



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



Press Release

Date: 28th April, 2025

Time of Issue: 1330 hours IST

Subject: i) Intensity of rainfall over Northeast India likely to decrease from 29th April, 2025.

ii) Rainfall accompanied with thunderstorms, lightning, Hailstorms, squally/gusty winds over East & central India to continue till 02nd May, 2025.

iii) A fresh spell of rainfall accompanied with thunderstorm/duststorm & gusty winds likely over northwest India from 01st May, 2025.

i. Realised weather during past 24 hours till 0830 hours IST of today, the 28th April 2025 (Annexure I):

- ❖ **Thunderstorm accompanied with Squally/Gusty winds** with speed 50-70 kmph prevailed at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Uttarakhand, East Uttar Pradesh, Madhya Pradesh, Vidarbha, Chhattisgarh, Bihar, Jharkhand, Odisha, West Bengal & Sikkim, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Tamilnadu Puducherry & Karaikal, Kerala & Mahe, Karnataka, Coastal Andhra Pradesh & Yanam, Telangana and Rayalaseema.
- ❖ **Hailstorm** occurred at isolated places over East Madhya Pradesh and Sikkim.
- ❖ **Heavy rainfall** recorded at isolated places over Sub-Himalayan West Bengal & Sikkim, Coastal Karnataka, North Interior Karnataka.
- ❖ **Duststorm** occurred at isolated places over East Uttar Pradesh.

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 northeast Assam and another over north Bangladesh in lower tropospheric levels.
- ❖ A cyclonic circulation lies over southwest Rajasthan and a trough from this cyclonic circulation to north Madhya in lower tropospheric levels. A north-south trough from west Vidarbha to north Kerala in lower tropospheric levels.
- ❖ An upper air cyclonic circulation lies over Comorin area and neighbourhood in lower tropospheric levels.
- ❖ Under the influence of these systems:

Northeast India:

- ✓ **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 5 days and **thundersquall (wind speed reaching 50-70 kmph)** likely over Assam & Meghalaya on 28th & 29th April.

- ✓ **Heavy rainfall** likely over Nagaland, Manipur, Mizoram & Tripura Assam & Meghalaya, Tripura on 28th & 29th and Arunachal Pradesh on 28th April. Isolated very heavy rainfall also likely over Assam & Meghalaya today.

East & Central India:

- ✓ **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 during 28th April-02nd May.
- ✓ **Isolated hailstorm** activity likely over East Madhya Pradesh, Gangetic West Bengal, Jharkhand on 28th; Odisha on 29th April.
- ✓ **Isolated heavy rainfall** over Bihar on 28th and Odisha during 29th April-01st May.

South peninsular India:

- ✓ **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 during 28th April-02nd May.
- ✓ **Isolated heavy rainfall** likely over Kerala & Mahe on 28th April.
- ✓ **Isolated hailstorm** activity likely over North Interior Karnataka on 30th April & 01st May.

Northwest India:

- ❖ A fresh and active Western Disturbance likely to impact Northwest India from 02nd May, 2025. Under its influence:
 - ✓ **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 during 30th April to 04th May.
 - ✓ **Duststorm** very likely at isolated places over East Uttar Pradesh during 28th-30th April; Punjab, Haryana, Chandigarh & Delhi on 01st May and Rajasthan on 01st & 02nd May.

Temperature Forecast:

- ❖ No significant change in maximum temperatures likely over Northwest India during next 3 days and fall by 2-4°C for subsequent 4 days.
- ❖ Gradual rise in maximum temperatures by 2-4°C likely over Central India during next 3 days and no significant change during subsequent 4 days.
- ❖ No significant change in maximum temperatures likely over Maharashtra during next 5 days and fall by 2-3°C for subsequent 2 days.
- ❖ Gradual rise in maximum temperatures by 2-3°C likely over Gujarat during next 4 days and no significant change during 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 Jammu-Kashmir, Himachal Pradesh, West Rajasthan during 28th-30th; Haryana, Punjab on 29th & 30th and Saurashtra & Kutch on 28th & 29th May.
- ❖ **Hot & humid weather** is likely to prevail over Tamilnadu, Puducherry & Karaikal during 28th April-02nd May; Gujarat Region during 28th April-01st May; Coastal Andhra Pradesh & Yanam, Rayalaseema during 28th-30th April; Kerala & Mahe on 28th & 29th; Saurashtra & Kutch on 30th April & 01st May; Marathwada during 29th April -01st May.

iv. Weather conditions and forecast over Delhi/NCR during 28th April to 01st May, 2025 (Annexure V)

For more details, kindly refer National Weather Bulletin:

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

For District wise warnings refer:

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

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

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

Rainfall recorded (in cm):

- ❖ **Sub-Himalayan West Bengal & Sikkim:** Chepan (dist Alipurduar) 7, Mathabhanga (dist Cooch Behar) 6, Barobhisha (dist Alipurduar) 5,
- ❖ **Rayalaseema:** Uravakonda (dist Anantapuramu) 5; Rayadurg (dist Anantapuramu), Madakasira (dist Sri Sathyasai District) 4 Each;
- ❖ **Tamil Nadu, Puducherry & Karaikal:** Kollidam (dist Mayiladuthurai) 6; Manamelkudi (dist Pudukkottai), Neivasal Thenpathi (dist Thanjavur) 5 Each; Pechiparai (dist Kanyakumari), Adirampatnam (dist Thanjavur), Uttamapalayam (dist Theni), Kalugumalai (dist Toothukudi), Manjalar (dist Theni) 4 Each;
- ❖ **Coastal Karnataka:** Sulya (dist Dakshina Kannada) 7; Mundgod (dist Uttara Kannada) 5; Karkala (dist Udupi) 4;
- ❖ **North Interior Karnataka:** Gurumitkal (dist Yadgir) 9; Shirahatti (dist Gadag), Lokapur (dist Bagalkote) 8 Each; Chitaguppa (dist Bidar) 4.
- ❖ **Assam & Meghalaya:** Barpeta (dist Barpeta) 4, Bahalpur (dist Dhubri) 4, Kokrajhar (dist Kokrajhar) 4, Tikrikilla (dist West Garo Hills) 4, Dhubri_Cwc (dist Dhubri) 4,

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

- ❖ **Assam & Meghalaya:** Gossaigaon_Amfu 40 Dudhnoi_Kvk 33 Chandubi 32 Guwahati 31 Goalpara 31 Gauhati_University 31 Marigaon 28 Amingaon 27 Gauripur_Aegcl 27 Karimganj_Amfu 26 Kokraghar 24 Down_Town_University 24 Kukurmara_Mirza_Aegcl 24 Agomani 23 Boko_Aegcl 22 Barpeta_Kvk 21 Guwahati_City 21 Barpeta 20 Bongaigaon 20 Silchar_Jns_College 20 Diphu_Amfu 19 Chirang 19 Nalbari_Kvk 19 Salakati_Aegcl 19 Kajalgaon 18 Sonitpur_Amfu 18 Agia_Aegcl 18 Bn_College 18 Mangaldoi_Kvk 18 Panchgram_Aegcl 17
- ❖ **Arunachal Pradesh:** LOWERTATO=22
- ❖ **Tripura:** WOKHA=22
- ❖ **Gangetic West Bengal:** Digba, Raidighi (18 kt); Gangasagar, Balurghat (17 kt); Berhampore (16 kt)
- ❖ **Sub-Himalayan West Bengal & Sikkim:** Ramshai (31 kt); Dinhata (29 kt); Kalimpong (22 kt); Jalpaiguri (21 kt); Dhupguri (18 kt); Balurghat (17 kt) Gangtok (21 kt)
- ❖ **Odisha:** Puri (17 kt)
- ❖ **Jharkhand:** Garhwa (32 kt)
- ❖ **Bihar:** Gopalganj (37 kt)
- ❖ **Jammu-Kashmir:** RAMBAN (GOVINDPURA) = 19KT, POONCH = 15KT.
- ❖ **Himachal Pradesh:** TABO=22KT, KOTKHAI=21KT, RECKONG PEO=21KT, KUFRI=20KT
- ❖ **East Uttar Pradesh:** GOORAKHPUR(IAF)-24G36KT, GORAKHPUR-20 KT

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

- ❖ Yesterday, the Maximum Temperatures were in the range of 42-46°C at many/some places over Rajasthan, Gujarat, South Haryana, south Punjab, West Madhya Pradesh, North Madhya Maharashtra, Marathwada, west Vidarbha. These were above normal by 2-4°C over west Rajasthan, Saurashtra & Kutch, Haryana, Punjab and Jammu & Kashmir below normal by 3-6°C over North Telangana, East Vidarbha, East Madhya Pradesh, Chhattisgarh, interior Odisha, Jharkhand, wester Gangetic West Bengal and near normal over rest parts of the country. Yesterday, the highest maximum temperature of 46.1°C was reported at Barmer (West Rajasthan).
- ❖ Maximum Temperatures are appreciably above normal (3.1°C to 5.0°C) at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, West Rajasthan, Saurashtra & Kutch; above normal (1.6°C to 3.0°C) at many places over Punjab, Haryana-Chandigarh, Delhi; at isolated places over Himachal Pradesh, West Uttar Pradesh, Marathwada, Konkan & Goa, Coastal Andhra Pradesh & Yanam, Sub-Himalayan West Bengal & Sikkim, Kerala & Mahe. (Fig 2)

Fig. 1: Maximum Temperatures

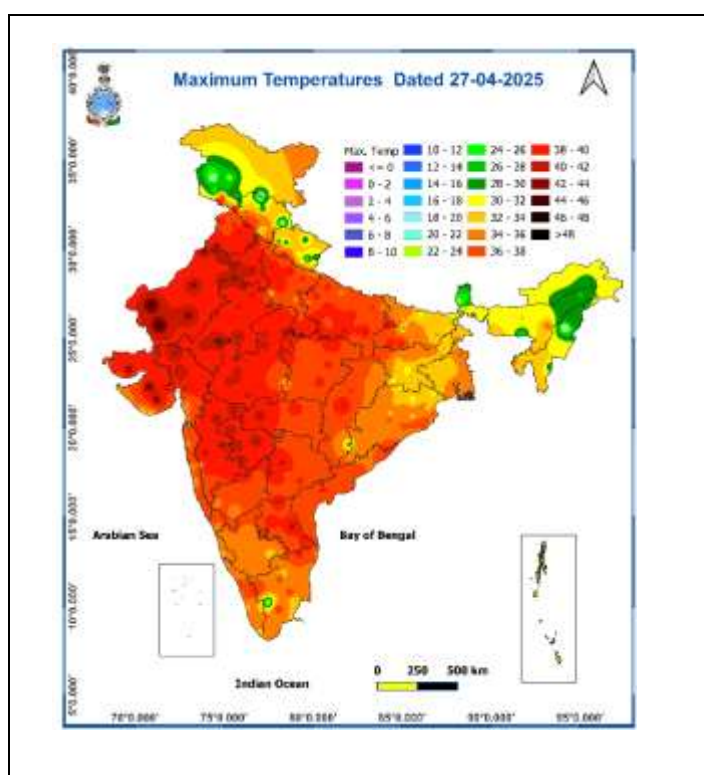
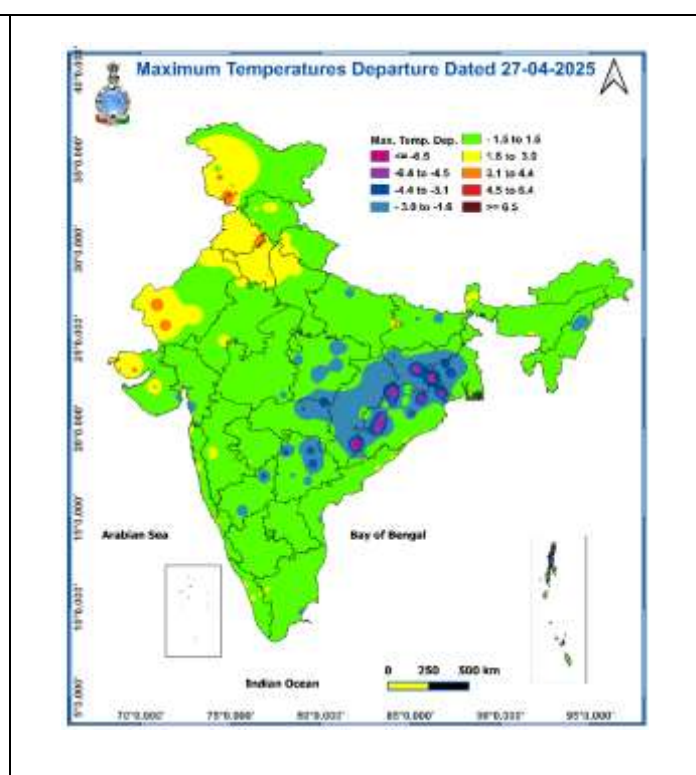
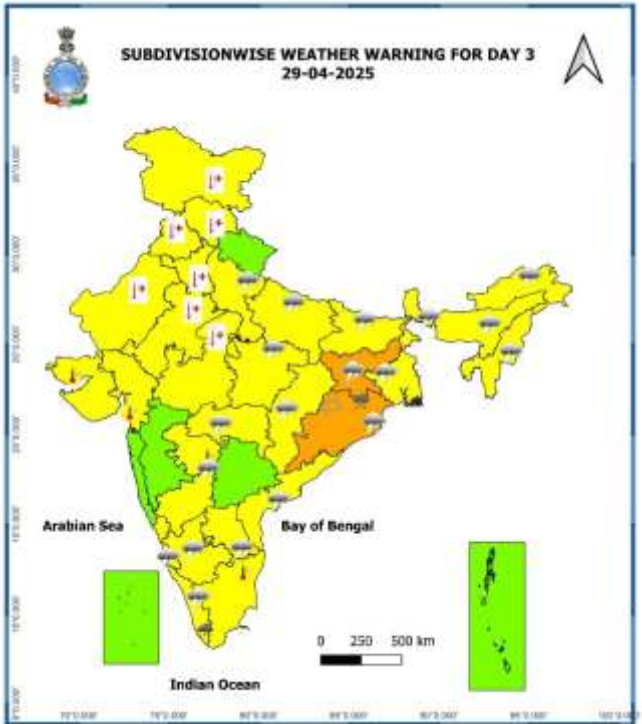
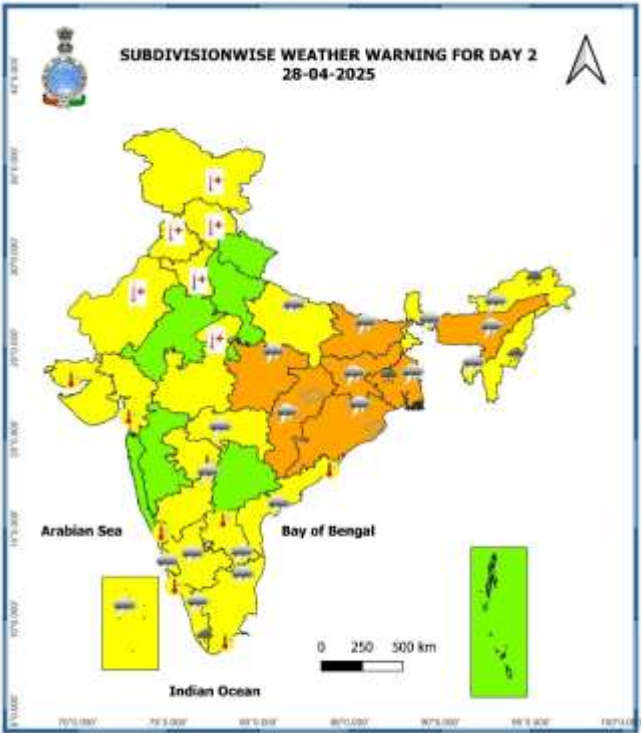
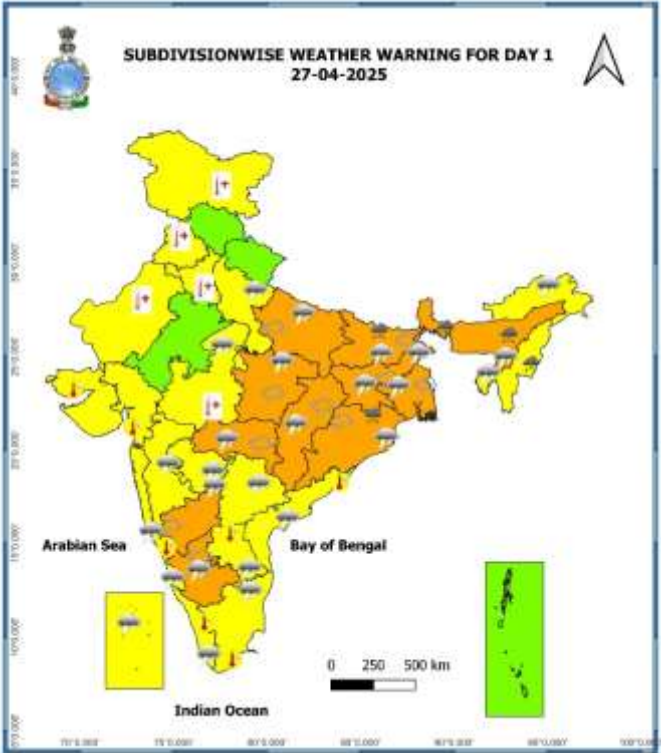


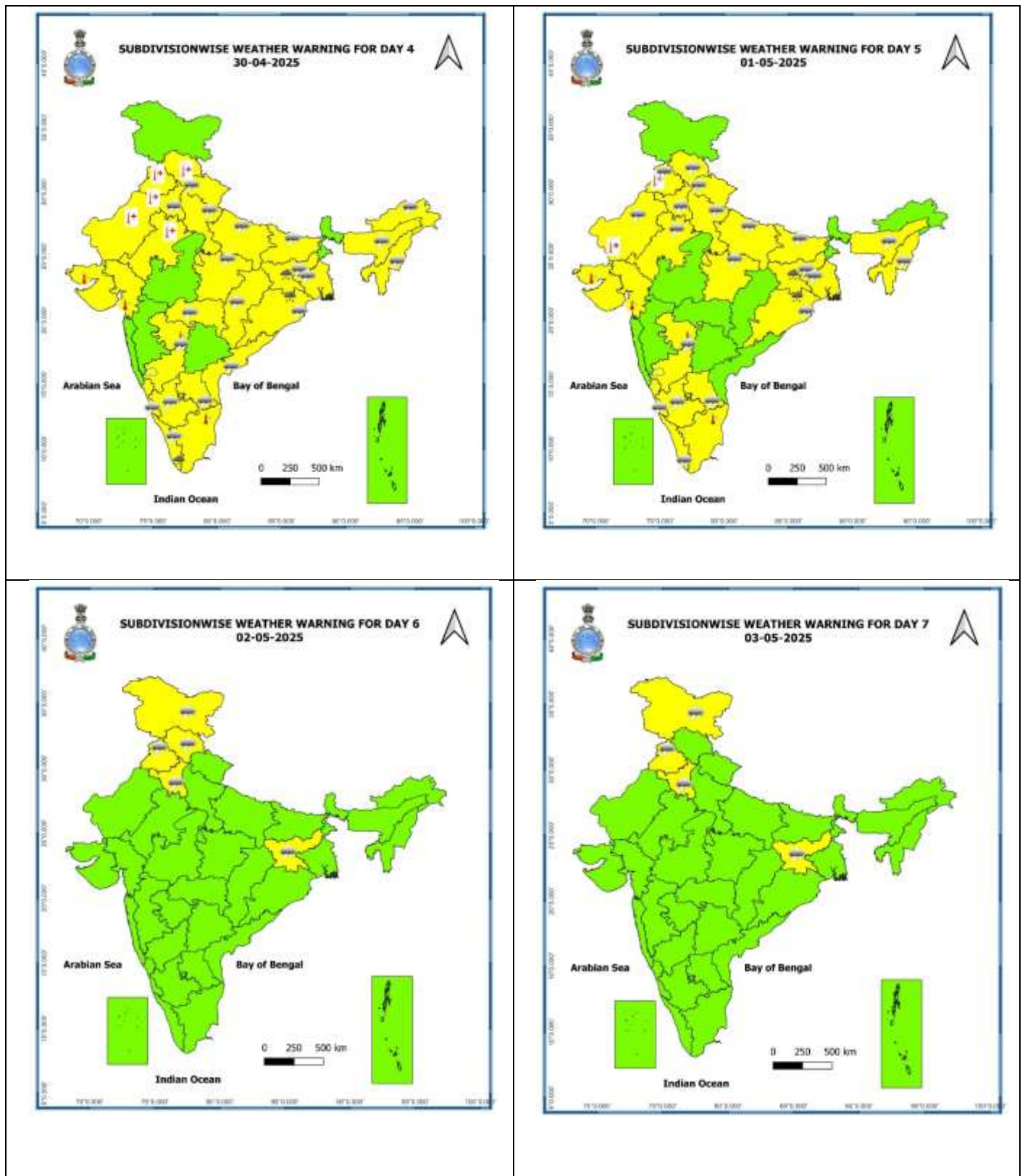
Fig. 2: Departure of Maximum Temperatures



7 Days Rainfall Forecast								
S. No.	Subdivision	28-Apr	29-Apr	30-Apr	01-May	02-May	03-May	04-May
		Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
1	ANDAMAN & NICOBAR ISLANDS	FWS	WS	FWS	SCT	SCT	ISOL	ISOL
2	ARUNACHAL PRADESH	FWS	FWS	SCT	SCT	SCT	SCT	SCT
3	ASSAM & MEGHALAYA	WS	FWS	SCT	SCT	FWS	FWS	FWS
4	NAGALAND, MANIPUR, MIZORAM & TRIPURA	FWS	FWS	SCT	SCT	SCT	SCT	SCT
5	SUB-HIMALAYAN WEST BENGAL & SIKKIM	WS	FWS	FWS	SCT	FWS	SCT	FWS
6	GANGETIC WEST BENGAL	FWS	FWS	SCT	FWS	FWS	SCT	SCT
7	ODISHA	ISOL	FWS	FWS	FWS	SCT	ISOL	ISOL
8	JHARKHAND	FWS	FWS	SCT	FWS	SCT	ISOL	ISOL
9	BIHAR	SCT	SCT	ISOL	ISOL	SCT	ISOL	ISOL
10	EAST UTTAR PRADESH	ISOL	ISOL	ISOL	SCT	SCT	ISOL	ISOL
11	WEST UTTAR PRADESH	DRY	DRY	ISOL	SCT	SCT	ISOL	ISOL
12	UTTARAKHAND	DRY	DRY	ISOL	SCT	SCT	SCT	SCT
13	HARYANA CHANDIGARH & DELHI	DRY	DRY	ISOL	SCT	ISOL	ISOL	SCT
14	PUNJAB	DRY	DRY	DRY	SCT	ISOL	ISOL	SCT
15	HIMACHAL PRADESH	DRY	DRY	DRY	SCT	SCT	SCT	SCT
16	JAMMU & KASHMIR AND LADAKH	DRY	DRY	DRY	ISOL	SCT	SCT	SCT
17	WEST RAJASTHAN	DRY	DRY	DRY	ISOL	ISOL	ISOL	ISOL
18	EAST RAJASTHAN	DRY	DRY	DRY	ISOL	ISOL	ISOL	ISOL
19	WEST MADHYA PRADESH	ISOL	DRY	DRY	ISOL	ISOL	ISOL	ISOL
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	ISOL	ISOL
25	MARATHAWADA	ISOL	ISOL	DRY	ISOL	ISOL	ISOL	ISOL
26	VIDARBHA	ISOL	ISOL	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	DRY	DRY	ISOL	ISOL	ISOL	ISOL
30	RAYALASEEMA	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
31	TAMILNADU PUDUCHERRY & KARAIKAL	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL	SCT
32	COASTAL KARNATAKA	SCT	ISOL	ISOL	SCT	ISOL	ISOL	ISOL
33	NORTH INTERIOR KARNATAKA	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
34	SOUTH INTERIOR KARNATAKA	SCT	ISOL	SCT	ISOL	SCT	SCT	SCT
35	KERALA & MAHE	FWS	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 <https://mausam.imd.gov.in/responsive/districtWiseWarningGIS.php>

Weather forecast over Delhi/NCR during 28th Apr to 01st May 2025

Past Weather:

There has been fall in minimum temperature upto 03 - 05°C and fall 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 40 to 42°C and 22 to 26°C respectively. The minimum temperature was near normal and maximum temperature was above normal upto 01 - 03°C over Delhi/NCR. Predominant surface wind from the southwest/southeast direction with wind speeds less than 14 kmph prevailed during the past 24 hours. Mainly clear sky conditions with wind speed less than 14 kmph from the east direction prevailed over the region in the forenoon today.

Weather Forecast:

28.04.2025: Mainly clear sky becoming partly cloudy sky towards afternoon/evening. Occasional sustained surface winds (speed 10-20 kmph). The maximum temperature over Delhi is likely to be in the range of 39 to 41°C. The maximum temperature will be above normal upto 01 - 02°C. The predominant surface wind will likely be from the southeast direction with a wind speed of less than 12 kmph till evening. It would increase becoming less than 14 kmph from the southeast direction during the night.

29.04.2025: Partly cloudy sky. Possibility of thundery development towards evening. The maximum and minimum temperatures over Delhi are likely to be in the range of 38 to 40°C and 24 to 26°C respectively. The minimum temperature will be near normal and maximum temperature will be near normal. The predominant surface wind will likely be from the southeast direction with a wind speed of 10-14 kmph during morning hours. The wind speed will gradually decrease thereafter becoming 06-10 kmph from the southeast direction during the afternoon. It will increase becoming less than 16 kmph from the southeast direction during evening and night.

30.04.2025: Partly cloudy 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 25 to 27°C respectively. The minimum temperature will be near normal and maximum temperature will be near normal. The predominant surface wind will likely be from the southeast direction with a wind speed of 14-18 kmph during morning hours. The wind speed will gradually decrease becoming 08-10 kmph from the southeast direction in the afternoon. It will increase becoming less than 18 kmph from the southeast direction during evening and night.

01.05.2025: Partly cloudy sky. Strong surface winds (speed 20 -30 kmph) gusting to 40 kmph. The maximum and minimum temperatures over Delhi are likely to be in the range of 36 to 38°C and 25 to 27°C respectively. The minimum temperature will be below normal upto 01 - 03°C and maximum temperature will be below normal upto 01 - 03°C. The predominant surface wind will likely be from the southeast direction with a wind speed less than 22 kmph during morning hours. The wind speed will gradually decrease becoming 14-16 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 no 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 **Isolated hailstorm** activity likely over East Madhya Pradesh, Gangetic West Bengal, Jharkhand on 28th; Odisha on 29th April and North Interior Karnatak on 30th April & 01st May.
- ✓ **Thundersquall (wind speed reaching 50-60 kmph)** likely over North Interior Karnataka, India during 28th April-02nd May; Gangetic West Bengal, Bihar on 28th April; Jharkhand, Odisha on 28th & 29th April; East Madhya Pradesh, Vidarbha, Chhattisgarh on 28th April, 01st & 02nd May.

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 Jammu-Kashmir, Himachal Pradesh, West Rajasthan during 28th-30th; Haryana, Punjab on 29th & 30th and Saurashtra & Kutch on 28th & 29th May.

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 rainfall over Assam & Meghalaya on 28th 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 kutchha 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

- In **North Eastern States, Odisha, Bihar and Kerala**, make provision to drain out excess water from standing crop and vegetable fields.
- In **Gangetic West Bengal, Odisha, Jharkhand and East Madhya Pradesh**, 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.

LEGENDS

1. अंडमान और निकोबार द्वीपसमूह

2. अरुणाचल प्रदेश

3. असम और मेघालय

4. नागालैंड, मणिपुर, मिजोरम और त्रिपुरा

5. उप-हिमालयी पश्चिम बंगाल और सिक्किम

6. गंगीय पश्चिम बंगाल

7. ओडिशा

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

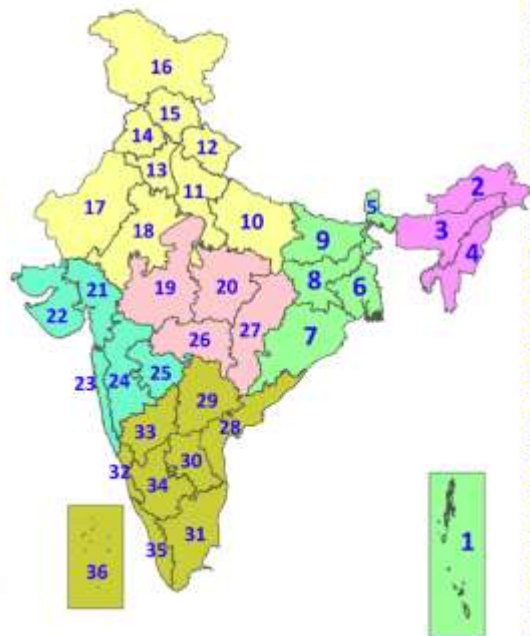
32. तटीय कर्नाटक

33. आंतरिक उत्तरी कर्नाटक

34. आंतरिक दक्षिणी कर्नाटक

35. केरल और माहे

36. लक्षद्वीप



1. Andaman & Nicobar Islands

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. Punjab

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

32. Coastal Karnataka

33. North Interior Karnataka

34. South Interior Karnataka

35. Kerala & Mahe

36. 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)



Fog



Heavy Snow



Cold Wave



Heavy Rain



Dust Storm



Cold Day



Very Heavy Rain



Heat Wave



Ground Frost



Extremely Heavy Rain



Warm Night



Thunder & Lightning



Hot Day



Hailstorm



Hot & Humid



Dust Raising Winds



Strong Surface Winds

COLOUR CODED WARNING

No Warning (No Action)

Watch (Be Aware)

Alert (Be Prepared To Take Action)

Warning (Take Action)

Probabilistic Forecast

Terms	Probability of Occurrence (%)
Unlikely	< 25
Likely	25 - 50
Very Likely	50 - 75
Most Likely	> 75

* 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)

DEFINITION/CRITERIA

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 62-67 kmph

Very Severe: Wind speed > 67 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)

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