



Government of India  
Ministry of Earth Sciences  
India Meteorological Department



Press Release

Date: 19<sup>th</sup> March, 2025

Time of Issue: 1315 hours IST

**Subject: Thunderstorm, lightning, gusty winds & hailstorms likely over many parts of central, east & northeast India during 20<sup>th</sup>-22<sup>nd</sup> March, 2025.**

**i. Realised weather during past 24 hours till 0830 hours IST of today, the 18<sup>th</sup> March 2025 (Annexure I):**

- ❖ Heavy rainfall reported at isolated locations over Kerala & Mahe.
- ❖ 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 Warnings (Annexure III & IV):**

- ❖ A trough runs from central Odisha to Vidarbha and there is wind confluence over east & adjoining central India due to the above trough and anticyclonic circulation over Bay of Bengal at lower tropospheric levels. Under the influence of these systems:
  - ✓ Isolated to Scattered light/moderate rainfall accompanied with **thunderstorm, lightning & gusty winds (speed 30-50 kmph)** likely over Bihar on 21<sup>st</sup> & 22<sup>nd</sup>; East Madhya Pradesh and Chhattisgarh during 19<sup>th</sup>-22<sup>nd</sup>; West Madhya Pradesh, Sub-Himalayan West Bengal & Sikkim on 20<sup>th</sup> & 21<sup>st</sup> and Vidarbha on 21<sup>st</sup> & 22<sup>nd</sup> March.
  - ✓ Scattered to Fairly widespread light/moderate rainfall accompanied with thunderstorm, lightning & gusty winds (speed 40-60 kmph) likely over Gangetic West Bengal, Jharkhand and Odisha during 19<sup>th</sup>-22<sup>nd</sup> March and abate thereafter.
  - ✓ Isolated hailstorms also likely over East Madhya Pradesh, Sub-Himalayan West Bengal & Sikkim on 21<sup>st</sup>; Chhattisgarh, Gangetic West Bengal, Odisha during 20<sup>th</sup>-22<sup>nd</sup>; Bihar, Vidarbha on 21<sup>st</sup> & 22<sup>nd</sup>; Jharkhand 20<sup>th</sup> & 21<sup>st</sup> March.
- ❖ A Cyclonic Circulation lies over northeast Assam and neighbourhood in lower tropospheric levels. Under its influence;
  - ✓ Scattered to Fairly widespread light/moderate rainfall/snowfall accompanied with **thunderstorm, lightning** over Arunachal Pradesh during 21<sup>st</sup>-23<sup>rd</sup> March with Isolated **heavy rainfall/snowfall** on 21<sup>st</sup> & 22<sup>nd</sup> March.
  - ✓ Isolated to Scattered light/moderate rainfall accompanied with **thunderstorm, lightning & gusty winds (speed 30-50 kmph)** likely over Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura during next 5 days.
  - ✓ Isolated hailstorms also likely over Assam & Meghalaya on 20<sup>th</sup> March.

- ❖ The Western Disturbance as a Cyclonic Circulation over Afghanistan in middle tropospheric levels and a upper air cyclonic circulation lies over southwest Rajasthan in lower tropospheric levels, Under the influence of these systems;
- ✓ **Isolated** light/moderate rainfall accompanied with **thunderstorm, lightning & gusty winds (speed 30-40 kmph)** likely over Punjab on 19<sup>th</sup> & 20<sup>th</sup>; Haryana Chandigarh on 20<sup>th</sup>; Uttar Pradesh during 20<sup>th</sup>-22<sup>nd</sup> March, 2025.

### **Temperature Forecast:**

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

##### **Maximum temperature:**

- ❖ Gradual rise in maximum temperatures by about 2°C likely over Northwest India during next 2 days and no significant change thereafter.
- ❖ No significant change in maximum temperatures likely over Central India during next 48 hours and fall by 2-4°C during subsequent 2 days.
- ❖ No significant change in maximum temperatures likely over East India during next 2 days and fall by 4-6°C during subsequent 3 days.
- ❖ No significant change in maximum temperatures likely over Gujarat State during next 24 hours and rise by 2-3°C thereafter.
- ❖ Gradual fall in maximum temperatures by about 2-3°C likely over Maharashtra region during next 2-3 days and no significant change thereafter.

#### **Heat wave and Hot & Humid weather warning:**

- ❖ **No heat wave likely over any parts of country during next 4-5 days.**
- ❖ **Hot & humid conditions** very likely to prevail in isolated pockets over coastal areas of Gujarat State on 19<sup>th</sup>, 22<sup>nd</sup> & 23<sup>rd</sup>; Tamilnadu Puducherry & Karaikal and interior Karnataka on 19<sup>th</sup> & 20<sup>th</sup> March.

### **iv. Weather conditions and forecast over Delhi/NCR during 19<sup>th</sup> March to 22<sup>nd</sup> March, 2025 (Annexure V)**

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

[https://mausam.imd.gov.in/responsive/all\\_india\\_forecast\\_bulletin.php](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 to moderate rainfall** at a few places over Arunachal Pradesh, Kerala & Mahe; at isolated places over Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Tamilnadu Puducherry & Karaikal, Interior Karnataka.
- ❖ **Thunderstorm reported** at isolated locations over Tamilnadu Puducherry & Karaikal, Kerala & Mahe

**Rainfall recorded (in cm):**

- ❖ **Kerala & Mahe:** Thiruvananthapuram 8, Thiruvananthapuram Airport & Airport Chacka(Thiruvananthapuram district) 7 each, Thodupuzha (Idukki district) 6, Kannur, Enadimangalam (Pathanamthitta district) & Kannur (Kannur district) 4 each;
- ❖ **Tamilnadu Puducherry & Karaikal:** Karuppanadhi Dam (dist Tenkasi), Thenkasi (dist Tenkasi), Valinokam (dist Ramanathapuram) 3 each,
- ❖ **Arunachal Pradesh:** Tenali AWS (dist Upper Siang) 4, Tuting (dist Upper Siang) 2, Tuting\_ Aws (dist Upper Siang) 2, Kibithu (dist Anjaw) 1;
- ❖ **Assam & Meghalaya:** Udaipur (dist Tinsukia) 1, Margherita (dist Tinsukia) 1;
- ❖ **Nagaland, Manipur, Mizoram & Tripura:** Aizwal (dist Aizawl) 1.

- ❖ **Maximum temperatures** were **appreciably above normal (3.1°C to 5.0°C)** at isolated places over Jammu-Kashmir-Ladakh Gilgit-Baltistan-Muzaffarabad, Sub-Himalayan West Bengal & Sikkim, Odisha and Assam & Meghalaya; **above normal (1.6°C to 3.0°C)** at many places over Arunachal Pradesh; at a few places Vidarbha and Saurashtra & Kutch; at isolated places over Himachal Pradesh, Gangetic West Bengal, Chhattisgarh, Marathwada, Telangana, Madhya Maharashtra and North Interior Karnataka. These were **below normal (-3.0°C to -1.6°C)** at isolated places over Nagaland, Manipur, Mizoram & Tripura and Rajasthan and near normal over rest parts of the country. (Fig. 2).
- ❖ Yesterday, the Maximum temperatures have shown **falling tendency by 1-3 °C** at most places over Bihar, Sub-Himalayan West Bengal & Sikkim, East Uttar Pradesh, Telangana, Tamilnadu Puducherry & Karaikal, Coastal Andhra Pradesh & Yanam; **rising tendency by 1-4°C** at most places over Jammu Division, Himachal Pradesh, Uttarakhand, Punjab, Haryana Chandigarh, Rajasthan, Assam & Meghalaya, Gangetic West Bengal, West Madhya Pradesh.
- ❖ Yesterday, the Maximum temperatures were in the range of **40-42°C** (with the **highest Tmax 40.8°C was reported at Kurnool (Rayalaseema)**) at isolated places over Interior Odisha, Coastal Andhra Pradesh & Yanam, Rayalaseema, Marathawada; **35-40°C** over most parts of West and Central India, Gangetic West Bengal, Chhattisgarh, Odisha and south peninsular India; at a few places over West Rajasthan, Jharkhand. (Fig.1)

Fig. 1: Maximum Temperatures

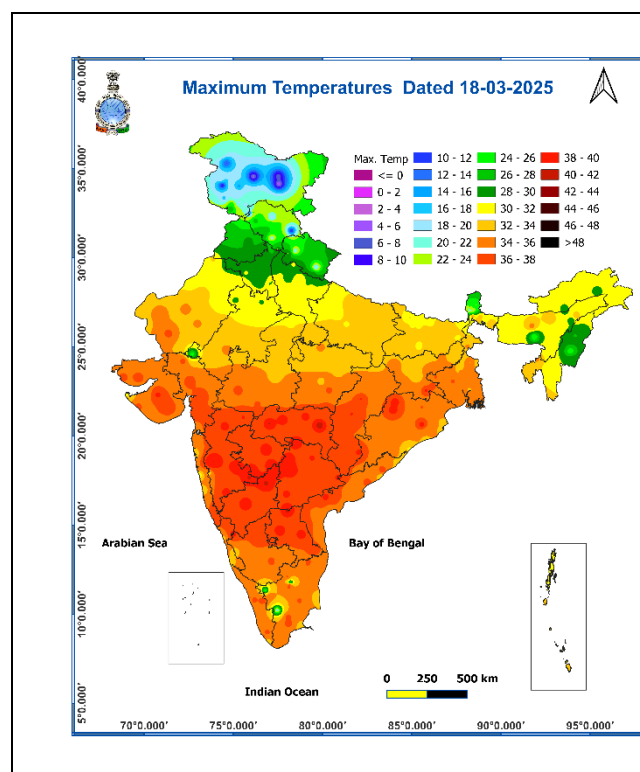
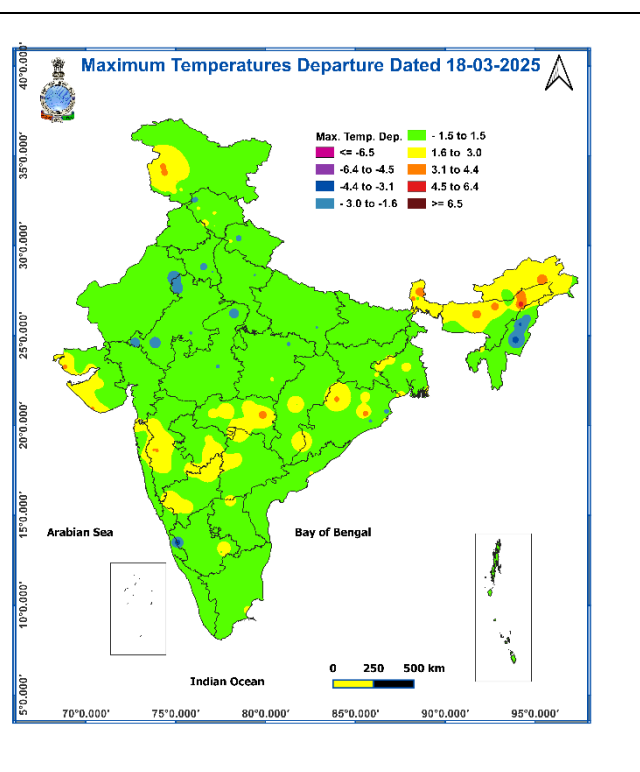


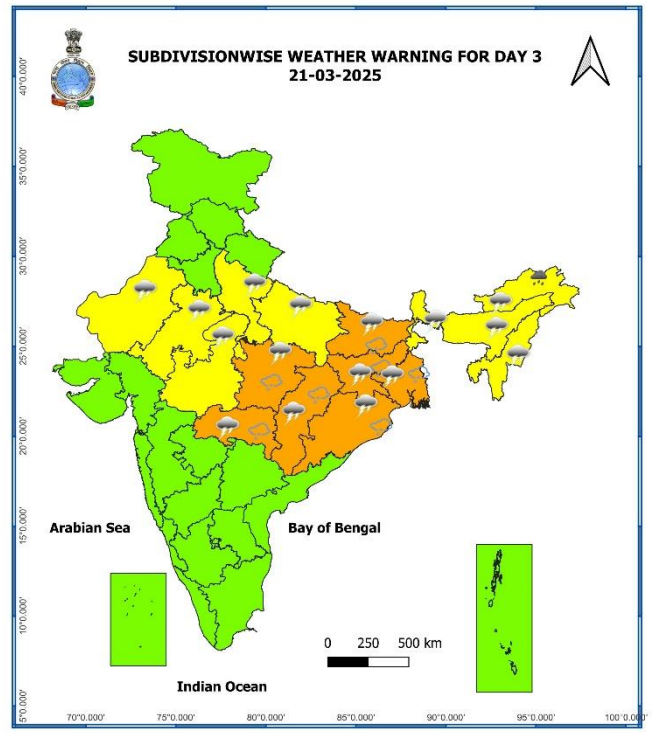
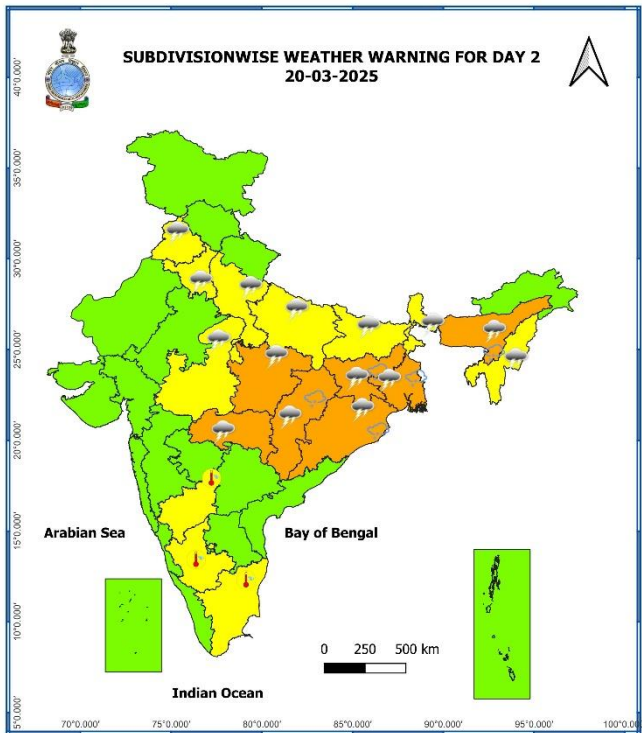
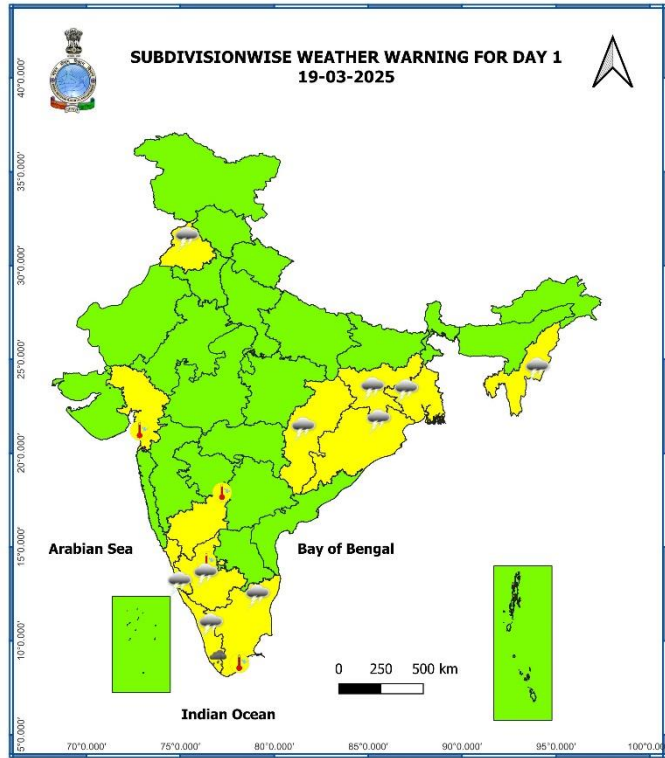
Fig. 2: Departure of Maximum Temperatures



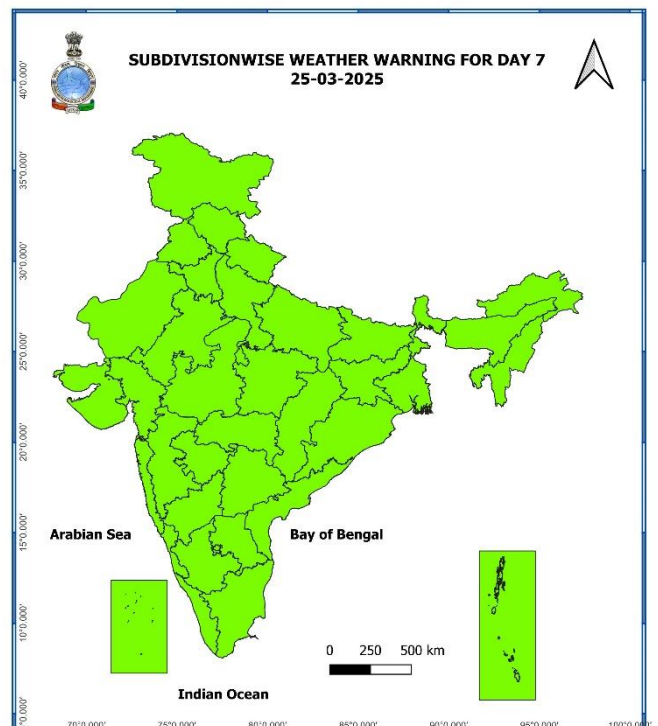
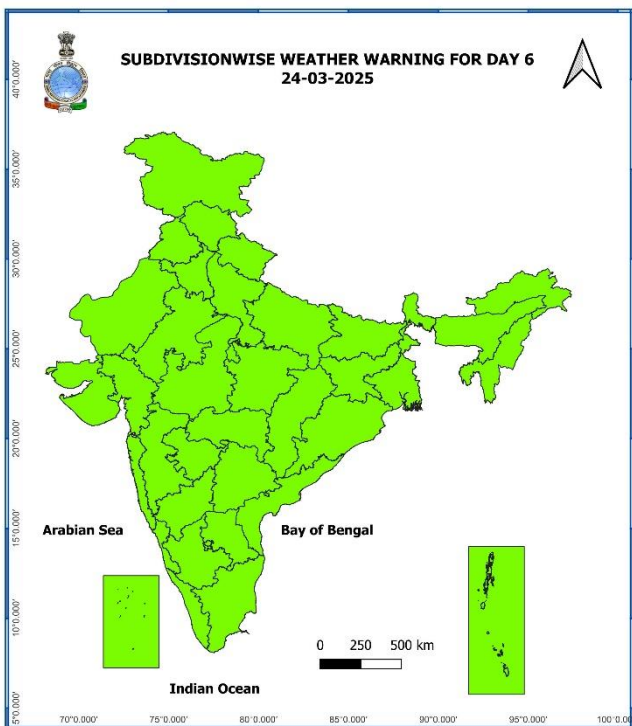
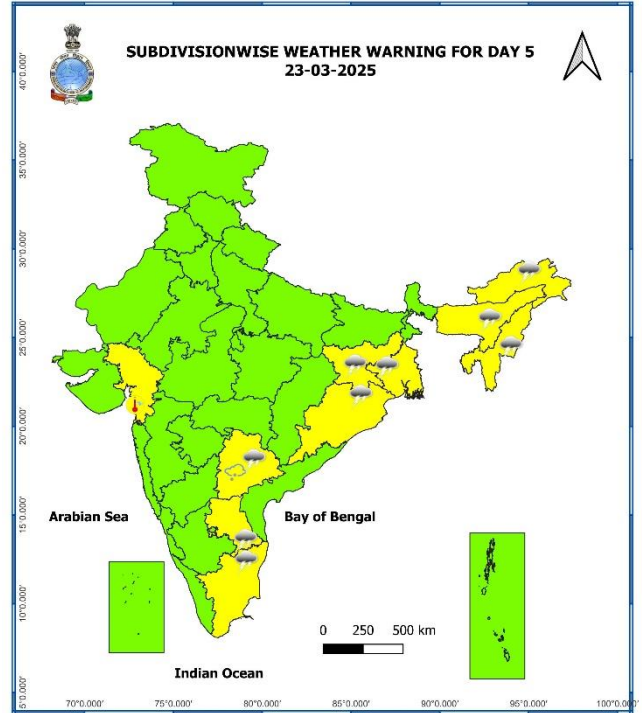
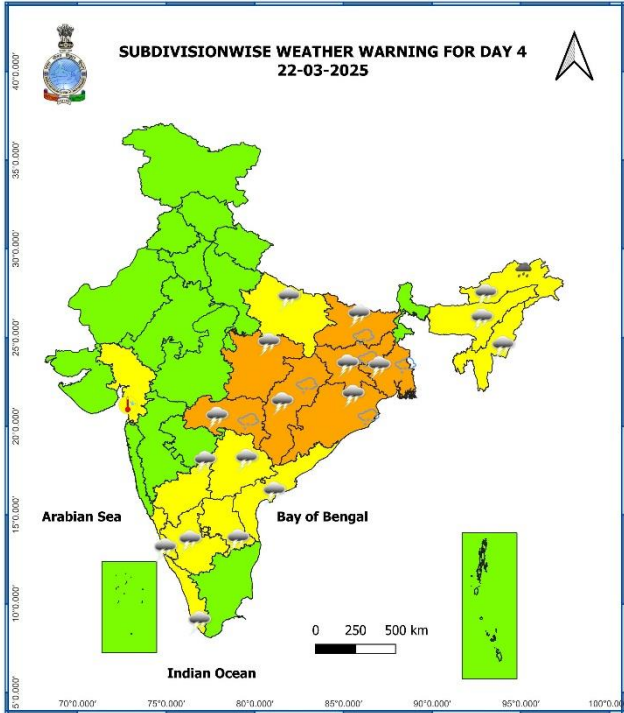
## 7 Days Rainfall Forecast

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

There has been a slight rise in minimum temperature 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 29 to 32°C and 14 to 16°C respectively. The minimum temperature was below normal upto 02°C and maximum temperature was near normal at most places. Mainly clear sky conditions with predominant surface wind from the northwest direction with wind speeds less than 16 to 18 kmph prevailed during the past 24 hours. Mainly clear sky conditions with wind speed less than 08 kmph from the southwest direction prevailed over the region in the forenoon today.

**Weather Forecast:**

**19.03.2025:** Mainly clear sky. Surface winds (speed 15-25kmph) during the day. The maximum temperature over Delhi is likely to be in the range of 32 to 34°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 thereafter becoming less than 08 kmph from the northeast direction during the night.

**20.03.2025:** Partly cloudy sky. Mist likely in the morning. Surface winds (speed 10-20kmph) occasionally gusting to 30kmph. The maximum and minimum temperatures over Delhi are likely to be in the range of 33 to 35°C and 15 to 17°C respectively. The predominant surface wind will likely be from the northeast direction with a wind speed of 06-08 kmph during morning hours. The wind speed will gradually increase thereafter becoming, 12-14 kmph from the northwest direction during the afternoon. It will decrease becoming less than 10 kmph from the north direction during evening and night.

**21.03.2025:** Mainly clear sky. Mist likely in the morning. The maximum and minimum temperatures over Delhi are likely to be in the range of 32 to 34°C and 16 to 18°C respectively. The predominant surface wind will likely be from the north direction with a wind speed of 06-08 kmph during morning hours. The wind speed will gradually increase becoming 14-16 kmph from the northwest direction in the afternoon. It will decrease becoming less than 10 kmph from the north direction during evening and night.

**22.03.2025:** Mainly clear sky. Mist likely in the morning. The maximum and minimum temperatures over Delhi are likely to be in the range of 32 to 34°C and 15 to 17°C respectively. The predominant surface wind will likely be from the north direction with a wind speed of 06-08 kmph during morning hours. The wind speed will gradually increase becoming 10-12 kmph from the northwest direction in the afternoon. It will decrease becoming less than 06 kmph from the north direction during evening and night.



**Impact expected and action suggested due to thunderstorm accompanied with lightning/gusty winds & hailstorm** over Northeast India during next 5 days and over east & central India during 20<sup>th</sup>-22<sup>nd</sup> March 2025

❖ **Impact expected:**

- ❖ Strong wind may damage plantation, horticulture and standing crops.
- ❖ 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.

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

- In **South Assam, West Bengal, Odisha, Jharkhand, Bihar, East Madhya Pradesh, Vidarbha, and Chhattisgarh**, harvest the matured standing crops, vegetables and fruits and shift the harvested produce in safer places or cover the produce with tarpaulin sheets in the fields to avoid the adverse impact of likely hailstorm. Use hail net and hail caps to prevent mechanical damage in orchards due to hailstorms.
- In **Arunachal Pradesh**, make provision to drain out excess water from standing crop and vegetable fields.
- Provide mechanical support to horticultural crops and staking to vegetables to avoid lodging.
- Apply need-based light and frequent irrigation to the standing crops, vegetables and orchards in the evening to protect them from adverse impacts of high temperatures.

**Livestock**

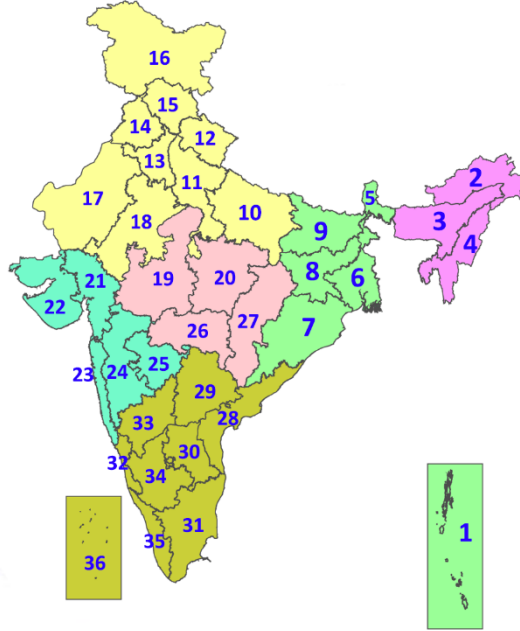
- Keep the animals inside the shed during heavy rainfall/hailstorm and provide them balanced feed.
- Store feed and fodder in a safe place to prevent spoilage.
- To reduce the effect of high temperature, cover the roof of poultry sheds with grass. Also provide clean, hygienic and plenty of drinking water 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.

## 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

<b>Rain/ Snow *</b>	<b>Heavy:</b> 64.5 to 115.5 mm/cm * <b>Very Heavy:</b> 115.6 to 204.4 mm/cm * <b>Extremely Heavy:</b> > 204.4 mm/cm *
<b>Heat Wave</b>	<b>When maximum temperature of a station reaches <math>\geq 40^{\circ}\text{C}</math> for plains and <math>\geq 30^{\circ}\text{C}</math> for hilly regions</b> <b>(a) Based on Departure from normal</b> <b>Heat Wave:</b> Maximum Temperature Departure from normal $4.5^{\circ}\text{C}$ to $6.4^{\circ}\text{C}$ . <b>Severe Heat Wave:</b> Maximum Temperature Departure from normal $\geq 6.5^{\circ}\text{C}$ <b>(b). Based on Actual maximum temperature</b> <b>Heat Wave:</b> When actual maximum temperature $\geq 45^{\circ}\text{C}$ . <b>Severe Heat Wave:</b> When actual maximum temperature $\geq 47^{\circ}\text{C}$ <b>(c). Criteria for heat wave for coastal stations</b> When maximum temperature departure is $> 4.5^{\circ}\text{C}$ from normal. Heat Wave may be described provided maximum temperature $\geq 37^{\circ}\text{C}$
<b>Warm Night</b>	<b>When maximum temperature remains <math>40^{\circ}\text{C}</math></b> <b>Warm Night:</b> When minimum temperature departure $4.5^{\circ}\text{C}$ to $6.4^{\circ}\text{C}$ . <b>Severe Warm Night:</b> When minimum temperature departure $> 6.4^{\circ}\text{C}$ .
<b>Cold Wave</b>	<b>When minimum temperature of a station <math>\leq 10^{\circ}\text{C}</math> for plains and <math>\leq 0^{\circ}\text{C}</math> for hilly regions.</b> <b>(a). Based on departure</b> <b>Cold Wave:</b> Minimum Temperature Departure from normal $-4.5^{\circ}\text{C}$ to $-6.4^{\circ}\text{C}$ . <b>Severe Cold Wave:</b> Minimum Temperature Departure from normal $\leq -6.5^{\circ}\text{C}$ <b>(b) Based on actual Minimum Temperature (for Plains only)</b> <b>Cold Wave :</b> When Minimum Temperature is $\leq 4.0^{\circ}\text{C}$ <b>Severe Cold Wave:</b> When Minimum Temperature is $\leq 2.0^{\circ}\text{C}$ <b>(c) For Coastal Stations</b> When Minimum Temperature departure is $\leq -4.5^{\circ}\text{C}$ & actual Minimum Temperature is $\leq 15^{\circ}\text{C}$
<b>Cold Day</b>	<b>When minimum temperature of a station <math>\leq 10^{\circ}\text{C}</math> for plains and <math>\leq 0^{\circ}\text{C}</math> for hilly regions</b> <b>Based on departure</b> <b>Cold Day:</b> Maximum Temperature Departure from normal $-4.5^{\circ}\text{C}$ to $-6.4^{\circ}\text{C}$ . <b>Severe Cold Day:</b> Maximum Temperature Departure from normal $\leq -6.5^{\circ}\text{C}$
<b>Fog</b>	<b>Phenomenon of small droplets suspended in air and the horizontal visibility <math>&lt; 1\text{km}</math></b> <b>Moderate Fog:</b> When the visibility between 500-200 metres <b>Dense Fog:</b> when the visibility between 50- 200 metres <b>Very Dense Fog:</b> when the visibility $< 50$ metres
<b>Thunderstorm</b>	Sudden electrical discharges manifested by a flash of light (Lightning) and a sharp rumbling sound (thunder)
<b>Dust/Sand Storm</b>	An ensemble of particles of dust or sand energetically lifted to great heights by a strong and turbulent wind.
<b>Frost</b>	<b>Ice deposits on ground</b> Air temperature $\leq 4^{\circ}\text{C}$ ( over Plains)
<b>Squall</b>	<b>A strong wind that rises suddenly, lasts for atleast 1 minute.</b> <b>Moderate:</b> Wind speed 52-61 kmph <b>Severe:</b> Wind speed 62-87 kmph <b>Very Severe:</b> Wind speed $> 87$ kmph
<b>Sea State</b>	<b>Effect of various waves in the sea over specific area</b> <b>Rough to very rough:</b> Wind speed 41-62 kmph (22-33 knots) & Wave height 2.5-6 metre <b>High to very high:</b> Wind speed 63-117 kmph ( 34-63 knots) & Wave height 6-14 metre <b>Phenomenal:</b> Wind speed $> 117$ kmph ( $> 63$ knots) & Wave height $> 14$ metre
<b>Cyclone</b>	<b>Cyclonic Storm:</b> Wind speed 62-87 kmph (34-47 knots) <b>Severe Cyclonic Storm:</b> Wind speed 88-117 kmph (48-63 knots) <b>Very Severe Cyclonic Storm:</b> Wind speed 118-165 kmph (64 - 89 knots) <b>Extremely Severe Cyclonic Storm:</b> Wind speed 166-220 kmph (90 -119 knots) <b>Super Cyclone Strom:</b> 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  $3^{\circ}\text{C}$  above normal along with the above normal relative humidity.