Government of India
Ministry of Earth Sciences
India Meteorological Department

**Press Release**
**Date: 14th February, 2025**
**Time of Issue: 1345 hours IST**

**Subject: Gradual rise in both minimum and maximum temperatures likely over plains of Northwest India and adjoining Central India by 2-5℃ during 15th -18th February, 2025.**

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

- **Cold wave to severe cold wave like conditions** prevailed in isolated pockets of Himachal Pradesh.

### Temperature:

- During Past 24 hours, Day temperatures have fallen by 2-5°C at many places over southeast Uttar Pradesh, Madhya Pradesh and adjoining parts of Chhattisgarh and northeast Rajasthan, it has fallen by 1-2°C at many places over interior Maharashtra, Bihar, North Interior Karnataka, Vidarbha, Telangana, Delhi and remaining parts of Uttar Pradesh; It has increased by 1-3°C at many places over southwest Rajasthan and Gujarat state.
- Day temperatures continued to be appreciably above normal to markedly above normal by 3°C to 6°C at many places over Central & East India; at isolated places over Western Himalayan region & northern parts of Peninsular India; above normal (1°C to 3°C) at most places over Northwest & Northeast India.
- During Past 24 hours, Night temperatures have fallen by 3-6°C over many parts of East India and by 1-3°C over some parts of Central & Northeast India, Northwest plains while it raised by about 1-3°C at few places over Rajasthan and south Peninsular India.
- Night temperatures were appreciably above normal (3°C to 5°C) at a few places over southwest Rajasthan, Gujarat State; above normal (1°C to 3°C) at isolated places over Punjab, Bihar, Odisha, Assam & Meghalaya, North Interior Karnataka. These are appreciably below normal (-3°C to -5°C) at isolated places over Central & East India, Telangana & Andhra Pradesh.
- 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** at many places over Arunachal Pradesh; Light to moderate **Rainfall** at a few places over Assam & Meghalaya; at isolated places over Nagaland, Manipur, Mizoram & Tripura, Sub-Himalayan West Bengal & Sikkim.
- **Hailstorm** recorded at isolated places over Assam.

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

- A north-south **trough** in lower & middle tropospheric westerlies runs over Northeast India. Under its influence,
  - ✓ Scattered to Fairly widespread light to moderate rainfall/snowfall activity likely over Arunachal Pradesh during 14th-20th February with thunderstorm & lightning activity on 14th 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.
- A fresh **Western Disturbance** is likely to affect Western Himalayan Region from 17th February, 2025. Under its influence,
  - ✓ Isolated to scattered light rainfall/snowfall activity likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad & Uttarakhand during 17th-20th; Himachal Pradesh on 19th & 20th February. Isolated light rainfall activity likely over Rajasthan during 18th-20th; Punjab, Haryana & West Uttar Pradesh on 20th February.

**Temperature, Cold wave and Fog Forecast:**

**Forecast of temperature:**

**Minimum Temperature:**

- No significant change in minimum temperature likely over plains of Northwest India during next 24 hours and then gradual rise by 3-5°C over the region except Rajasthan where it is likely to rise by 2-3°C during subsequent 3-4 days.
- Gradual rise in minimum temperature by 3-5°C likely over Central India during next 3- 4 days.
- No significant change in minimum temperature likely over East India during next 2 days and gradual rise by 2-4°C thereafter.
- Rise in minimum temperature by 2-3°C likely over Maharashtra during next 4-5 days.
- No significant change in minimum temperature likely over Gujarat region during next 3 days and gradual rise by about 2°C thereafter.
- No significant change in minimum temperature likely over South India during next 2 days and gradual rise by 1-2°C thereafter.

**Maximum temperature:**

- No significant change in maximum temperature likely over plains of Northwest India during next 24 hours and gradual rise by 3-5°C thereafter.
- Gradual rise in maximum temperature by 2-4°C likely over Central during next 3-4 days.
- No significant change in maximum temperature likely over East India during next 2 days and gradual rise by 2-3°C thereafter.
- No significant change in maximum temperature likely over Maharashtra during next 24 hours and gradual rise by 2-3°C thereafter.
- No significant change in maximum temperature likely over Gujarat region during next 3 days and gradual rise by about 2°C thereafter.
- No significant change in maximum temperature likely over South India during next 2 days and gradual rise by 1-2°C thereafter.

**Dense Fog Warnings:**

- **Dense fog conditions** very likely to continue to prevail during early morning hours in isolated pockets of Sub-Himalayan West Bengal & Sikkim till 16th February.

**Cold Wave Warnings:**

- **Cold Wave conditions** very likely in isolated pockets of Himachal Pradesh on 14th & 15th February.

**iii. Weather conditions and forecast over Delhi/NCR during 14th Feb. to 17th Feb. 2025 (Annexure V)**

**For more details, kindly refer National Weather Bulletin:**
https://mausam.imd.gov.in/responsive/all_india_forcast_bulletin.php
**For District wise warnings refer:** https://mausam.imd.gov.in/responsive/districtWiseWarningGIS.php

**ANNEXURE I**

**Significant rainfall recorded during past 24 hours till 0830 hours IST of today 14.02.2025 (in cm):**

- **Nagaland, Manipur, Mizoram & Tripura:** Kolasib_aws (dist Kolasib) 4, Kolasib Agri (dist Kolasib) 3;
- **Arunachal Pradesh:** Hayuliang 5; Kibithu (dist Anjaw) 3, Tuting (dist Upper Siang) 2, Tuting_ Aws (dist Upper Siang) 2, Oyan Arg (dist East Siang) 2, Pasighat_ Aero (dist East Siang) 2;
- **Assam & Meghalaya:** Chauldhowaghat (dist Lakhimpur) 2, Udaipur (dist Tinsukia) 1;
- **Sub-Himalayan West Bengal & Sikkim:** Singhik (dist Mangan) 1, Mangan (dist Mangan) 1

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

- **Dense fog (visibility 50-199 m)** reported in isolated pockets of Odisha (Chandbali 50-199).

**ANNEXURE II**

- Minimum temperatures are in the range of **5-10°C** over many parts of Uttar Pradesh, Punjab, Haryana, Jharkhand; **10-15°C** over many parts of Rajasthan, Madhya Pradesh, Chhattisgarh, Bihar and Sub-Himalayan West Bengal & Sikkim. Today, the lowest minimum temperature of **4.2°C** is reported at **Adampur (Punjab)** over the plains of the country.

- During the past 24 hours, **minimum temperatures** has fallen by 3-6°C over many parts of Gangetic West Bengal; in some parts of Odisha; at isolated places over Jharkhand & Chhattisgarh; by 1-3°C over many parts of East Madhya Pradesh, Tamilnadu Puducherry & Karaikal; in some parts of Uttar Pradesh, Bihar, Vidarbha; at isolated places over Himachal Pradesh, Sub-Himalayan West Bengal & Sikkim, Assam & Meghalaya, Maharashtra, Telangana and rose by 1-3°C at many places over West Rajasthan; at a few places over Peninsular India; at isolated places over Uttarakhand, East Rajasthan & West Madhya Pradesh.

- Minimum temperatures are **markedly above normal (5°C or more)** at isolated places over Nagaland, Manipur, Mizoram & Tripura; **appreciably above normal (3°C to 5°C)** at a few places over southwest Rajasthan, Gujarat State; **above normal (1°C to 3°C)** at isolated places over Punjab, Bihar, Odisha, Assam & Meghalaya, North Interior Karnataka. These are **appreciably below normal (-3°C to -5°C)** at isolated places over Madhya Pradesh, Chhattisgarh, Vidarbha, Gangetic West Bengal, Coastal Andhra Pradesh & Telangana; **below normal (-1°C to -3°C)** at a few places over Jharkhand; at isolated places over Uttarakhand and near normal over rest parts of the country.

- Maximum temperatures are in the range of **34-38°C** over many parts of Odisha, Saurashtra & Kutch, Maharashtra and Peninsular India. Yesterday, the highest **maximum temperature of 37.6°C** was reported at **Kurnool (Rayalaseema)** over the plains of the country.

- Maximum temperatures were **appreciably above normal (3°C to 5°C)** at a few places over Odisha, Saurashtra & Kutch; at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Rajasthan, Gujarat Region, West Uttar Pradesh, Gangetic West Bengal, Chhattisgarh, Konkan & Goa, North Interior Karnataka, Coastal Andhra Pradesh & Yanam, Rayalaseema, Telangana; **above normal (1°C to 3°C)** at isolated places over Kerala & Mahe, Tamil Nadu, Puducherry & Karaikal, Coastal Karnataka, South Interior Karnataka, Vidarbha, Marathwada, East Uttar Pradesh, Haryana-Chandigarh, Punjab, Nagaland, Manipur, Mizoram & Tripura. These were **markedly below normal (-5°C or less)** at isolated places over Assam & Meghalaya and near normal over rest parts of the country.

**Fig. 1: Maximum Temperatures**

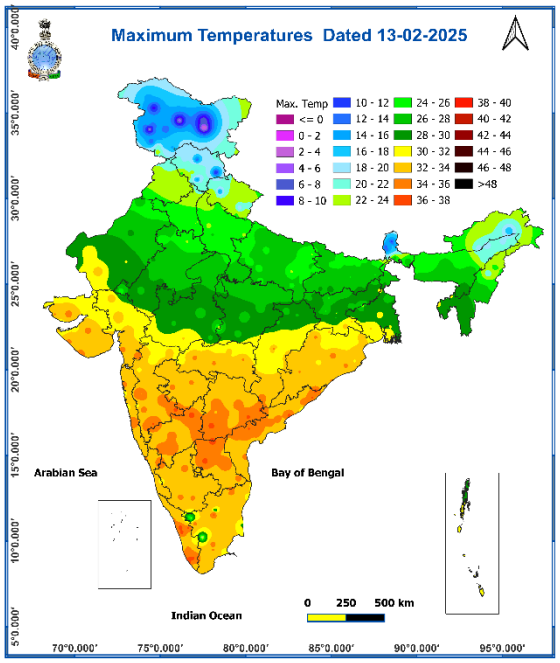



**Fig. 2: Departure of Maximum Temperatures**

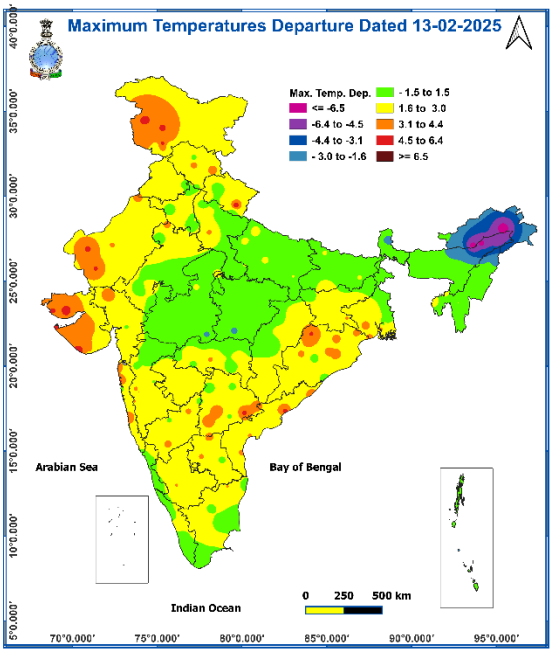



**Fig. 3: Minimum Temperatures**

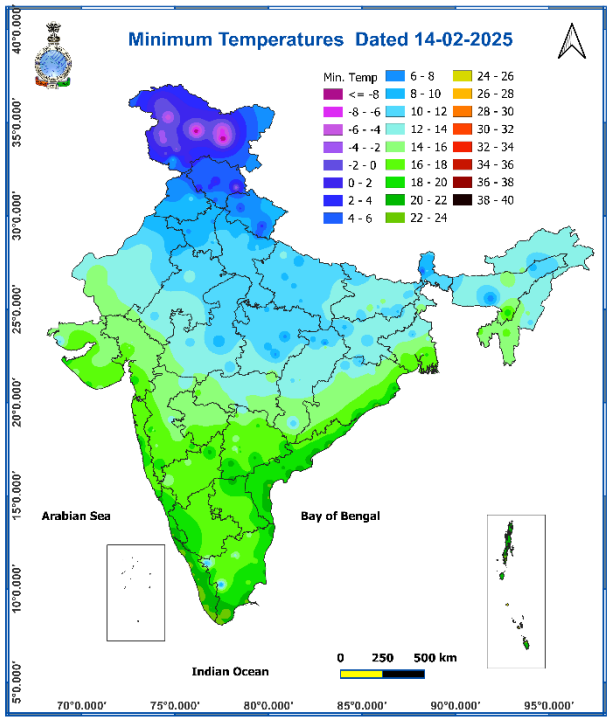
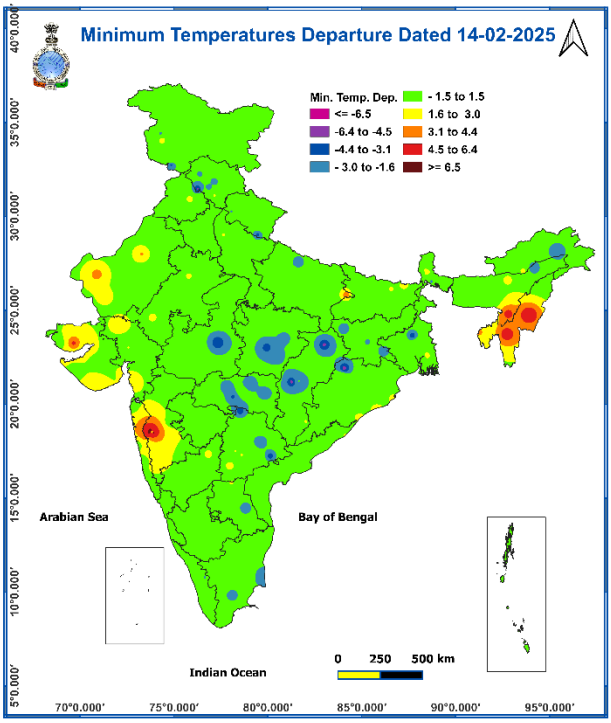



**Fig. 4: Departure of Minimum Temperatures**



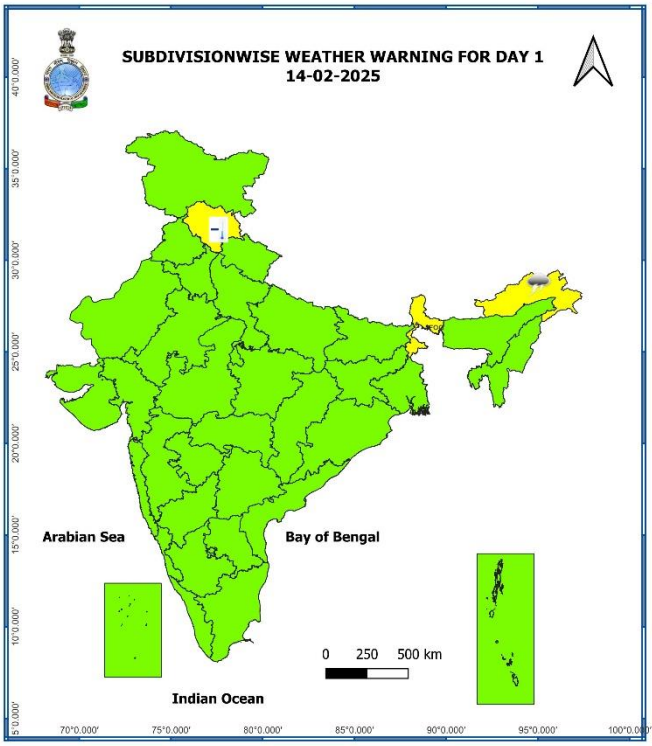
**ANNEXURE III**

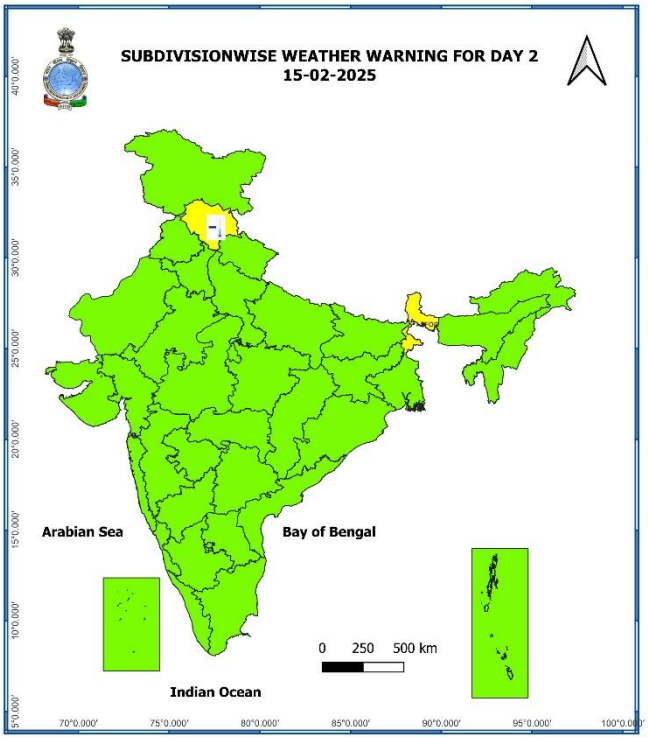
## 7 Days Rainfall Forecast

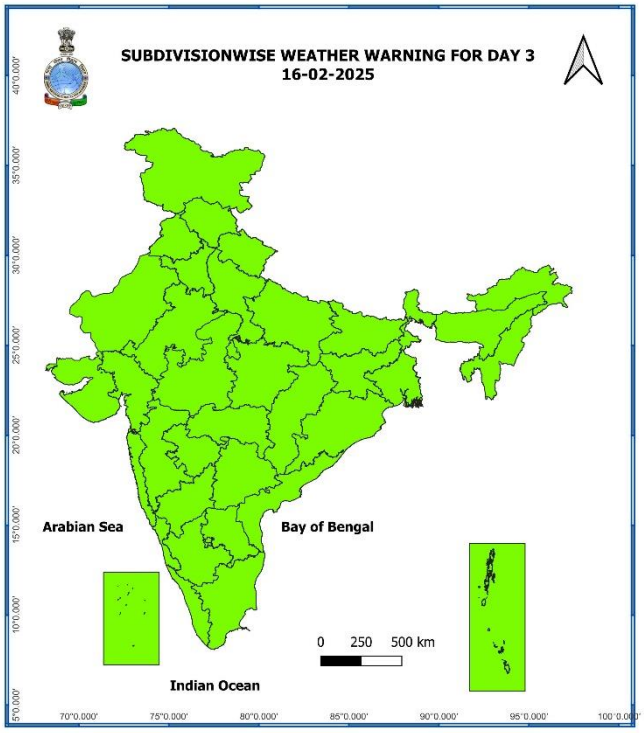
| S. No. | Subdivision | 14-Feb | 15-Feb | 16-Feb | 17-Feb | 18-Feb | 19-Feb | 20-Feb |
|---|---|---|---|---|---|---|---|---|
| | | Day 1 | Day 2 | Day 3 | Day 4 | Day 5 | Day 6 | Day 7 |
| 1 | ANDAMAN & NICOBAR ISLANDS | ISOL | ISOL | DRY | DRY | ISOL | ISOL | ISOL |
| 2 | ARUNACHAL PRADESH | FWS |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

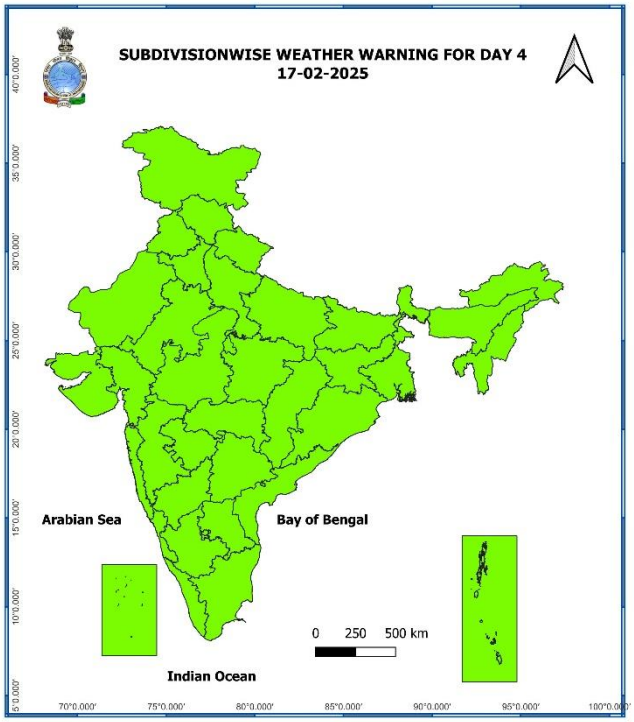
- **As the lead period increases forecast accuracy decreases.**

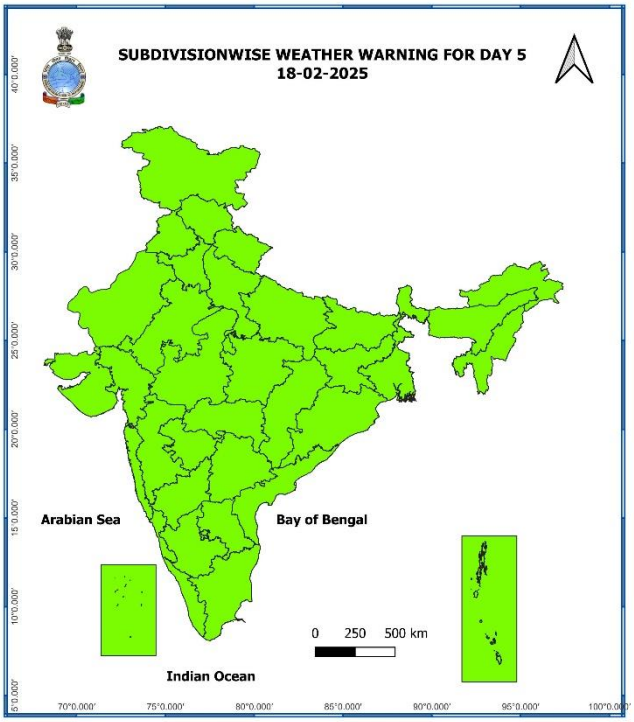
**ANNEXURE IV**

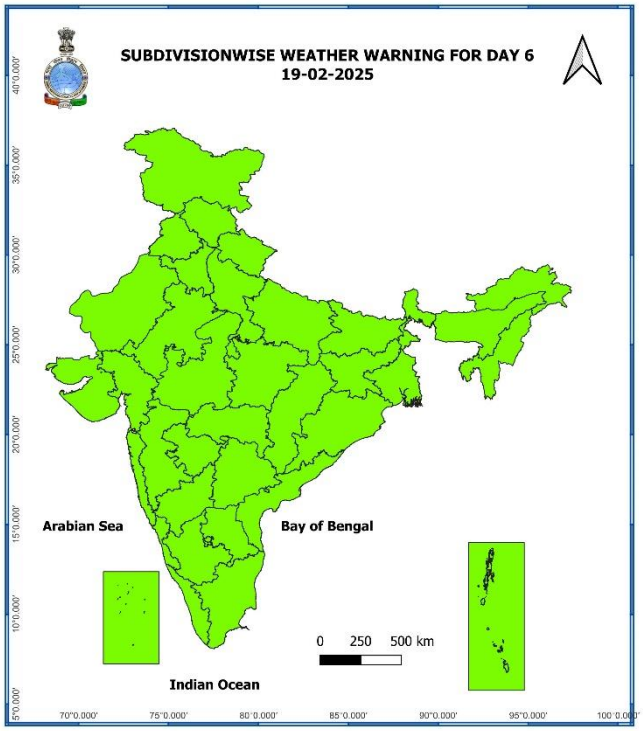

SUBDIVISIONWISE WEATHER WARNING FOR DAY 1
14-02-2025
Arabian Sea
Bay of Bengal
Indian Ocean
0 250 500 km

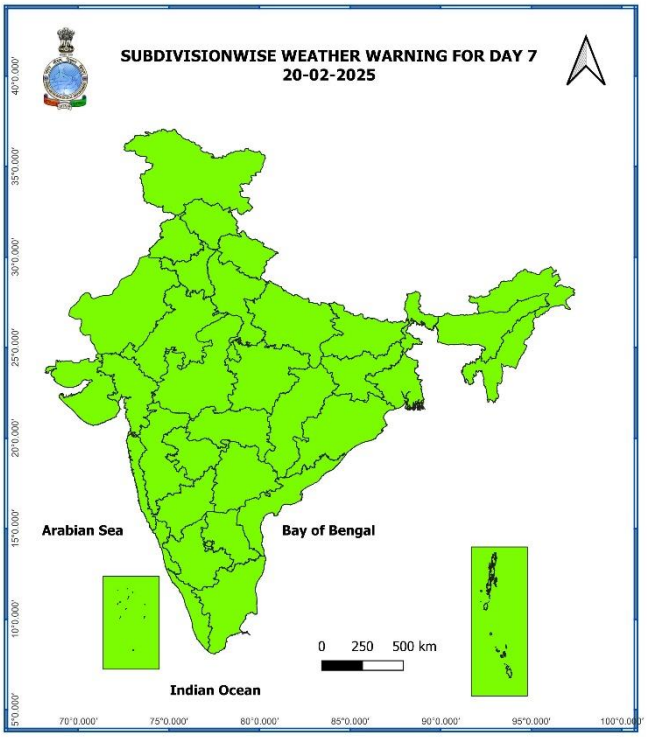

SUBDIVISIONWISE WEATHER WARNING FOR DAY 2
15-02-2025
Arabian Sea
Bay of Bengal
Indian Ocean
0 250 500 km


SUBDIVISIONWISE WEATHER WARNING FOR DAY 3
16-02-2025
Arabian Sea
Bay of Bengal
Indian Ocean
0 250 500 km




- **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**

**ANNEXURE V**

**Weather forecast over Delhi/NCR during 14th Feb. to 17th Feb. 2025**

**Past Weather:**

**There has been a fall in minimum temperature upto 01°C and fall in maximum temperature upto 02°Cover Delhi/NCR during the past 24 hours. The Maximum and Minimum temperatures over Delhi are in the range of 23 to 25°C and 09 to 11°C respectively. The minimum temperature was near normal and maximum temperature was above normal upto 03°C over most places. Mainly clear sky conditions with predominant surface wind from the northwest direction with wind speed reaching 20 to 22 kmph prevailed during the past 24 hours. Mainly clear sky conditions with wind speed less than 16 kmph northwest direction prevailed over the region in the forenoon today.**

**Weather Forecast:**

**14.02.2025:** Mainly clear sky. Occasional Strong surface wind (speed 25-35 kmph) likely during the day. The maximum temperature over Delhi is likely to be in the range of 25 to 27°C.The predominant surface wind will likely to be from northwest direction with a wind speed of less than 20 kmph till evening. It would decrease thereafter becoming less than 12 kmph from the northwest direction during the night.

**15.02.2025:** Partly cloudy sky. 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 is likely to be from the northwest direction with a wind speed less than 08 kmph during morning hours. The wind speed will gradually increase thereafter becoming 10-12 kmph from the north direction during the afternoon. It will decrease further becoming less than 06 kmph from the northeast direction during evening and night.

**16.02.2025:** Partly cloudy sky. Smog/mist likely in the morning. The maximum and minimum temperatures over Delhi are likely to be in the range of 28 to 30°C and 11 to 13°C respectively. The predominant surface wind will likely to be from the northeast direction with a wind speed of less than 04 kmph during morning hours. The wind speed will gradually increase thereafter becoming 06-08 kmph from the northwest direction during the afternoon. It will decrease becoming less than 04 kmph from north direction during evening and night.

**17.02.2025:** Partly cloudy sky. Smog/mist likely in the morning. The maximum and minimum temperatures over Delhi are likely to be in the range of 28 to 30°C and 12 to 14°C respectively. The predominant surface wind will likely to be from northeast direction with a wind speed of less than04 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 northwest direction during evening and night.

**Agromet advisories for likely impact of Cold wave**

- In **Himachal Pradesh,** apply light and frequent irrigation to the standing crops in the evening to protect them from low temperature stress or cold injuries. Use mulching and cover vegetable nurseries and young fruit plants with straw/polythene sheets to maintain optimum soil temperature.

**Livestock**

- To protect from cold, keep cattle inside the sheds during night and provide dry bedding. Also keep the chicks warm by providing artificial light in the poultry sheds.

**Likely Impact of prevailing above-normal temperatures on Agriculture**

- Above normal temperatures in parts of Northwest and Central India may lead to forced maturity, sterile spikelets, and chaffy grains, reducing yields during critical growth stages like flowering and grain filling in crops like wheat and barley. Crops like mustard and chickpea may also experience early harvest.
- Vegetables like onions, garlic, and tomatoes may be affected during bulb formation or flowering, resulting in tip burning, bolting, and mismatched pollination, reducing their quality and yield. Horticultural crops like apples and stone fruits may experience early blooming due to warmer temperatures, resulting in poor fruit setting and quality.
- Livestock may experience heat stress, requiring adjustments in care and feeding practices, while fisheries face challenges in maintaining water quality.

**Agromet Advisories**

- Provide light and life-saving irrigation during sensitive growth stages such as grain filling, flowering, and tuber formation.
- Apply mulching to retain optimum soil moisture and regulate temperature.
- Chemical sprays like potassium chloride and mineral nutrients are recommended to manage heat stress.

## Legends & abbreviations:

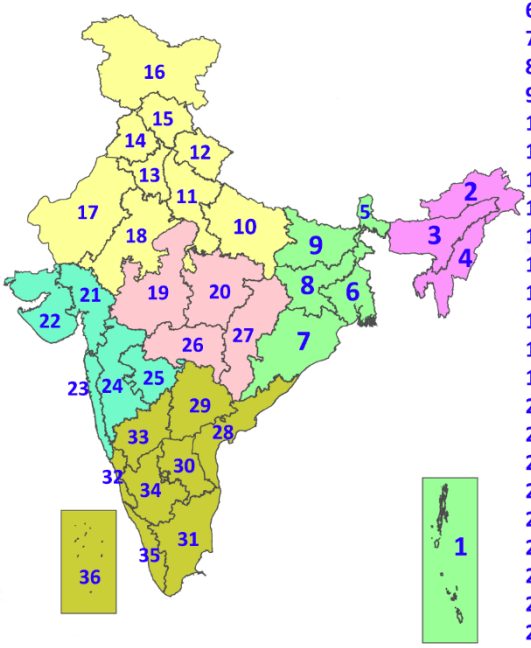
- **Heavy Rain:**64.5-115.5mm; **Very Heavy Rain:**115.6-204.4mm; **Extremely Heavy Rain:** >204.4mm.
- **Obsy:** Observatory; **AWS:** Automatic Weather Station; **ARG:** Automatic Rain Gauge; **dist:** District: **NH:** National Highway; **KVK**: Krishi Vigyan Kendra; **DVC:** Damodar Valley Corporation; **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.

राष्ट्रीय मौसम पूर्वानुमान केन्द्र
भारत मौसम विज्ञान विभाग
पृथ्वी विज्ञान मंत्रालय

National Weather Forecasting Centre
India Meteorological Department
Ministry of Earth Sciences

# 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 Rain
Very Heavy Rain
Extremely Heavy Rain
Thunder & Lightning
Hailstorm
Dust Raising Winds

Heavy Snow
Dust Storm
Heat Wave
Warm Night
Hot Day
Hot & Humid
Strong Surface Winds

Cold Wave
Cold Day
Ground Frost

### 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.
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(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 ≥40° C for plains and ≥30° 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 ≥6.5° C

**(b). Based on Actual maximum temperature**

- **Heat Wave:** When actual maximum temperature ≥45°C.
- **Severe Heat Wave:** When actual maximum temperature ≥47°C

**( c). Criteria for heat wave for coastal stations**

When maximum temperature departure is >4.5°C from normal. Heat Wave may be described provided maximum temperature ≥37°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 °C.

## Cold Wave

**When minimum temperature of a station ≤10°C for plains and ≤0°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 ≤ -6.5 °C

**(b) Based on actual Minimum Temperature (for Plains only)**

- **Cold Wave :** When Minimum Temperature is ≤ 4.0 °C
- **Severe Cold Wave:** When Minimum Temperature is ≤ 2.0 °C

**( c) For Coastal Stations**

When Minimum Temperature departure is ≤-4.5 °C & actual Minimum Temperature is ≤ 15 °C

## Cold Day

**When minimum temperature of a station ≤10°C for plains and ≤0°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 ≤ -6.5 °C

## Fog

**Phenomenon of small droplets suspended in air and the horizontal visibility < 1km**

- **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 ≤4°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)

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