

# Government of India Ministry of Earth Sciences India Meteorological Department



Press Release
Date: 14th March, 2025

Time of Issue: 1330 hours IST

- Subject: i) Heat wave to Severe heat wave conditions likely to continue over Odisha during 14<sup>th</sup>-17<sup>th</sup>, Vidarbha during 14<sup>th</sup>-16<sup>th</sup> and Heat wave conditions likely to develop over Chhattisgarh on 14<sup>th</sup> & 15<sup>th</sup>; Jharkhand during 14<sup>th</sup>-17<sup>th</sup> and Gangetic West Bengal on 15<sup>th</sup>-17<sup>th</sup>, over Telangana and Andhra Pradesh on 14<sup>th</sup> & 15<sup>th</sup> March.
  - ii) Fairly widespread to widespread rainfall/snowfall with isolated heavy spell likely over Western Himalayan region during 14<sup>th</sup> to 16<sup>th</sup> March, 2025 and over Arunachal Pradesh during next 4-5 days. isolated to scattered rainfall over plains of Northwest India till 16<sup>th</sup> March, 2025.

# i. Realised weather during past 24 hours till 0830 hours IST of today, the 14th March 2025:

- Light Rainfall/Snowfall occurred at most places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad,; over Arunachal Pradesh, Assam, at isolated places over Himachal Pradesh, Uttarakhand, Punjab, Haryana, West Rajasthan, Andaman & Nicobar Islands, Sub-Himalayan West Bengal & Sikkim, Nagaland, Manipur, Mizoram & Tripura, Coastal & south interior Karnataka
- Thunderstorm with lightning reported at isolated places over Jammu, Kashmir, Himachal Pradesh, Uttarakhand, Punjab, West Uttar Pradesh, Sub-Himalayan West Bengal, Assam, Nagaland, Arunachal Pradesh, Manipur, Mizoram & Tripura.
- ❖ Heat wave to Severe heat wave conditions prevailed at a isolated pockets places over Saurashtra & Kutch and Heat wave conditions at isolated places over Vidarbha and Gujarat region.
- ❖ Hailstorms reported at isolated locations over Himachal Pradesh, Haryana, Gangtok, West Uttar Pradesh, East Rajasthan.
- ❖ **Gusty wind reported** at isolated locations over Jammu, Punjab and Kerala.
- ❖ For more details of realised weather, kindly refer Annexure I

#### Temperature:

- ❖ For temperature observations during past 24 hours till 0830 hours IST of today are provided in **Annexure**
- ii. Forecast for Holi: Partly cloudy sky with possibility of isolated light rain over plains of Northwest India on 14th March. Fairly widespread to widespread light to moderate rainfall/snowfall with isolated heavy falls over Jammu-Kashmir-Ladakh and Arunachal Pradesh; scattered to fairly widespread to widespread light/ moderate rainfall/snowfall over Himachal Pradesh and Uttarakhand; and scattered to fairly widespread to widespread light/ moderate rainfall over remaining parts of Northeast India and over Sub-Himalayan West Bengal & Sikkim on 14th March and dry weather mainly over remaining parts of the country.

### iii. Weather Systems, Forecast and Warnings (Annexure III & IV):

- ❖ A **Western Disturbance** seen as a cyclonic circulation over central Afghanistan and adjoining Pakistan in lower & middle tropospheric levels. A cyclonic circulation lies over southwest Rajasthan and a trough from Punjab to Southwest Rajasthan lies at lower tropospheric levels . Under the influence of these systems;
  - ✓ Fairly widespread to widespread light/moderate rainfall/snowfall accompanied with thunderstorm & lightning likely over Western Himalaya region during 14<sup>th</sup>-16<sup>th</sup> March, 2025 and decrease in intensity thereafter.

- ✓ **Isolated to scattered light/moderate rainfall accompanied with thunderstorm & lightning , Gusty wind & Hail** likely over Haryana, West Uttar Pradesh and Rajasthan during 14<sup>th</sup>-15<sup>th</sup>; & thunderstorm Lightning on 16<sup>th</sup>, thunderstorm lightning and Gusty wind over Punjab during 14<sup>th</sup> to 16<sup>th</sup>, thunderstorm lightning over East Uttar Pradesh during 14<sup>th</sup> to 17<sup>th</sup> March,
- ✓ Isolated **heavy rainfall/snowfall** very likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad on 14<sup>th</sup> & 15<sup>th</sup>; Himachal Pradesh 15<sup>th</sup> & 16<sup>th</sup> and over Uttarakhand on 16<sup>th</sup> March
- ❖ A **Cyclonic Circulation** lies over east Assam and neighbourhood at 0.9km above mean sea level. Under its influence;
  - ✓ Fairly widespread to widespread light/moderate rainfall/snowfall accompanied with thunderstorm & lightning likely over Arunachal Pradesh and Scattered to fairly widespread light/moderate rainfall/snowfall accompanied with thunderstorm, lightning & gusty winds (speed 40-50 kmph) likely over Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura during 14<sup>th</sup>-17<sup>th</sup> March.
  - ✓ Isolated **heavy rainfall/snowfall** very likely over Arunachal Pradesh during 14<sup>th</sup> to 18<sup>th</sup> and over northeast & central Assam on 14<sup>th</sup> March.
  - $\checkmark$  Isolated hailstorms also likely over northeast & central Assam and Nagaland, Manipur, Mizoram & Tripura on  $14^{th}$  March.

#### **Temperature Forecast:**

#### **Forecast of temperature:**

#### **Maximum temperature:**

- ❖ No significant change in maximum temperatures likely over plains of Northwest India during next 24 hours and fall by 2-3°C during subsequent 2-3 days and rise by 3-4°C thereafter.
- ❖ Gradual rise in maximum temperatures by about 2-3°C likely over East India during next 3 days and no significant change thereafter.
- No significant change in maximum temperatures likely over Gujarat state & north Marathawada region during next 24 hours and fall by 2-3°C during subsequent 3-4 days.
- No significant change in maximum temperatures likely over rest parts of India during next 3-4 days.

#### Heat wave, Warm Night and Hot & Humid weather warning:

- ❖ Heat wave to Severe heatwave conditions likely at isolated places over Odisha during 14th to 17th;
- ❖ Heat wave conditions at isolated places over Vidarbha, during 14th to 16th, over Chhattisgarh on 14th & 15th; Jharkhand during 14th-17th and Gangetic West Bengal on 15th -17th, over Telangana and Andhra Pradesh on 14th & 15th, and Gujarat State on 14th March, 2025.
- ❖ Warm night conditions very likely to prevail in isolated pockets over Odisha during 14th to 17th March.
- ❖ Hot & humid conditions very likely to prevail in isolated pockets over Coastal Karnatak during 16<sup>th</sup> to 18<sup>th</sup>, over Tamil Nadu during 14<sup>th</sup> to 17<sup>th</sup>, over Coastal Andhra Pradesh & Yanam on 14<sup>th</sup> & 15<sup>th</sup> March, 2025.

# iv. Weather conditions and forecast over Delhi/NCR during 14th March to 17th March. 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: <a href="https://mausam.imd.gov.in/responsive/districtWiseWarningGIS.php">https://mausam.imd.gov.in/responsive/districtWiseWarningGIS.php</a>

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

#### Rainfall recorded (in cm):

- ❖ Arunachal Pradesh: Seijose 11Sejosa AWS (dist Pakke Kesang) 10, Pakke Kesang AWS (dist Pakke Kesang) 8, Itanagar (dist Papumpara) 7, Naharlagun\_ Aws (dist Papumpara) 7, Naharlagun (dist Papumpara) 6, Miao (dist Changlang) 5,
- Assam & Meghalaya: Neamatighat (dist Jorhat) 9, Dhemaji (dist Dhemaji) 7, Lala Arg (dist Hailakandi) 7, Margherita (dist Tinsukia) 6, Ranganadi Nt Xing (dist Lakhimpur) 6, Golaghat\_ Cwc (dist Golaghat) 6, Udaipur (dist Tinsukia) 5, Cherrapunji (dist East Khasi Hills) 5, Jorhat
- ❖ Nagaland, Manipur, Mizoram & Tripura: Mangkolemba (dist Mokokchung) 5, Kadamtala CWC (dist North Tripura) 5,
- ❖ Sub-Himalayan West Bengal & Sikkim: Gangtok (dist Gangtok) 4, Tadong (dist Gangtok) 3,

#### **Thunderstorm reported:**

- ❖ Assam & Meghalaya: Jorhat, Dibrugarh, Guwahati, Silchar, North Lakhimpur
- ❖ Nagaland, Manipur, Mizoram & Tripura: Imphal and Kailashar
- **Sub-Himalayan West Bengal & Sikkim:** Gangtok
- Himachal Pradesh: BhuntarUttarakhand: Mussoorie
- Uttar Pradesh: Aligarh, Lucknow

#### **Gusty winds reported (in kmph):**

**Jammu:** Ramban 46, Shopiyan 42 & Baramulla 35 **Assam & Meghalaya:** Bongaigaon 31 Cachar 37

Kerala: Palakkad 38

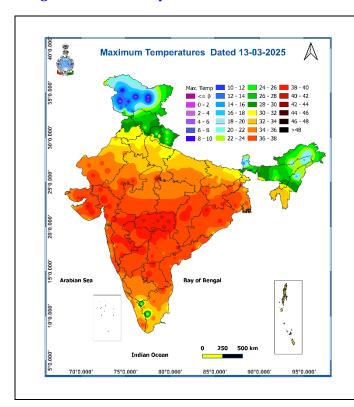
#### **ANNEXURE II**

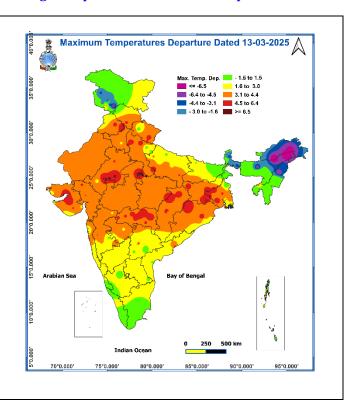
- ❖ Maximum Temperature Departures (as on 13-03-2025): Maximum temperatures were markedly above normal (5.1°C or more) at isolated places over Punjab, West Uttar Pradesh, East Rajasthan, Gujarat state, Vidarbha, Chhattisgarh, Odisha, Jharkhand, Gangetic West Bengal; appreciably above normal (3.1°C to 5.0°C) at many places West Rajasthan, Haryana-Chandigarh-Delhi, Madhya Pradesh, Marathwada; at a few places over Madhya Maharashtra, Konkan & Goa; at isolated places over Himachal Pradesh, Uttarakhand, East Uttar Pradesh, Bihar; above normal (1.6°C to 3.0°C) at a few places over Telangana, Rayalaseema, North Interior Karnataka, South Interior Karnataka, Coastal Karnataka, Coastal Andhra Pradesh & Yanam. These were markedly below normal (5.1°C or less) at isolated places over Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura and Arunachal Pradesh; appreciably below normal (-3.1°C to -5.0°C) at isolated places over Sub-Himalayan West Bengal & Sikkim; below normal (-3.0°C to -1.6°C) at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad and near normal over rest parts of the country. (Fig. 2). Yesterday, the highest maximum temperature of 42.0°C was reported at Bramhapuri (Vidarbha) over the country.
- ❖ Yesterday, Maximum Temperatures are in the range of 40-42°C prevailed over many places in Vidarbha, Odisha, Saurashtra & Kutch and at isolated places over Madhya Maharashtra, Telangana, Rayalaseema; 38-40°C over many places over Gujarat Region, Marathawada, Madhya Pradesh, Chhattisgarh and isolated places over East Rajasthan, Jharkhand, Gangetic West Bengal, Coastal Andhra Pradesh & Yanam; 36-38°C over many places over West Rajasthan, East Uttar Pradesh; at isolated places over North Interior Karnataka, Kerala. These are above normal by 4-6°C at many places over Gujarat state, Vidarbha, Madhya Pradesh, Gangetic West Bengal, Delhi, isolated places over Haryana, East Rajasthan, Chhattisgarh, Odisha.

Yesterday, the Maximum temperatures have shown falling tendency in 24 hours by 1-3° C over many parts of East Uttar Pradesh, Gujarat, north Konkan, coastal Karnatak and northeastern states; rising tendency in 24 hours by 1-2° C over many parts of north west India, Odisha, Vidarbha, Telangana, Coastal Andhra Pradesh, and Tamilnadu, Jharkhand, Bihar, West Bengal and Andaman & Nicobar Islands.

Fig. 1: Maximum Temperatures

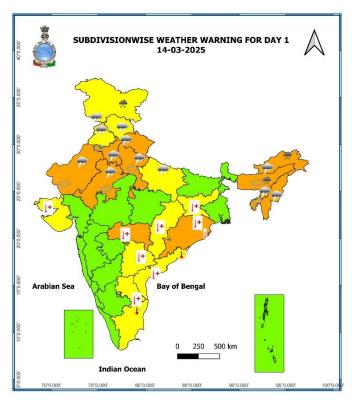
Fig. 2: Departure of Maximum Temperatures

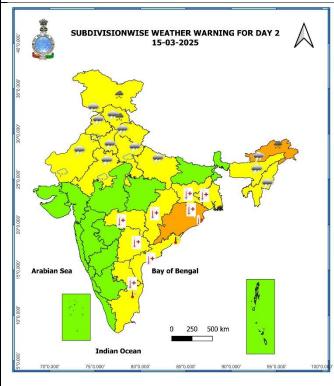


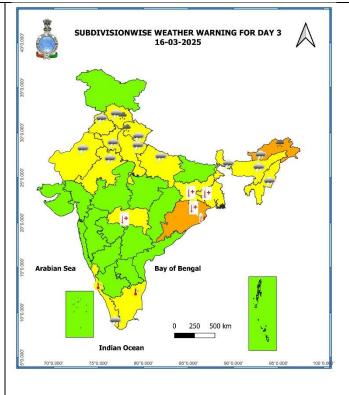


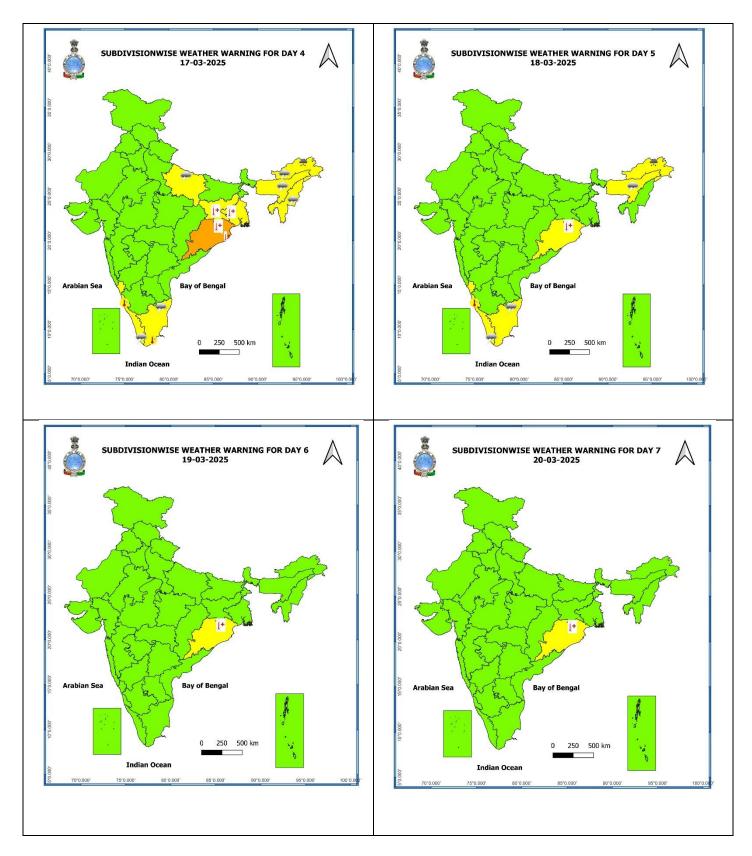
7 Days Rainfall Forecast										
S. No.	Subdivision	14- Mar Day 1	15- Mar Day 2	16- Mar Day 3	17- Mar Day 4	18- Mar Day 5	19- Mar Day 6	20- Mar Day 7		
1	ANDAMAN & NICOBAR ISLANDS	SCT	SCT	ISOL	ISOL	ISOL	SCT	SCT		
2	ARUNACHAL PRADESH	FWS	SCT	FWS	WS	WS	WS	WS		
3	ASSAM & MEGHALAYA	FWS	SCT	SCT	ISOL	SCT	SCT	SCT		
4	NAGALAND, MANIPUR, MIZORAM & TRIPURA	SCT	SCT	SCT	ISOL	SCT	SCT	ISOL		
5	SUB-HIMALAYAN WEST BENGAL & SIKKIM	ISOL	ISOL	ISOL	DRY	DRY	DRY	DRY		
6	GANGETIC WEST BENGAL	DRY	DRY	DRY	DRY	DRY	DRY	SCT		
7	ODISHA	DRY								
8	JHARKHAND	DRY	DRY	DRY	DRY	DRY	ISOL	ISOL		
9	BIHAR	DRY	DRY	ISOL	DRY	DRY	DRY	DRY		
10	EAST UTTAR PRADESH	ISOL	ISOL	ISOL	DRY	DRY	DRY	DRY		
11	WEST UTTAR PRADESH	ISOL	ISOL	ISOL	ISOL	DRY	DRY	DRY		
12	UTTARAKHAND	FWS	FWS	FWS	ISOL	DRY	DRY	ISOL		
13	HARYANA CHANDIGARH & DELHI	ISOL	SCT	SCT	DRY	DRY	DRY	DRY		
14	PUNJAB	ISOL	SCT	SCT	DRY	DRY	DRY	DRY		
15	HIMACHAL PRADESH	FWS	WS	FWS	ISOL	DRY	DRY	DRY		
16	JAMMU & KASHMIR AND LADAKH	WS	WS	SCT	DRY	DRY	ISOL	DRY		
17	WEST RAJASTHAN	ISOL	ISOL	ISOL	DRY	DRY	DRY	DRY		
18	EAST RAJASTHAN	ISOL	ISOL	ISOL	DRY	DRY	DRY	DRY		
19	WEST MADHYA PRADESH	DRY								
20	EAST MADHYA PRADESH	DRY	DRY	ISOL	DRY	DRY	DRY	DRY		
21	GUJARAT REGION	DRY								
22	SAURASHTRA & KUTCH	DRY								
23	KONKAN & GOA	DRY								
24	MADHYA MAHARASHTRA	ISOL	DRY	DRY	DRY	DRY	DRY	DRY		
25	MARATHAWADA	DRY								
26	VIDARBHA	DRY	DRY	ISOL	DRY	DRY	DRY	DRY		
27	CHHATTISGARH	DRY	DRY	ISOL	DRY	DRY	DRY	DRY		
28	COASTAL ANDHRA PRADESH & YANAM	DRY								
29	TELANGANA	DRY								
30	RAYALASEEMA	DRY								
31	TAMILNADU PUDUCHERRY & KARAIKAL	DRY	DRY	DRY	ISOL	ISOL	ISOL	DRY		
32	COASTAL KARNATAKA	DRY	DRY	DRY	DRY	ISOL	ISOL	ISOL		
33	NORTH INTERIOR KARNATAKA	DRY								
34	SOUTH INTERIOR KARNATAKA	DRY	DRY	DRY	DRY	ISOL	ISOL	ISOL		
35	KERALA & MAHE	ISOL	ISOL	SCT	SCT	SCT	SCT	SCT		
36	LAKSHADWEEP	SCT	DRY	DRY	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 14th Mar. to 17th Mar. 2025

There has been a fall in minimum temperature upto 02°C and rise in maximum temperatures upto 01°C over Delhi/NCR during the past 24 hours. The maximum and minimum temperatures over Delhi are in the range of 32 to 35°C and 17 to 18°C respectively. The minimum temperature was above normal upto 02°C and maximum temperature was above normal upto 05°C at most places. Partly cloudy sky conditions with predominant surface wind from the southwest direction with wind speeds less than 08 to 10 kmph prevailed during the past 24 hours. Mainly clear sky conditions with wind speed less than 04 kmph from the variable direction prevailed over the region in the forenoon today.

#### **Weather Forecast:**

**14.03.2025:** Mainly clear sky becoming partly cloudy sky. A spell of very light to light rain accompanied with thunderstorm, lighting and gusty winds (speed 30 – 40 kmph) likely towards evening/night. The maximum temperature over Delhi is likely to be in the range of 35 to 37°C. The predominant surface wind will likely be from the northeast direction with a wind speed of less than 14 kmph till evening. It would decrease thereafter becoming less than 06 kmph from the northeast direction during the night.

**15.03.2025:** Generally cloudy sky. Mist likely in the morning. Very light to light rain accompanied with thunderstorm, lighting and gusty winds (speed 30 – 40 kmph) likely. The maximum and minimum temperatures over Delhi are likely to be in the range of 33 to 35°C and 16 to 18°C respectively. The predominant surface wind will likely be from the northeast direction with a wind speed of 04-06 kmph during morning hours. The wind speed will gradually increase thereafter becoming, 08-10 kmph from the southeast direction during the afternoon. It will decrease becoming less than 06 kmph from the southeast direction during evening and night.

**16.03.2025**: Generally cloudy sky. Mist likely in the morning. Possibility of very light rain/drizzle. The maximum and minimum temperatures over Delhi are likely to be in the range of 30 to 32°C and 16 to 18°C respectively. The predominant surface wind will likely be from the southeast direction with a wind speed of 06-08 kmph during morning hours. The wind speed will gradually increase becoming 16-18 kmph from the northwest direction in the afternoon. It will decrease becoming less than 08 kmph from the northwest direction during evening and night.

**17.03.2025:** Partly cloudy sky. Mist likely in the morning. The maximum and minimum temperatures over Delhi are likely to be in the range of 30 to 32°C and 14 to 16°C respectively. The predominant surface wind will likely be from the northwest direction with a wind speed of 06-08 kmph during morning hours. The wind speed will gradually increase becoming 16-18 kmph from the northwest direction in the afternoon. It will increase becoming less than 10 kmph from the northwest direction during evening and night.

**Impact expected and action suggested due to thunderstorm accompanied with lightning/gusty winds** over Northeast India and Northwest India during next 5 days

#### **❖** Impact expected:

- Strong wind may damage plantation, horticulture and standing crops.
- 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/ snowfall over;

- (i) Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad on 14th & 15th; Himachal Pradesh 15th & 16th and Uttarakhand on 16th March
- (ii) Arunachal Pradesh on 14th-18th and Assam & Meghalaya on 14th March.

#### A. 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).

#### **B. 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.

Impact expected and action suggested due to Heat wave to severe heat wave conditions likely at isolated places over Odisha 14<sup>th</sup> -17<sup>th</sup>; Vidarbha on 14<sup>th</sup>; Heat wave to severe heat wave conditions likely at isolated places over Chhattisgarh on 14<sup>th</sup> & 15<sup>th</sup>, Saurashtra & Kutch on 14<sup>th</sup>; Jharkhand during 14th-17th; Coastal Andhra Pradesh & Yanam during 14<sup>th</sup> -15<sup>th</sup>; Odisha during 18<sup>th</sup>-20<sup>th</sup> and Gangetic West Bengal on 15<sup>th</sup> -17th March, 2025.

#### Orange alert Areas (Odisha during 14th -17th and Vidarbha 14th March)

- ✓ 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.

# Agromet advisories for likely impact of Heavy Rainfall / Hailstorm / Heat Wave

✓ In **Assam, Meghalaya, NMMT, Punjab, Haryana, West Uttar Pradesh** and **East Rajasthan,** use hail net and hail caps to prevent mechanical damage in orchards due to hailstorms.

- ✓ In **Arunachal Pradesh, Assam & Meghalaya**, **Jammu & Kashmir** and **Himachal Pradesh**, drain out excess water from standing crop and vegetable fields. Postpone land preparation and sowing of *Jhum* rice and maize in **Arunachal Pradesh**; sowing of rice, jute, maize and vegetables in **Assam**.
- ✓ In **Odisha, Jharkhand, Gangetic West Bengal, Saurashtra & Kutch, Vidarbha, Andhra Pradesh** and **Telangana**, apply light and frequent irrigation to the standing crops, vegetables and orchards in the evening to protect them from adverse impacts of heat wave.
- ✓ Keep the harvested produce in safer places or cover the produce with tarpaulin sheets in the fields.
- ✓ Provide mechanical support to horticultural crops and staking to vegetables to avoid lodging.
- ✓ In the regions of heavy snowfall, shake the fruit-bearing trees to remove snow immediately from the branches.

#### **Livestock and 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.
- ✓ Construct an outlet with proper netting around the ponds to drain out excess water, thereby preventing fish from escaping in case of overflow.
- ✓ 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.

# 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**

16



4. नागालैंड, मणिपुर, मिजोरम और त्रिपुरा 5. उप-हिमालयी पश्चिम बंगाल और सिक्किम

6. गंगीय पश्चिम बंगाल



8. झारखंड

9. बिहार

10. पूर्वी उत्तर प्रदेश

11. पश्चिम उत्तर प्रदेश

12. उत्तराखंड

13. हरियाणा, चंडीगढ़ और दिल्ली

14. पंजाब

15. हिमाचल प्रदेश

16. जम्मू और कश्मीर और लद्दाख

17. पश्चिम राजस्थान

18. पूर्वी राजस्थान

19. पश्चिम मध्य प्रदेश

20. पूर्वी मध्य प्रदेश

21. गुजरात

22. सौराष्ट्र

23. कोंकण और गोवा

24. मध्य महाराष्ट्र

25. मराठवाड़ा

26. विदर्भ

27. छत्तीसगढ़

28. तटीय आंध्र प्रदेश और यनम

29. तेलंगाना

30. रायलसीमा

31. तमिलनाडु, पुडुचेरी और कराईकल

32. तटीय कर्नाटक

33. आतंरिक उत्तरी कर्नाटक

Sust Raising Winds

34. आतंरिक दक्षिणी कर्नाटक

35. केरल और माहे

36. लक्षद्वीप



2. Arunachal Pradesh

3. Assam & Meghalaya

4. Nagaland, Manipur, Mizoram & Tripura

5. Sub-Himalayan West Bengal & Sikkim

6. Gangetic West Bengal

7. Odisha

8. Jharkhand

9. Bihar

10. East Uttar Pradesh

11. West Uttar Pradesh

12. Uttarakhand

13. Haryana, Chandigarh & Delhi

14. Puniab

15. Himachal Pradesh

16. Jammu & Kashmir and Ladakh

17. West Rajasthan

18. East Rajasthan

19. West Madhya Pradesh

20. East Madhya Pradesh

21. Gujarat

22. Saurashtra

23. Konkan & Goa

24. Madhya Maharashtra

25. Marathwada

26. Vidarbha

27. Chhattisgarh

28. Coastal Andhra Pradesh & Yanam

29. Telangana

30. Rayalaseema

31. Tamilnadu, Puducherry & Karaikal

50 - 75

> 75

32. Coastal Karnataka

33. North Interior Karnataka

34. South Interior Karnataka

35. Kerala & Mahe

36. Lakshadweep

Very Likely

Most Likely

# 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)



**Hot & Humid** 

Strong Surface Winds





#### **DEFINITION/CRITERIA** Heavy: 64.5 to 115.5 mm/cm \* Very Heavy: 115.6 to 204.4 mm/cm Rain/ Snow \* 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. Severe Heat Wave: Maximum Temperature Departure from normal ≥6.5° C (b). Based on Actual maximum temperature **Heat Wave** 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 ≥37°C When maximum temperature remains 40°C Warm Night: When minimum temperature departure 4.5 °C to 6.4 °C. **Warm Night** Severe Warm Night: When minimum temperature departure >6.4 °C. 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 $\leq$ -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 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 Dense Fog: when the visibility between 50- 200 metres Fog Very Dense Fog: when the visibility < 50 metres Sudden electrical discharges manifested by a flash of light (Lightning) and a sharp rumbling sound (thunder) Thunderstorm **Dust/Sand** An ensemble of particles of dust or sand energetically lifted to great heights by a strong and turbulent wind. 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 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) Very Severe Cyclonic Storm: Wind speed 118-165 kmph (64 - 89 knots) Extremely Severe Cyclonic Storm: Wind speed 166-220 kmph (90 -119 knots) Cyclone 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.