

### Government of India Ministry of Earth Sciences India Meteorological Department



Press Release Date: 26<sup>th</sup> April, 2025 Time of Issue: 1345 hours IST

Subject: i) Heavy to very heavy rainfall spell likely to continue over Northeast India till 27th April, 2025.

ii) A fresh spell of rainfall accompanied with thunderstorms, lightning, Hailstorms, squally/gusty winds over East & adjoining central India from  $26^{th}$  to  $29^{th}$  April, 2025. iii) Heat wave conditions likely over plains of Northwest & adjoining central India till  $30^{th}$  April, 2025.

# i. Realised weather during past 24 hours till 0830 hours IST of today, the $26^{th}$ April 2025 (Annexure I):

- Thunderstorm accompanied with Squally/Gusty winds speed reaching 50-60 kmph prevailed at isolated places over Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Odisha, Gangetic West Bengal, Bihar, Madhya Pradesh, Vidarbha, Kerala & Mahe, Interior Karnataka, Telangana, Coastal Andhra Pradesh & Yanam, Uttarakhand, Punjab, Haryana and East Uttar Pradesh.
- ❖ Hailstorm occurred at isolated places over North interior Karnataka
- **Heavy to very heavy rainfall recorded** at isolated places over Meghalaya and **heavy rainfall** at isolated places over Kerala.
- **\Delta Heat wave conditions** prevailed in isolated pockets of Vidarbha.
- **Warm night conditions** prevailed in isolated pockets of West Rajasthan.

For more details of realised weather, kindly refer Annexure I

#### Temperature:

• Maximum Temperature observations during past 24 hours till 0830 hours IST of today are appended in Annexure II.

#### ii. Weather Systems, Forecast and Warnings (refer to Annexure III & IV):

- An upper air cyclonic circulation lies over central Assam and another over east Bihar & adjoining Sub-Himalayan West Bengal in lower tropospheric levels. A north-south trough runs from Telangana to Gulf of Mannar in lower tropospheric levels.
- ❖ A Western Disturbance as a trough in middle tropospheric westerlies roughly along Long. 76°E to the north of Lat. 32°N and a cyclonic circulation lies over southwest Rajasthan & neighbourhood in lower tropospheric levels
- Under the influence of these systems:
  - ✓ **Fairly widespread to widespread** light/moderate rainfall accompanied with **thunderstorm, lightning & gusty winds speed reaching 40-50 kmph gusting to 60 kmph** likely over Northeast India during next 7 days and **thundersquall (wind speed reaching 50-60 kmph)** likely over Assam & Meghalaya on 26th & 27th April.

- ✓ Heavy rainfall likely over Assam & Meghalaya during 26<sup>th</sup>-28<sup>th</sup>; Arunachal Pradesh on 26<sup>th</sup> & 27<sup>th</sup>; over Nagaland, Manipur, Mizoram & Tripura on 27<sup>th</sup> & 28<sup>th</sup> with very heavy rainfall over Assam & Meghalaya on 26<sup>th</sup> & 27<sup>th</sup> April.
- ✓ **Scattered to fairly widespread** light/moderate rainfall accompanied with **thunderstorm**, **lightning & strong winds speed reaching 40-50 kmph gusting to 60 kmph** likely over East India, East Madhya Pradesh, Vidarbha, Chhattisgarh and East Uttar Pradesh during 26<sup>th</sup>-30<sup>th</sup> April with **Thundersquall (wind speed reaching 50-60 kmph)** likely over Sub-Himalayan West Bengal & Sikkim on 27<sup>th</sup>; Gangetic West Bengal, Vidarbha, Chhattisgarh on 27<sup>th</sup> & 28<sup>th</sup>; Bihar during 26<sup>th</sup>-28<sup>th</sup>, Odisha during 27<sup>th</sup>-29<sup>th</sup> and Jharkhand on 28<sup>th</sup> & 29<sup>th</sup> April.
- ✓ **Isolated hailstorm** activity likely over East Madhya Pradesh, Chhattisgarh on 27<sup>th</sup> & 28<sup>th</sup>; Vidarbha, Gangetic West Bengal, Bihar, Jharkhand on 27<sup>th</sup>; Sub-Himalayan West Bengal & Sikkim on 26<sup>th</sup> and Odisha on 27<sup>th</sup> & 28<sup>th</sup> April.
- ✓ **Isolated heavy rainfall** over Sikkim on 26<sup>th</sup> and Sub-Himalayan West Bengal & Sikkim, Bihar on 27<sup>th</sup> & 28<sup>th</sup>; Gangetic West Bengal on 28<sup>th</sup>; Jharkhand on 29<sup>th</sup> and Odisha during 28<sup>th</sup>-30<sup>th</sup> April.
- ✓ **Isolated to Scattered** light/moderate rainfall accompanied with **thunderstorm**, **lightning** & strong winds speed reaching 30-40 kmph gusting to 50 kmph likely over Karnataka, Coastal Andhra Pradesh & Yanam, Telangana, Rayalaseema, Kerala & Mahe, Tamil Nadu Puducherry & Karaikal during next 7 days with **thundersquall** (wind speed reaching 50-60 kmph) likely over North Interior Karnataka on 26th & 27th and Telangana on 26th April.
- ✓ **Isolated heavy rainfall** likely over Kerala & Mahe on 29th & 30th April.
- ✓ **Isolated hailstorm** activity likely over North Interior Karnataka on 26<sup>th</sup> & 27<sup>th</sup> and South Interior Karnataka on 26<sup>th</sup> April.
- ✓ **Isolated to scattered** light rainfall with **thunderstorm**, **lightning & strong winds speed reaching 30-40 kmph** likely over Western Himalayan region and plains of northwest India on 26<sup>th</sup> April.
- ✓ Another spell of Isolated to scattered light rainfall with thunderstorm, lightning & strong winds speed reaching 30-40 kmph also likely over the region during 29th April to 02nd May.

#### **Temperature Forecast:**

- ❖ No significant change in maximum temperatures likely over Punjab, Haryana, Chandigarh & Delhi, Rajasthan during next 2 Days; rise by 2-3°C for subsequent 3 days and fall by 2-3°C for subsequent 2 days.
- ❖ Gradual fall in maximum temperatures by 2-3°C likely over Uttar Pradesh during next 7 days.
- ❖ No significant change in maximum temperatures likely over East India during next 24 hours; fall by 3-5°C for subsequent 3 days and no significant change for subsequent 2 days.
- ❖ No significant change in maximum temperatures likely over Gujarat during next 2 Days and rise by 2-3°C for subsequent 3 days.
- ❖ Gradual fall in maximum temperatures by 2-3°C likely over Central India during next 3 days and rise by 2-3°C for subsequent 3 days.
- ❖ No significant change in maximum temperatures likely over rest parts of the country.

#### Heat wave, warm night and Hot & Humid weather warning:

- ❖ Heat wave conditions very likely in isolated pockets over Rajasthan, West Madhya Pradesh during 26<sup>th</sup> April -02<sup>nd</sup> May; Haryana during 26<sup>th</sup> -30<sup>th</sup>; Punjab during 26<sup>th</sup> April -01<sup>st</sup> May; Haryana during 26<sup>th</sup>-30<sup>th</sup>; Jammu division on 27<sup>th</sup> & 28<sup>th</sup>; East Madhya Pradesh, Vidarbha, Telangana, Bihar, West Bengal, Odisha on 26<sup>th</sup> April.
- **❖ Warm night conditions** very likely in isolated pockets over West Rajasthan during 26<sup>th</sup> April -02<sup>nd</sup> May and Telangana on 26<sup>th</sup> & 27<sup>th</sup> April.
- ❖ Hot & humid weather is likely to prevail over Bihar, Jharkhand, Kerala & Mahe on 26<sup>th</sup>; Marathawada, Tamil Nadu Puducherry & Karaikal, Coastal Andhra Pradesh & Yanam, Rayalaseema on 26<sup>th</sup> & 27<sup>th</sup> and Gujarat State during 27<sup>th</sup> April-01<sup>st</sup> May;

# iv. Weather conditions and forecast over Delhi/NCR during 26th April to 29th April, 2025 (Annexure V)

#### For more details, kindly refer National Weather Bulletin:

https://mausam.imd.gov.in/responsive/all india forcast bulletin.php

For District wise warnings refer:

https://mausam.imd.gov.in/responsive/districtWiseWarningGIS.php

**ANNEXURE I** 

#### Significant weather reported during past 24 hours till 0830 hours IST of today:

Light/moderate Rainfall with thunderstorm & lightning observed at many places over Arunachal Pradesh, Assam & Meghalaya; at a few places over Sub-Himalayan West Bengal & Sikkim, Kerala & Mahe, Lakshadweep; at isolated places over Madhya Maharashtra, Tamilnadu Puducherry & Karaikal, Kerala, Karnataka, Coastal Andhra Pradesh & Yanam, Telangana, Rayalaseema, Nagaland, Manipur, Mizoram & Tripura.

#### Rainfall recorded (in cm):

- Assam & Meghalaya: Mawsynram (dist East Khasi Hills) 17, Cherrapunji (dist East Khasi Hills) 15, Cherrapunji (rkm) (dist East Khasi Hills) 14, Barpeta (dist Barpeta) 6,
- **❖ Tamil Nadu:** Satankulam (dist Thoothukudi), Thirparappu (dist Kanyakumari), Uttamapalayam (dist Theni) 3 each,
- ❖ Kerala & Mahe: Palode(dist Thiruvananthapuram) 8, Thodupuzha (dist Idukki) 4,
- ❖ Interior Karnataka: Rabkavi (dist Bagalkote) 5, Sindhanur (dist Raichur) 4, Chincholi (dist Kalaburgi) 4,

#### Realised Gusty wind since last 24 hours (till 0830 hrs IST) (Max Gust in knots)

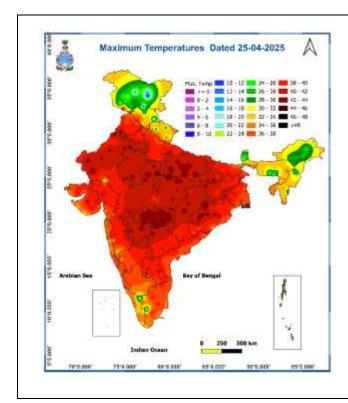
- ❖ Assam & Meghalaya: BARPETA (32), GOSSAIGAON (30), PANCHGRAM (29), RUPAI (24), CAHARR, DIPHU (23 EACH), LKHEP (21), GAURIPUR, DUDHNOI (20 EACH), BARPETA, HABANG, NALBARI (19 EACH), HAFLONG, GOALPARA, UDALGURI (18 EACH), ROWTA (17)
- **❖ Arunachal Pradesh:** BOMDILA (29)
- ❖ Nagaland, Manipur, Mizoram & Tripura: THONOKYNU (31), AGARTALA (20)
- ❖ Gangetic West Bengal: GANGASAGAR (24), RAIDIGHI (23), DIGHA (22), CANNING (18), SONARPUR, AGARPARA (17 EACH), AMTA (16)
- Odisha: Jagatsinghpur (21)
- ❖ Jharkhand: Bokaro (27), Barhi (22)
- ❖ Bihar: Patna (26), Bhojpur, Siwan (20 EACH)
- ❖ Haryana: GURUGRAM (22)
- ❖ Uttarakhand: JOLLYGRANT (18), RANICHAURI(17), CHAMOLI (16)
- ❖ Punjab: HOSHIARPUR (24), ROPAR (22)
- ❖ East Uttar Pradesh: GORAKHKPUR (21)

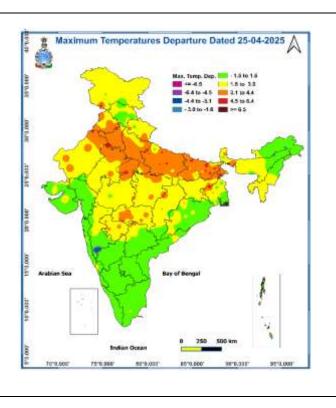
#### Temperature observations during past 24 hours till 0830 hours IST of today:

- ❖ Maximum Temperatures have risen by 3-5 Deg. C over Arunachal Pradesh, Northeast Assam, Nicobar Islands; by 1-2 Deg. C over many parts of Northwest India, North Madhya Pradesh and no significant change over rest parts of the country.
- Maximum Temperatures are above normal by 3-5 Deg. C at many/some places over Jammu, Punjab, Haryana, Delhi, Uttar Pradesh, Bihar, Northeast & west Rajasthan, North Madhya Pradesh, Vidarbha, adjoining Marathwada, northeast Jharkhand, west Gangetic West Bengal, Sub-Himalayan West Bengal & Sikkim and by 1-3 Deg. C over Remaining parts of Jammu & Kashmir, Ladakh, Himachal Pradesh, Uttarakhand, southeast Rajasthan, Saurashtra & Kutch, central parts of Gangetic West Bengal, Chhattisgarh, interior Odisha, west Assam, Meghalaya, Manipur, Mizoram & Tripura and near normal over the rest parts of the country. (Fig 2)
- Maximum Temperatures are in the range of 42-45 Deg. C at many/most places over Vidarbha & adjoining Marathwada, Northwest Telangana, North Chhattisgarh, North Interior Odisha, Northwest & southeast Jharkhand, west Gangetic West Bengal, southwest Bihar, North Madhya Pradesh, East Uttar Pradesh, south Haryana, Delhi, Rajasthan, south Punjab.

Fig. 1: Maximum Temperatures

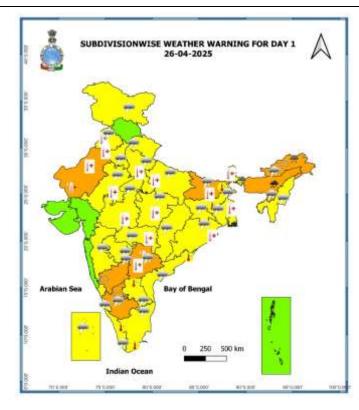
Fig. 2: Departure of Maximum Temperatures

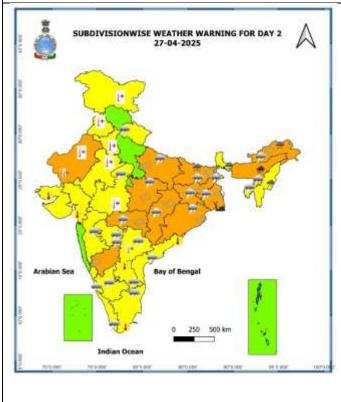


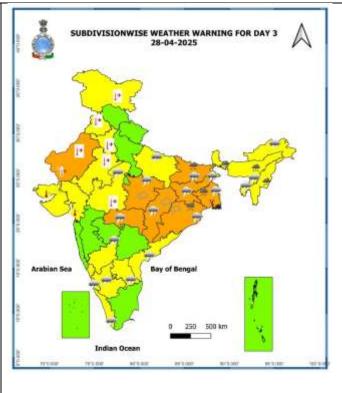


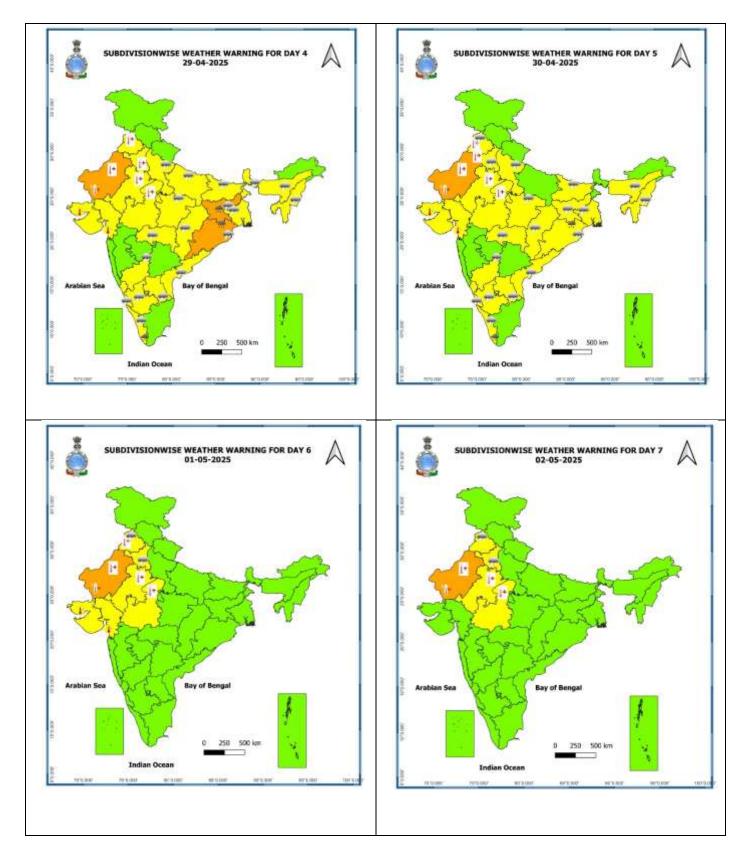
	7 Day	s Rainfa	II Foreca	st				
		26-Apr	27-Apr	28-Apr	29-Apr	30-Apr	01-May	02-May
S. No.	Subdivision	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
1	ANDAMAN & NICOBAR ISLANDS	ISOL	SCT	SCT	SCT	SCT	ISOL	ISOL
2	ARUNACHAL PRADESH	WS	WS	FWS	SCT	SCT	SCT	SCT
3	ASSAM & MEGHALAYA	FWS	WS	FWS	FWS	FWS	FWS	FWS
4	NAGALAND, MANIPUR, MIZORAM & TRIPURA	SCT	FWS	SCT	SCT	SCT	SCT	SCT
5	SUB-HIMALAYAN WEST BENGAL & SIKKIM	FWS	WS	FWS	FWS	SCT	SCT	SCT
6	GANGETIC WEST BENGAL	SCT	FWS	WS	WS	FWS	SCT	SCT
7	ODISHA	ISOL	ISOL	SCT	FWS	FWS	FWS	FWS
8	JHARKHAND	ISOL	SCT	FWS	FWS	FWS	SCT	ISOL
9	BIHAR	ISOL	FWS	SCT	SCT	ISOL	ISOL	ISOL
10	EAST UTTAR PRADESH	ISOL	ISOL	ISOL	ISOL	SCT	SCT	SCT
11	WEST UTTAR PRADESH	ISOL	DRY	DRY	ISOL	ISOL	SCT	SCT
12	UTTARAKHAND	ISOL	ISOL	DRY	ISOL	SCT	SCT	SCT
13	HARYANA CHANDIGARH & DELHI	ISOL	DRY	DRY	ISOL	ISOL	ISOL	ISOL
14	PUNJAB	ISOL	DRY	DRY	DRY	ISOL	ISOL	ISOL
15	HIMACHAL PRADESH	ISOL	ISOL	DRY	DRY	DRY	ISOL	SCT
16	JAMMU & KASHMIR AND LADAKH	ISOL	DRY	DRY	DRY	DRY	DRY	ISOL
17	WEST RAJASTHAN	DRY	DRY	DRY	DRY	DRY	DRY	DRY
18	EAST RAJASTHAN	ISOL	DRY	DRY	DRY	DRY	ISOL	ISOL
19	WEST MADHYA PRADESH	ISOL	ISOL	ISOL	DRY	DRY	DRY	DRY
20	EAST MADHYA PRADESH	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
21	GUJARAT REGION	DRY	DRY	DRY	DRY	DRY	DRY	DRY
22	SAURASHTRA & KUTCH	DRY	DRY	DRY	DRY	DRY	DRY	DRY
23	KONKAN & GOA	ISOL	DRY	DRY	DRY	DRY	DRY	DRY
24	MADHYA MAHARASHTRA	ISOL	ISOL	DRY	DRY	DRY	DRY	DRY
25	MARATHAWADA	ISOL	ISOL	ISOL	DRY	DRY	ISOL	ISOL
26	VIDARBHA	ISOL	SCT	ISOL	ISOL	ISOL	ISOL	ISOL
27	CHHATTISGARH	ISOL	ISOL	ISOL	SCT	SCT	SCT	SCT
28	COASTAL ANDHRA PRADESH & YANAM	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
29	TELANGANA	ISOL	ISOL	DRY	DRY	DRY	ISOL	ISOL
30	RAYALASEEMA	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
31	TAMILNADU PUDUCHERRY & KARAIKAL	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
32	COASTAL KARNATAKA	SCT	SCT	SCT	ISOL	ISOL	SCT	SCT
33	NORTH INTERIOR KARNATAKA	SCT	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
34	SOUTH INTERIOR KARNATAKA	SCT	ISOL	ISOL	ISOL	SCT	SCT	SCT
35	KERALA & MAHE	SCT	SCT	SCT	SCT	SCT	SCT	SCT
36	LAKSHADWEEP	SCT	SCT	SCT	SCT	SCT	SCT	SCT

• As the lead period increases forecast accuracy decreases.









- Action may be taken based on ORANGE AND RED COLOUR warnings.
- Vulnerable regions likely urban and hilly areas action may be initiated for heavy rainfall warning.
- As the lead period increases forecast accuracy decreases.

Detailed district wise Multi Hazard weather warning for next five days available at <a href="https://mausam.imd.gov.in/responsive/districtWiseWarningGIS.php">https://mausam.imd.gov.in/responsive/districtWiseWarningGIS.php</a>

#### Weather forecast over Delhi/NCR during 26 to 29 Apr. 2025

#### **Past Weather:**

There has been fall in minimum temperature upto 01°C and rise in maximum temperature upto 01°C over Delhi/NCR during the past 24 hours. The maximum and minimum temperatures over Delhi are in the range of 42 to 43°C and 19 to 23 °C respectively. The minimum temperature was below normal upto 01 - 03°C and maximum temperature was above normal upto 03 - 05°Cover Delhi/NCR. Predominant surface wind from the west direction with wind speeds less than 16 kmph prevailed during the past 24 hours. Mainly clear sky conditions with wind speed less than 12 kmph from the southwest direction prevailed over the region in the forenoon today.

#### **Weather Forecast:**

**26.04.2025:** Partly cloudy sky. Occasional sustained surface winds (speed 10-20 kmph). Heat wave conditions very likely at isolated places over Delhi.The maximum temperature over Delhi is likely to be in the range of 41 to 43°C. The maximum temperature will be above normal upto 03 - 05°C. The predominant surface wind will likely be from the northwest direction with a wind speed of less than 20 kmph till evening. It would decrease becoming less than 14 kmph from the northwest direction during the night.

**27.04.2025:** Partly cloudy sky. Occasional sustained surface winds (speed 10-20 kmph) gusting upto 30 kmph. The maximum and minimum temperatures over Delhi are likely to be in the range of 40 to 42°C and 23 to 25°C respectively. The minimum temperature will be below normal upto 01 - 03°C and maximum temperature will be above normal upto 01 - 03°C. The predominant surface wind will likely be from the southwest direction with a wind speed of 06-10 kmph during morning hours. The wind speed will gradually increase thereafter becoming 12-14 kmph from the southwest direction during the afternoon. It will increase becoming less than 18 kmph from the southeast direction during evening and night.

**28.04.2025**: Mainly clear sky. Occasional sustained surface winds (speed 10-20 kmph) gusting upto 30 kmph. The maximum and minimum temperatures over Delhi are likely to be in the range of 40 to 42°C and 22 to 24°C respectively. The minimum temperature will be below normal upto 01 - 03°C and maximum temperature will be above normal upto 01 - 03°C. The predominant surface wind will likely be from the southeast direction with a wind speed of 14-16 kmph during morning hours. The wind speed will gradually decrease becoming 10-12 kmph from the south direction in the afternoon. It will increase becoming less than 16 kmph from the southeast direction during evening and night.

**29.04.2025:** Mainly clear sky. Strong surface winds (speed 20 -30 kmph). The maximum and minimum temperatures over Delhi are likely to be in the range of 38 to 40°C and 21 to 23°C respectively. The minimum temperature will be below normal upto 02 - 04°C and maximum temperature will be near normal. The predominant surface wind will likely be from the southeast direction with a wind speed less than 18 kmph during morning hours. The wind speed will gradually decrease becoming 08-12 kmph from the southeast direction in the afternoon. It will increase becoming less than 18 kmph from the southeast direction during evening and night.

#### **Impact expected and Action Suggested:**

- Be cautious and take precautionary measures though there is likelihood of heat wave conditions. There is likelihood of heat related impact to vulnerable population as the temperatures are likely to be above normal.
- Moderate health concern for vulnerable people e.g. infants, elderly people with chronic diseases.
- Avoid heat exposure, wear light weight, light colored, loose, cotton clothes, cover your head, use a cloth, hat or umbrella.

## Impact expected and action suggested due to isolated thunderstorm with lightning/gusty & Squally winds & Hailstorm over

- ✓ **Isolated hailstorm** activity likely over East Madhya Pradesh, Chhattisgarh on 27<sup>th</sup> & 28<sup>th</sup>; Vidarbha, Gangetic West Bengal, Bihar, Jharkhand on 27<sup>th</sup>; Sub-Himalayan West Bengal & Sikkim, South Interior Karnataka on 26<sup>th</sup>, Odisha on 27<sup>th</sup> & 28<sup>th</sup>, North Interior Karnataka on 26<sup>th</sup> & 27<sup>th</sup> April
- ✓ **Thundersquall (wind speed reaching 50-60 kmph)** likely over Sub-Himalayan West Bengal & Sikkim on 27th; Gangetic West Bengal, Vidarbha, Chhattisgarh on 27th & 28th; Assam & Meghalaya on 26th & 27th; Telangana on 26th; Bihar during 26th-28th, Odisha during 27th-29th and Jharkhand on 28th & 29th April.

#### Impact expected:

- > Breaking of tree branches, uprooting of large avenue trees. Large dead limbs blown from trees. Damage to Standing crops.
- Minor to Major damage to banana and papaya trees.
- Minor to major damage to power and communication lines due to breaking of branches.
- 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:**

- ➤ People are advised to keep a watch on the weather for worsening conditions and be ready to move to safer places accordingly.
- ➤ 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 expected and action suggested due to Heat wave conditions over plains of Northwest India & adjoining Central India till 30th April.

#### 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 & Action Suggested due to heavy to very heavy rainfall over Assam & Meghalaya on 26th & 27th April.

#### **Impact Expected**

- ❖ Localized Flooding of roads, water logging in low lying areas and closure of underpasses mainly in urban areas of the above region.
- Occasional reduction in visibility due to heavy rainfall.
- ❖ Disruption of traffic in major cities due to water logging in roads leading to increased travel time.
- Minor damage to kutcha roads.
- Possibilities of damage to vulnerable structure.
- Localized Landslides/Mudslides
- ❖ Damage to horticulture and standing crops in some areas due to inundation.
- It may lead to riverine flooding in some river catchments (for riverine flooding please visit Web page of CWC).

### **Action Suggested**

- Check for traffic congestion on your route before leaving for your destination.
- Follow any traffic advisories that are issued in this regard.
- ❖ Avoid going to areas that face the water logging problems often.
- Avoid staying in vulnerable structure.

### Agromet advisories for likely impact of Hailstorm / Heavy Rainfall / Gusty Winds / Heat wave

- ➤ Postpone sowing of *Jhum* paddy and transplanting of banana in **Arunachal Pradesh**; planting of ginger and turmeric and transplanting of papaya and banana in **Assam**; planting of ginger and transplanting of chilli and brinjal in **Meghalaya**.
- ➤ In Arunachal Pradesh, Assam, Meghalaya, Tripura, Sub Himalayan West Bengal & Sikkim and Bihar, make provision to drain out excess water from standing crop and vegetable fields.
- ➤ In Arunachal Pradesh, West Bengal, Sikkim, Odisha, Bihar, Jharkhand, North-East Uttar Pradesh, East Madhya Pradesh, Vidarbha, Chhattisgarh and Interior Karnataka, use hail net and hail caps to prevent mechanical damage in vegetables and orchards due to the possibility of hailstorms.
- > To protect standing crops, vegetables and orchards from adverse effects of heat waves and high temperatures, apply light and frequent irrigation in the evening.
- ➤ Shift the harvested produce in safer places or cover the produce with tarpaulin sheets in the fields. Tie the harvested crops properly and cover them to minimise the risk of displacement due to strong surface winds.
- Provide mechanical support to horticultural crops and staking to vegetables to avoid lodging.

### **Livestock / Poultry / Fishery**

- ➤ Keep the animals inside the shed during heavy rainfall / hailstorm and provide them balanced feed.
- > Store feed and fodder in a safe place to prevent spoilage.
- > To reduce the effect of heat wave/high temperature, cover the roof of poultry sheds with grass. Also, provide clean, hygienic and plenty of drinking water to animals.
- Construct an outlet with proper netting around the ponds to drain out excess water, thereby preventing fish from escaping in case of overflow

#### **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; ARG: Automatic Rain Gauge; dist: District: NH: National Highway; KVK: Krishi Vigyan Kendra; DVC: Damodar Valley Corporation; PTO: Part Time Office, Aero: Aerodrome, IAF: Indian Air Force.
- **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.



#### राष्ट्रीय मौसम पूर्वानुमान केन्द्र भारत मौसम विज्ञान विभाग पृथ्वी विज्ञान मंत्रालय



#### National Weather Forecasting Centre India Meteorological Department Ministry of Earth Sciences

## **LEGENDS**



### SPATIAL DISTRIBUTION (% of Stations reporting)

% Stations		Category	% Stations	Cate	gory		
76-100	Widespread (WS/Most Places)		26-50	Scattered (SCT/A Few Places)			
51-75	Fairly Widesp	read (FWS/Many Places)	1-25	Isolate	d (ISOL)		
Fog		Heavy Snow	Cold Wave	COLOUR CO	DED WARNING		
Heavy Rain			#	No Warni	No Warning (No Action)  Watch (Be Aware)  Alert (Be Prepared To Take Action)		
		<b>⊜</b> Dust Storm	Cold Day	Watch (B			
Very Heavy Rain		+ Heat Wave	Ground Fro	Alert (Be			
40		+ Warm Night		Warning	Warning (Take Action)		
Thunder & Lightning		+ Hot Day			bilistic Forecast		
		4		Terms	Probability of Occurrence (%		
P Hailstorm P Hot & Humid			Unlikely Likely Very Likely	< 25 25 - 50 50 - 75			
Dust Raising Winds Strong Surface Wind			ds	Most Likely	> 75		





	Heavy: 64.5 to 115.5 mm/cm *
ain/ Snow *	Very Heavy: 115.6 to 204.4 mm/cm*
	Extremely Heavy: > 204,4 mm/cm *
	When maximum temperature of a station reaches ≥40° C for plains and ≥30° C for hilly regions (a) Based on Departure from normal
	Heat Wave: Maximum Temperature Departure from normal 4.5° C to 6.4° C.
leat Wave	Severe Heat Wave: Maximum Temperature Departure from normal ≥8.5° C  (b). Based on Actual maximum temperature
	Heat Wave: When actual maximum temperature ≥45°C.
	Severe Heat Wave: When actual maximum temperature ≥47°C
	( c). Criteria for heat wave for coastal stations When maximum temperature departure is >4.5°C from normal. Heat Wave may be described provided maximum temperature ≥3°C.
	When maximum temperature remains 40°C
arm Night	Warm Night: When minimum temperature departure 4.5 °C to 6.4 °C.
Marian Maria Table	Severe Warm Night: When minimum temperature departure >6.4 ℃.
	When minimum temperature of a station ≤10°C for plains and ≤0°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 ≤ -6.5 °C
Cold Wave	(b) Based on actual Minimum Temperature (for Plains only)
	Cold Wave: When Minimum Temperature is ≤ 4.0 °C
	Severe Cold Wave: When Minimum Temperature is ≤ 2.0 °C
	( c) For Coastal Stations When Minimum Temperature departure is ≤-4.5 °C & actual Minimum Temperature is ≤ 15 °C
Mark Patrick	When minimum temperature of a station ≤10°C for plains and ≤0°C for hilly regions Based on departure
Cold Day	Cold Day: Maximum Temperature Departure from normal -4.5 °C to -6.4 °C.
	Severe Cold Day: Maximum Temperature Departure from normal ≤ -6.5 °C
	Phenomenon of small droplets suspended in air and the horizontal visibility < 1km   Moderate Fog: When the visibility between 500-200 metres
Fog	Dense Fog: when the visibility between 50- 200 metres
	Very Dense Fog: when the visibility < 50 metres
understorm	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.
12000000	Ice deposits on ground
Frost	Air temperature ≤4°C ( over Plains)
	A strong wind that rises suddenly, lasts for atleast 1 minute.  Moderate: Wind speed 52-61 kmph
Squall	Severe: Wind speed 62-87 kmph
	Very Severe: Wind speed >87 kmph
	Effect of various waves in the sea over specific area
Sea State	Rough to very rough: Wind speed 41-62 kmph (22-33 knots) & Wave height 2,5-6 metre
Sea State	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
	Cyclonic Storm: Wind speed 62-87 kmph (34-47 knots)
	Severe Cyclonic Storm: Wind speed 88-117 kmph (48-63 knots)
Cyclone	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)

\* Red colour warning does not mean "Red Alert", Red colour warning means "Take Action".
Forecast and Warning for any day is valid from 0830 hours IST of day till 0830 hours IST of next day.
For more details, kindly visit https://mausam.imd.gov.in or contact: 011-2434-4599
(Service to the Nation since 1875)

**Hot and Humid:** When maximum temperatures remain 3°C above normal along with the above normal relative humidity.