

Government of India
Ministry of Earth Sciences
India Meteorological Department



Press Release

Date: 01st March, 2025

Time of Issue: 1400 hours IST

- Subject:** i) Current wet spell over Northwest India likely to reduce from today, the 01st March, 2025.
ii) Heavy rainfall accompanied with thunderstorms and hailstorm likely over Arunachal Pradesh and Northeast Assam today, the 01st March, 2025.
iii) Increase in rainfall /snowfall activity likely over Western Himalayan region on 03rd & 04th March, 2025.

i. Realised Severe Weather (Rainfall/snowfall) due to ongoing Western Disturbance during past 24 hours till 0830 hours IST of today 01st March 2025:

- ❖ Light to moderate **Rainfall/Snowfall** observed at most places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh & Uttarakhand; Light to moderate **Rainfall** observed at most places over Punjab, Haryana; at a few places over Sub-Himalayan West Bengal & Sikkim, West Uttar Pradesh, Tamil Nadu, Puducherry & Karaikal, Lakshadweep; at isolated places over Rajasthan, Bihar, East Uttar Pradesh and Kerala & Mahe.
- ❖ **Heavy rainfall/snowfall** recorded at isolated places over Himachal Pradesh and Uttarakhand; **Heavy rainfall** at isolated places over south Tamil Nadu.
- ❖ **Thunderstorm with lightning** reported at isolated places over Uttarakhand, Punjab, Haryana & Chandigarh, Uttar Pradesh, Bihar, south Tamil Nadu, Kerala & Mahe and Lakshadweep.
- ❖ **Hailstorm** recorded at isolated places over Uttarakhand, Punjab, Haryana, West Uttar Pradesh and North Rajasthan.
- ❖ **Gusty winds** observed at isolated places over Himachal Pradesh, Punjab and Uttar Pradesh.
- ❖ **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**

ii. Weather Systems, Forecast and warning (Annexure III & IV):

- ❖ A Western Disturbance as a trough in lower to upper tropospheric levels with its axis at 3.1 km above mean sea level runs roughly along Long. 62°E to the north of Lat. 30°N. An upper air cyclonic circulation lies over southwest Rajasthan and another over southeast Uttar Pradesh in lower tropospheric levels. A trough runs from southeast Uttar Pradesh to central parts of Madhya Maharashtra in lower tropospheric levels. As a result:
 - ✓ **Isolated to Scattered** light to moderate rainfall/snowfall accompanied with **thunderstorm & lightning** likely over Himachal Pradesh and Uttarakhand on 01st March.
 - ✓ **Isolated** light to moderate rainfall accompanied with **thunderstorm, lightning & gusty winds (speed 30-40 kmph)** likely over Uttar Pradesh and Bihar and with **Hailstorm** over northeast Chhattisgarh on 01st March;
- ❖ A fresh **Western Disturbance** is likely to affect Northwest India from night of 02nd March. Under its influence;
 - ✓ **Isolated to Scattered** light/moderate rainfall/snowfall accompanied with isolated thunderstorms and lightning very likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh & Uttarakhand during 02nd -04th with **Isolated heavy rainfall/snowfall** likely at isolated places likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad and Himachal Pradesh on 03rd March
- ❖ A trough runs roughly along Long. 93°E to the north of Lat. 26°N at lower tropospheric levels. Under its Influence,
 - ✓ **Scattered to Fairly widespread** light/moderate rainfall/snowfall accompanied with **thunderstorm and lightning** over Sub-Himalayan West Bengal & Sikkim; with **Hailstorm and gusty winds (speed 30-50 kmph)** very likely over east Arunachal Pradesh, northeast Assam and Nagaland on 01st March and reduce in intensity on 02nd March. **Isolated Heavy rainfall likely over Arunachal Pradesh and Northeast Assam on 01st March.**
- ❖ Under the influence of an active easterly wave;

- ✓ **Scattered to Fairly widespread** light/moderate rainfall accompanied with **thunderstorm, lightning & gusty winds (speed 30-40 kmph)** very likely over south Tamilnadu on 01st March, over Kerala and Lakshadweep on 01st & 02nd March. **Isolated heavy rainfall on Tamilnadu Puducherry & Karaikal, Kerala & Mahe on 01st March and Lakshadweep on 01st & 02nd March.**

Temperature Forecast:

Forecast of temperature:

Minimum Temperature:

- ❖ Gradual fall in minimum temperatures by 3-4°C likely over Northwest India during next 2 days and no significant change thereafter.
- ❖ No significant change in minimums temperatures likely over Central India during next 3 days and gradual fall by about 2°C thereafter.
- ❖ No significant change in minimum temperatures likely over rest parts of India during next 4-5 days.

Maximum temperature:

- ❖ Gradual rise in maximum temperatures by 2-3°C likely over Northwest India during next 2 days and gradual fall by 2-3°C thereafter.
- ❖ No significant change in maximum temperatures likely over Central India during next 3 days and gradual fall by about 2°C thereafter.
- ❖ Gradual fall in maximum temperatures by 2-3°C likely over Gujarat State during next 2 days and no significant change thereafter.
- ❖ No significant change in maximum temperatures likely over rest parts of India during next 4-5 days.

Heat Wave and Hot & Humid weather warnings:

- ❖ **Heat wave conditions** very likely in isolated pockets over Coastal Karnataka on 01st & 02nd March.
- ❖ **Hot and humid weather** very likely to prevail over Konkan & Goa on during 01st-03rd; Coastal Karnataka on 03rd March.

iii. Weather conditions and forecast over Delhi/NCR during 01st March to 04th March. 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>

ANNEXURE I

Significant rainfall/snowfall recorded during past 24 hours till 0830 hours IST of today (in cm):

- ❖ **Himachal Pradesh:** Bhuntar (dist Kullu) 11, Jogindarnagar (dist Mandi) 11, Seo Bagh (dist Kullu) 11, Banjar (dist Kullu) 9, Dharmasala (dist Kangra) 9, Manali (dist Kullu) 8, Baijnath (dist Kangra) 8, Palampur (dist Kangra) 8, Karsog (dist Mandi) 7, Kasol (dist Kullu) 7;
- ❖ **Uttarakhand:** Tehri (Cwc)_Drms: 9, Purola: 8, Koti: 8, Joshimath_Drms: 8, Dhanaulti_Drms: 8, Pokhari: 7, Dangoli: 7, Tehri_Drms: 7, Munsiyari_Drms: 7, Chamoli_Drms: 7, Purola_Drms: 7;
- ❖ **Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad:** Batote (dist Ramban) 3, Khudwani Arg (dist Anantnag) 3, Baramulla Kvk Aws (dist Baramula) 3, Anantnag Aws (dist Anantnag) 3, Asham Arg (dist Bandipore) 3, Zainpora Arg (dist Shopian) 3;
- ❖ **Haryana:** Nuh (dist Nuh) 5, Hassanpur (dist Palwal) 4, Narayangarh Arg (dist Ambala) 4;
- ❖ **Punjab:** Patiala (dist Patiala) 4, Phangota (dist Pathankot) 3, Gurdaspur Amfu (dist Gurdaspur) 3, Shahpur Kandi (dist Pathankot) 3, Nabha Arg (dist Patiala) 3, Amritsar (dist Amritsar) 3;
- ❖ **Tamil Nadu:** Oothu (dist. Tirunelveli) 8, Nalumukku (dist. Tirunelveli) 7;
- ❖ **Kerala & Mahe:** Aryankavu (dist Kollam) 5, Thenmala (dist Kollam) 3

Thunderstorm reported:

- ❖ **Himachal Pradesh:** Bhunter, Sundernagar, Kangra, Shimla, Palampur, Jot; **Uttarakhand:** Chakrata, Mussoorie, Mukteshwar; **Punjab:** Amritsar, Patiala; **Haryana:** Chandigarh, Ambala, Karnal, Hisar; **West Uttar Pradesh:** Muzaffarnagar, Meerut; **East Uttar Pradesh:** Ballia & Sultanpur; **Bihar:** Patna.

Hailstorm reported:

- ❖ **Uttarakhand:** Chakrata, Mussoorie, Mukteshwar; **Punjab:** Amritsar, Patiala; **Haryana:** Ambala & Kurukshetra; **West Uttar Pradesh:** Aligarh.

Gusty winds reported (in Knots):

- ❖ **Himachal Pradesh:** Tabo 23, Berthin 23, Bilaspur 21; **Punjab:** Hoshiarpur & Mohali 22 each; **Uttar Pradesh:** Aligarh 27, Bahraich 18.

Visibility reported (≤ 200 m) (in meter):

- ❖ **Dense fog (visibility 50-199 m)** reported in isolated pockets of Himachal Pradesh, Punjab and Sub-Himalayan West Bengal & Sikkim.
- ❖ **Visibility reported (≤ 200 m) (in meter): Sub-Himalayan West Bengal & Sikkim:** Darjeeling, Pakyong 50 each; **Himachal Pradesh:** Sundernagar 150; **Punjab:** Bathinda (50-199)

ANNEXURE II

- ❖ Minimum temperatures are in the range of 0°C to -11 °C at some places over Kashmir and Ladakh; 2°C to 7°C over Jammu, Himachal Pradesh and Uttarakhand; 12°C to 18°C over plains of northwest, central and northeast India; 19°C to 24 °C at many places over West, east and south Peninsular India. Today, the lowest minimum temperature of 8.5°C is reported at **Amritsar (Punjab)** over the plains of the country.
- ❖ During the past 24 hours, minimum temperatures have fallen by 1-3°C at many places over northwest India, west & central Madhya Pradesh, Gujarat, north interior Karnataka, north coastal Andhra Pradesh and it has risen by 1-2°C at many places over interior Maharashtra, south coastal Andhra Pradesh & Rayalaseema, south interior Karnataka, east and northeast India.
- ❖ Minimum temperatures are **markedly above normal (5°C or more)** at isolated places over East Uttar Pradesh; **appreciably above normal (3°C to 5°C)** at isolated places over Haryana, East Rajasthan, Gujarat Region, Konkan & Goa, Tamil Nadu, Puducherry & Karaikal and Andaman & Nicobar Islands; at a few places over Saurashtra & Kutch, Madhya Maharashtra, Odisha, Madhya Pradesh and Bihar; at many places over Delhi; **above normal (1.6°C to 3.0°C)** at isolated places over Vidarbha, Gangetic West Bengal, Tripura, Kerala & Mahe, West Rajasthan, Chhattisgarh and North Interior Karnataka; at many places over Andaman & Nicobar Islands. These are **appreciably below normal (-5°C to -3°C)** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad; **below normal (-3°C to -1°C)** at isolated places over Rayalaseema and near normal over rest parts of the country.
- ❖ Maximum temperatures were in the range of 35-40°C at most places over Kerala & Mahe, Coastal Karnataka; at many places over interior Maharashtra, south Gujarat, west Telangana, south Odisha, North coastal Andhra Pradesh and south Chhattisgarh; 30-35°C at many places over Konkan & Goa, Central India, North Odisha, Interior Karnataka, South Rajasthan, north Chhattisgarh & Gangetic West Bengal; at a few places over southeast Uttar Pradesh, Jharkhand, south Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura. Today, the highest **maximum temperature** of 40.2°C was reported at **Kannur Airport (Kerala)** over the plains of the country.
- ❖ During the past 24 hours, **maximum temperatures** had fallen by 3-6°C at many places over Western Himalayan region; by 1-3°C at a few places over northeast Rajasthan, Gujarat Region, East Uttar Pradesh and Nagaland, Manipur, Mizoram & Tripura. It has risen by 2-4°C at many places over West Rajasthan, Punjab, Haryana and East India and no significant change over rest parts of the country.
- ❖ Maximum temperatures were **appreciably above normal (3°C to 5°C)** at many places over Madhya Pradesh and Vidarbha; at a few places over East Rajasthan; at isolated places over Chhattisgarh; **above normal (1°C to 3°C)** at a few places over Assam & Meghalaya, Gujarat state, Odisha and Kerala & Mahe; at isolated places over East Uttar Pradesh, Sub-Himalayan West Bengal & Sikkim, Konkan & Goa, Madhya Maharashtra, Marathwada, Vidarbha, Telangana, Lakshadweep, Tamil Nadu, Puducherry & Karaikal, Lakshadweep. These were **markedly below normal (-5°C or less)** at a few places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad; at isolated places over Himachal Pradesh and Uttarakhand; **below normal (-3°C to -1°C)** at isolated places over Punjab and near normal over rest parts of the country.

Fig. 1: Maximum Temperatures

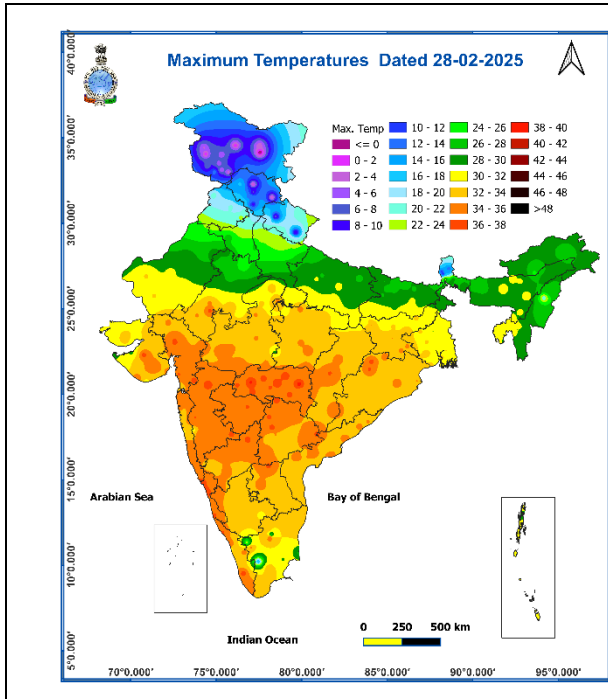


Fig. 2: Departure of Maximum Temperatures

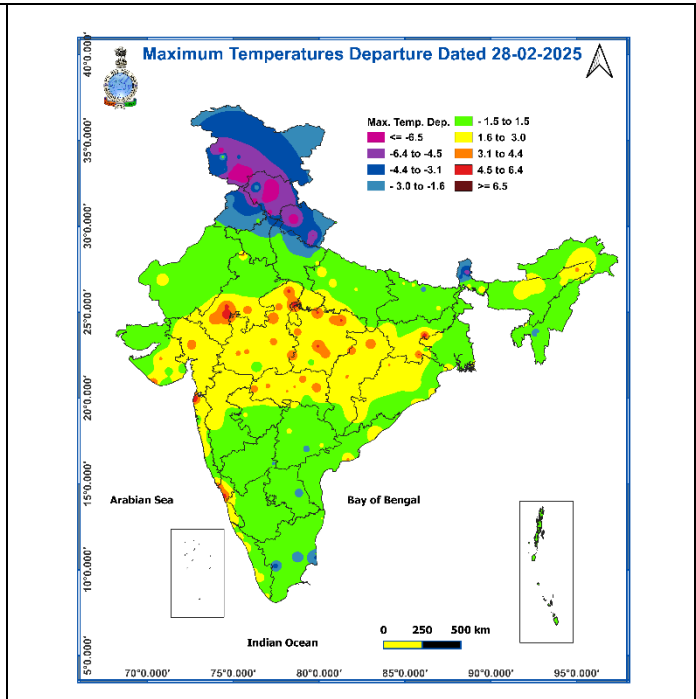


Fig. 3: Minimum Temperatures

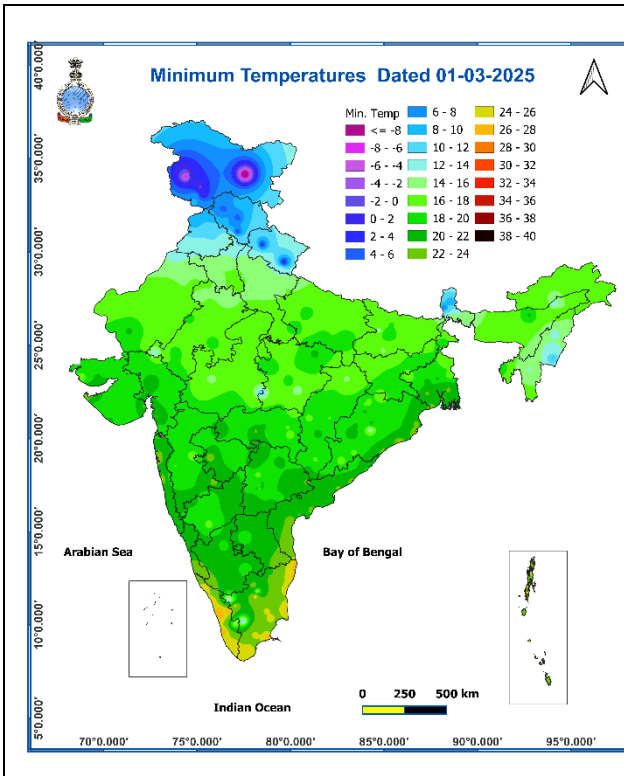
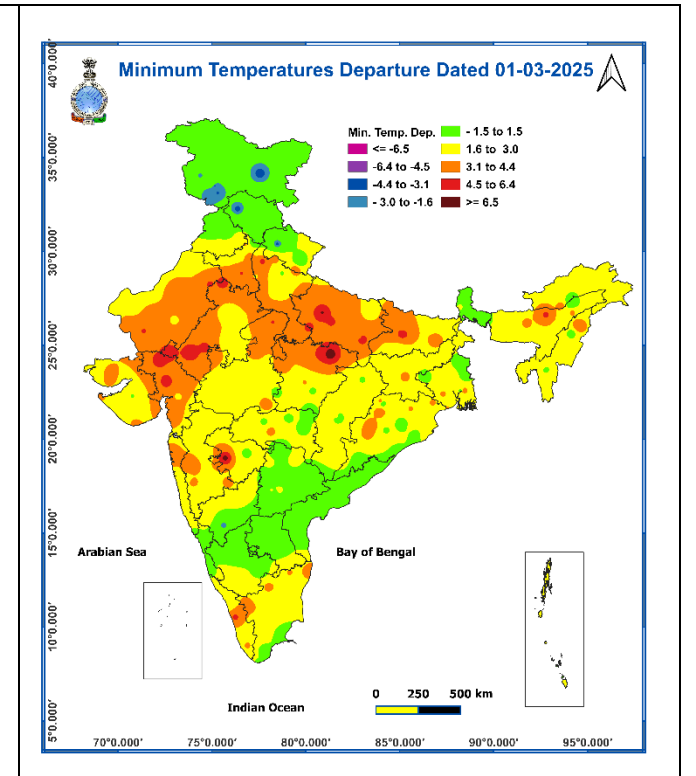


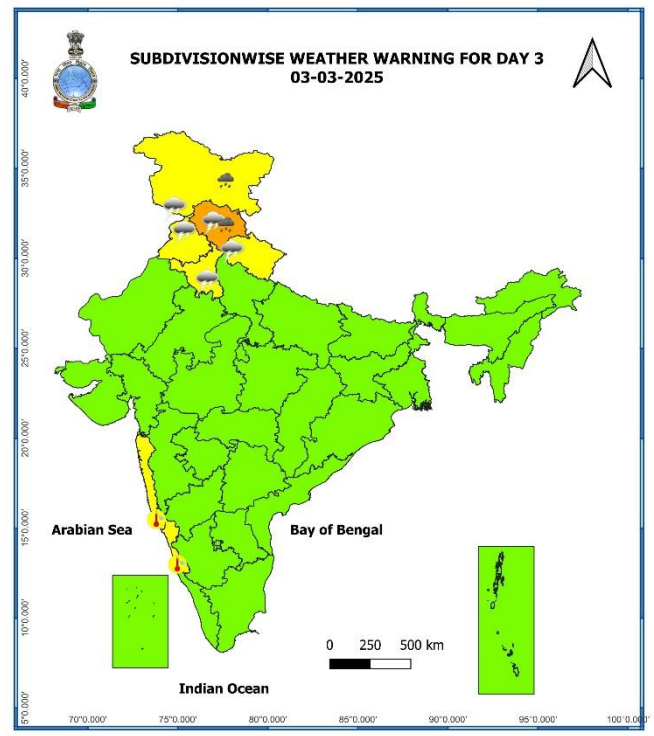
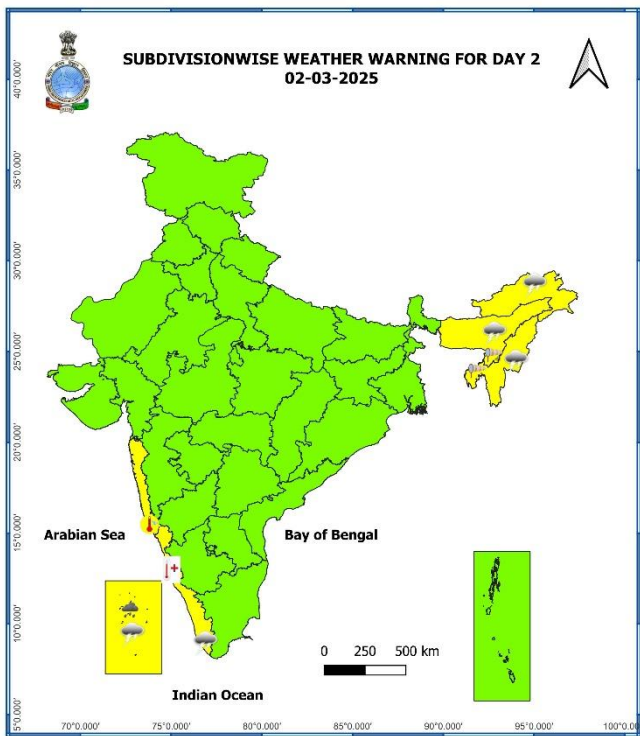
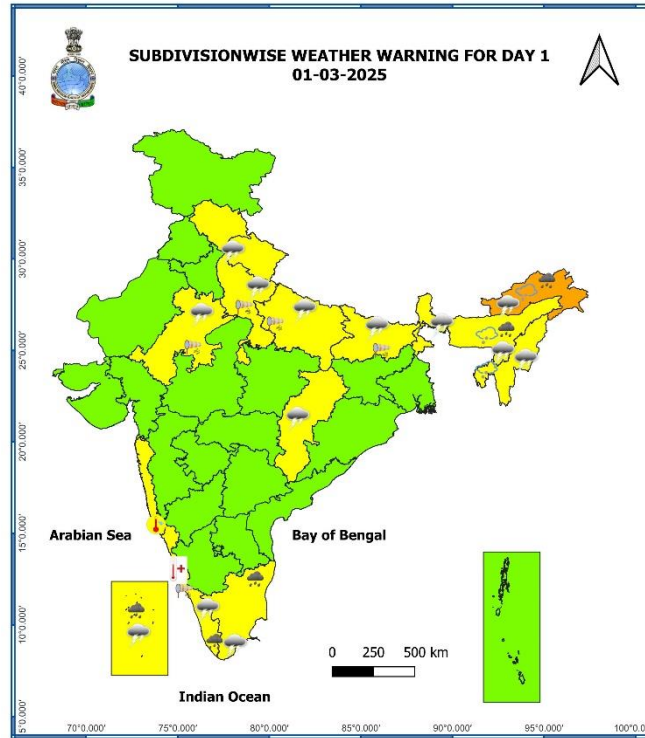
Fig. 4: Departure of Minimum Temperatures

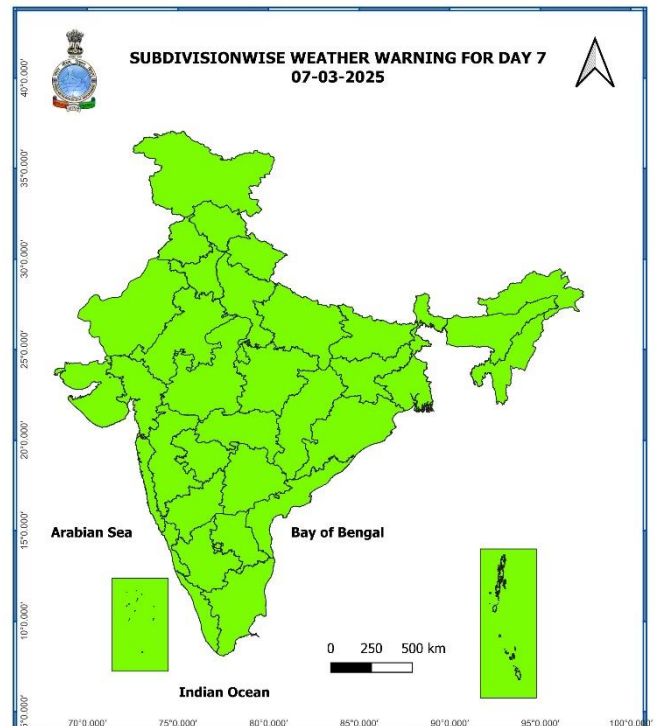
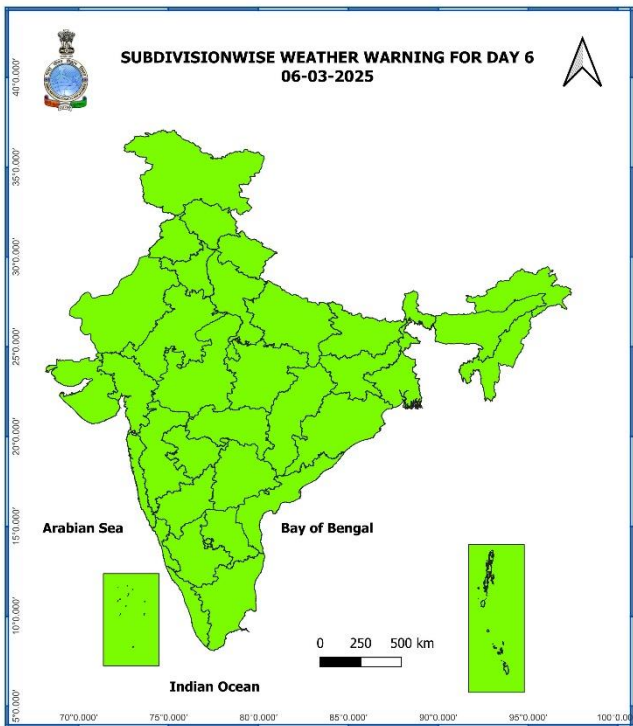
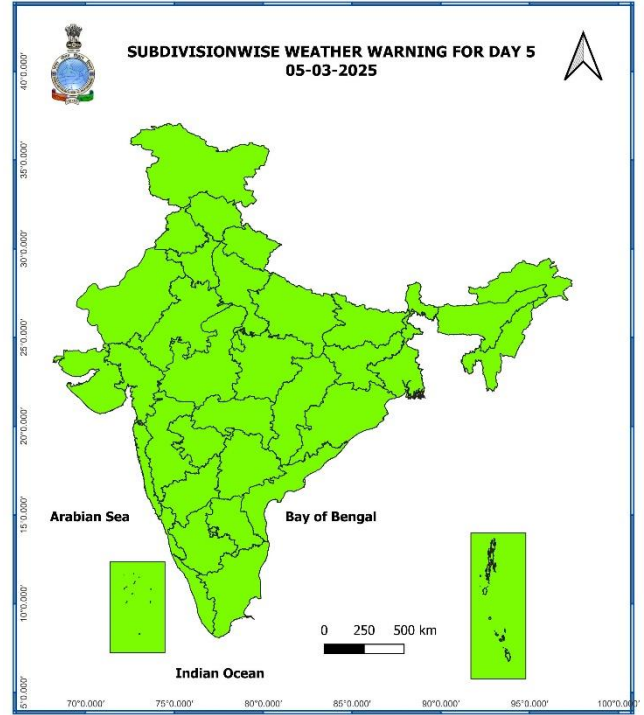
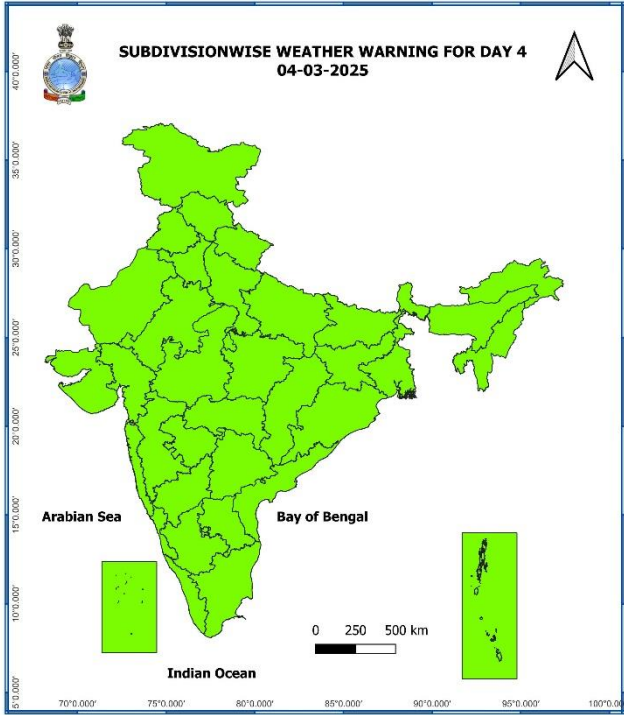


7 Days Rainfall Forecast

S. No.	Subdivision	01-Mar	02-Mar	03-Mar	04-Mar	05-Mar	06-Mar	07-Mar
		Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
1	ANDAMAN & NICOBAR ISLANDS	SCT	ISOL	ISOL	DRY	DRY	DRY	DRY
2	ARUNACHAL PRADESH	FWS	SCT	ISOL	ISOL	SCT	SCT	ISOL
3	ASSAM & MEGHALAYA	SCT	ISOL	ISOL	DRY	DRY	ISOL	DRY
4	NAGALAND, MANIPUR, MIZORAM & TRIPURA	SCT	ISOL	ISOL	DRY	DRY	DRY	DRY
5	SUB-HIMALAYAN WEST BENGAL & SIKKIM	ISOL	ISOL	DRY	ISOL	ISOL	DRY	DRY
6	GANGETIC WEST BENGAL	DRY	DRY	DRY	DRY	DRY	DRY	DRY
7	ODISHA	DRY	DRY	DRY	DRY	DRY	DRY	DRY
8	JHARKHAND	ISOL	DRY	DRY	DRY	DRY	DRY	DRY
9	BIHAR	ISOL	DRY	DRY	DRY	DRY	DRY	DRY
10	EAST UTTAR PRADESH	ISOL	DRY	DRY	DRY	DRY	DRY	DRY
11	WEST UTTAR PRADESH	ISOL	DRY	DRY	DRY	DRY	DRY	DRY
12	UTTARAKHAND	SCT	ISOL	SCT	ISOL	DRY	DRY	DRY
13	HARYANA CHANDIGARH & DELHI	ISOL	DRY	ISOL	DRY	DRY	DRY	DRY
14	PUNJAB	ISOL	DRY	ISOL	DRY	DRY	DRY	DRY
15	HIMACHAL PRADESH	ISOL	ISOL	FWS	SCT	DRY	DRY	DRY
16	JAMMU & KASHMIR AND LADAKH	ISOL	ISOL	WS	SCT	DRY	DRY	DRY
17	WEST RAJASTHAN	ISOL	DRY	ISOL	DRY	DRY	DRY	DRY
18	EAST RAJASTHAN	ISOL	DRY	DRY	DRY	DRY	DRY	DRY
19	WEST MADHYA PRADESH	ISOL	DRY	DRY	DRY	DRY	DRY	DRY
20	EAST MADHYA PRADESH	ISOL	DRY	DRY	DRY	DRY	DRY	DRY
21	GUJARAT REGION	DRY	DRY	DRY	DRY	DRY	DRY	DRY
22	SAURASHTRA & KUTCH	DRY	DRY	DRY	DRY	DRY	DRY	DRY
23	KONKAN & GOA	DRY	DRY	DRY	DRY	DRY	DRY	DRY
24	MADHYA MAHARASHTRA	DRY	DRY	DRY	DRY	DRY	DRY	DRY
25	MARATHAWADA	DRY	DRY	DRY	DRY	DRY	DRY	DRY
26	VIDARBHA	DRY	DRY	DRY	DRY	DRY	DRY	DRY
27	CHHATTISGARH	ISOL	DRY	DRY	DRY	DRY	DRY	DRY
28	COASTAL ANDHRA PRADESH & YANAM	DRY	DRY	DRY	DRY	DRY	DRY	DRY
29	TELANGANA	DRY	DRY	DRY	DRY	DRY	DRY	DRY
30	RAYALASEEMA	ISOL	DRY	DRY	DRY	DRY	DRY	DRY
31	TAMILNADU PUDUCHERRY & KARAIKAL	SCT	ISOL	ISOL	DRY	DRY	DRY	DRY
32	COASTAL KARNATAKA	DRY	DRY	DRY	DRY	DRY	DRY	DRY
33	NORTH INTERIOR KARNATAKA	DRY	DRY	DRY	DRY	DRY	DRY	DRY
34	SOUTH INTERIOR KARNATAKA	DRY	DRY	DRY	DRY	DRY	DRY	DRY
35	KERALA & MAHE	SCT	SCT	ISOL	DRY	DRY	DRY	DRY
36	LAKSHADWEEP	FWS	FWS	SCT	DRY	DRY	DRY	DRY

- 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 01st March to 04th March, 2025.**Past Weather:**

There has been a fall in minimum temperature upto 02°C and rise in maximum temperature upto 02°C over Delhi/NCR during the past 24 hours. The maximum and minimum temperatures over Delhi are in the range of 25 to 27°C and 15 to 17°C, respectively. The minimum temperature was above normal upto 5°C and maximum temperature was near normal over most places. Generally cloudy sky conditions with predominant surface wind from the southeast direction with wind speeds less than 16 to 18 kmph prevailed during the past 24 hours. Partly cloudy sky conditions with wind speed less than 12 kmph from the northeast direction prevailed over the region in the forenoon today.

Weather Forecast:

01.03.2025: Partly cloudy sky. The maximum temperature over Delhi is likely to be in the range of 27 to 29°C. The predominant surface wind will likely be from the northeast direction with a wind speed of less than 12 kmph till evening. It would decrease thereafter becoming less than 10 kmph from the north direction during the night.

02.03.2025: Mainly clear sky. Mist likely in the morning. The maximum and minimum temperatures over Delhi are likely to be in the range of 26 to 28°C and 14 to 16°C respectively. The predominant surface wind will likely be from the northwest direction with a wind speed of 08-10 kmph during morning hours. The wind speed will gradually increase thereafter becoming 14-16 kmph from the northwest direction during the afternoon. It will decrease becoming less than 10 kmph from the north direction during evening and night.

03.03.2025: Partly cloudy sky. Mist likely in the morning. The maximum and minimum temperatures over Delhi are likely to be in the range of 28 to 30°C and 13 to 15°C, respectively. The predominant surface wind will likely be from the northwest direction with a wind speed of 04-06 kmph during morning hours. The wind speed will gradually increase thereafter becoming 10-12 kmph from the southwest direction during the afternoon. It will decrease becoming less than 08 kmph from the southwest direction during evening and night.

04.03.2025: 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 26 to 28°C and 15 to 17°C, respectively. The predominant surface wind will likely be from the northwest direction with a wind speed of 08-10 kmph during morning hours. The wind speed will gradually increase becoming 18-20 kmph from the northwest direction in the afternoon. It will decrease becoming less than 12 kmph from the northwest direction during evening and night.

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

- Use hail nets or hail caps in fruit orchards and vegetable plants to protect them from mechanical damage in **Arunachal Pradesh, Assam and Nagaland**.
- Drain out excess water from the standing crop fields in **Jammu and Kashmir, Himachal Pradesh, Uttarakhand, Punjab, Haryana, Tamil Nadu, Kerala, Arunachal Pradesh, Assam and Meghalaya**. In the regions of heavy snowfall, shake the fruit bearing trees to remove snow immediately from the branches.
- Postpone sowing of maize in **Arunachal Pradesh**.
- In **Coastal Karnataka**, apply light and frequent irrigation to the standing crops in the evening to protect them from 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.

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.
- Check and disinfect poultry houses to prevent disease outbreaks due to dampness.
- Check the huts and other weaker structures before relocation of the animals.
- Construct an outlet with proper netting around the pond to drain out excess water, thereby preventing fishes from escaping in case of overflowing.

Impact & Action Suggested due to heavy rainfall/ snowfall over east Arunachal Pradesh on 01st March; Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh on 03rd March; heavy rainfall over northeast Assam, South Tamil Nadu & Kerala on 01st March; Lakshadweep on 01st & 02nd 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 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).

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 isolated thunderstorm with lightning/gusty winds & Hailstorm over Uttar Pradesh & Bihar on 01st March and Northeast India on 01st & 02nd March.

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 kutchha 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 expected and action suggested due to Heat Wave conditions over Coastal Karnataka on 01st & 02nd March.

Yellow alert Areas:

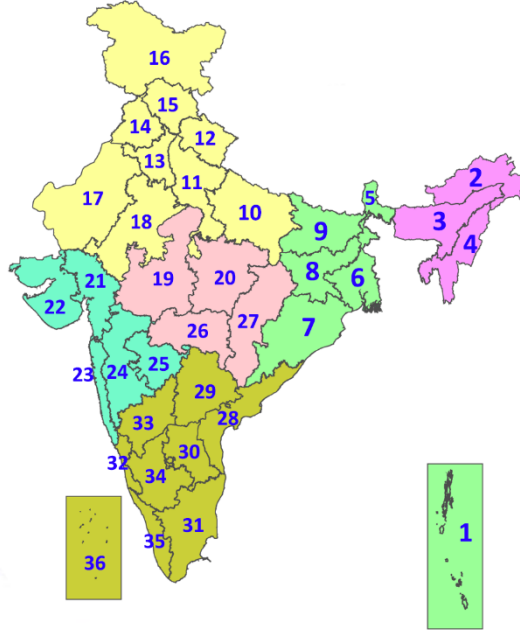
- Moderate temperature & heat is tolerable for general public but moderate health concern likely for vulnerable people e.g. infants, elderly, people with chronic diseases.
- Avoid heat exposure.
- Wear lightweight, light colour, loose, cotton clothes.
- Cover your head, use a cloth, hat or umbrella.

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 62-87 kmph
Very Severe: Wind speed > 87 kmph

Sea State

Effect of various waves in the sea over specific area

Rough to very rough: Wind speed 41-62 kmph (22-33 knots) & Wave height 2.5-6 metre
High to very high: Wind speed 63-117 kmph (34-63 knots) & Wave height 6-14 metre
Phenomenal: Wind speed > 117 kmph (> 63 knots) & Wave height > 14 metre

Cyclone

Cyclonic Storm: Wind speed 62-87 kmph (34-47 knots)
Severe Cyclonic Storm: Wind speed 88-117 kmph (48-63 knots)
Very Severe Cyclonic Storm: Wind speed 118-165 kmph (64 - 89 knots)
Extremely Severe Cyclonic Storm: Wind speed 166-220 kmph (90 -119 knots)
Super Cyclone Storm: Wind speed > 220 kmph (> 119 knots)

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