



Government of India
Ministry of Earth Sciences
India Meteorological Department



Press Release

Date: 19th February, 2025

Time of Issue: 1345 hours IST

Subject: a) Isolated to scattered rainfall along with thunderstorm/lightning/hailstorm likely over East India during next 4-5 days.

b) Scattered to fairly widespread rainfall/snowfall likely over Western Himalayan Region and isolated to scattered rainfall over plains of Northwest India during next 48 hours. Isolated heavy rainfall/snowfall also likely over Western Himalayan Region on 20th February, 2025.

i. Realised weather during past 24 hours till 0830 hours IST of today (Annexure I)

Temperature:

- ❖ During Past 24 hours, Day temperatures have risen by 1-3°C at some places over Jammu-Kashmir, Bihar, Saurashtra & Kutch; at isolated places over Haryana, Assam & Meghalaya, West Madhya Pradesh, Tamilnadu Puducherry & Karaikal. It has fallen by 1-3°C at some places over Odisha; at isolated places over Rajasthan, Uttar Pradesh and Gangetic West Bengal.
- ❖ Day temperatures were **markedly above normal (5°C or more)** at a few places over Jammu-Kashmir; **above normal (2.0°C to 5.0°C)** at many places over Northwest, Central & West India and Odisha; at isolated places over Bihar, Jharkhand and Nagaland, Manipur, Mizoram & Tripura.
- ❖ During past 24 hours, Night temperatures have fallen by 1-4°C at many places over Gujarat State, Rajasthan; at some places over Uttar Pradesh; at isolated places over Uttarakhand, Haryana, Chandigarh & Delhi, West Madhya Pradesh and risen by 1-4°C at many places over East India; at some places over Jammu-Kashmir, East Madhya Pradesh, Maharashtra; at isolated places over Chhattisgarh, Telangana and Interior Karnataka.
- ❖ Night temperatures were **markedly above normal (5.1°C or more)** at a few places over Rajasthan; at isolated places over Saurashtra & Kutch; **above normal (2.0°C to 5.0°C)** at many places over Central, East & West India; at isolated places over Jammu-Kashmir, Himachal Pradesh, West Uttar Pradesh, Nagaland, Manipur, Mizoram & Tripura, Coastal Andhra Pradesh & Yanam and North Interior Karnataka; These were **below normal (-1°C to -3°C)** at isolated places over East Uttar Pradesh, Tamilnadu Puducherry & Karaikal, Kerala & Mahe and near normal over rest parts of the country.
- ❖ Further detailed temperature observations during past 24 hours till 0830 hours IST of today are provided in **Annexure II**

Rainfall:

- ❖ Light to moderate **Rainfall/Snowfall** observed at a few places over Arunachal Pradesh; Light to moderate **Rainfall** at a few places over Sub-Himalayan West Bengal & Sikkim; at isolated places over West Uttar Pradesh, East Rajasthan, Odisha, Gangetic West Bengal, West Madhya Pradesh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.

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

- ❖ A **trough** runs from Gangetic West Bengal to Telangana and an **anti-cyclonic circulation** lies over north Bay of Bengal in lower tropospheric levels. Under its influence,
 - ✓ **Scattered to fairly widespread** light/moderate rainfall accompanied with **thunderstorm, lightning with gusty winds (speed 30-40 kmph)** very likely over Gangetic West Bengal on 19th, 20th, 22nd & 23rd; Isolated to scattered light/moderate rainfall accompanied with **thunderstorm & lightning** very likely over Bihar on 20th, 22nd & 23rd; Jharkhand on 19th, 20th, 22nd; Odisha during 19th-23rd February.

- ✓ **Hailstorm activity also likely at isolated places** over Gangetic West Bengal on 19th & 20th; Jharkhand & Odisha on 19th, 20th & 22nd February.
- ❖ A **Western Disturbance** seen as a cyclonic circulation over Jammu & neighbourhood in lower tropospheric levels. Another Western Disturbance is seen as a trough in lower tropospheric level runs roughly along Long. 60°E to the north of Lat. 30°N. An induced **cyclonic circulation** lies over South Pakistan and adjoining Southwest Rajasthan in lower tropospheric levels. Under their influence;
 - ✓ **Scattered to fairly widespread light to moderate rainfall/snowfall accompanied with thunderstorm & lightning over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh on 19th & 20th and isolated light rainfall/snowfall during 21st -23rd February. Thunderstorm & lightning with isolated hailstorm activity** likely over Uttarakhand on 20th February.
 - ✓ **Heavy rainfall/snowfall** at isolated places likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad and Himachal Pradesh on 20th February.
 - ✓ Isolated to Scattered light to moderate rainfall accompanied with **thunderstorm & lightning with gusty winds (speed 30-40 kmph)** likely over Punjab, Haryana, Chandigarh on 19th & 20th; West Rajasthan on 19th February; with **thunderstorm & lightning** likely over East Rajasthan on 19th; Uttar Pradesh on 20th and isolated light rainfall likely over Vidarbha on 22nd; Chhattisgarh during 20th-22nd February.
- ❖ A **fresh Western Disturbance** is likely to affect Northwest India from 24th February, 2025. Under its influence, Isolated to Scattered light to moderate rainfall/snowfall over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad on 24th & 25th; Himachal Pradesh and Uttarakhand on 25th February.
- ❖ Isolated light/moderate rainfall accompanied with **thunderstorm & lightning** very likely over Coastal Andhra Pradesh & Yanam on 22nd & 23rd February.
- ❖ A **cyclonic circulation** lies over northeast Assam in lower tropospheric levels. Under its influence,
 - ✓ Scattered to Fairly widespread light/moderate rainfall/snowfall activity likely over Arunachal Pradesh during 19th-25th February.
 - ✓ Isolated to scattered light rainfall activity likely over Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura and Sub-Himalayan West Bengal & Sikkim during next 7 days.
 - ✓ Thunderstorm & lightning activity likely over Arunachal Pradesh on 19th, 20th & 23rd; Assam & Meghalaya during 19th -23rd February; with **gusty winds (speed 30-40 kmph)** over Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura on 19th & 20th February.

Temperature Forecast:

Forecast of temperature:

Minimum Temperature:

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

Maximum temperature:

- ❖ Gradual fall in maximum temperatures by 1-2°C likely over Northwest India during next 2 days and gradual rise by 2-4°C during subsequent 2 days.
- ❖ No significant change in maximum temperatures likely over rest parts of India during next 4-5 days.

iii. Weather conditions and forecast over Delhi/NCR during 19th Feb. to 22nd Feb. 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 rainfall recorded during past 24 hours till 0830 hours IST of today 19.02.2025 (in cm):

- ❖ **Arunachal Pradesh:** Kabu Basti (dist West Siang) 3, Tuting (dist Upper Siang) 1, Tuting_ Aws (dist Upper Siang) 1, Tawang_ Aws (dist Tawang) 1;
- ❖ **Assam & Meghalaya:** Lala Arg (dist Hailakandi) 3, Bihubar (dist Sibsagar) 1, Neamatighat (dist Jorhat) 1;
- ❖ **Nagaland, Manipur, Mizoram & Tripura:** Dimapur_ Aws (dist Dimapur) 2

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

- ❖ **Dense fog conditions (visibility 50-199 m)** reported in isolated pockets of Gangetic West Bengal, Sub-Himalayan West Bengal & Sikkim and Meghalaya.
- ❖ **Visibility reported (≤ 200 m) (in meter): Gangetic West Bengal:** Dum Dum 50; **Sub-Himalayan West Bengal & Sikkim:** Tadong 50; **Meghalaya:** Barapani 100.

ANNEXURE II

- ❖ Minimum temperatures are in the range of **6-12°C** over many parts of Punjab, Haryana, Chandigarh & Delhi; **12-18°C** over many parts of Rajasthan, Madhya Pradesh, Bihar & Jharkhand. Today, the lowest minimum temperature of **6.6°C** is reported at **Adampur IAF (Punjab)** over the plains of the country.
- ❖ During the past 24 hours, **minimum temperatures** have risen by 1-4°C at many places over East India; at some places over Jammu-Kashmir, East Madhya Pradesh, Maharashtra; at isolated places over Chhattisgarh, Telangana and Interior Karnataka. It has fallen by 1-4°C at many places over Gujarat State, Rajasthan; at some places over Uttar Pradesh; at isolated places over Uttarakhand, Haryana Chandigarh & Delhi, West Madhya Pradesh.
- ❖ Minimum temperatures are **markedly above normal (5.1°C or more)** at a few places over Rajasthan; at isolated places over Saurashtra & Kutch; **above normal (2.0°C to 5.0°C)** at many places over Central, East & West India; at isolated places over Jammu-Kashmir, Himachal Pradesh, West Uttar Pradesh, Nagaland, Manipur, Mizoram & Tripura, Coastal Andhra Pradesh & Yanam and North Interior Karnataka; These are **below normal (-1°C to -3°C)** at isolated places over East Uttar Pradesh, Tamilnadu Puducherry & Karaikal, Kerala & Mahe and near normal over rest parts of the country.
- ❖ Maximum temperatures are in the range of **35-38°C** over many parts of Odisha, Maharashtra, Coastal Andhra Pradesh & Yanam; in some parts of Telangana, Rayalaseema, North Interior Karnataka and Kerala & Mahe; at isolated places over Saurashtra & Kutch, Tamilnadu Puducherry & Karaikal and. Yesterday, the highest **maximum temperature of 37.8°C** was reported at **Akola (Vidarbha)** over the plains of the country.
- ❖ Maximum temperatures were **markedly above normal (5°C or more)** at a few places over Jammu-Kashmir; **above normal (2.0°C to 5.0°C)** at many places over Northwest, Central & West India and Odisha; at isolated places over Bihar, Jharkhand and Nagaland, Manipur, Mizoram & Tripura. These were **below normal (-1°C to -3°C)** at isolated places over Tamil Nadu, Puducherry & Karaikal.

Fig. 1: Maximum Temperatures

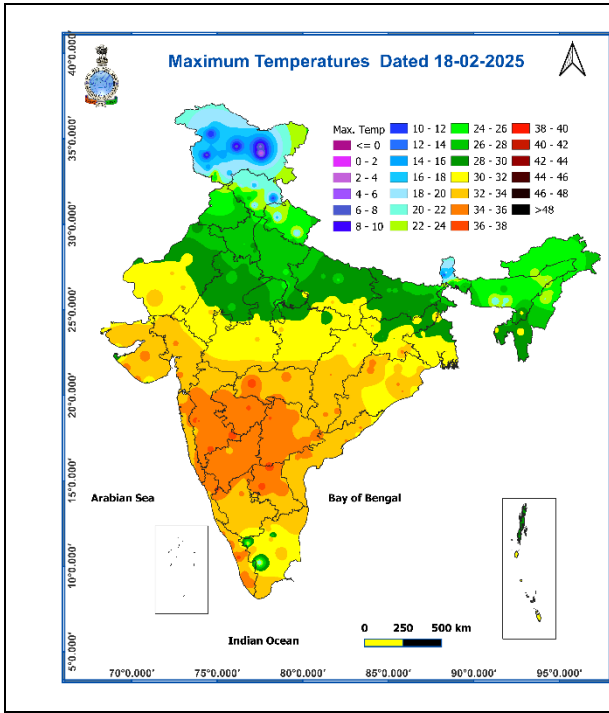


Fig. 2: Departure of Maximum Temperatures

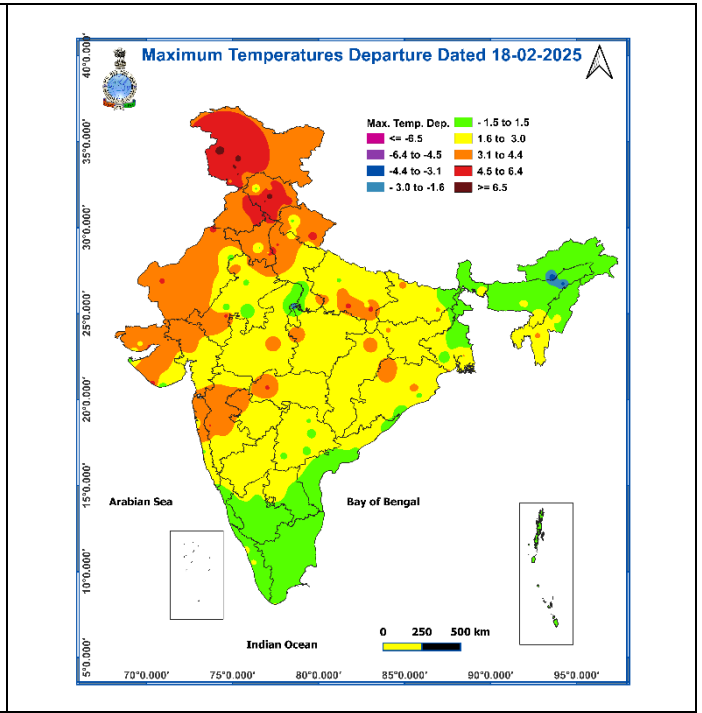


Fig. 3: Minimum Temperatures

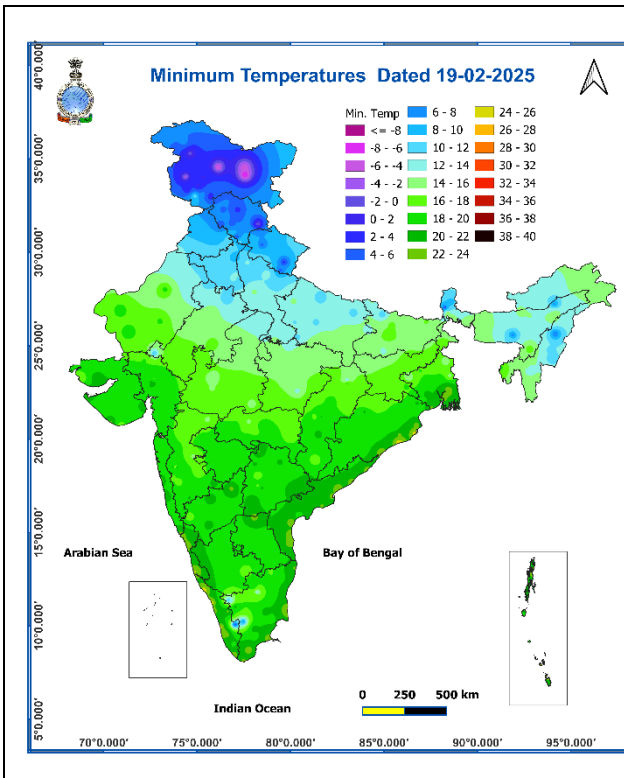
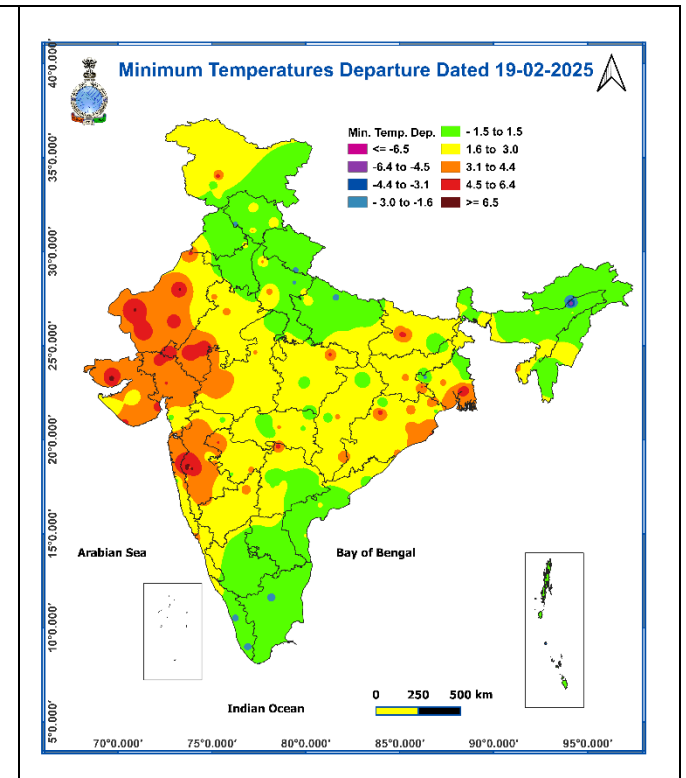
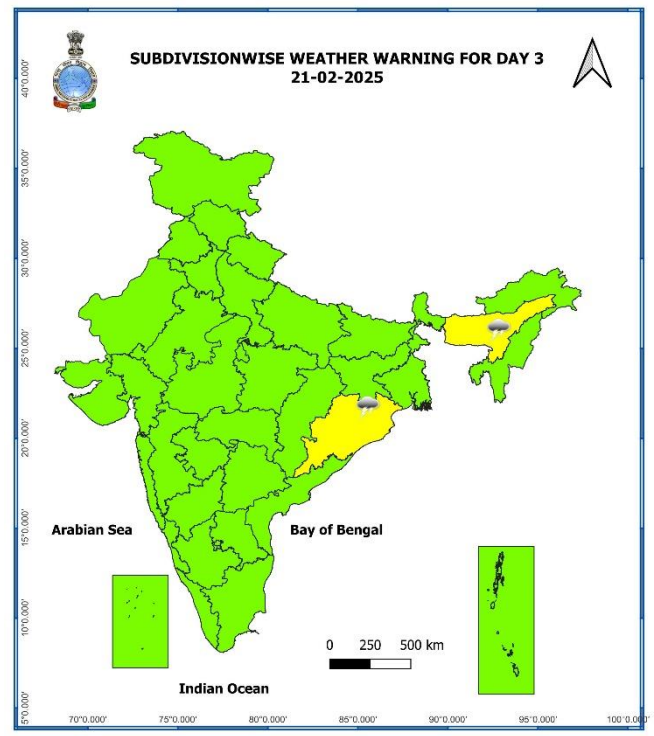
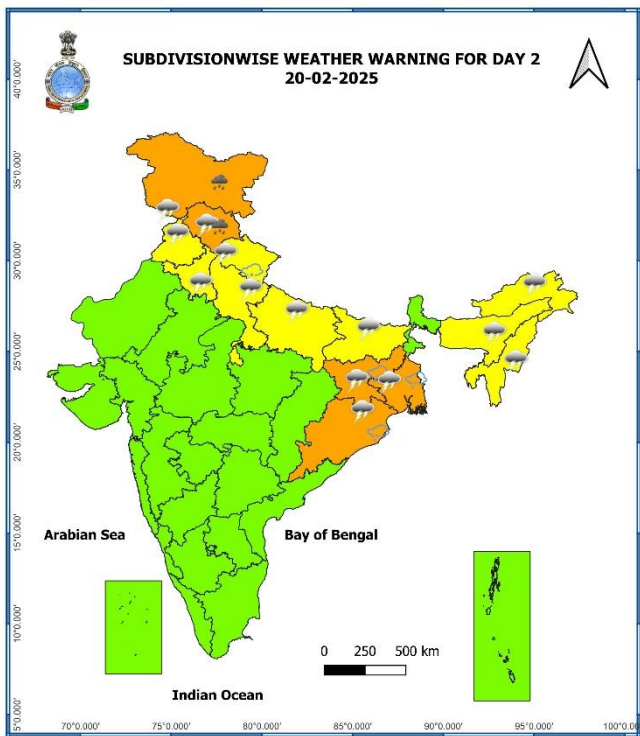
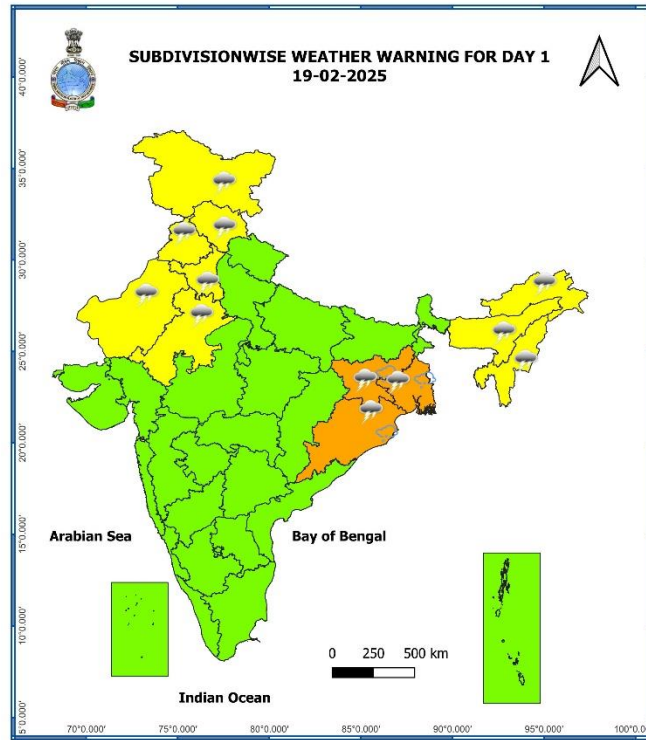


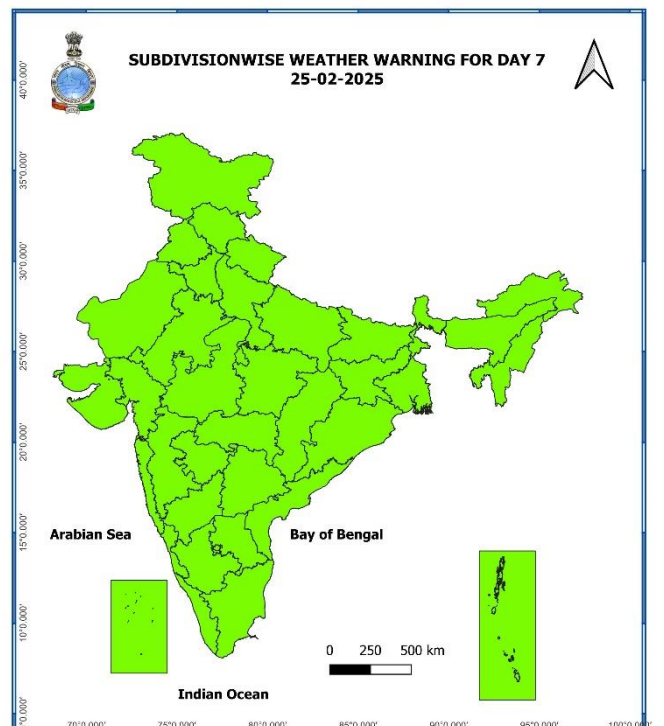
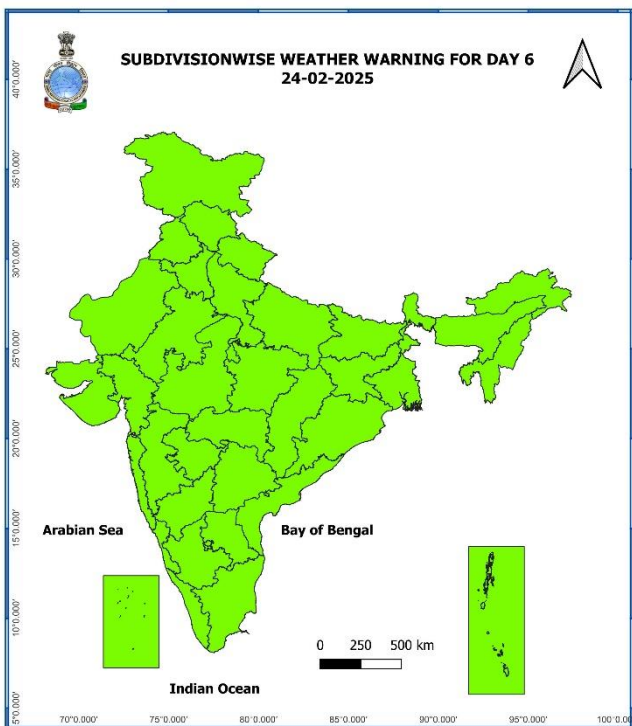
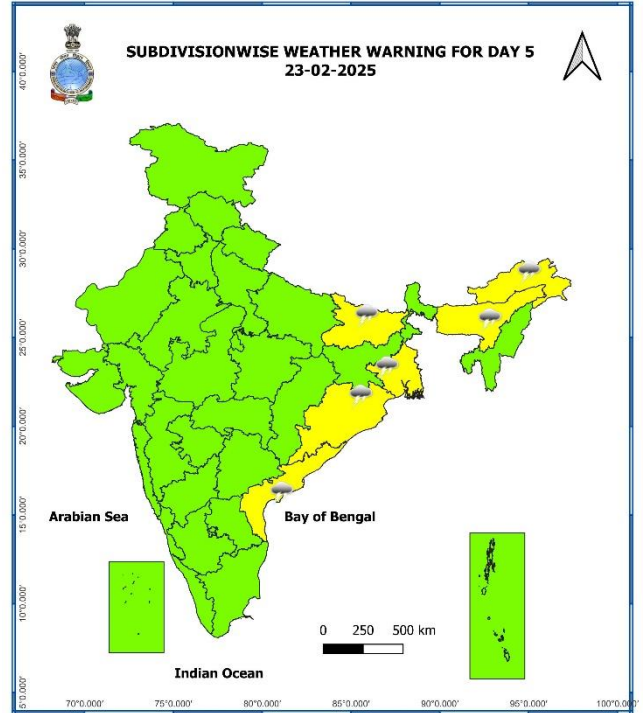
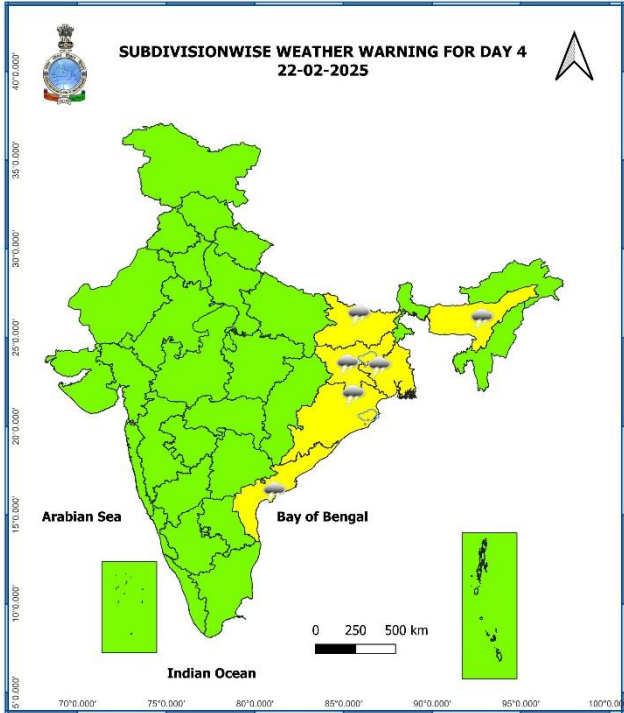
Fig. 4: Departure of Minimum Temperatures



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

Past Weather:

There has been a fall in minimum temperature upto 02°C and slight fall in maximum temperature over Delhi/NCR during the past 24 hours. The Maximum and Minimum temperatures over Delhi are in the range of 27 to 29°C and 11 to 12°C respectively. The minimum temperature was near normal and maximum temperature was above normal upto 05°C over most places. Mainly clear sky conditions with predominant surface wind from the west direction with wind speed reaching 10 to 12 kmph prevailed during the past 24 hours. Mainly smog/mist conditions with wind speed less than 08 kmph west-south-west direction prevailed over the region in the forenoon today.

Weather Forecast:

19.02.2025: Partly cloudy sky becoming generally cloudy sky towards afternoon/evening. Very light/light rain accompanied with thunderstorm likely towards night. The maximum temperature over Delhi is likely to be in the range of 27 to 29°C. The predominant surface wind will likely to be from northwest direction with a wind speed of less than 12 kmph till evening. It would decrease thereafter becoming less than 06 kmph from the east direction during the night.

20.02.2025: Generally cloudy sky. Very light rain/drizzle during morning hours and afternoon. Strong surface wind (speed 20-30 kmph) during the day. The maximum and minimum temperatures over Delhi are likely to be in the range of 24 to 26°C and 12 to 14°C respectively. The predominant surface wind is likely to be from the southeast direction with a wind speed less than 10 kmph during morning hours. The wind speed will gradually increase thereafter becoming 18-20 kmph from the southeast direction during the afternoon. It will decrease further becoming less than 10 kmph from the southeast direction during evening and night.

21.02.2025: Partly cloudy sky. Smog/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 12 to 14°C respectively. The predominant surface wind will likely to be from the southeast direction with a wind speed of less than 06 kmph during morning hours. The wind speed will gradually increase thereafter becoming 08-10 kmph from the southeast direction during the afternoon. It will decrease becoming less than 06 kmph from north direction during evening and night.

22.02.2025: Mainly clear sky. Smog/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 10 to 12°C respectively. The predominant surface wind will likely to be from northwest direction with a wind speed of less than 06 kmph during morning hours. The wind speed will gradually increase thereafter becoming 10-12 kmph from the northwest direction during the afternoon. It will decrease becoming less than 06 kmph from northwest direction during evening and night.

Agromet advisories for likely impact of Heavy Rainfall/Hailstorms

- Use hail nets or hail caps in fruit orchards and vegetable plants to protect them from mechanical damage in **Gangetic West Bengal, Odisha, Jharkhand and Uttarakhand**.
- Make provision for draining out excess water from the fields of wheat, mustard, pulses, other standing crops, vegetables and horticultural crops in **Jammu & Kashmir** and **Himachal Pradesh** to avoid water stagnation.
- 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.

Livestock

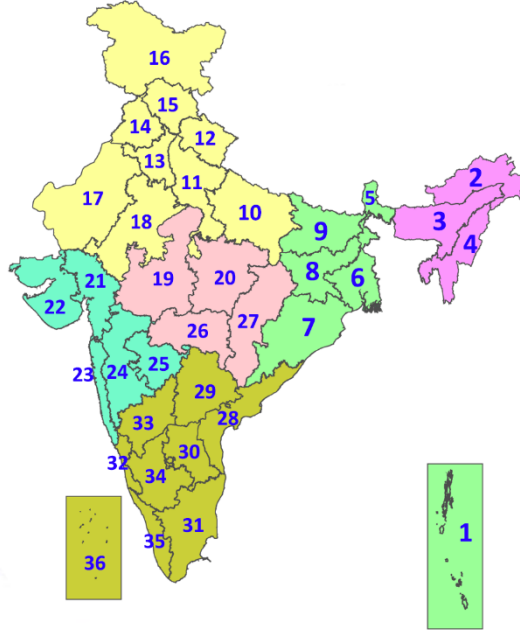
- Keep the animals inside the shed during heavy rainfall/ hailstorms and provide them with balanced feed.
- Store feed and fodder in a safe place to prevent spoilage.

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 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
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