

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



Press Release

Date: 02nd April, 2025

Time of Issue: 1315 hours IST

Subject: i. **Thunderstorm, lightening & hailstorm along with isolated heavy rainfall likely over many parts of South Peninsular India during 02nd to 06th April, 2025.**
ii. **Moderate to intense Thunderstorm along with lightning & hailstorm activity likely over central & adjoining north Peninsular India during next 2 days.**
iii. **Maximum temperature is likely to increase over northwest India by 3-5°C during next 7 days.**

i. Realised weather during past 24 hours till 0830 hours IST of today, the 02nd April 2025 (Annexure I):

- ❖ **Squally/Gusty winds** prevailed at isolated locations over Madhya Pradesh, Madhya Maharashtra, Marathwada, Interior Karnataka, Tamil Nadu.
- ❖ **Heavy rainfall** recorded at isolated places over Tamil Nadu.
- ❖ **Hailstorm** occurred at isolated places over Madhya Maharashtra.
- ❖ **Heat wave** conditions prevailed at isolated places over Saurashtra & Kutch.

For more details of realised weather, kindly refer Annexure I

Temperature:

- ❖ 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 Sub-Himalayan West Bengal and a trough runs from this cyclonic circulation to southeast Madhya Pradesh in the lower tropospheric levels.
- ❖ An upper air Cyclonic Circulation lies over southwest Madhya Pradesh in the lower tropospheric levels.
- ❖ An upper air trough in easterlies runs from Lakshadweep to Konkan in the lower tropospheric levels.
- ❖ Under the influence of these systems and confluence of moist winds from Arabian sea and Bay of Bengal in lower tropospheric levels;
 - ✓ **Isolated to Scattered** light/moderate rainfall accompanied with **thunderstorm, lightning & gusty winds (speed 40-50 kmph)** likely over South Peninsular India during 02nd-06th; Central India, Maharashtra, Gangetic West Bengal, Jharkhand and Odisha during 02nd-04th April.
 - ✓ **Isolated Hailstorm** likely over Madhya Maharashtra, Marathwada on 02nd; Vidarbha, North Interior Karnataka on 02nd & 03rd; West Madhya Pradesh, Chhattisgarh, Telangana and South Interior Karnataka on 03rd April.
 - ✓ **Heavy rainfall** very likely at isolated places over Tamil Nadu, Puducherry & Karaikal, Coastal and adjoining ghat areas of interior Karnataka during 02nd-05th; Kerala & Mahe during 02nd-06th and over North Interior Karnataka on 03rd April.

Temperature Forecast:

- ❖ Gradual rise in maximum temperatures by 3-5°C likely over Northwest India during next 7 days.
- ❖ No significant change in maximum temperatures likely over Central India during next 2 days and gradual rise by 2-4°C during subsequent 5 days.
- ❖ No significant change in maximum temperatures likely over West India during next 3 days and gradual rise by 2-3°C during subsequent 4 days.
- ❖ No significant change in maximum temperatures likely over rest parts of the country during next 7 days.

Heat wave and Hot & Humid weather warning:

- ❖ **Heat Wave conditions very likely to continue to prevail at isolated pockets of Saurashtra & Kutch during next 7 days; West Rajasthan during 05th-08th; Gujarat Region during 06th-08th; East Rajasthan on 07th & 08th April.**

iv. Weather conditions and forecast over Delhi/NCR during 02nd April to 05th April, 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 weather reported during past 24 hours till 0830 hours IST of today:

- ❖ **Light/moderate Rainfall** observed at many places over Kerala & Mahe; at few places over Andaman & Nicobar Islands, Arunachal Pradesh, Madhya Maharashtra, Marathawada; at isolated places over Madhya Pradesh, Vidarbha, Chhattisgarh, Odisha, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Konkan & Goa, Tamil Nadu Puducherry & Karaikal, South Interior Karnataka.
- ❖ **Thunderstorm with lightning** reported at isolated places over Vidarbha, Chhattisgarh, Odisha, Assam & Meghalaya, Kerala & Mahe.

Rainfall recorded (in cm):

- ❖ **Tamil Nadu Puducherry & Karaikal:** Watrap (dist Virudhunagar) 7, PWD Makkinampatti (dist Coimbatore), Sothuparai (dist Theni) 4 each,
- ❖ **Kerala & Mahe:** Ranni Aws (dist Pathanamthitta) 6, Palakkad (dist Palakkad) 5, Punalur (dist Kollam) 5, Kanjirappally (dist Kottayam) 4,

Hailstorm reported:

- ❖ **Madhya Maharashtra:** Karad, Palus

Squally winds/ Gusty winds reported (in knots):

- ❖ **Marathawada:** Yavatmal 33, Nagpur 26;
- ❖ **Tamilnadu Puducherry & Karaikal:** Dindigul 29;
- ❖ **Madhya Maharashtra:** Pune 28;
- ❖ **Interior Karnataka:** Gadag 21.

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

- ❖ Yesterday, Maximum Temperatures showed **rising tendency** during past 24 hours by **1-2°C** over most places of the plains of northwest India, west Madhya Pradesh, Bihar, Gangetic West Bengal, south coastal Andhra Pradesh and some parts of Jammu & Kashmir, Gujarat and Andaman & Nicobar Islands; **falling tendency** by 2-5°C at many places over Uttarakhand, East Madhya Pradesh, Chhattisgarh, interior Maharashtra and **1-2°C** over Jharkhand, Odisha, Telangana, interior Karnataka, Lakshadweep and Northeast India and no significant change over the rest parts of the country.
- ❖ Yesterday, **Maximum Temperatures** were in the **range of 39-41°C** in some parts of Gujarat, south Rajasthan, southwest Madhya Pradesh, southeast Uttar Pradesh, south Marathwada adjoining north interior Karnataka and Telangana, Vidarbha, interior Odisha; **35-38 °C** over remaining parts of Rajasthan, Uttar Pradesh, Maharashtra, Telangana and Odisha, Chhattisgarh, Bihar, Jharkhand, West Bengal, North interior Karnataka & adjoining coastal & south interior Karnataka, south Tamil Nadu, Andhra Pradesh; **30-34 °C** over Punjab, Haryana, Chandigarh, Delhi, remaining parts of Karnataka, Tamil Nadu, Islands, west Assam, Nagaland, Manipur, Mizoram and **20-29 °C** over Western Himalayan Region. Yesterday, the highest maximum temperature of **42.3°C** was reported at **Surendranagar (Saurashtra & Kutch)** over the country. (Fig.1)
- ❖ Yesterday, Maximum Temperatures were **above normal by 2-5°C** over Saurashtra & Kutch & adjoining Gujarat region, Jammu & Kashmir, Himachal Pradesh, North Bihar, Northeast Jharkhand & adjoining Gangetic West Bengal, Sub- Himalayan West Bengal & Sikkim, West Assam & Meghalaya; **below normal by 2-6°C** over North Madhya Maharashtra, North Marathwada, North Vidarbha, and southeast Madhya Pradesh and near normal of rest parts of the country. (Fig. 2).

Fig. 1: Maximum Temperatures

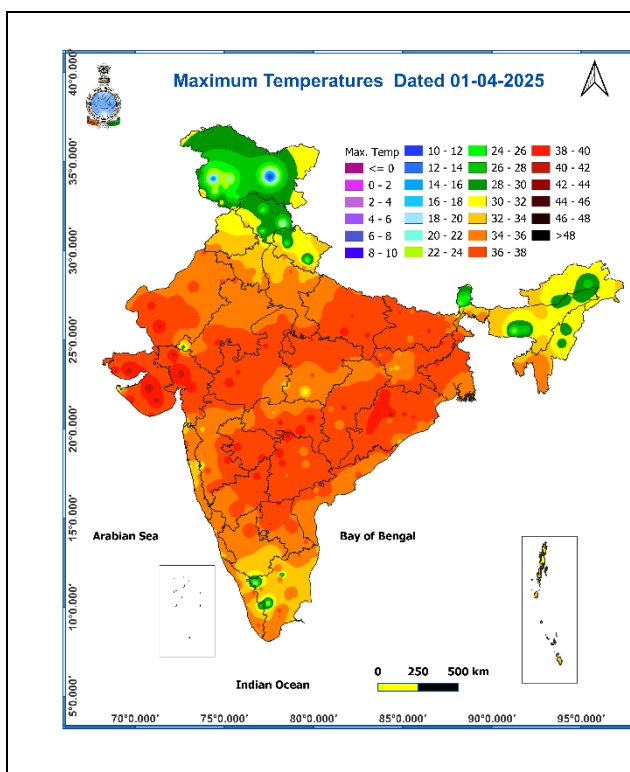
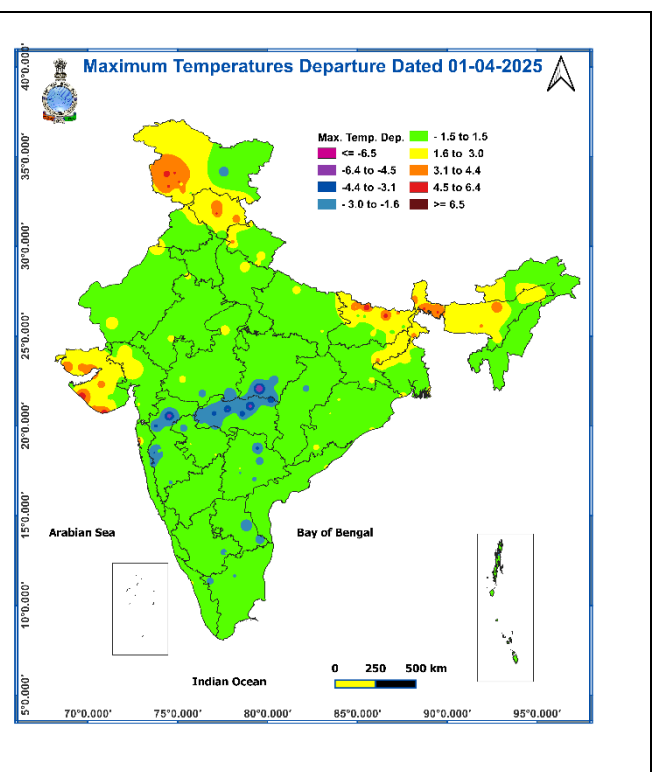
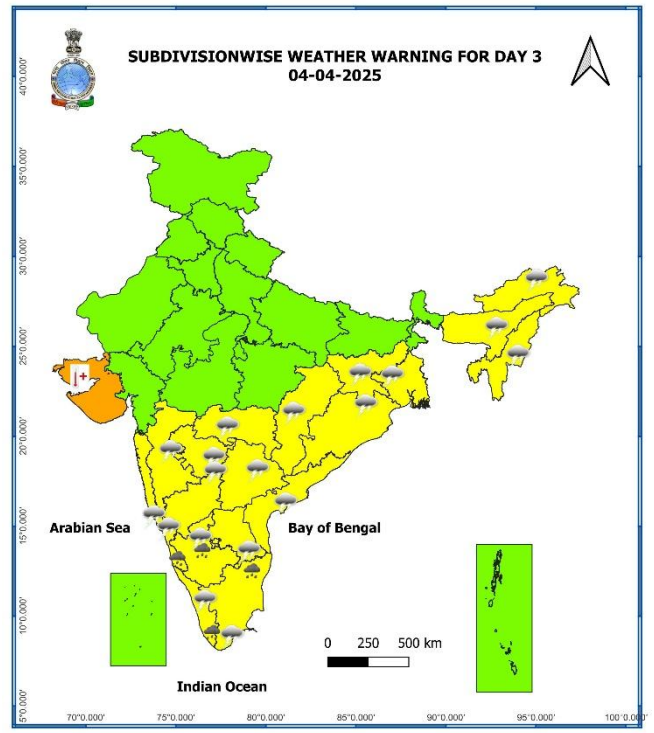
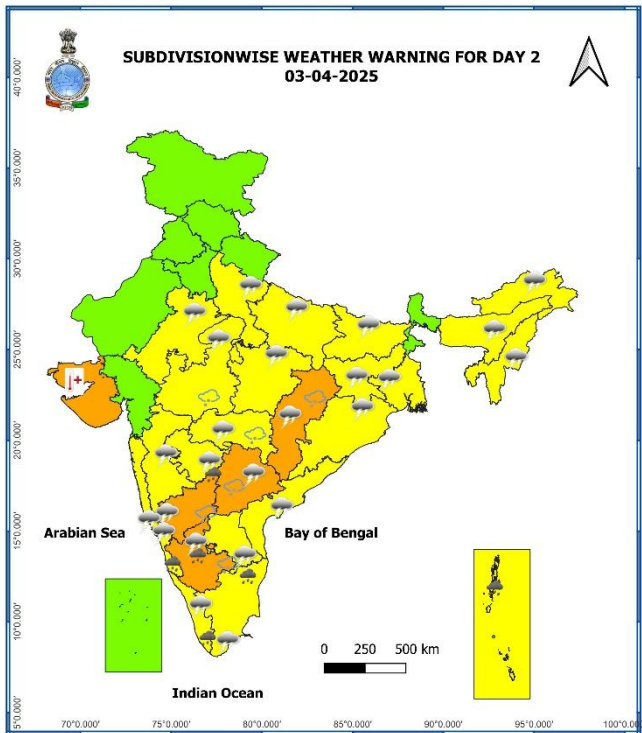
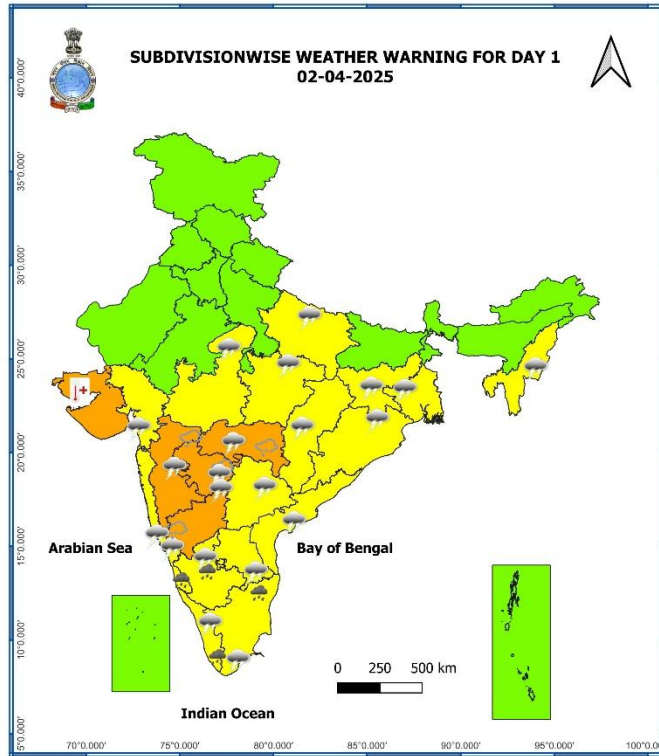


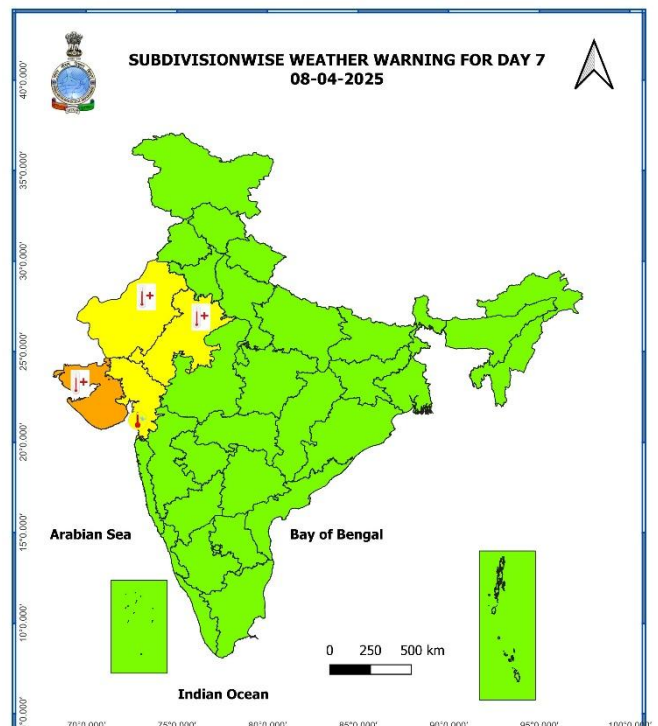
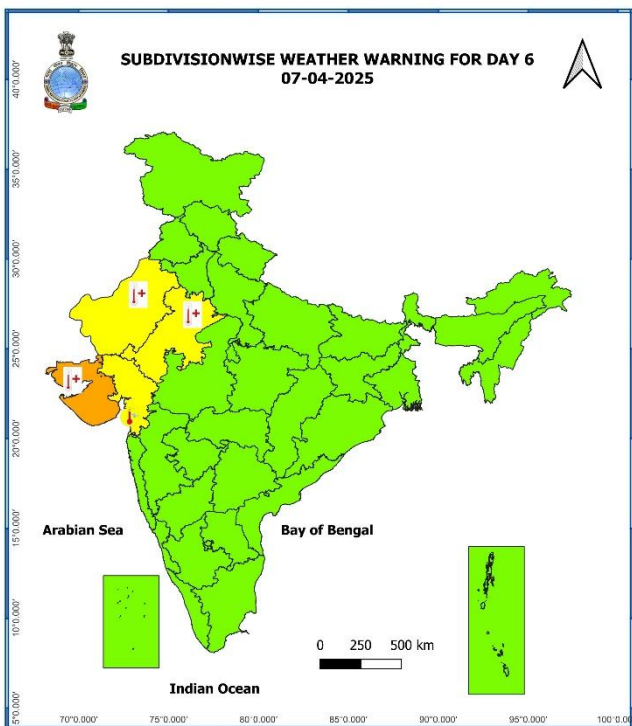
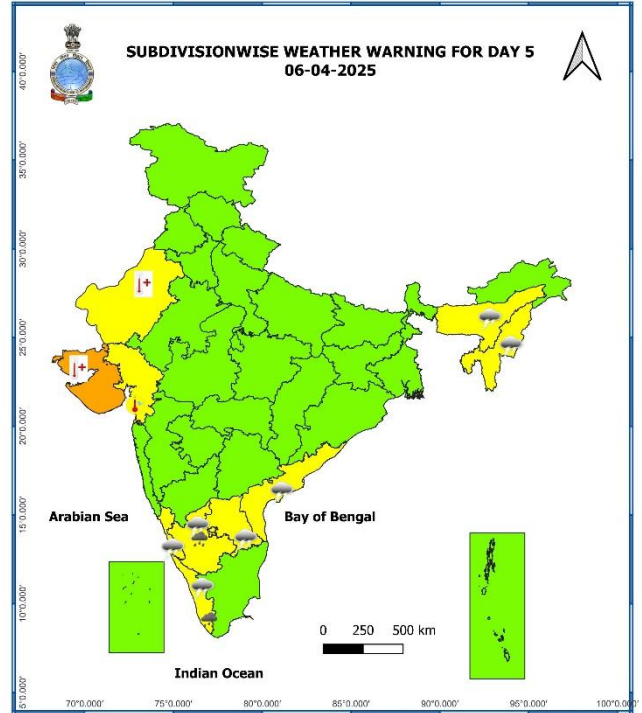
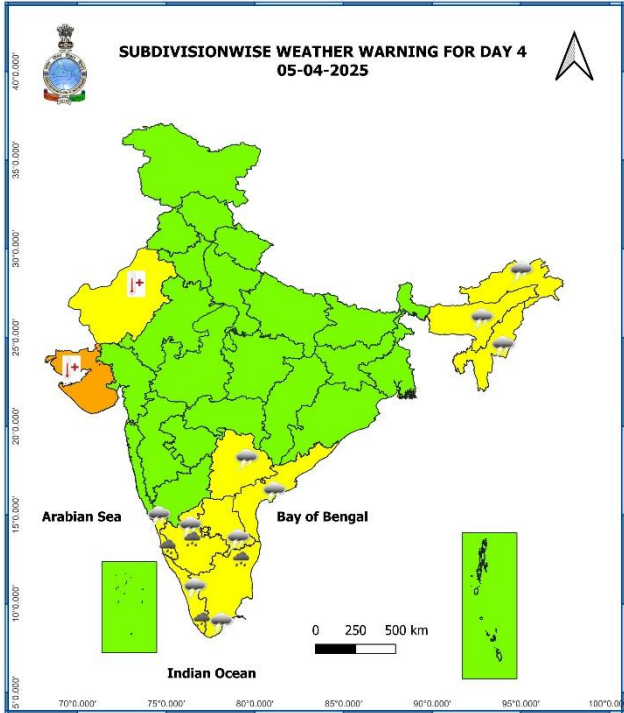
Fig. 2: Departure of Maximum Temperatures



7 Days Rainfall Forecast								
S. No.	Subdivision	02-Apr	03-Apr	04-Apr	05-Apr	06-Apr	07-Apr	08-Apr
		Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
1	ANDAMAN & NICOBAR ISLANDS	FWS	WS	WS	FWS	SCT	SCT	ISOL
2	ARUNACHAL PRADESH	SCT	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
3	ASSAM & MEGHALAYA	ISOL	ISOL	ISOL	FWS	FWS	SCT	SCT
4	NAGALAND, MANIPUR, MIZORAM & TRIPURA	ISOL	ISOL	ISOL	SCT	SCT	ISOL	ISOL
5	SUB-HIMALAYAN WEST BENGAL & SIKKIM	DRY	DRY	ISOL	ISOL	ISOL	SCT	SCT
6	GANGETIC WEST BENGAL	ISOL	ISOL	ISOL	DRY	ISOL	ISOL	ISOL
7	ODISHA	ISOL	ISOL	ISOL	DRY	DRY	DRY	DRY
8	JHARKHAND	ISOL	ISOL	ISOL	DRY	DRY	ISOL	ISOL
9	BIHAR	DRY	ISOL	DRY	DRY	DRY	ISOL	ISOL
10	EAST UTTAR PRADESH	ISOL	ISOL	DRY	DRY	DRY	DRY	DRY
11	WEST UTTAR PRADESH	DRY	ISOL	DRY	DRY	DRY	DRY	DRY
12	UTTARAKHAND	DRY	ISOL	ISOL	DRY	DRY	DRY	DRY
13	HARYANA CHANDIGARH & DELHI	DRY	DRY	DRY	DRY	DRY	DRY	DRY
14	PUNJAB	DRY	DRY	DRY	DRY	DRY	DRY	DRY
15	HIMACHAL PRADESH	DRY	ISOL	DRY	DRY	DRY	DRY	ISOL
16	JAMMU & KASHMIR AND LADAKH	DRY	ISOL	DRY	DRY	DRY	DRY	SCT
17	WEST RAJASTHAN	DRY	ISOL	DRY	DRY	DRY	DRY	DRY
18	EAST RAJASTHAN	ISOL	ISOL	DRY	DRY	DRY	DRY	DRY
19	WEST MADHYA PRADESH	ISOL	ISOL	DRY	DRY	DRY	DRY	DRY
20	EAST MADHYA PRADESH	SCT	ISOL	DRY	DRY	DRY	DRY	DRY
21	GUJARAT REGION	ISOL	DRY	DRY	DRY	DRY	DRY	DRY
22	SAURASHTRA & KUTCH	DRY	DRY	DRY	DRY	DRY	DRY	DRY
23	KONKAN & GOA	ISOL	ISOL	ISOL	ISOL	DRY	DRY	DRY
24	MADHYA MAHARASHTRA	SCT	ISOL	ISOL	ISOL	ISOL	DRY	DRY
25	MARATHAWADA	SCT	ISOL	ISOL	ISOL	ISOL	DRY	DRY
26	VIDARBHA	SCT	ISOL	ISOL	DRY	DRY	DRY	DRY
27	CHHATTISGARH	ISOL	ISOL	ISOL	DRY	DRY	DRY	DRY
28	COASTAL ANDHRA PRADESH & YANAM	ISOL	SCT	SCT	SCT	ISOL	ISOL	ISOL
29	TELANGANA	ISOL	FWS	SCT	ISOL	DRY	DRY	ISOL
30	RAYALASEEMA	ISOL	FWS	FWS	SCT	ISOL	ISOL	ISOL
31	TAMILNADU PUDUCHERRY & KARAIKAL	SCT	SCT	SCT	SCT	ISOL	ISOL	ISOL
32	COASTAL KARNATAKA	FWS	WS	WS	FWS	SCT	SCT	SCT
33	NORTH INTERIOR KARNATAKA	ISOL	WS	SCT	ISOL	ISOL	ISOL	ISOL
34	SOUTH INTERIOR KARNATAKA	SCT	WS	FWS	FWS	SCT	ISOL	ISOL
35	KERALA & MAHE	FWS	WS	WS	WS	FWS	FWS	FWS
36	LAKSHADWEEP	SCT	DRY	DRY	SCT	SCT	SCT	SCT

- As the lead period increases forecast accuracy decreases.





- Action may be taken based on **ORANGE AND RED COLOUR** warnings.
- Vulnerable regions likely urban and hilly areas action may be initiated for heavy rainfall warning.
- As the lead period increases forecast accuracy decreases.

Detailed district wise Multi Hazard weather warning for next five days available at <https://mausam.imd.gov.in/responsive/districtWiseWarningGIS.php>

Weather forecast over Delhi/NCR during 02nd to 05th Apr. 2025**Past Weather:**

There has been no significant changes in minimum temperature 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 34 to 36°C and 14 to 17°C respectively. The minimum temperature was below normal upto 04°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 18 to 20 kmph prevailed during day time and calm wind during night time on 01st April 2025. Mainly clear sky conditions with wind speed less than 08 kmph from the west-northwest direction prevailed over the region in the forenoon today.

Weather Forecast:

02.04.2025: Mainly clear sky. The maximum temperature over Delhi is likely to be in the range of 35 to 37°C. The predominant surface wind will likely be from the northwest direction with a wind speed of less than 14 kmph till evening. It would decrease thereafter becoming less than 06 kmph from the northeast direction during the night.

03.04.2025: Partly cloudy sky. Surface winds (speed 10-20 kmph) occasionally gusting to 30 kmph. The maximum and minimum temperatures over Delhi are likely to be in the range of 36 to 38°C and 16 to 18°C respectively. The predominant surface wind will likely be from the southeast direction with a wind speed of 04-06 kmph during morning hours. The wind speed will gradually increase thereafter becoming 14-16 kmph from the southwest direction during the afternoon. It will decrease becoming less than 08 kmph from the southeast direction during evening and night.

04.04.2025: Mainly clear sky. Surface winds (speed 10-20 kmph) occasionally gusting to 30 kmph. The maximum and minimum temperatures over Delhi are likely to be in the range of 37 to 39°C and 17 to 19°C respectively. The predominant surface wind will likely be from the southwest direction with a wind speed of 04-06 kmph during morning hours. The wind speed will gradually increase becoming 16-18 kmph from the northwest direction in the afternoon. It will decrease becoming less than 06 kmph from the northwest direction during evening and night.

05.04.2025: Mainly clear sky. Surface winds (speed 10-20 kmph) occasionally gusting to 30 kmph. The maximum and minimum temperatures over Delhi are likely to be in the range of 37 to 39°C and 18 to 20°C respectively. The predominant surface wind will likely be from the northwest direction with a wind speed of 10-12 kmph during morning hours. The wind speed will gradually increase becoming 20-25 kmph from the northwest direction in the afternoon. It will decrease becoming less than 12 kmph from the northwest direction during evening and night.

Impact expected and action suggested due Heat Wave conditions over Saurashtra & Kutch during next 7 days; West Rajasthan during 05th-08th; Gujarat Region during 06th-08th; East Rajasthan on 07th & 08th April.

Orange alert Areas

- High temperature & increased likelihood of heat illness symptoms in people who are either exposed to sun for a prolonged period or doing heavy work.
- High health concern for vulnerable people e.g. infants, elderly, people with chronic diseases.
- Avoid heat exposure– keep cool. Avoid dehydration.
- Drink sufficient water- even if not thirsty.
- Use ORS, homemade drinks like lassi, torani (rice water), lemon water, buttermilk, etc. to keep yourself hydrated.

Yellow alert Areas

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

Impact expected and action suggested due to isolated thunderstorm with lightning/gusty winds & Hailstorm over central and adjoining East & Peninsular India during 02nd-04th April.

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 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 Hailstorm / Heavy Rainfall / Gusty Winds / Heatwave

- In **Madhya Maharashtra, Marathwada, Vidarbha, Chhattisgarh, West Madhya Pradesh, Interior Karnataka and Telangana**, Immediately harvest the matured crops, fruits and vegetables 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 **Andaman & Nicobar Islands, Tamilnadu, Kerala and Karnataka**, make provision to drain out excess water from standing crop and vegetable fields.
- In **Saurashtra & Kutch**, apply light and frequent irrigation to standing crops in the evening to protect them from heat waves.
- Provide mechanical support to horticultural crops and staking to vegetables to avoid lodging.

Livestock / Poultry / Fishery

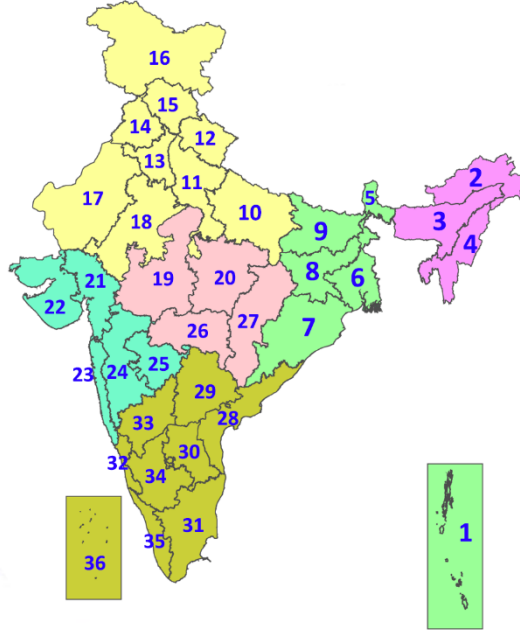
- Keep the animals inside the shed during heavy rainfall/hailstorm and provide them balanced feed.
- Store feed and fodder in a safe place to prevent spoilage.
- To reduce the effect of heat wave/high temperature, cover the roof of poultry sheds with grass. Also provide clean, hygienic and plenty of 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 62-87 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)

* 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.