government of India  
Ministry of Earth Sciences  
India Meteorological Department



Press Release

Date: 28<sup>th</sup> April, 2024

Time of Issue: 1430 hours IST

**Subject:**

- i. **Heat wave to severe heat wave conditions likely to continue over East and south Peninsular India during next 5 days.**
- ii. **Rainfall accompanied with thunderstorms/lightning and gusty winds likely to continue over Western Himalayan Region and adjoining plains of Northwest India during 28<sup>th</sup>-29<sup>th</sup> April, 2024.**
- iii. **Heavy rainfall spell accompanied with isolated thunderstorms/lightning very likely over Northeast India till 30 April, 2024 and heavy to very heavy rainfall over the same region from 1 May.**

**Realised weather during past 24 hours till 0830 hours IST of today:**

- ❖ **Heat Wave conditions in many places with severe heat wave in isolated pockets** prevailed over Gangetic West Bengal, Odisha and Bihar and **heat wave conditions** in isolated pockets over Sub-Himalayan West Bengal, Jharkhand, Rayalaseema, Interior Karnataka, Andhra Pradesh and Kerala & Mahe. *Heat wave conditions have been prevailing over Odisha since 15<sup>th</sup> and Gangetic West Bengal since 17<sup>th</sup> April.*
- ❖ **Light to moderate rainfall** accompanied with isolated thunderstorm & lightning observed at most places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, at many places over Himachal Pradesh; at a few places over Uttarakhand, Arunachal Pradesh, Assam & Meghalaya and at isolated places over Punjab, Haryana-Chandigarh-Delhi, West Uttar Pradesh, Madhya Pradesh, Vidarbha, Chhattisgarh, Sub-Himalayan West Bengal & Sikkim, southern parts of Odisha, Nagaland, Manipur, Mizoram & Tripura, Kerala & Mahe, Coastal Andhra Pradesh & Yanam, Telangana.
- ❖ **Hailstorm** also observed at isolated places over Uttarakhand, Punjab, south Haryana and Madhya Pradesh.
- ❖ **Heavy Rainfall** observed over Assam & Meghalaya.
- ❖ **Significant rainfall: Assam & Meghalaya:** Shella (dist East Khasi Hills) 7, Karimganj\_aws (dist Karimganj) 6, Cherrapunji (dist East Khasi Hills) 5, Golaghat\_pto (dist Golaghat) 4, Cherrapunji(rkm) (dist East Khasi Hills) 3, Badarpur Arg (dist Karimganj) 3, Majuli (dist Jorhat) 2, Silchar (dist Cachar) 2, Naharkatia Arg (dist Dibrugarh) 2, Tinsukia (dist Tinsukia) 2, **Arunachal Pradesh:** Oyan Arg (dist East Siang) 3, Daparijo (dist Upper Subansiri) 3, Deomali\_aws (dist Tirap) 2, Pasighat\_ Aero (dist East Siang) 2, Basar\_ Aws (dist West Siang) 2, Nachu Arg (dist Upper Subansiri) 2, Roing (dist Lower Dibang Valley) 2; Nagaland, Manipur, Mizoram & Tripura: Mangkolemba (dist Mokokchung) 2, Mokokchang (dist Mokokchung) 1, Kadamtala Arg (dist North Tripura) 1; **Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad:** Badarwah (dist Doda) 3, Tengmarg (Dist Baramula) 3, Bandipora Aws (dist Bandipore) 3.
- ❖ **Warm Night** conditions prevailed in isolated pockets over Bihar.

## Weather Systems and Forecast & Warnings: (Annexure I)

- ❖ A Western Disturbance as a cyclonic circulation lies over east Afghanistan & neighbourhood upto middle tropospheric level and a cyclonic circulation lies over northwest Rajasthan & neighbourhood in lower tropospheric levels. Under their influence:
  - ✓ Farley widespread to Widespread light to moderate rainfall/snowfall accompanied with **thunderstorm, lightning** very likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh and Uttarakhand during 28<sup>th</sup> April -30 April, 2024 with possibility of **hailstorm over Himachal Pradesh on 28<sup>th</sup> & 29<sup>th</sup> and Uttarakhand on 29<sup>th</sup> April, 2024.**
  - ✓ Isolated **Heavy rainfall** also likely over Jammu-Kashmir-Gilgit-Baltistan-Muzaffarabad on 28<sup>th</sup> & 29<sup>th</sup> April and over Himachal Pradesh on 29<sup>th</sup> April, 2024.
  - ✓ Isolated to scattered rainfall accompanied with **thunderstorm, lightning & gusty winds (40-50 kmph)** very likely over Punjab, Haryana-Chandigarh during 28<sup>th</sup> & 29<sup>th</sup> April, 2024.
  - ✓ Isolated rainfall accompanied with **thunderstorm, lightning & gusty winds (35-45 kmph)** very likely over Uttar Pradesh on 28<sup>th</sup> & 29<sup>th</sup> April, 2024.
  - ✓ Isolated **Hailstorm** very likely over Punjab on 29<sup>th</sup> April, 2024.
  - ✓ **Duststorm/thundersquall** (50-60 kmph) very likely over south Haryana and West Uttar Pradesh on 28<sup>th</sup> April, 2024.
- ❖ A trough/wind discontinuity runs from eastern parts of Vidarbha to north Kerala in lower tropospheric levels. Another trough runs from northeast Jharkhand to south Chhattisgarh. Under their influence:
  - ✓ Isolated light rainfall accompanied with **thunderstorm, lightning & gusty winds (30-40 kmph)** very likely over West Madhya Pradesh on 28<sup>th</sup>, over East Madhya Pradesh, Vidarbha, Chhattisgarh on 28<sup>th</sup> & 29<sup>th</sup> and **with lightning** over Marathwada on 28<sup>th</sup> April, 2024.
  - ✓ Isolated to scattered light to moderate rainfall accompanied with isolated **thunderstorm & lightning** very likely over Kerala & Mahe during next 5 days; over Lakshadweep on 28<sup>th</sup>-29<sup>th</sup>; and **gusty winds (30-40 kmph)** very likely over Coastal Andhra Pradesh & Yanam during 28<sup>th</sup>- 30<sup>th</sup> April, 2024.
- ❖ A cyclonic circulation lies over northeast Assam in lower tropospheric levels. Under its influence:
  - ✓ Fairly widespread to widespread light to moderate rainfall/snowfall accompanied with isolated **thunderstorm & lightning & gusty winds (40-50 kmph)** very likely over Arunachal Pradesh and Fairly widespread to fairly widespread rainfall over Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura during 27<sup>th</sup> April-02<sup>nd</sup> May, 2024.
  - ✓ Isolated light to moderate rainfall accompanied with **thunderstorm & lightning & gusty winds (30-40 kmph)** very likely over Sikkim on 28<sup>th</sup> April-01<sup>st</sup> May and over Arunachal Pradesh during next 7 days.
  - ✓ **Isolated heavy to very heavy rainfall** very likely over Arunachal Pradesh and Assam & Meghalaya on 01<sup>st</sup> -02<sup>nd</sup> May and over Nagaland, Manipur, Mizoram & Tripura on 02<sup>nd</sup> May; with isolated very heavy rainfall over Arunachal Pradesh & Assam & Meghalaya during 28<sup>th</sup>- 30<sup>th</sup> April; over Nagaland, Manipur, Mizoram & Tripura on 01<sup>st</sup> May 2024.
  - ✓ **Isolated extremely heavy rainfall** very likely over Assam & Meghalaya on 02<sup>nd</sup> May, 2024.

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

- ❖ Yesterday, **maximum temperatures** were in the range of **42-45°C** over some places over Odisha, Gangetic West Bengal, Coastal Andhra Pradesh, Rayalaseema and Telangana; 40-42 over many parts of Bihar, Jharkhand, Chhattisgarh, Interior parts of Maharashtra, North Tamil Nadu, Marathwada, east Uttar Pradesh. These were **above normal by 4-9°C** over in many parts of Gangetic West Bengal and in some parts of north Odisha.
- ❖ No large change during next 24 hours, fall in maximum temperatures by 2-3°C very likely over northwest India during subsequent 2-3 days.
- ❖ No large change during next 24 hours and then gradual increase by 2-3°C maximum temperatures very likely over Central India during subsequent 3 days.
- ❖ Rise in maximum temperatures by about 1-2 °C very likely over East India during next 2 days and no significant change thereafter.

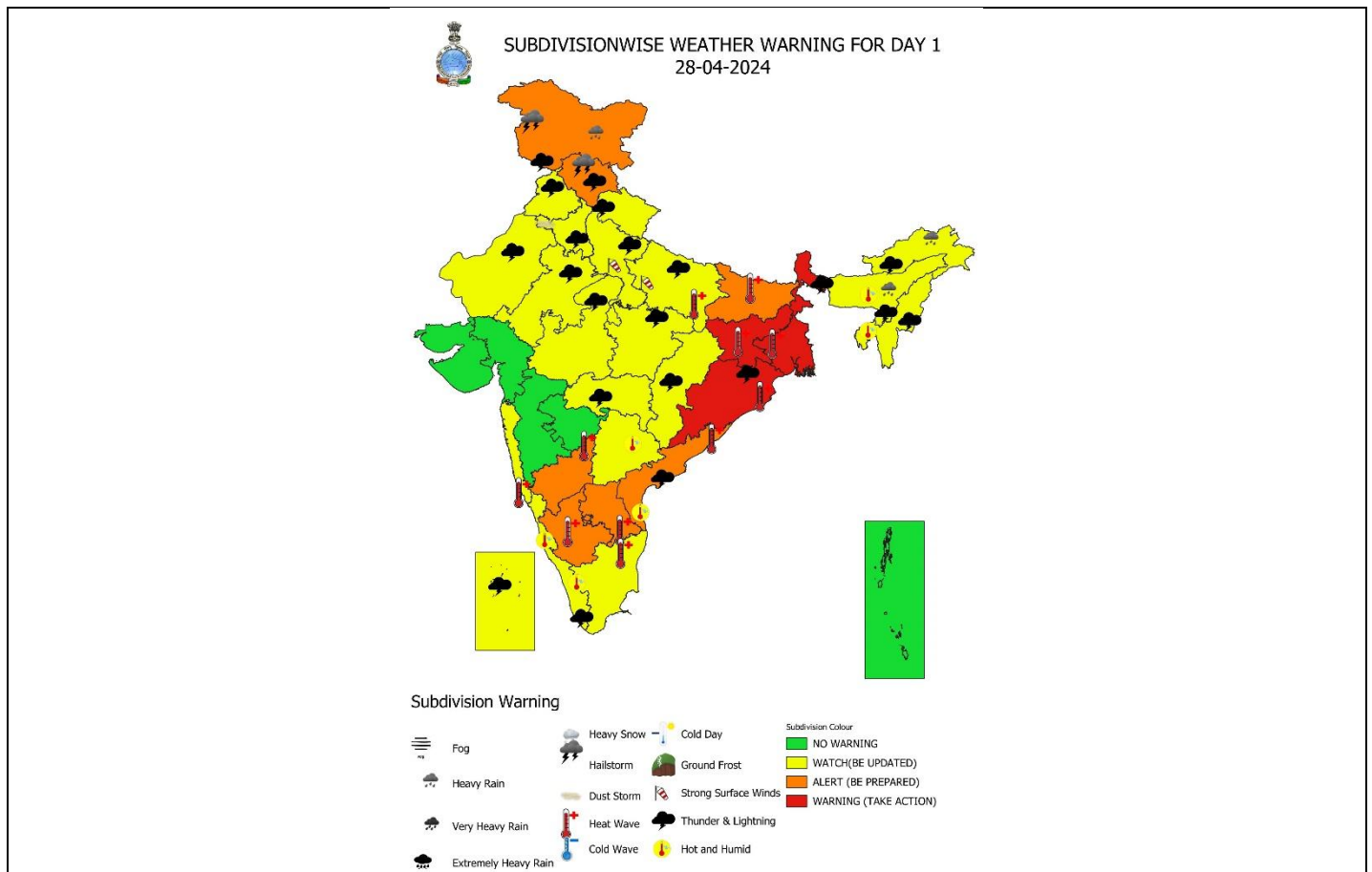
- ❖ Rise in maximum temperatures by 2-3°C very likely over west India during next 2 days and no significant change thereafter.
- ❖ Rise in maximum temperatures by 2-3°C very likely over Tamil Nadu during next 3-4 days and no significant change thereafter.
- ❖ No significant change in maximum temperatures very likely over rest parts of the country.

**Heat Wave, Warm Night and Hot & Humid weather warning for next 5 days (Annexure I):**

- ❖ **Heat Wave to severe heat wave conditions** very likely to prevail in many places over Gangetic West Bengal, Odisha and Bihar, in some parts over Jharkhand during next 4 days till 1 May and then **Heat Wave to severe heat wave conditions likely at isolated places over these areas on 2 May. Heat Wave to severe heat wave conditions likely at isolated places over Sub-Himalayan West Bengal** on 28 April and **Heat wave conditions** in isolated pockets for subsequent 3 days till 1 May. **Heat wave conditions** in isolated pockets over Rayalaseema, Interior Karnataka, Tamil Nadu and Andhra Pradesh during next 5 days, over Telangana during 29 April to 1 May ; Kerala & Mahe on 28<sup>th</sup> April; Konkan on 28<sup>th</sup> and 29 April and East Uttar Pradesh during 28<sup>th</sup>-30<sup>th</sup> April.
- ❖ **Hot and humid weather** very likely to prevail over West Assam & Meghalaya, Tripura during 28<sup>th</sup>-29<sup>th</sup>; Kerala & Mahe, Coastal Karnataka during next 5-days, Telangana on 28 April and 2<sup>nd</sup> May, Konkan & Goa during 30<sup>th</sup> April April-01<sup>st</sup> May 2024.

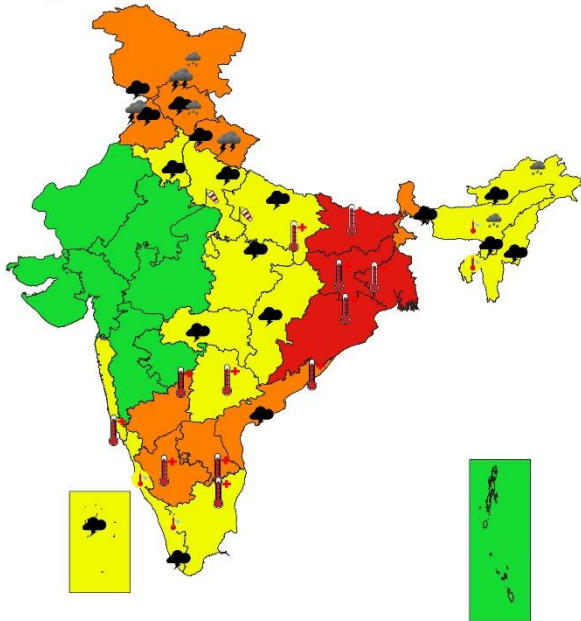
For more details, kindly refer: [https://mausam.imd.gov.in/responsive/all\\_india\\_forecast\\_bulletin.php](https://mausam.imd.gov.in/responsive/all_india_forecast_bulletin.php)

**ANNEXURE I**





**SUBDIVISIONWISE WEATHER WARNING FOR DAY 2**  
29-04-2024

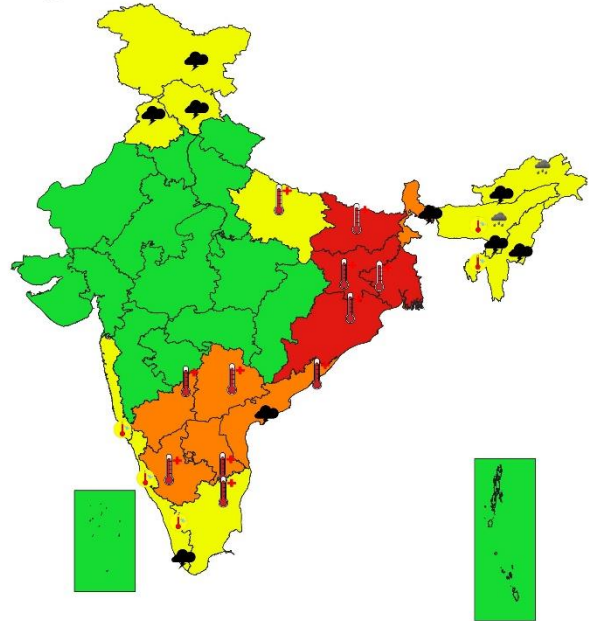


**Subdivision Warning**

- |                      |            |                      |                           |
|----------------------|------------|----------------------|---------------------------|
| Fog                  | Heavy Snow | Cold Day             | <b>Subdivision Colour</b> |
| 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 3**  
30-04-2024

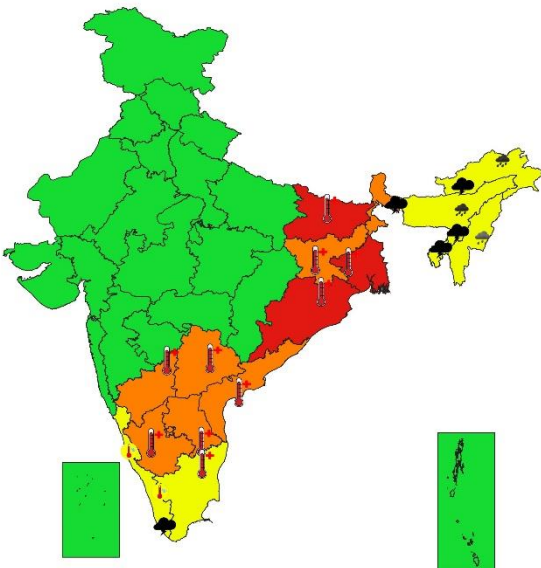


**Subdivision Warning**

- |                      |            |                      |                           |
|----------------------|------------|----------------------|---------------------------|
| Fog                  | Heavy Snow | Cold Day             | <b>Subdivision Colour</b> |
| 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 4**  
01-05-2024

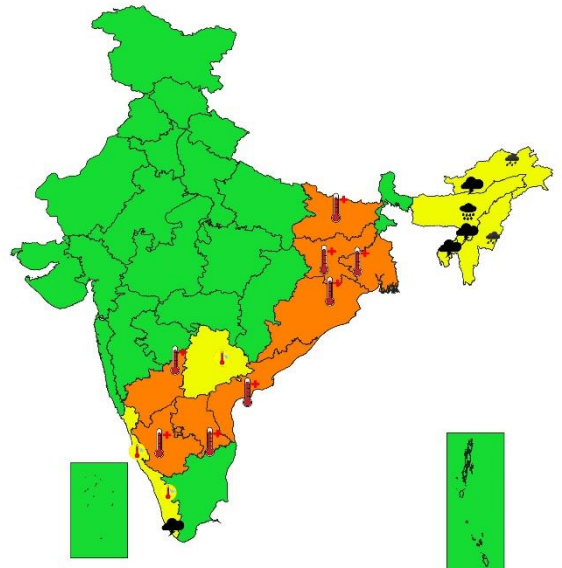


**Subdivision Warning**

- |                      |            |                      |                           |
|----------------------|------------|----------------------|---------------------------|
| Fog                  | Heavy Snow | Cold Day             | <b>Subdivision Colour</b> |
| 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**  
02-05-2024



**Subdivision Warning**

- |                      |            |                      |                           |
|----------------------|------------|----------------------|---------------------------|
| Fog                  | Heavy Snow | Cold Day             | <b>Subdivision Colour</b> |
| 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 expected and action suggested due to thunderstorm accompanied with lightning/gusty winds & Hailstorm over Himachal Pradesh on 28<sup>th</sup>-29<sup>th</sup>; Uttarakhand and Punjab on 29<sup>th</sup> April, 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 heavy / very rainfall over Jammu-Kashmir-Gilgit-Baltistan-Muzaffarabad during 28<sup>th</sup>-29<sup>th</sup> April; over Himachal Pradesh on 29<sup>th</sup> April; over Arunachal Pradesh, Assam & Meghalaya during 28<sup>th</sup> April-02nd May and Nagaland, Manipur, Mizoram & Tripura on 01<sup>st</sup> & 02<sup>nd</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.**

**IMPACT & ACTION SUGGESTED due to Heat Wave Conditions:**

**Red alert Areas (Gangetic West Bengal, Odisha, Bihar, Jharkhand)**

- ✓ Very high likelihood of developing heat illness and heat stroke in all ages.
- ✓ Extreme care needed for vulnerable people.

**Orange alert Areas (Telangana, Adhra Pradesh, Rayalaseema, Interior Karnataka)**

- ✓ 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 (East Uttar Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Konkan & Goa, Coastal Karnataka, Kerala & Mahe, Tamil Nadu, Puducherry & Karaikal)**

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

- Use hail nets or hail caps in fruit orchards to prevent mechanical damage and provide mechanical support to horticultural crops & staking to vegetables in Himachal Pradesh, Uttarakhand and Punjab. Keep the harvested produce at safer places or cover the heaps of harvested produce in the fields with tarpaulin sheets.
- In Jammu & Kashmir, withhold harvesting of wheat; shift already harvested produce of wheat, mustard, chickpea and pea from crop fields to safer places or cover the harvested produce with polythene sheet or tarpaulin; postpone sowing of vegetables, turmeric and transplanting of cucurbits.
- In Arunachal Pradesh, postpone sowing of maize, *jhum* upland rice and vegetables.
- Make necessary arrangements for draining out excess water from crop fields to avoid water stagnation in Jammu & Kashmir, Himachal Pradesh 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 West Bengal, Odisha, Bihar, Jharkhand, East Uttar Pradesh, North Konkan, Tamil Nadu, Kerala, 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.

<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

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)
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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)