

Government of India
Ministry of Earth Sciences
India Meteorological Department



Press Release

Date: 12th May, 2024

Time of Issue: 1345 hours IST

Subject:

- i. **Wet spell accompanied with thunderstorms, lightning & gusty winds very likely over East & Central India till 14th and south Peninsular India till 16th May, 2024.**
- ii. **A fresh spell of heat wave likely to commence over northwest India from 16th May, 2024**

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

- ❖ **Heavy to very heavy rainfall** observed at isolated places over Sub-Himalayan West Bengal and **heavy rainfall** at isolated places over Odisha, Bihar, West Madhya Pradesh, Madhya Maharashtra, Tamil Nadu, North Interior Karnataka and Kerala & Mahe.
- ❖ **Hailstorm activity** observed at isolated places over Jharkhand, West Madhya Pradesh and Madhya Maharashtra.
- ❖ **Thundersquall/Gusty winds** observed at some places over Chhattisgarh, Gangetic West Bengal, Jharkhand, Odisha, Bihar, East Uttar Pradesh, Rajasthan, Madhya Pradesh, Gujarat Region, Madhya Maharashtra, Marathwada, Telangana, Interior Karnataka and Tamil Nadu.
- ❖ **Duststorm** observed at isolated places over East Uttar Pradesh and Rajasthan.
- ❖ Yesterday, the **highest maximum temperature of 43.5°C** was reported at **Jeur (Madhya Maharashtra)** over the country.

Weather Systems and Forecast & Warnings: (Annexure II)

- ❖ A Western Disturbance seen as a cyclonic circulation over north Pakistan with a trough in middle tropospheric westerlies roughly along long. 68°E to the north of lat. 28°N. A cyclonic circulation lies over West Uttar Pradesh and another over south Rajasthan in lower tropospheric levels. Under their influence:
 - Fairly widespread to widespread rainfall activity accompanied with **thunderstorm, lightning & gusty winds (40-50 kmph)** very likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh and Uttarakhand on 12th May, 2024 and reduction thereafter with isolated activity on 13th & 14th May, 2024.
 - Isolated to scattered light to moderate rainfall accompanied with **thunderstorm, lightning & gusty winds (40-50 kmph)** very likely over Haryana-Chandigarh-Delhi, Punjab, Uttar Pradesh on 12th and over Rajasthan during 12th -16th May, 2024.
 - **Duststorm/thunderstorm with gusty winds (30-40 kmph)** very likely to prevail at isolated places over West Uttar Pradesh and West Rajasthan on 12th and East Rajasthan and East Uttar Pradesh on 12th & 13th May, 2024.
 - Isolated **Hailstorm activity** very likely over Jammu & Kashmir and Uttarakhand on 12th May, 2024.
 - **Strong surface winds (30-40 kmph)** very likely to prevail over plains of Uttar Pradesh and south Rajasthan during next 2 days.

- ❖ A north-south trough/Wind Discontinuity runs from East Madhya Pradesh to Comorin area and a Cyclonic Circulation lies over South Interior Karnataka and Another east-west trough runs from West Uttar Pradesh to south Assam in lower tropospheric levels. Under their influence:
 - Scattered to Fairly widespread light to moderate rainfall accompanied with **thunderstorm, lightning & squally winds (40-50 kmph)** very likely over Vidarbha, Madhya Maharashtra, Marathwada and Gujarat region on 12th & 13th and Isolated to scattered light to moderate rainfall accompanied with **thunderstorm, lightning & squally winds (40-60 kmph)** very likely over Madhya Pradesh and Chhattisgarh during next 5 days. Isolated **Hailstorm activity** very likely over Madhya Pradesh during 12th-14th; Vidarbha, Madhya Maharashtra and Marathwada on 12th & 13th; Chhattisgarh on 13th May, 2024. **Isolated heavy rainfall very likely over Konkan & Goa and Madhya Maharashtra on 13th & 14th May, 2024.**
 - Scattered to Fairly widespread light to moderate rainfall accompanied with **thunderstorm, lightning & squally winds (40-50 kmph)** very likely over Sub-Himalayan West Bengal & Sikkim and Andaman & Nicobar Islands during next 7 days; Odisha during 12th -15th; Gangetic West Bengal on 12th & 13th and Isolated to scattered light to moderate rainfall accompanied with **thunderstorm, lightning & gusty winds (30-40 kmph)** over Bihar and Jharkhand during 12th-14th May, 2024. **Isolated heavy rainfall very likely over Sub-Himalayan West Bengal & Sikkim on 12th and Odisha on 12th-14th May, 2024.**
 - Scattered to Fairly widespread light to moderate rainfall accompanied with **thunderstorm, lightning & squally winds (40-50 kmph)** likely over Coastal Andhra Pradesh & Yanam, Telangana, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe and Karnataka during next 7 days and Isolated to scattered light to moderate rainfall accompanied with **thunderstorm, lightning & gusty winds (30-40 kmph)** over Rayalaseema and Lakshadweep during the same period. **Isolated heavy rainfall very likely over Coastal Andhra Pradesh & Yanam on 12th; Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe during 12th-16th; Interior Karnataka on 12th & 13th and coastal Karnataka on 12th, 13th & 16th May, 2024.**
- ❖ A cyclonic circulation lies over northeast Assam and another over southeast Assam in lower tropospheric levels. Under their influence:
 - Scattered to Fairly widespread light to moderate rainfall accompanied with **thunderstorm, lightning & squally winds (30-40 kmph)** very likely over Arunachal Pradesh, Assam, Meghalaya, Nagaland, Manipur, Mizoram and Tripura during 12th -15th and likely to increase to fairly widespread to widespread rainfall during 16th -18th May, 2024.
 - **Isolated heavy rainfall also likely over Arunachal Pradesh and Assam & Meghalaya on 16th May, 2024.**

Maximum temperature observation and forecast for next 5 days:

- ❖ **Areas having maximum temperatures greater than 40°C:** Yesterday, maximum temperatures were in the range of 40-42°C over many parts of West Rajasthan, Odisha & Vidarbha; in some parts of Madhya Pradesh, Chhattisgarh, Madhya Maharashtra, Marathwada, Gujarat Region & Rayalaseema and in isolated pockets of East Rajasthan, Saurashtra & Kutch and Telangana.
- ❖ No significant change in maximum temperatures very likely over Northwest India during 24 hours and rise by about 3-5°C thereafter during subsequent 4 days.
- ❖ No significant change in maximum temperatures very likely over many parts of East India during next 2 days and rise by about 2-4°C thereafter during subsequent 3 days.
- ❖ Fall by 2-4°C in maximum temperatures very likely over Maharashtra and Karnataka 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 and Hot & Humid weather warning for next 5 days:

- ❖ **Hot and humid weather** very likely to prevail over Saurashtra & Kutch during next 5 days.
- ❖ Heat wave conditions likely over West Rajasthan, West Uttar Pradesh and South Haryana on 16th 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:** Surajpur 76, Korba 57, Jagdalpur 53, Koriya 48, Mungeli 44;
- ❖ **Gangetic West Bengal:** Durgapur 76;
- ❖ **Jharkhand:** Jamtara 70, Hazaribagh 63;
- ❖ **Odisha:** Nayagarh & Khurda 63 each, Bhadrak 59;
- ❖ **Bihar:** Jamui 57;
- ❖ **East Uttar Pradesh:** Lucknow 57;
- ❖ **Rajasthan:** Chittorgarh 98, Bikaner 80, Jaipur 76, Nagaur 63, Ajmer 61;
- ❖ **West Madhya Pradesh:** Burhanpur 63, Badwani 54, Neemuch 47, Ashoknagar 45, Shivpuri 43, Guna 36 kmph;
- ❖ **East Madhya Pradesh:** Sagar 39, Chitrakoot 37, Singrauli 37, Shahdol 36, Chhatarpur 34, Rewa 34, Chhindwada 30;
- ❖ **Gujarat Region:** Dahod 74;
- ❖ **Marathwada:** Beed 61;
- ❖ **Madhya Maharashtra:** Nasik 59.
- ❖ **Tamil Nadu:** Mettur 43;
- ❖ **North Interior Karnataka:** Hubballi AP 46;
- ❖ **South Interior Karnataka:** Mysuru 42;
- ❖ **Telangana:** Nizamabad 42.

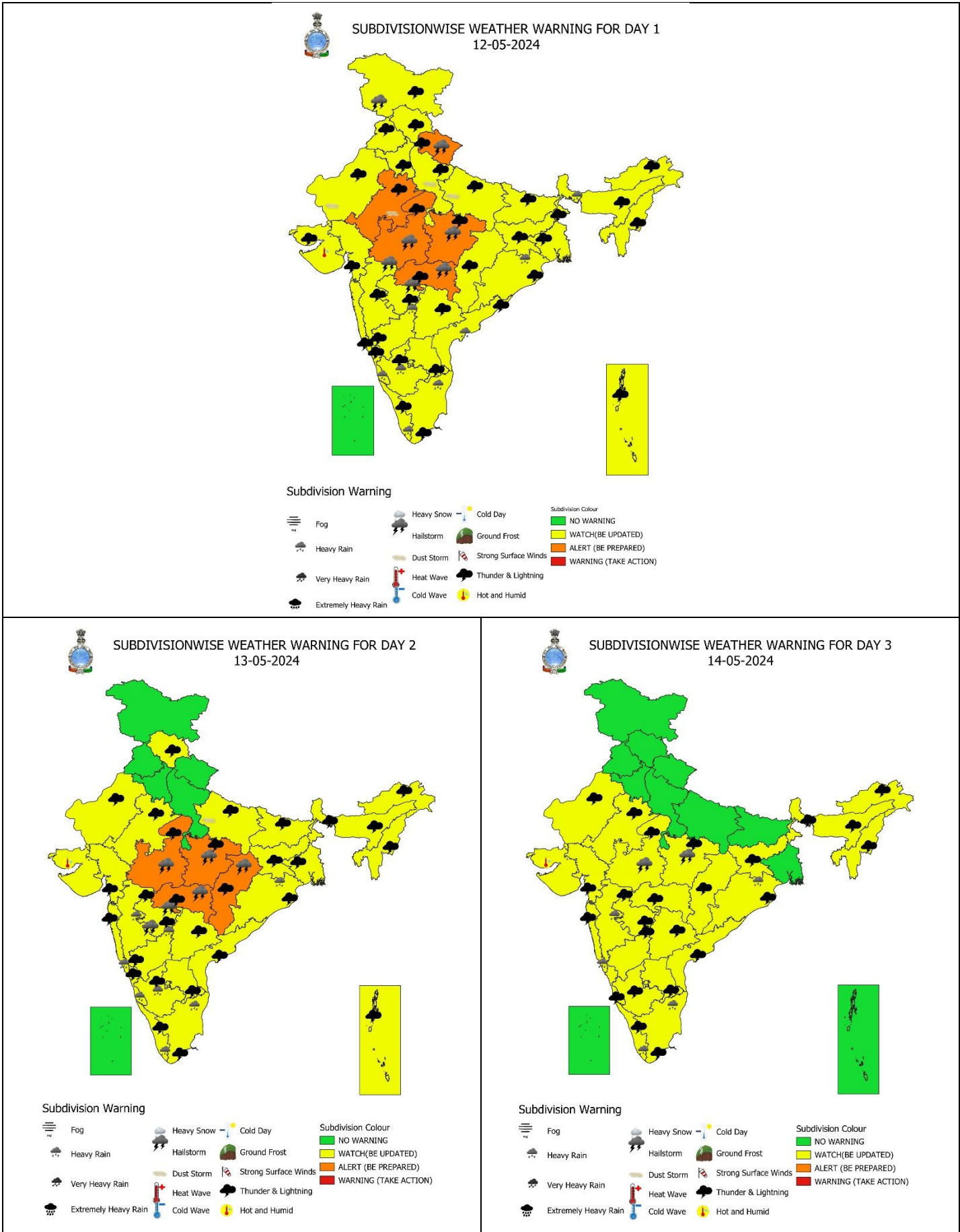
Realised Rainfall during past 24 hours till 0830 hours IST of today:

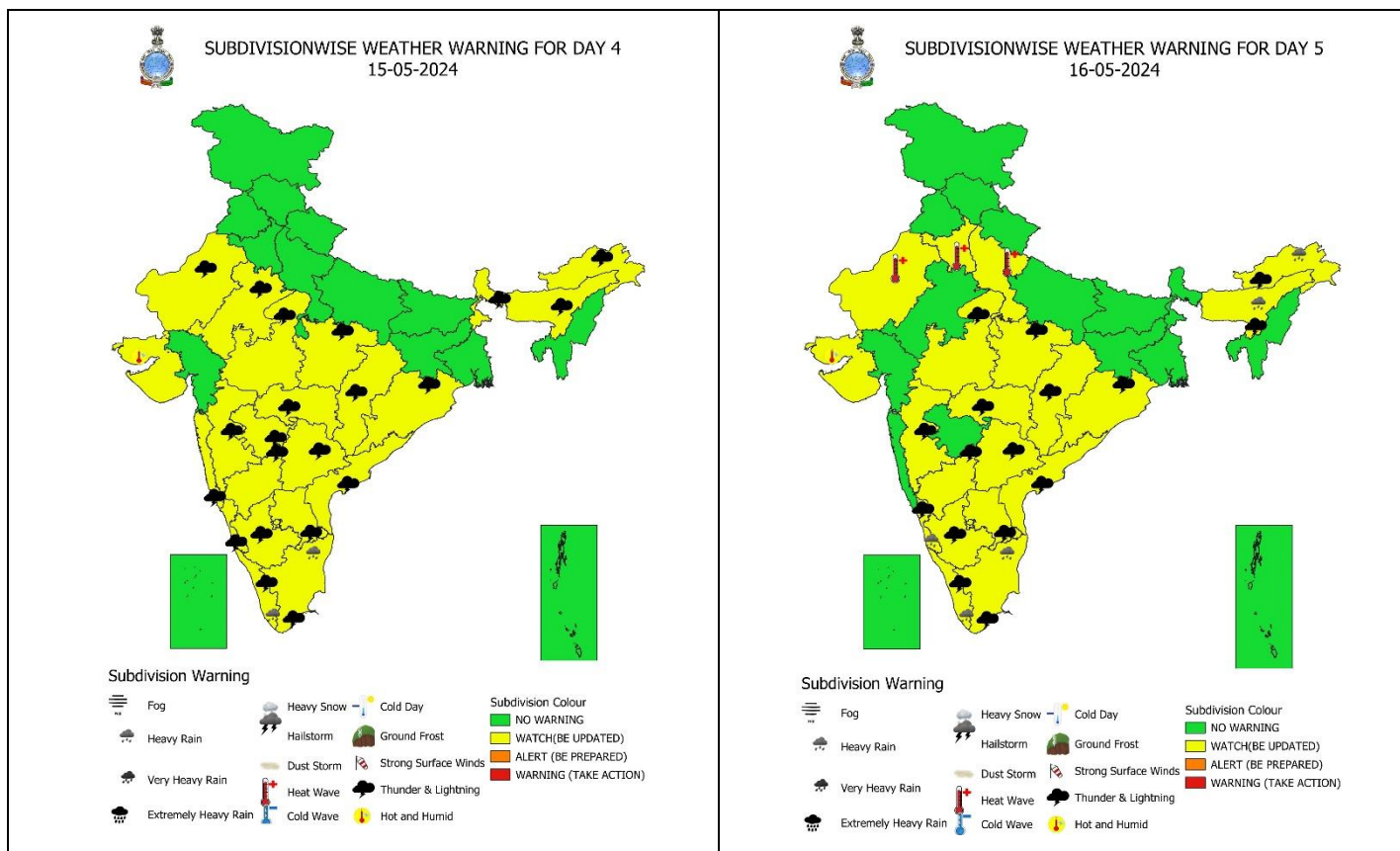
- ❖ Light to moderate rainfall accompanied with isolated thunderstorm & lightning observed **at most places** over Sub-Himalayan West Bengal & Sikkim and Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad; **at many places** over Andaman & Nicobar Islands, Odisha, Nagaland, Manipur, Mizoram & Tripura and Kerala & Mahe; **at a few places** over Jharkhand, Bihar, Arunachal Pradesh, Uttarakhand, Himachal Pradesh, Rajasthan and Karnataka and **at isolated places** over Assam & Meghalaya, Uttar Pradesh, Haryana-Chandigarh-Delhi, Punjab, Madhya Pradesh, Vidarbha, Chhattisgarh, Gujarat Region, Konkan & Goa, Madhya Maharashtra, Marathwada, Coastal Andhra Pradesh & Yanam, Telangana, Rayalaseema and Tamil Nadu, Puducherry & Karaikal.

Significant amount of rainfall (in cm):

- ❖ **Sub-Himalayan West Bengal & Sikkim:** Gajoldoba (dist Jalpaiguri) 14, Sevoke (dist Darjeeling) 13, Neora (dist Jalpaiguri) Murti (dist Jalpaiguri) 12;
- ❖ **Odisha:** Banki (Cuttack) 11, Cuttack (Cuttack) 9, Tangi (Khurda) 9, Naugaon (Jagatsinghpur) 8, Kujanga (Jagatsinghpur) 8, Bhubaneswar Aero (Khurda) 8, Banpur (Khurda) 7, Jagatsinghpur (Jagatsinghpur) 7, Ranpur (Nayagarh) 7, Soro (Balasore) 7, Reamal (Deogarh) 7, Jhumpura (Keonjhar) 7, Balikuda (Jagatsinghpur) 7, Chilika (Khurda) 7, Basudevpur (Bhadrak) 7;
- ❖ **Madhya Maharashtra:** Nandgaon (dist Nashik) 10, Vadgaon Maval (dist Pune) 8, Talegaon Aws (dist Pune) 6, Gadhinglaj (dist Kolhapur) 6;
- ❖ **Kerala & Mahe:** Panniyoor ARG (Kannur district) 9; Thiruvalla AWS (Pathanamthitta district) 7; AMS Kannur (Kannur district) & Keerampara ARG (Ernakulam district) 6 each; Karipur AP (Malappuram district), Chittur & Ottappalam (both in Palakkad district) & Peringamala ARG (Thiruvananthapuram district) 5 each;

- ❖ **Bihar:** Gaunaha(dist West Champaran) 9, Ramnagar(dist West Champaran)4, Wazirganj (dist Gaya)4, Gaya Aero(dist Gaya)4;
- ❖ **North Interior Karnataka:** Hubballi (dist Dharwad) 8, Sankeshwar (dist Belagavi) 5, Belagavi PTO (dist Belagavi) 4;
- ❖ **Tamil Nadu:** Pamban (dist Ramanathapuram) 7;
- ❖ **West Madhya Pradesh:** Rama (dist Jhabua) 7, Manawar (dist Dhar) 3, Sailana (dist Ratlam) 2, Tirla (dist Dhar) 1;
- ❖ **Chhattisgarh:** Bastar (dist Bastar) 6, Lormi (dist Mungeli) 2, Simga (dist Baloda Bazar) 2;
- ❖ **Gangetic West Bengal:** Basirhat (dist North 24 Parganas) and Digha & Contai (dist East Midnapore) 5 each, Bankura (dist Bankura) & AMFU Kharagpur(dist West Midnapore) 4 each;
- ❖ **Coastal Andhra Pradesh & Yanam:** Palasa (dist Srikakulam) 4, Chintapalle (dist Alluri Sitharamaraju) 2;
- ❖ **Konkan & Goa:** Ponda (dist North Goa) 4, Valpoi (dist North Goa) 3;
- ❖ **Marathwada:** Partur (dist Jalna) 3, Renapur (dist Latur) 2, AUSA (dist Latur) 1, Lohara (dist Dharashiv) 1, Udgir (dist Latur) 1;
- ❖ **Himachal Pradesh:** Jogindarnagar (dist Mandi) 4, Sangraha (dist Sirmaur) 3, Simla & Kotkhai (dist Shimla) 1 each;
- ❖ **Nagaland, Manipur, Mizoram & Tripura:** Bagafa (dist South Tripura) 3, Gandachara Aws (dist Dhalai) 3, Kanchanpur (dist North Tripura) 3, Ukhrul (dist Ukhrul) 3, Khowai (dist Khowai) 3, Amarpur Arg (dist Gomati) 3,
- ❖ **East Madhya Pradesh:** Jaithari (dist Anuppur) 2, Mangawan (dist Rewa) 1, Chand (dist Chindwara) 1, Jaisingh Nagar (dist Shahdol) 1.





Impact expected and action suggested due to thunderstorms, lightning & gusty winds/hailstorm over Northwest India till 12th; East & Central India till 14th and south Peninsular India till 16th 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.

Agromet advisories for Heavy Rainfall, Hailstorm & Gusty winds 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 Jammu & Kashmir, Uttarakhand, Madhya Pradesh, Chhattisgarh and Madhya Maharashtra, Marathwada and Vidarbha regions of Maharashtra.
- Drain out excess water from crop fields to avoid water stagnation in Tamil Nadu, Kerala, Interior Karnataka, Coastal Andhra Pradesh, Madhya Maharashtra, Goa, Sub Himalayan West Bengal and Odisha.
- 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	<p>When maximum temperature of a station reaches $\geq 40^{\circ}\text{C}$ for plains and $\geq 30^{\circ}\text{C}$ for hilly regions</p> <p>(a) Based on Departure from normal</p> <p>Heat Wave: Maximum Temperature Departure from normal 4.5°C to 6.4°C. Severe Heat Wave: Maximum Temperature Departure from normal $\geq 6.5^{\circ}\text{C}$</p> <p>(b). Based on Actual maximum temperature</p> <p>Heat Wave: When actual maximum temperature $\geq 45^{\circ}\text{C}$. Severe Heat Wave: When actual maximum temperature $\geq 47^{\circ}\text{C}$</p> <p>(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 $\geq 37^{\circ}\text{C}$</p>
 Warm Night	<p>When maximum temperature remains 40°C</p> <p>Warm Night: When minimum temperature departure 4.5°C to 6.4°C. Severe Warm Night: When minimum temperature departure $> 6.4^{\circ}\text{C}$.</p>
 Cold Wave	<p>When minimum temperature of a station $\leq 10^{\circ}\text{C}$ for plains and $\leq 0^{\circ}\text{C}$ for hilly regions.</p> <p>(a). Based on departure</p> <p>Cold Wave: Minimum Temperature Departure from normal -4.5°C to -6.4°C. Severe Cold Wave: Minimum Temperature Departure from normal $\leq -6.5^{\circ}\text{C}$</p> <p>(b) Based on actual Minimum Temperature (for Plains only)</p> <p>Cold Wave : When Minimum Temperature is $\leq 4.0^{\circ}\text{C}$ Severe Cold Wave: When Minimum Temperature is $\leq 2.0^{\circ}\text{C}$</p> <p>(c) For Coastal Stations When Minimum Temperature departure is $\leq -4.5^{\circ}\text{C}$ & actual Minimum Temperature is $\leq 15^{\circ}\text{C}$</p>
 Cold Day	<p>When minimum temperature of a station $\leq 10^{\circ}\text{C}$ for plains and $\leq 0^{\circ}\text{C}$ for hilly regions</p> <p>Based on departure</p> <p>Cold Day: Maximum Temperature Departure from normal -4.5°C to -6.4°C. Severe Cold Day: Maximum Temperature Departure from normal $\leq -6.5^{\circ}\text{C}$</p>
 Fog	<p>Phenomenon of small droplets suspended in air and the horizontal visibility < 1km</p> <p>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</p>
 Thunderstorm	<p>Sudden electrical discharges manifested by a flash of light (Lightning) and a sharp rumbling sound (thunder)</p>
 Dust/Sand Storm	<p>An ensemble of particles of dust or sand energetically lifted to great heights by a strong and turbulent wind.</p>
 Frost	<p>Ice deposits on ground</p> <p>Air temperature $\leq 4^{\circ}\text{C}$ (over Plains)</p>
 Squall	<p>A strong wind that rises suddenly, lasts for atleast 1 minute.</p> <p>Moderate: Wind speed 52-61 kmph Severe: Wind speed 62-87 kmph Very Severe: Wind speed > 87 kmph</p>
 Sea State	<p>Effect of various waves in the sea over specific area</p> <p>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</p>
 Cyclone	<p>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)</p>