



Government of India
Ministry of Earth Sciences
India Meteorological Department



Press Release

Date: 08th May, 2024

Time of Issue: 1345 hours IST

Subject:

- i. A fresh Heat Wave spell likely over Rajasthan & West Madhya Pradesh during 08th to 10th May and prevailing Heat Wave conditions over south peninsular India likely to abate from today, the 08th May, 2024.
- ii. Wet spell accompanied with thunderstorms; lightning & gusty winds very likely over East & south Peninsular India till 11th May, 2024.

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

- ❖ Yesterday, heat wave conditions prevailed in isolated pockets of Tamil Nadu and Telangana.
- ❖ *Isolated heavy rainfall* observed over Tamil Nadu, Coastal Andhra Pradesh, Telangana and Rayalaseema.
- ❖ *Hailstorm activity* observed at isolated places over East Madhya Pradesh, Vidarbha, northeast Uttar Pradesh and Telangana.
- ❖ *Thundersquall/Gusty winds* observed at isolated places over Madhya Pradesh, Chhattisgarh, Vidarbha, Telangana, Interior Karnataka, Gangetic West Bengal, Jharkhand, Odisha.
- ❖ Yesterday, the **highest maximum temperature** of 45.2°C was reported at **Barmer (West Rajasthan)** over the country.

Weather Systems and Forecast & Warnings: (Annexure II)

- ❖ A cyclonic circulation lies over northeast Assam, another cyclonic circulation over Bangladesh and a trough runs from northeast Rajasthan to south Assam in lower tropospheric levels. Under their influence:
 - ✓ Fairly widespread to widespread light to moderate rainfall accompanied with **thunderstorm, lightning & squally winds (40-50 kmph)** very likely over West Bengal & Sikkim during 08th-11th; scattered to fairly widespread rainfall accompanied with **thunderstorm, lightning & gusty winds (40-50 kmph)** over Bihar, Jharkhand, Odisha during 08th-12th; isolated to scattered rainfall accompanied with **thunderstorm, lightning & gusty winds (40-50 kmph)** over Marathwada on 08th & 12th; West Madhya Pradesh on 08th & 09th and East Madhya Pradesh, Vidarbha and Chhattisgarh during 08th-12th May, 2024.
 - ✓ 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** also very likely over Gangetic West Bengal, Arunachal Pradesh, Assam, Meghalaya, Nagaland, Manipur, Mizoram and Tripura on 10th; over Odisha and Sub-Himalayan West Bengal & Sikkim on 09th May, 2024.
 - ✓ **Hailstorm activity** also very likely over East Madhya Pradesh and Vidarbha on 08th & 09th May, 2024.

- ❖ A cyclonic circulation lies over Tamil Nadu in lower tropospheric levels. A trough/wind discontinuity runs from northeast Rajasthan to South Interior Karnataka 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 North Interior & Coastal Karnataka during 08th-12th; scattered to fairly widespread rainfall accompanied with **thunderstorm, lightning & gusty winds (30-40 kmph)** over Kerala & Mahe, South Interior Karnataka during 08th-12th May, 2024.
 - ✓ **Isolated heavy rainfall very likely over South Interior Karnataka on 08th; Tamil Nadu, Puducherry & Karaikal during 08th – 11th and Kerala & Mahe on 08th & 11th May, 2024.**
- ❖ A fresh Western Disturbance likely to affect northwest India from 09th 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 09th-12th May, 2024.
 - ✓ **Hailstorm activity** very likely at isolated places over Uttarakhand during 08th – 12th May, 2024.
 - ✓ Isolated light to moderate rainfall accompanied with **thunderstorm, lightning & gusty winds (30-40 kmph)** very likely over Haryana-Chandigarh, Punjab and Rajasthan during 10th-12th; over Uttar Pradesh during 08th-12th; May, 2024.
 - ✓ **Duststorm/thunderstorm with gusty winds (30-40 kmph)** very likely to prevail over West Uttar Pradesh on 11th; East Uttar Pradesh during 08th-12th and over Haryana and West Rajasthan during 10th – 12th; over East Rajasthan on 10th May, 2024.
 - ✓ **Strong surface winds (25-35 kmph)** very likely to prevail over Uttar Pradesh and Rajasthan during next 5 days.

Maximum temperature observation and forecast for next 5 days:

- ❖ Yesterday, maximum temperatures were in the range of 43-45°C over many parts of West Rajasthan; some parts of East Rajasthan; isolated pockets of West Uttar Pradesh, Madhya Pradesh, Vidarbha and Telangana and in the range of 40-42°C over many parts of Punjab, Haryana, Chandigarh & Delhi, Marathwada & Rayalaseema; some parts of West Uttar Pradesh & Gujarat state; isolated pockets of Madhya Maharashtra and Tamil Nadu, Puducherry & Karaikal. These were either near normal or above normal by 2-3°C over these areas.
- ❖ No significant change in maximum temperatures very likely over most parts of the plains of Northwest India (except Rajasthan where temperatures are likely to rise by about 2°C during next 2 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 to prevail in isolated pockets over East Rajasthan and Saurashtra & Kutch on 08th & 09th; over West Rajasthan and West Madhya Pradesh during 08th – 10th May, 2024.
- ❖ **Hot and humid weather** very likely to prevail in isolated pockets over coastal areas of Gujarat during next 5 days and over Kerala & Mahe during 08th – 10th May, 2024.
- ❖ **Warm nights conditions** very likely to prevail in isolated pockets over Kerala & Mahe on 08th May, 2024.

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

Reported maximum wind speed(kmph) during past 24 hours till 0830 hours IST of today:

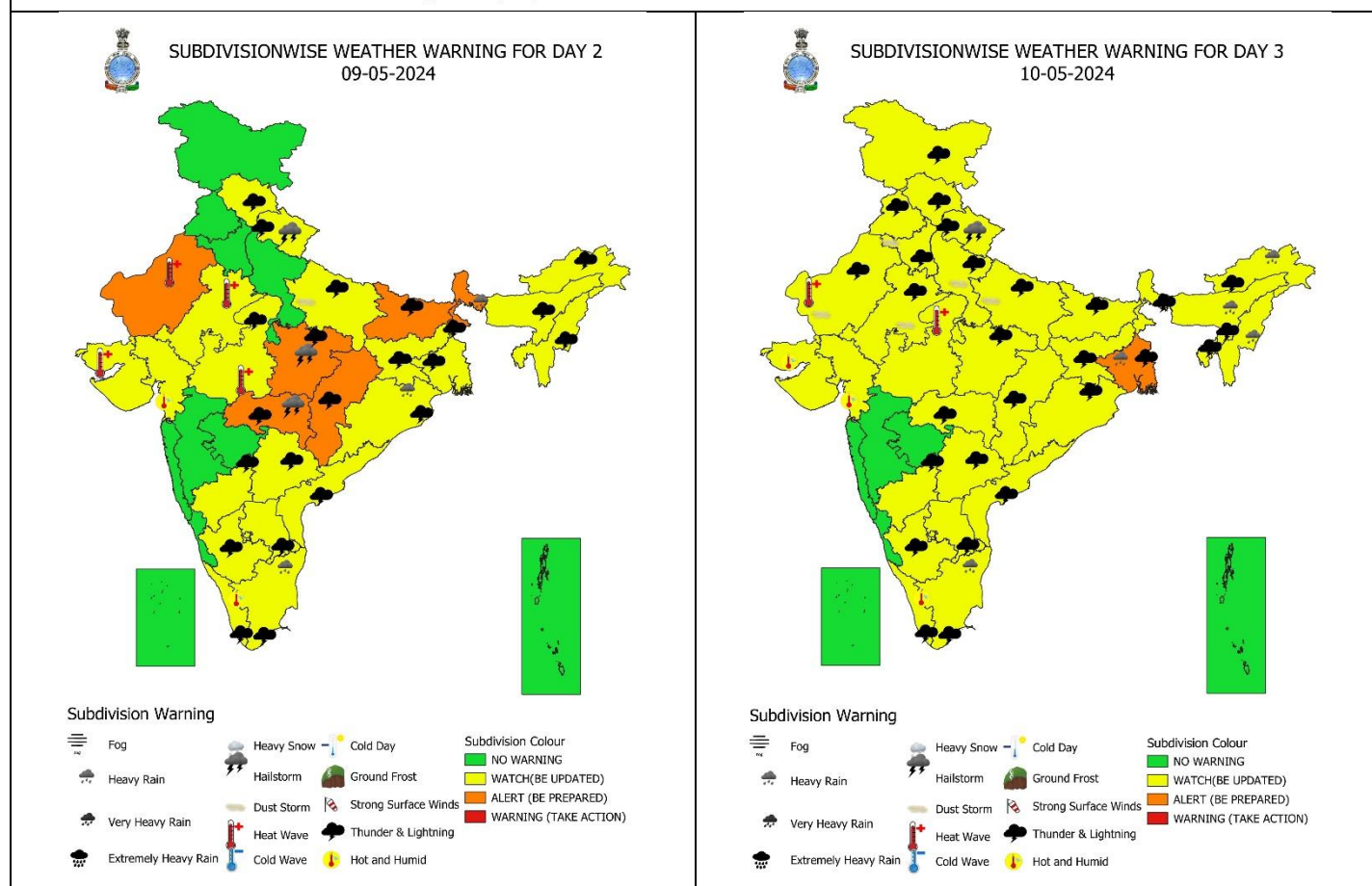
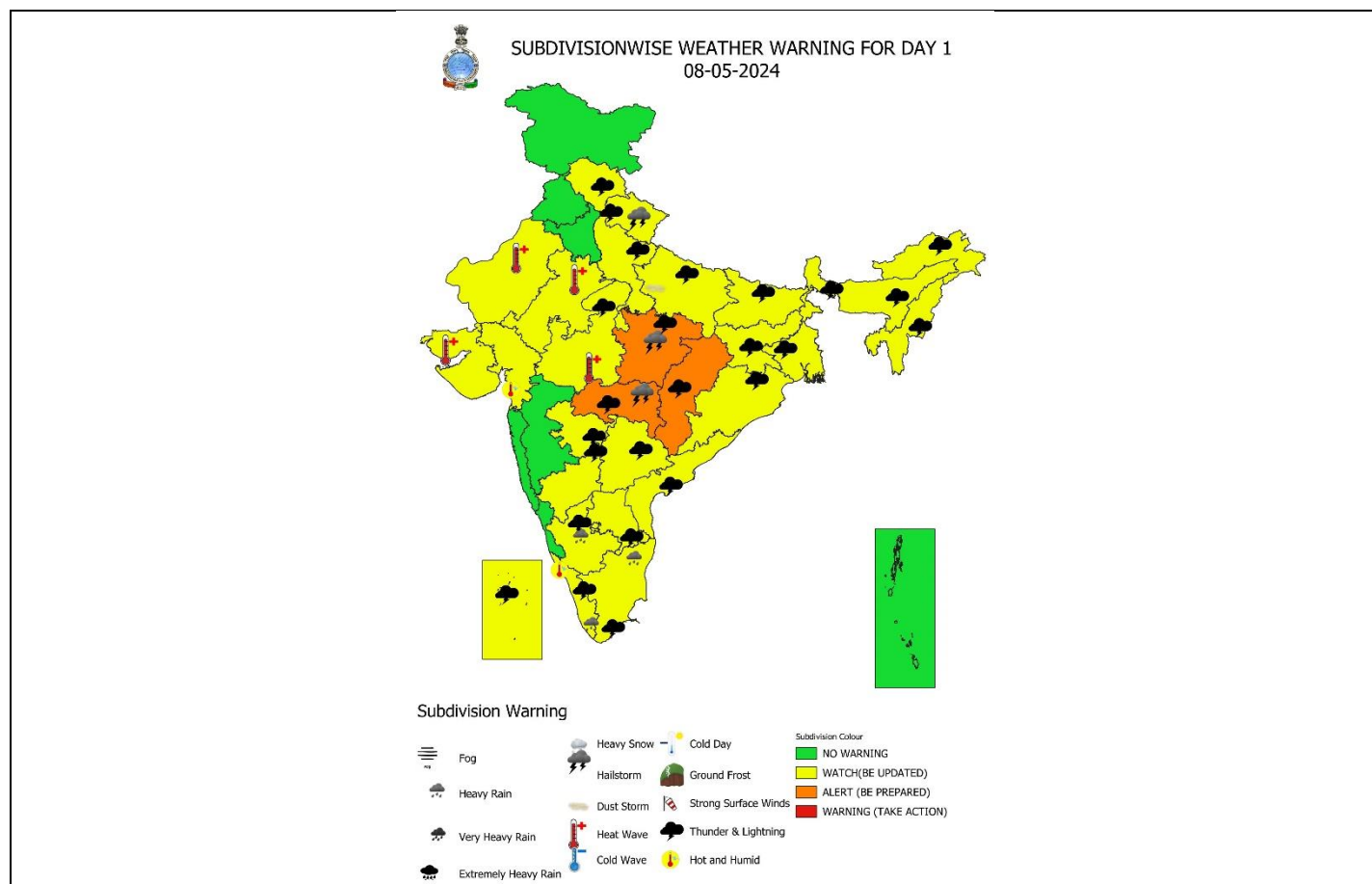
- ❖ **Chhattisgarh:** Mungeli 75 kmph, Balod 72 kmph, Rajnandgoan 68 kmph, Korba 63kmph, Kanker 61kmph, Jashpur 61kmph, Bemetara 53kmph, Bastar 50kmph, Janjgir 48kmph, Durg 48kmph, Sukma 44kmph, Koriya 38kmph;
- ❖ **West Madhya Pradesh:** Betul - 36 kmph, Dhar - 32 kmph;
- ❖ **East Madhya Pradesh:** Seoni -60 kmph, Mandla - 49 kmph, Anuppur - 46 kmph, Balaghat - 45 kmph, Singrauli - 43 kmph, Shahdol - 37 kmph, Jabalpur - 37 kmph, Chhindwada - 36 kmph;
- ❖ **Telangana:** Medak 107 kmph;
- ❖ **Interior Karnataka:** Chikkanakalli 74 kmph;
- ❖ **Coastal Andhra Pradesh & Yanam:** Maruteru 76 kmph;
- ❖ **Jharkhand:** Bokaro 67 kmph;
- ❖ **Gangetic West Bengal:** KZI Airport 74kmph;
- ❖ **Vidarbha:** Nagpur 61 kmph.

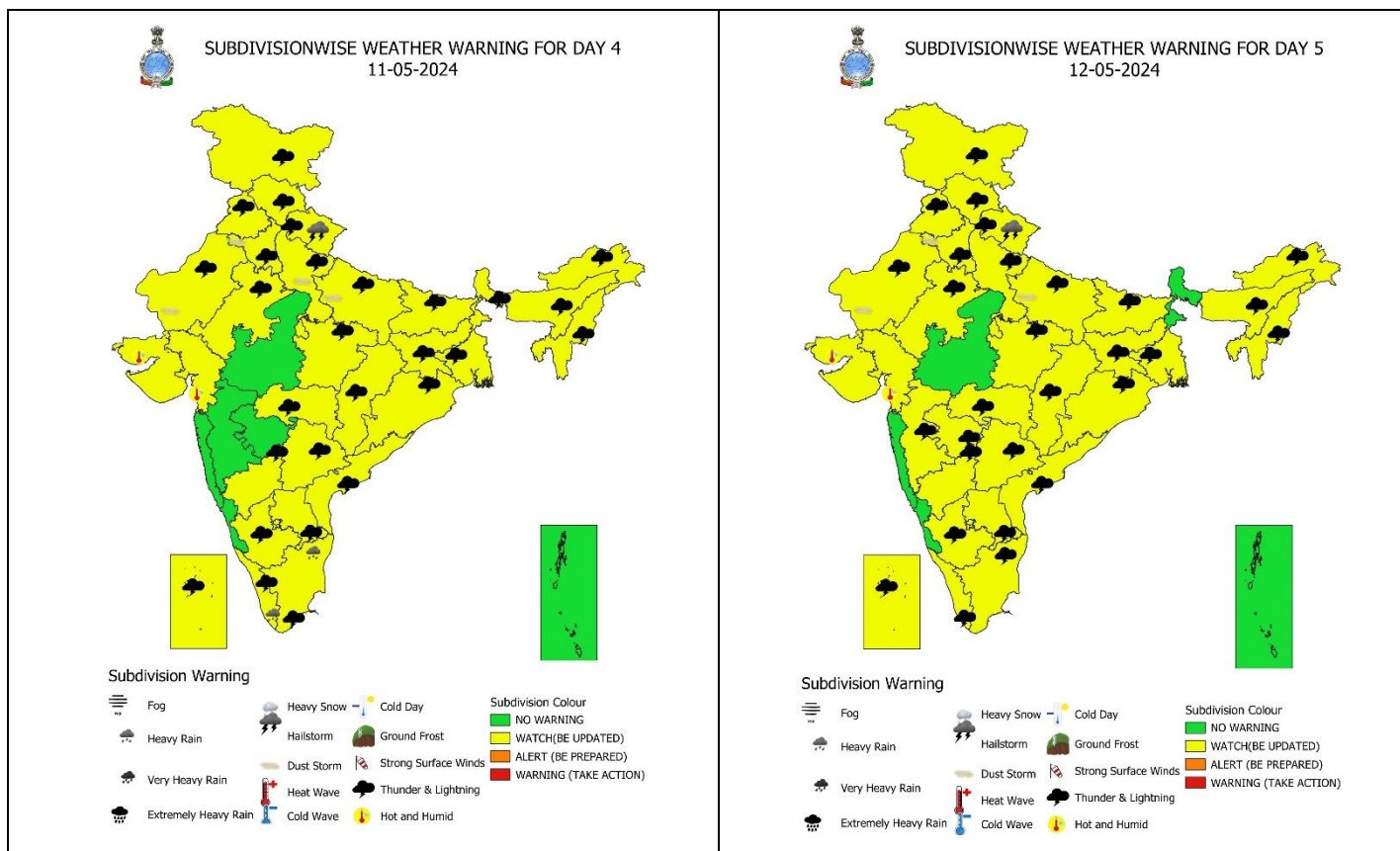
Realised Rainfall during past 24 hours till 0830 hours IST of today:

- ❖ Light to moderate rainfall accompanied with isolated thunderstorm & lightning observed at most places over West Bengal & Sikkim, Rayalaseema; at many places over Chhattisgarh, Jharkhand, Coastal Andhra Pradesh & Yanam, Telangana; at a few places over Arunachal Pradesh, Assam & Meghalaya, Andaman & Nicobar Islands, Bihar, Odisha, Lakshadweep; at isolated places over Himachal Pradesh, Uttarakhand, Uttar Pradesh, Madhya Pradesh, Nagaland, Manipur, Mizoram & Tripura, Marathwada, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe, South Interior Karnataka.

Significant amount of rainfall (in cm):

- ❖ **Coastal Andhra Pradesh & Yanam:** Markapur (dist Prakasam) 10, Udayagiri (dist SPSR Nellore) 8, Seetharamapuram (dist SPSR Nellore) 7, Gudivada (dist Krishna) 7, Tiruvuru (NTR District) 7, Marripudi (dist Prakasam) 6, Podili (dist Prakasam) 5, Jangamaheswarapuram (dist Palnadu) 5, Nellore (dist SPSR Nellore) 5, Macherla (dist Palnadu) 5, Addanki (dist Bapatla) 5, Piduguralla (dist Palnadu) 5, Koyyalagudem (dist Eluru) 5;
- ❖ **Rayalaseema:** Allagadda (dist Nandyal) 10, Raju Palem (dist YSR District) 10, Porumamilla (YSR District) 8, Duvvur (YSR District) 8, Madanapalle (dist Annamayya) 7, Jammalamadugu (YSR District) 7, Vallur (YSR District) 7, Proddutur (YSR District) 6, Cuddapah (YSR District) 6, Punganur (dist Chittoor) 6, Chapad (YSR District) 6, Atlur (YSR District) 6, Kamalapuram (YSR District) 5, Badvel (YSR District) 5, Kuppam (dist Chittoor) 5, Kodur (dist YSR District) 5, Rajampet (dist Annamayya District) 5, Gooty (dist Anantapuramu) 5, Rudravaram (dist Nandyal) 5;
- ❖ **Tamil Nadu:** KRP dam (dist Krishnagiri) 9, Kilpennathur (dist Tiruvannamalai) 9, Melalathur (dist Vellore) 7, Chengam (dist Tiruvannamalai) 7;
- ❖ **Telangana:** Shekpet (dist Hyderabad) 8, Chandur (dist Nalgonda) 7, Serilingampally(arg) (dist Rangareddy) 7, Amberpet (dist Hyderabad) 6, Bhuvanagiri (dist Y. Bhuvanagiri) 6, Hyderabad A.p. (dist Hyderabad) 6, Vemanapalle (dist Mancherla) 6, Bala Nagar (dist Mahabubnagar) 6, Wankdi (dist Kumaram Bheem) 5, Kaveri_siddipet(a) (dist Siddipet) 5, Himayatnagar (dist Hyderabad) 5, Srirampur (dist Peddapalle) 5, Aswaraopeta (dist B. Kothagudem) 5, Chevella (dist Rangareddy) 5, Chevella(arg) (dist Rangareddy) 5, Ghatkesar(a) (dist Rangareddy) 5, Thimmapur (dist Karimnagar) 5;
- ❖ **Assam & Meghalaya:** Mawphlang (dist East Khasi Hills) 1, Beki Mathungari (dist Barpeta) 1, Matijuri (dist Hailakandi) 1, Jowai_ (dist West Jaintia Hills) 1, Dudhnoi (dist Goalpara) 1;
- ❖ **Tripura:** Gokulpur_ (dist Gomati) 1;
- ❖ **Arunachal Pradesh:** Nachu (dist Upper Subansiri) 3.





IMPACT & ACTION SUGGESTED due to Heat Wave Conditions:

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 Uttarakhand during 08th – 12th; over Central India during next 2 days; over East & South Peninsular India during next 4-5 days; over Northwest India during 10th – 12th 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, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura, Gangetic West Bengal on 10th; over Odisha and Sub-Himalayan West Bengal & Sikkim on 09th over South Interior Karnataka on 08th; Tamil Nadu, Puducherry & Karaikal during 08th – 11th and Kerala & Mahe on 08th & 11th 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 arrangements to drain out excess water from crop fields to avoid water stagnation in Sub-Himalayan West Bengal, Odisha, Tamil Nadu, Kerala, South Interior Karnataka, Andhra Pradesh and Telangana.
- Use hail nets or hail caps in fruit orchards to prevent mechanical damage and provide mechanical support to horticultural crops & staking to vegetables in Uttarakhand, East Madhya Pradesh and Vidarbha.
- Apply light and frequent irrigation to standing crops to avoid heat stress; provide mulching to conserve soil moisture and minimise evaporation in Saurashtra & Kutch, Rajasthan, and West Madhya Pradesh.
- 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 $< 1\text{km}$

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)