



Government of India
Ministry of Earth Sciences
India Meteorological Department



Press Release

Date: 21st March, 2025

Time of Issue: 1330 hours IST

Subject: (i) Intense thunderstorms activity along with hailstorms & squally winds likely to continue over many parts of East & adjoining central India next 2 days and decrease in intensity thereafter.
(ii) Thunderstorms accompanied with rainfall likely over many parts of South Peninsular India till 23rd March, 2025.

i. Realised weather during past 24 hours till 0830 hours IST of today, the 21st March 2025 (Annexure I):

- ❖ **Heavy rainfall** reported at isolated places over East Madhya Pradesh.
- ❖ **Hailstorms reported** at isolated locations over south Assam, North interior Odisha & adjoining areas of Jharkhand and Gangetic West Bengal, East Madhya Pradesh, north Chhattisgarh.
- ❖ **Squally/Gusty winds speed reaching 50-60 kmph** prevailed at isolated locations over Arunachal Pradesh, Assam, Andaman & Nicobar Islands, Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Odisha, Jharkhand, Chhattisgarh and East Madhya 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 Warnings (Annexure III & IV):

- ❖ An upper air **cyclonic circulation** lies over central parts of Madhya Pradesh and there is wind confluence over east & adjoining central India in association with the winds as a anticyclonic circulation over northwest Bay of Bengal at lower tropospheric levels. Under the influence of these systems:
 - ✓ **Scattered to Fairly widespread** light/moderate rainfall accompanied with **thunderstorm, lightning & gusty winds (speed 40-50 kmph)** likely over East Madhya Pradesh, Chhattisgarh, Madhya Maharashtra, Marathwada, Vidarbha, West Bengal, Sikkim, Bihar, Jharkhand and Odisha on 21st & 22nd March and reduction in intensity thereafter.
 - ✓ **Heavy rainfall** likely at isolated places over Jharkhand & adjoining Gangetic West Bengal-north Odisha on 21st March.
 - ✓ **Isolated hailstorms also likely over** East Madhya Pradesh, Chhattisgarh, Jharkhand on 21st; Vidarbha, West Bengal, Sikkim, Bihar and Odisha on 21st & 22nd March.

- ❖ An upper air **Cyclonic Circulation** lies over northeast Assam in lower tropospheric levels. Under its influence;
 - ✓ **Scattered to Fairly widespread light/moderate rainfall/snowfall** accompanied with **thunderstorm, lightning** over Arunachal Pradesh during next 5 days with Isolated **heavy rainfall** on 21st & 22nd March.
 - ✓ **Scattered to Fairly widespread** light/moderate rainfall accompanied with **thunderstorm, lightning & gusty winds (speed 40-50 kmph)** likely over Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura during next 5 days.
- ❖ The trough/wind discontinuity runs from south Chhattisgarh to South Interior Karnataka and a trough in easterly from Comorin area to south Tamil Nadu in lower tropospheric levels. Under its influence;
 - ❖ **Isolated to Scattered** light/moderate rainfall accompanied with **thunderstorm, lightning & gusty winds (speed 30-40 kmph)** likely over Tamilnadu Puducherry & Karaikal, Kerala & Mahe, Lakshadweep, Coastal Andhra Pradesh & Yanam, Rayalaseema, Telangana and Interior Karnataka during next 5 days.
 - ❖ **Heavy rainfall** also likely at isolated places over extreme south Tamil Nadu on 21st & 22nd; Kerala & Mahe during 21st-23rd March.
 - ❖ **Isolated hailstorms** also likely over Telangana on 21st & 22nd March.

Temperature Forecast: 3

Forecast of temperature:

Maximum temperature:

- ❖ No significant change in maximum temperatures likely over many places over Northwest & Central India during next 2 days and rise by 2-3°C during subsequent 3 days.
- ❖ No significant change in maximum temperatures likely over West India during next 24 hours and gradual rise by about 2-3°C for subsequent 3-4 days.
- ❖ Gradual fall in maximum temperatures by 3-4°C likely over East India during next 3 days and gradual rise by 2-4°C thereafter.

Heat wave and Hot & Humid weather warning:

- ❖ **No heat wave likely over any parts of country during next 4-5 days.**
- ❖ **Hot & humid weather conditions** very likely to prevail in isolated pockets over Tamil Nadu Puducherry & Karaikal on 21st; Konkan & Goa, coastal areas of Gujarat during 22nd-24th March.

iv. Weather conditions and forecast over Delhi/NCR during 21st March to 24th 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>

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

- ❖ **Light to moderate Rainfall/Snowfall** observed at isolated places over Western Himalayan region.
- ❖ **Light/moderate Rainfall** observed at many places over Gangetic West Bengal; at a few places over East Madhya Pradesh, Andaman & Nicobar Islands, Jharkhand, Arunachal Pradesh, Lakshadweep; at isolated places over East Uttar Pradesh, Rajasthan, West Madhya Pradesh, Chhattisgarh, Sub-Himalayan West Bengal & Sikkim, Bihar, Odisha, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Madhya Maharashtra, Marathawada, Saurashtra & Kutch, Tamilnadu Puducherry & Karaikal, Kerala & Mahe, Telangana, Interior Karnataka.
- ❖ **Thunderstorm reported** at isolated locations over Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Gangetic West Bengal, Odisha, Jharkhand, Bihar, Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Uttarakhand, East Uttar Pradesh, West Rajasthan, Marathawada.

Rainfall recorded (in cm):

- ❖ **East Madhya Pradesh:** Beohari (dist Shahdol) 9, Dheemarkheda (dist Katni) 3;
- ❖ **Arunachal Pradesh:** Mukto_arg (dist Tawang) 2, Anini_aws (dist Dibang Valley) 2, Tawang (dist Tawang) 2, Tawang_ Aws (dist Tawang) 2,
- ❖ **Assam & Meghalaya:** Rattachera (dist East Jaintia Hills) 2 , Silchar (dist Cachar) 1;
- ❖ **Chhattisgarh:** Samari (dist Balrampur) 4, Ramchandrapur (dist Balrampur) 1, Doura Kochali (dist Balrampur) 1, Balrampur (dist Balrampur) 1.

Hailstorm recorded:

- ❖ **South Assam:** Sribhumi,
- ❖ **East Madhya Pradesh:** Jabalpur, Katni, Umaria, Sidhi, Mandla,
- ❖ **North Interior Odisha:** Bangiriposi (Mayurbhanj).

- ❖ **Maximum temperatures** were **below normal by 2-5°C** over some places over south Bihar, North Jharkhand, Gangetic West Bengal, southeast Uttar Pradesh and northeast Madhya Pradesh and **above normal by 2-4°C** over Jammu division, east Punjab, West & central Uttar Pradesh, Vidarbha and near normal over rest parts of the country. (Fig. 2). Yesterday, the highest maximum temperature of **41.1°C** was reported at **Anantapur (Rayalaseema)** over the country (Fig. 2).
- ❖ Yesterday, the Maximum temperatures have shown **falling tendency** during past 24 hours by **2-5°C** over many places over southeast Uttar Pradesh, Bihar, Jharkhand, Gangetic West Bengal, northeast India and **by 1-2°C** over west & northeast Rajasthan, West Madhya Pradesh, Gujarat region, Chhattisgarh, Telangana, Nicobar islands, Vidarbha, North Madhya Maharashtra, Marathwada, **rising tendency by 1-2°C** over Northeast Uttar Pradesh, Jammu, Kashmir, Ladakh, Himachal Pradesh, south Madhya Maharashtra, Haryana & adjoining west Uttar Pradesh, south coastal Andhra Pradesh and **no significant change** over the rest parts of the country.
- ❖ Yesterday, the Maximum temperatures were in the **range of 36-40°C** over interior Maharashtra, Telangana, Rayalaseema, North interior Karnataka, Gujarat, interior Odisha, and **32-36°C** over coastal Andhra Pradesh, Tamil Nadu, Kerala, coastal and south interior Karnataka, Lakshadweep, Andaman & Nicobar Islands, Konkan & Goa, Rajasthan, southwest and east Uttar Pradesh, south Haryana, Madhya Pradesh, Bihar, coastal Odisha, Gangetic west Bengal, south & west Jharkhand, west Assam, Mizoram, Tripura and **20-32°C** over rest parts of the country. (Fig.1)

Fig. 1: Maximum Temperatures

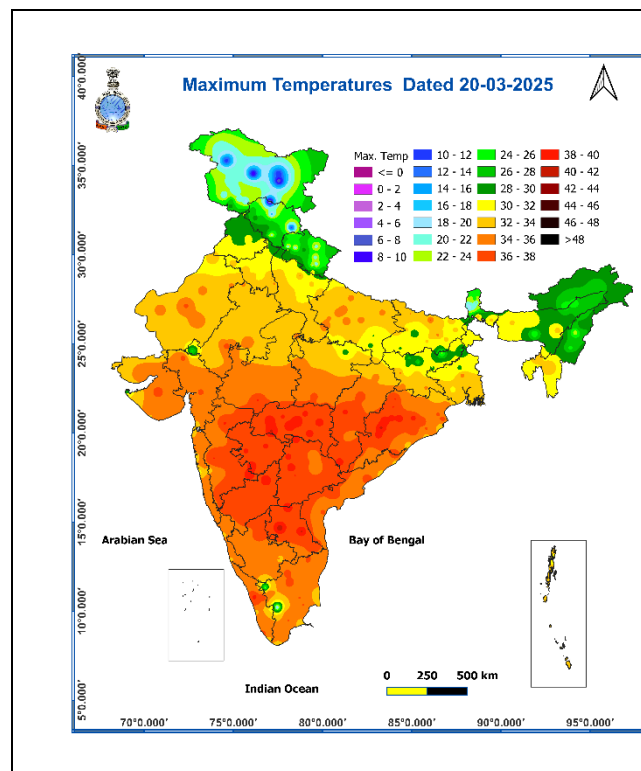
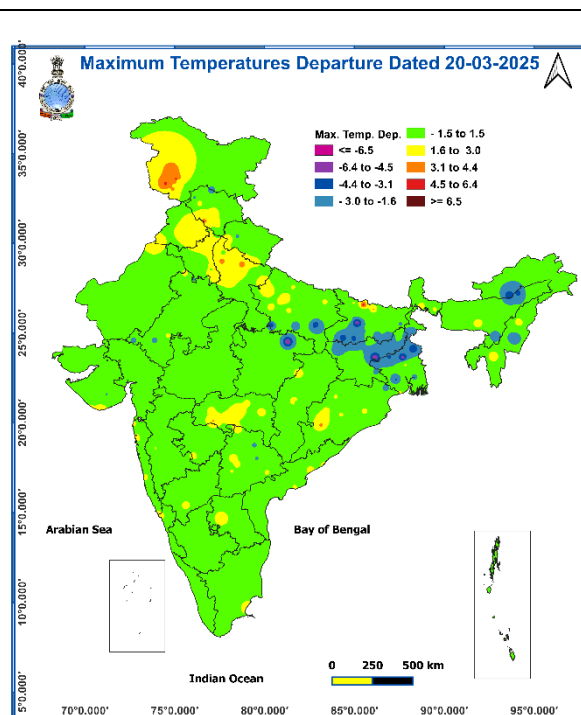
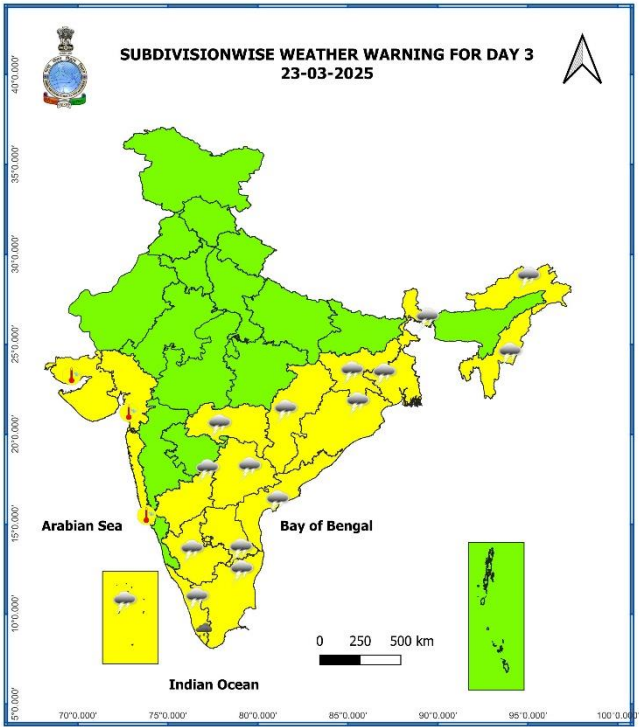
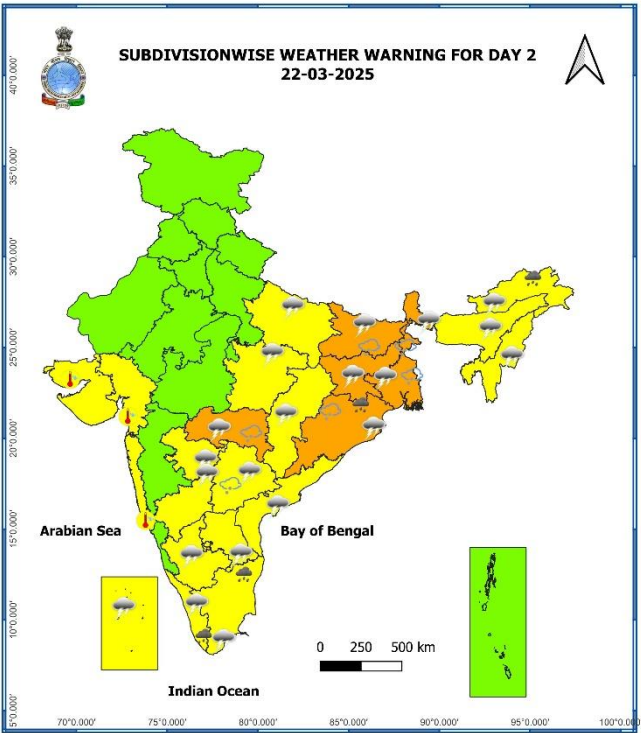
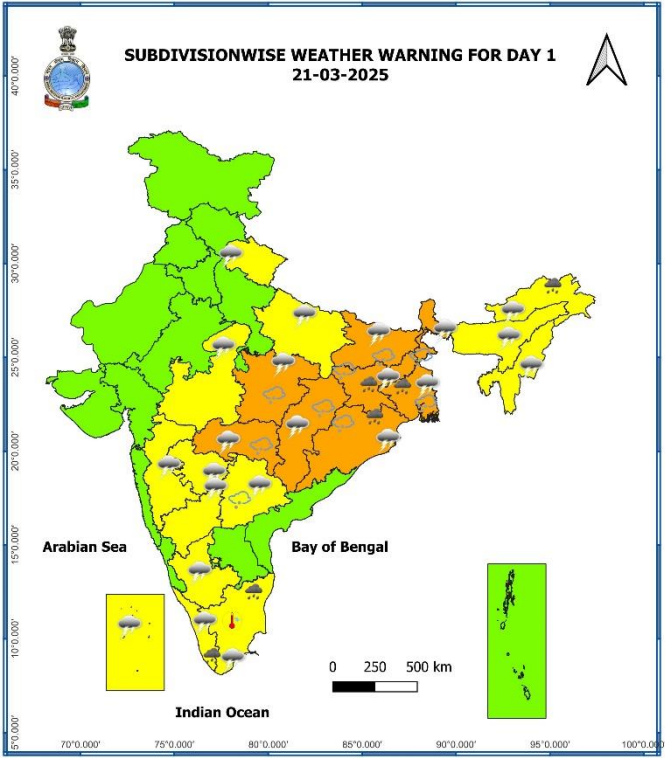


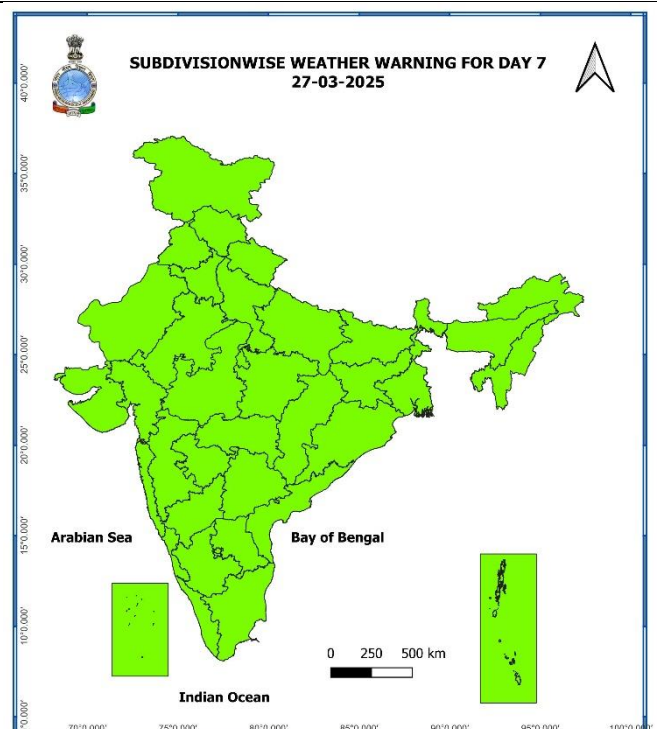
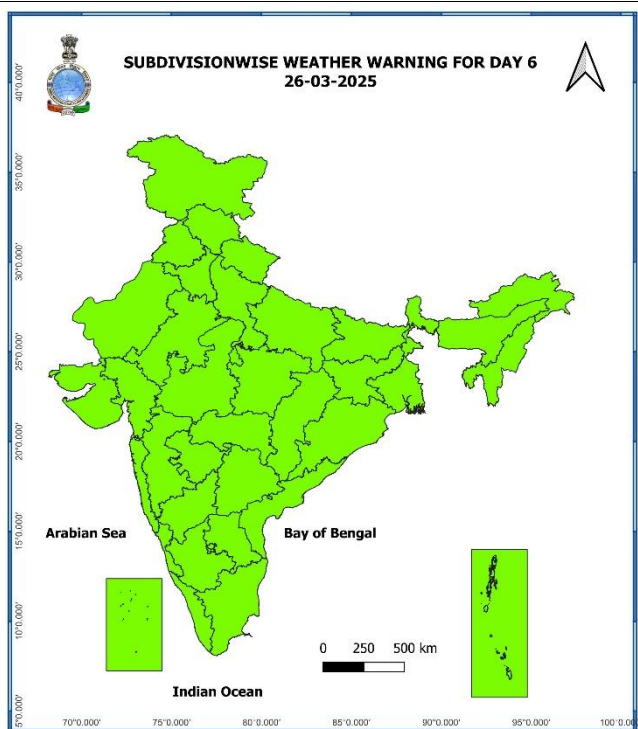
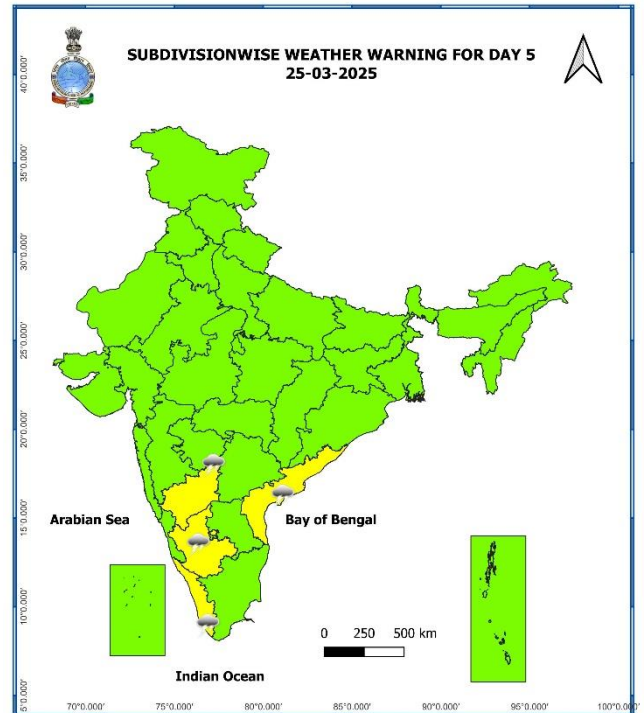
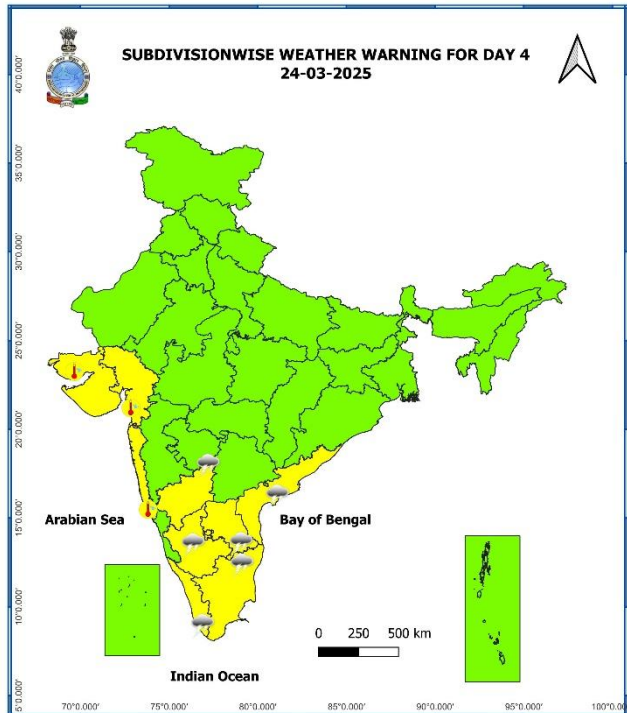
Fig. 2: Departure of Maximum Temperatures



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

There has been a rise in minimum and 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 15 to 17°C respectively. The minimum temperature was near normal and maximum temperature was above normal upto 03°C at most places. Mainly clear sky conditions with predominant surface wind from the northwest direction with wind speeds less than 16 to 20 kmph prevailed during the past 24 hours. Mainly clear sky conditions with wind speed less than 08 kmph from the northwest direction prevailed over the region in the forenoon today.

Weather Forecast:

21.03.2025: Mainly clear sky. 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 12 kmph till evening. It would decrease thereafter becoming less than 08 kmph from the north direction during the 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 33 to 35°C and 15 to 17°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, 08-10 kmph from the northwest direction during the afternoon. It will decrease becoming less than 06 kmph from the north direction during evening and night.

23.03.2025: Mainly clear sky. Mist likely in the morning. The maximum and minimum temperatures over Delhi are likely to be in the range of 34 to 36°C and 15 to 17°C respectively. The predominant surface wind will likely be from the northeast direction with a wind speed of 02-04 kmph during morning hours. The wind speed will gradually increase becoming 06-08 kmph from the northeast direction in the afternoon. It will decrease becoming less than 06 kmph from the north direction during evening and night.

24.03.2025: Mainly clear sky. Mist likely in the morning. The maximum and minimum temperatures over Delhi are likely to be in the range of 35 to 37°C and 16 to 18°C respectively. The predominant surface wind will likely be from the northwest direction with a wind speed of 02-04 kmph during morning hours. The wind speed will gradually increase becoming 06-08 kmph from the northwest direction in the afternoon. It will decrease becoming less than 04 kmph from the northeast direction during evening and night.

Impact expected and action suggested due to thunderstorm accompanied with lightning/gusty winds & hailstorm over Northeast India, south Peninsular India during next 5 days and over east, & central India on 21st & 22nd 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 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.

Agromet advisories for likely impact of Heavy Rainfall / Hailstorm

- In **West Bengal, Odisha, Jharkhand, Bihar, East Madhya Pradesh, Vidarbha, Chhattisgarh** and **Telangana**, 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, Gangetic West Bengal, Odisha, Jharkhand, Tamil Nadu** and **Kerala**, 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.

Livestock

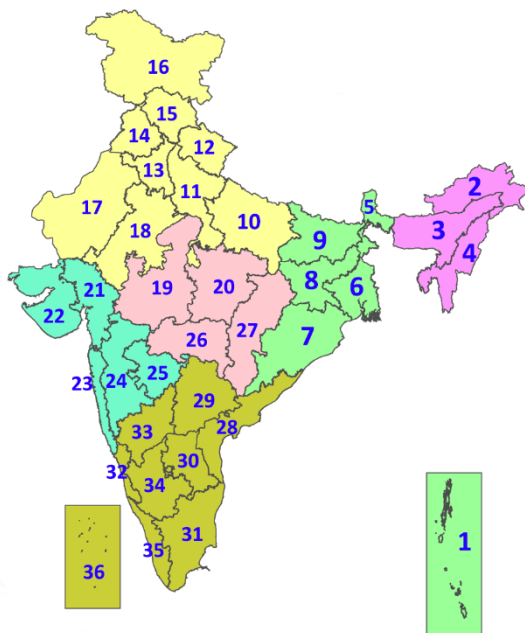
- Keep the animals inside the shed during heavy rainfall/hailstorm and provide them balanced feed.
- Store feed and fodder in a safe place to prevent spoilage.

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 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.