



Government of India  
Ministry of Earth Sciences  
India Meteorological Department



Press Release

Date: 16<sup>th</sup> February, 2025

Time of Issue: 1415 hours IST

**Subject: a) Further rise in both minimum and maximum temperatures likely over some parts of plains of Northwest India and adjoining Central India and east India by 1-3°C during 16<sup>th</sup> -19<sup>th</sup> February, 2025.**

**b) A western disturbance is likely to impact the western Himalayan regions and adjoining plains from night of 18<sup>th</sup> Feb till 20<sup>th</sup> February.**

**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 3-5 °C at many places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad; by 1-3°C at many places over Central & East India and Telangana. It has fallen by 2-5 °C at many places over Uttarakhand and by 1-2 °C at many places over Saurashtra & Kutch, West Rajasthan and Konkan.
- ❖ Day temperatures were **markedly above normal (5.0°C or more)** at many places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad; **appreciably above normal (3.0°C to 5.0°C)** at many places over Gujarat, Rajasthan, northern parts of Madhya Pradesh and south Uttar Pradesh; **above normal (1.0°C to 3.0°C)** at many places over many parts of Telangana, and Vidarbha.
- ❖ During Past 24 hours, Night temperatures has fallen by 1-4°C over many parts of Uttarakhand, West Rajasthan, Jammu-Kashmir, Haryana, Punjab, Himachal Pradesh, Bihar, Northeast India, north interior Karnataka, Rayalaseema, Telangana; risen by 1-3 °C at many places over Central India, south east Uttar Pradesh & Gangetic West Bengal.
- ❖ Night temperatures were **above normal (1.0°C to 4.0°C)** at many places over Northwest India and adjoining central India and Gujarat, Kerala; They were **below normal by ( -1.0°C to -4.0°C)** over West Uttar Pradesh, Haryana, Uttarakhand and Telangana. It is 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 some places over Himachal Pradesh, Uttarakhand; Light to moderate **Rainfall** at many places over Sub-Himalayan West Bengal & Sikkim; at isolated places over Assam & Meghalaya.

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

- ❖ A cyclonic circulation lies over northeast Assam & neighbourhood at lower tropospheric level. Under its influence,
  - ✓ Scattered to Fairly widespread light to moderate rainfall/snowfall activity likely over Arunachal Pradesh during 16<sup>th</sup>-22<sup>nd</sup> February with Heavy rainfall activity likely over Arunachal Pradesh on 19<sup>th</sup> 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 during 16<sup>th</sup> & 18<sup>th</sup> -20<sup>th</sup> over Arunachal Pradesh, Assam & Meghalaya; over Nagaland, Manipur, Mizoram & Tripura on 18<sup>th</sup> & 19<sup>th</sup> February.

- ❖ A Western Disturbance as a trough in middle tropospheric westerlies runs roughly along Long. 70°E to the north of Lat. 35°N with an Induced cyclonic circulation over Haryana & neighbourhood in lower tropospheric levels. Under its influence,
  - ✓ Isolated light rainfall/snowfall activity likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Uttarakhand, Himachal Pradesh. Isolated light rainfall activity likely over West Rajasthan on 16<sup>th</sup> February.
- ❖ A fresh western disturbance is likely to impact the western Himalayan regions and adjoining plains from night of 18<sup>th</sup> Feb till 20<sup>th</sup> February with peak intensity on 19<sup>th</sup> and 20<sup>th</sup> February.
- ❖ Under its influence,
  - ✓ **Isolated to scattered light rainfall/snowfall activity likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Uttarakhand & Himachal Pradesh during 17<sup>th</sup>-22<sup>nd</sup>; Isolated light rainfall activity likely over West Rajasthan during 17<sup>th</sup>-19<sup>th</sup>; Punjab, Haryana on 19<sup>th</sup> & 20<sup>th</sup>; East Rajasthan on 18<sup>th</sup> & 19<sup>th</sup>; West Uttar Pradesh on 20<sup>th</sup> February. Thunderstorm & lightning activity over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh on 19<sup>th</sup> & 20<sup>th</sup>; Uttarakhand on 20<sup>th</sup>; Punjab, Haryana Chandigarh & Delhi on 19<sup>th</sup> February.**
  - ✓ **With movement of this Western Disturbance further eastwards & a north-south Trough at lower levels: Thunderstorm accompanied with lightning & light rainfall likely over Gangetic West Bengal during 19<sup>th</sup> - 22<sup>nd</sup>; Odisha and Jharkhand during 19<sup>th</sup> - 21<sup>st</sup> February.**

### Temperature & Fog Forecast:

#### Forecast of temperature:

##### Minimum Temperature:

- ❖ Gradual rise in minimum temperatures by 2-3°C likely over Northwest India & Central India during next 3-4 days.
- ❖ Gradual rise in minimum temperatures by 1-3°C likely over Rajasthan during next 3-4 days.
- ❖ Gradual rise in minimum temperatures by 2-3°C likely over East India during next 3 days and no significant change thereafter.
- ❖ No significant change in minimum temperature likely over rest parts of India during next 3-4 days.

##### Maximum temperature:

- ❖ Gradual rise in maximum temperature by 1-3°C likely over Northwest & Central India during next 3-4 days.
- ❖ Gradual rise in maximum temperature by about 2°C over Bihar during next 3-4 days.
- ❖ Gradual rise in maximum temperature by about 2-3°C over Northeast India during next 3 days & no significant change thereafter.
- ❖ No significant change in maximum temperature likely over Rajasthan, Gujarat, Maharashtra & Peninsular India during next 5 days.
- ❖ No significant change in maximum temperature likely over rest parts of India during next 3-4 days.

#### 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 on 16<sup>th</sup> & 17<sup>th</sup> February.

### iii. Weather conditions and forecast over Delhi/NCR during 16<sup>th</sup> Feb. to 19<sup>th</sup> Feb. 2025 (Annexure V)

For more details, kindly refer National Weather Bulletin:

[https://mausam.imd.gov.in/responsive/all\\_india\\_forecast\\_bulletin.php](https://mausam.imd.gov.in/responsive/all_india_forecast_bulletin.php)

For District wise warnings refer: <https://mausam.imd.gov.in/responsive/districtWiseWarningGIS.php>

### ANNEXURE I

### Significant rainfall recorded during past 24 hours till 0830 hours IST of today 16.02.2025 (in cm):

- ❖ **Arunachal Pradesh:** Anini\_aws (dist Dibang Valley) 5, Tuting (dist Upper Siang) 2, Mukto\_arg (dist Tawang) 2, Tuting\_Aws (dist Upper Siang) 1, Tawang Chamgbu Kvk Aws (dist Tawang) 1, Tawang\_Aws (dist Tawang) 1.

### Visibility reported ( $\leq 200$ m) (in meter):

- ❖ **Dense fog (visibility 50-199 m)** reported in isolated pockets of Sub-Himalayan West Bengal & Sikkim (Pakyong, Darjeeling, Gangtok).

## ANNEXURE II

- ❖ Minimum temperatures are in the range of **9-12°C** over many parts of Punjab, Uttar Pradesh, Haryana Chandigarh & Delhi; **12-15°C** over many parts of Rajasthan, Madhya Pradesh, Chhattisgarh; at a few places over Bihar, Jharkhand; **15-18°C** over many parts of West India & East India. Today, the lowest minimum temperature of **8.4°C** is reported at **Rohtak (Haryana)** over the plains of the country.
- ❖ During the past 24 hours, **minimum temperatures** has risen by 1-3°C over many parts of Uttar Pradesh, Madhya Pradesh, Chhattisgarh, Jharkhand, Gangetic West Bengal, Maharashtra, West India and fallen by 1-3°C at many places over Punjab, Haryana Chandigarh & Delhi, Rajasthan, Bihar, Odisha.
- ❖ Minimum temperatures are **appreciably above normal (3.1°C to 5.0°C)** at a few places over Rajasthan and Gujarat Region; at isolated places over Saurashtra & Kutch and West Madhya Pradesh; **above normal (1.6°C to 3.0°C) at many places over Punjab**; at a few places over Karnataka; at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, East Madhya Pradesh, Madhya Maharashtra, Gangetic West Bengal and Coastal Andhra Pradesh & Yanam. These are **appreciably below normal (-3.1°C to -5.0°C)** at isolated places over Tamil Nadu, Puducherry & Karaikal; **below normal (-1.6°C to -3.0°C)** at a few places over Chhattisgarh and Assam & Meghalaya 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 37.8°C** was reported at **Sholapur (Madhya Maharashtra)** over the plains of the country.
- ❖ Maximum temperatures were **markedly above normal (5.1°C or more)** at many places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad; at a few places over East Rajasthan; **appreciably above normal (3.1°C to 5.0°C)** at most places over Gujarat Region; at many places over Punjab, West Rajasthan and Delhi; at a few places over Saurashtra & Kutch, Madhya Pradesh, Vidarbha and Marathwada; at isolated places over Uttar Pradesh, Konkan & Goa and Madhya Maharashtra; **above normal (1.6°C to 3.0°C)** at many places over Odisha; at a few places over Chhattisgarh, Gangetic West Bengal, Telangana, Rayalaseema, Coastal Andhra Pradesh & Yanam and Karnataka; at isolated places over Himachal Pradesh. These were **below normal (-1.6°C to -3.0°C)** at a few places over Bihar; at isolated places over Assam & Meghalaya, Andaman & Nicobar Islands and near normal over rest parts of the country.

Fig. 1: Maximum Temperatures

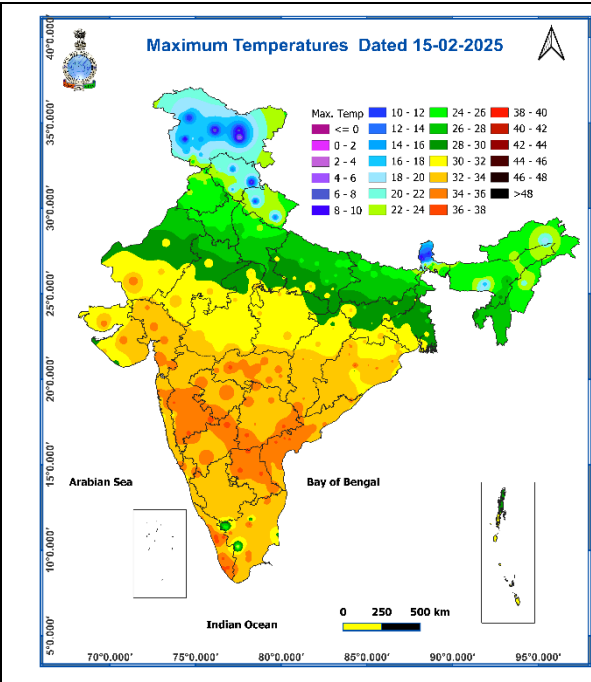


Fig. 2: Departure of Maximum Temperatures

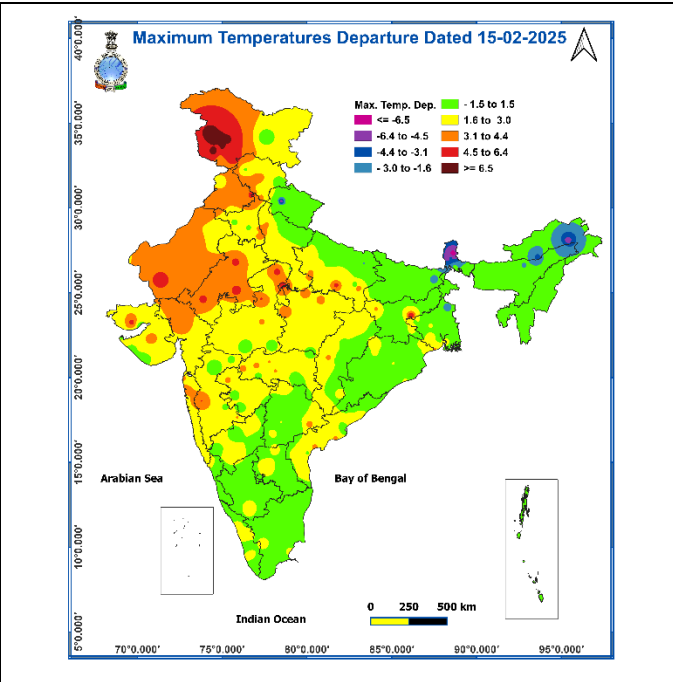


Fig. 3: Minimum Temperatures

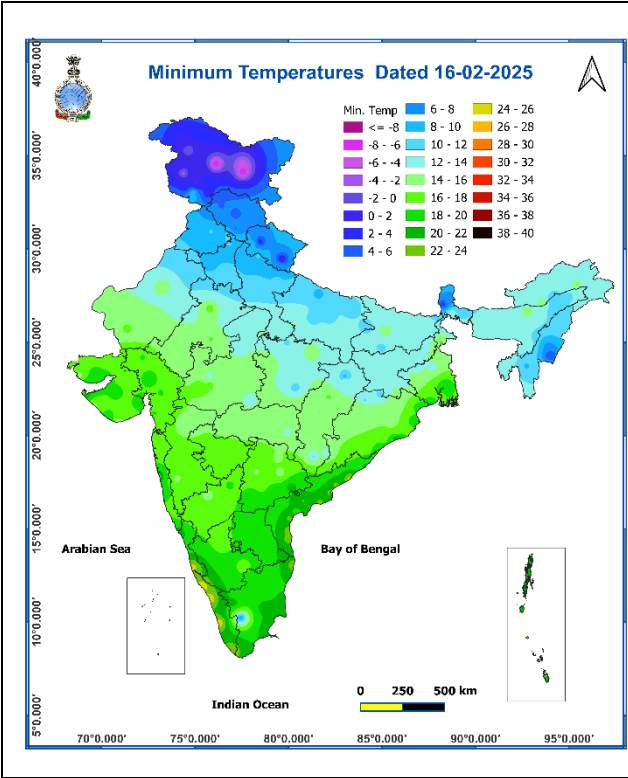
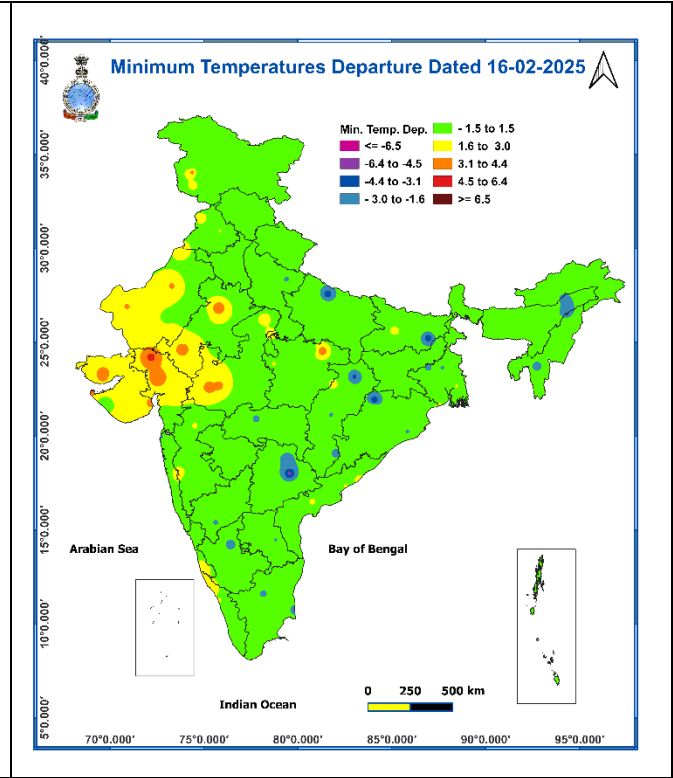


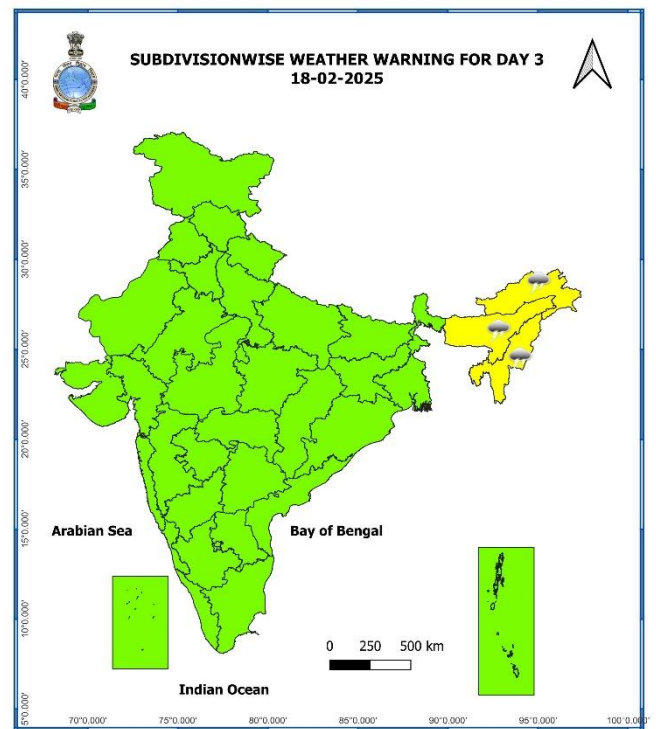
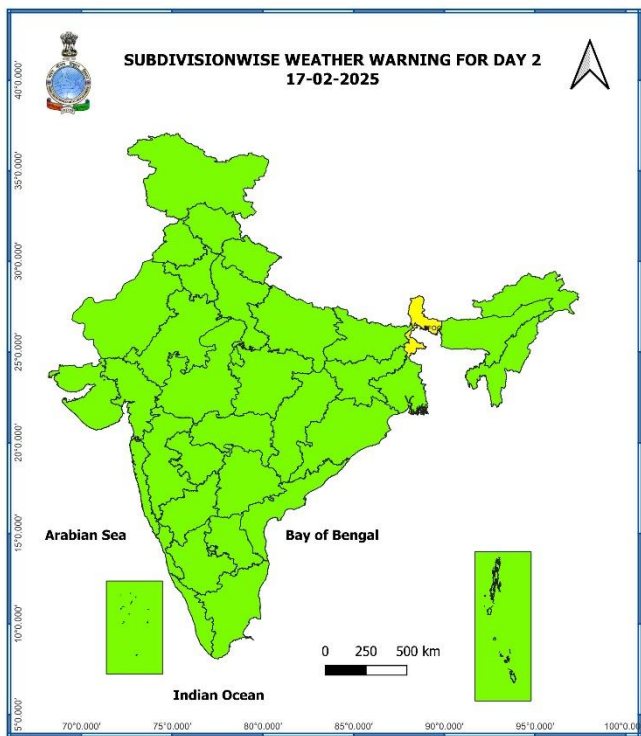
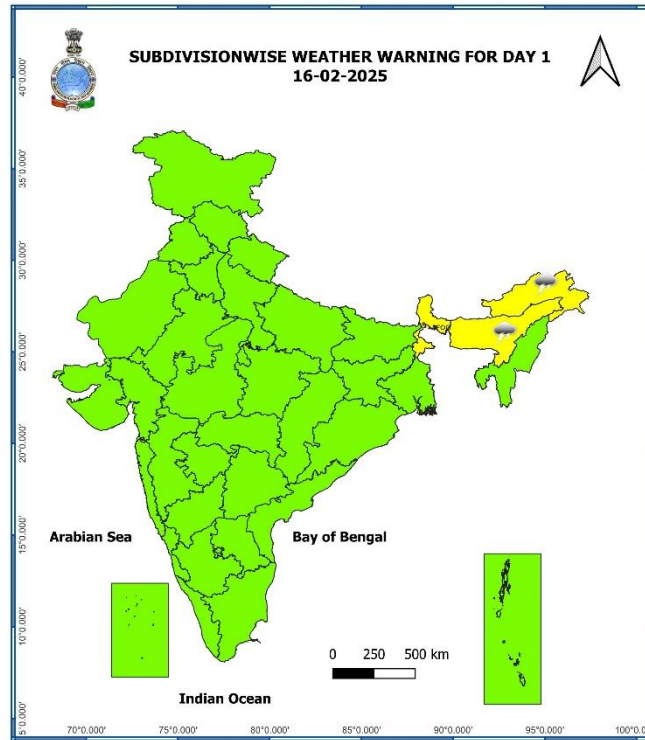
Fig. 4: Departure of Minimum Temperatures

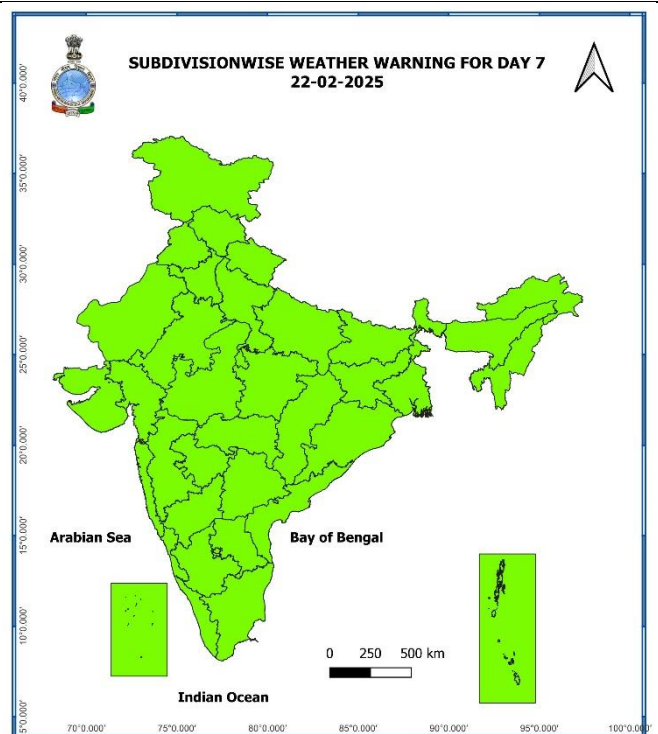
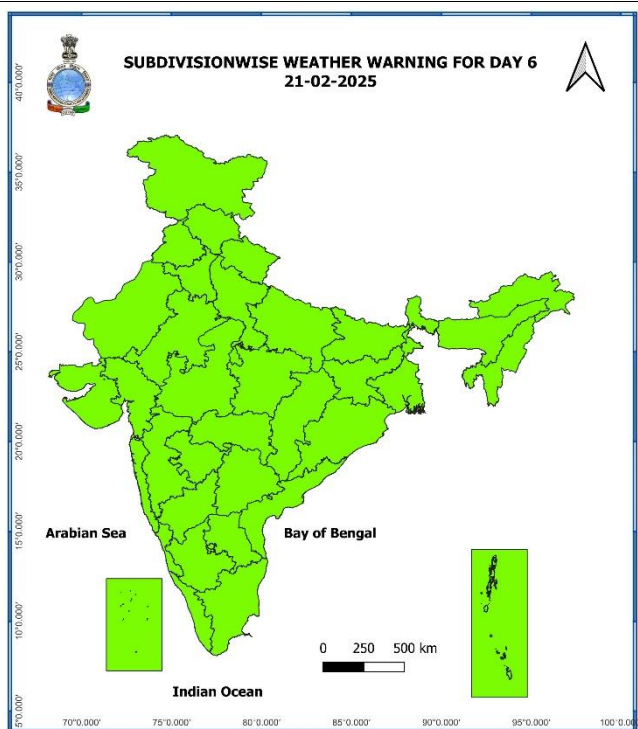
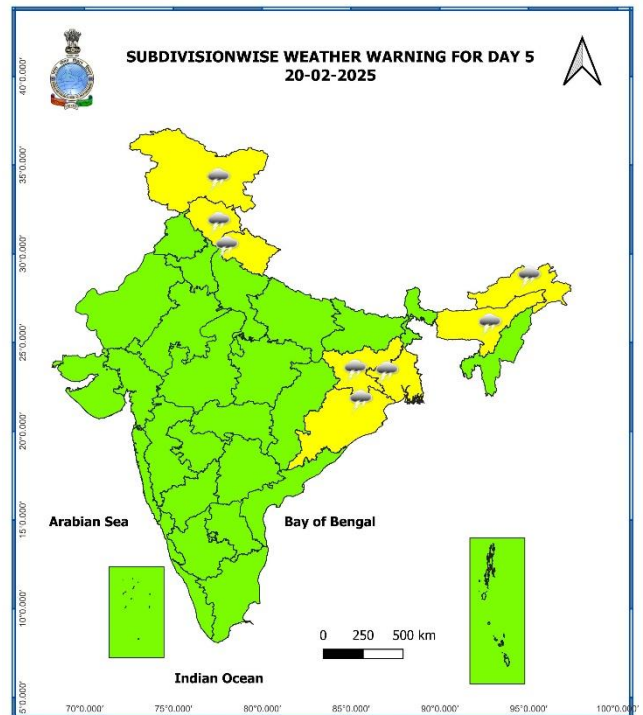
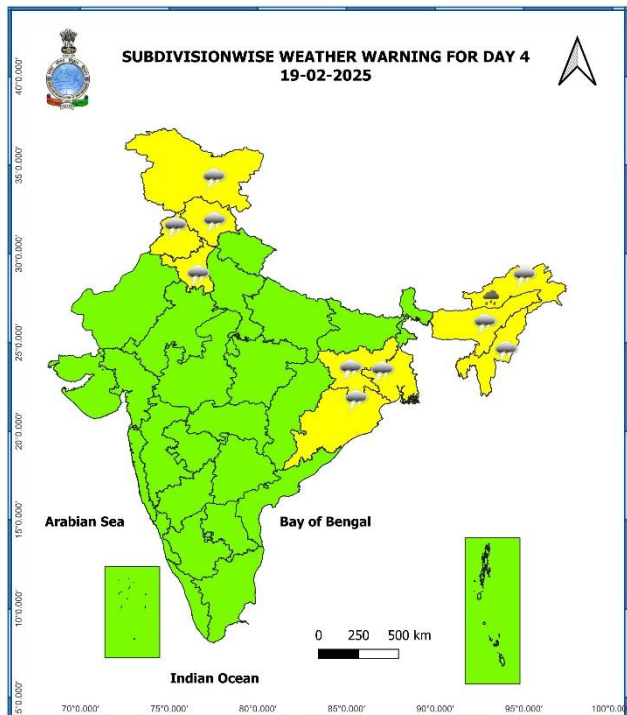


### 7 Days Rainfall Forecast

S. No.	Subdivision	16-Feb	17-Feb	18-Feb	19-Feb	20-Feb	21-Feb	22-Feb
		Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
1	ANDAMAN & NICOBAR ISLANDS	DRY	DRY	ISOL	ISOL	ISOL	ISOL	ISOL
2	ARUNACHAL PRADESH	SCT	SCT	SCT	FWS	SCT	ISOL	ISOL
3	ASSAM & MEGHALAYA	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
4	NAGALAND, MANIPUR, MIZORAM & TRIPURA	ISOL	DRY	ISOL	ISOL	ISOL	ISOL	DRY
5	SUB-HIMALAYAN WEST BENGAL & SIKKIM	ISOL	ISOL	ISOL	SCT	SCT	SCT	ISOL
6	GANGETIC WEST BENGAL	DRY	DRY	DRY	SCT	SCT	ISOL	ISOL
7	ODISHA	DRY	DRY	DRY	ISOL	ISOL	ISOL	ISOL
8	JHARKHAND	DRY	DRY	DRY	ISOL	ISOL	ISOL	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	ISOL	DRY	DRY
12	UTTARAKHAND	ISOL	ISOL	DRY	ISOL	SCT	ISOL	DRY
13	HARYANA CHANDIGARH & DELHI	DRY	DRY	DRY	ISOL	ISOL	DRY	DRY
14	PUNJAB	DRY	DRY	DRY	ISOL	ISOL	DRY	DRY
15	HIMACHAL PRADESH	ISOL	DRY	ISOL	SCT	FWS	ISOL	ISOL
16	JAMMU & KASHMIR AND LADAKH	ISOL	ISOL	ISOL	SCT	SCT	ISOL	ISOL
17	WEST RAJASTHAN	ISOL	ISOL	ISOL	ISOL	DRY	DRY	DRY
18	EAST RAJASTHAN	DRY	DRY	ISOL	ISOL	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	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	ISOL	ISOL	ISOL
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	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 16<sup>th</sup> Feb. to 19<sup>th</sup> Feb. 2025****Past Weather:**

There has been a slight fall in minimum temperature and rise in maximum temperature upto 02°C over Delhi/NCR during the past 24 hours. The Maximum and Minimum temperatures over Delhi are in the range of 25 to 27°C and 10 to 11°C respectively. The minimum temperature was near normal and maximum temperature was above normal upto 03°C over most places. Shallow fog was reported at Safdarjung airport. Safdarjung airport recorded the lowest visibility 600m from 0730 hours to 0830 hours IST which improved thereafter becoming 700 m at 0900 hours IST. Palam airport recorded the lowest visibility 1100m at 0730 hours IST which improved thereafter becoming 1200 m at 0800 hours IST. Mainly clear sky conditions with predominant surface wind from the variable direction with wind speed reaching 08 to 10 kmph prevailed during the past 24 hours. Mainly smog/mist conditions with wind speed less than 04 kmph variable direction prevailed over the region in the forenoon today.

**Weather Forecast:**

**16.02.2025:** Mainly clear sky becoming partly cloudy sky towards afternoon. The maximum temperature over Delhi is likely to be in the range of 28 to 30°C. The predominant surface wind will likely to be from variable direction with a wind speed of less than 08 kmph till evening. It would decrease thereafter becoming less than 04 kmph from the north direction during the night.

**17.02.2025:** Partly cloudy sky. Smog/shallow fog likely in the morning. The maximum and minimum temperatures over Delhi are likely to be in the range of 28 to 30°C and 10 to 12°C respectively. The predominant surface wind is likely to be from the variable direction with a wind speed less than 04 kmph during morning hours. The wind speed will gradually increase thereafter becoming 12-14 kmph from the northwest direction during the afternoon. It will decrease further becoming less than 10 kmph from the north direction during evening and night.

**18.02.2025:** 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 11 to 13°C respectively. The predominant surface wind will likely to be from the west direction with a wind speed of less than 06 kmph during morning hours. The wind speed will gradually increase thereafter becoming 12-14 kmph from the northwest direction during the afternoon. It will decrease becoming less than 08 kmph from north direction during evening and night.

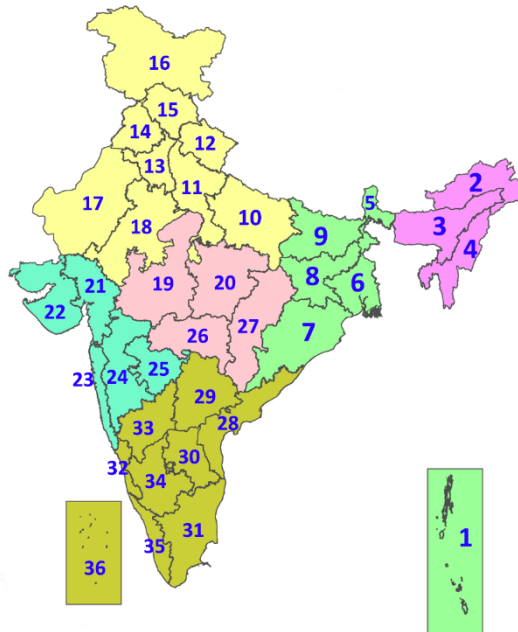
**19.02.2025:** Partly cloudy sky. Smog/mist likely in the morning. The maximum and minimum temperatures over Delhi are likely to be in the range of 26 to 28°C and 09 to 11°C respectively. The predominant surface wind will likely to be from north direction with a wind speed of less than 06 kmph during 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 08 kmph from northeast direction during evening and night.

## 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  $4.5^{\circ}\text{C}$  to  $6.4^{\circ}\text{C}$ .

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  $40^{\circ}\text{C}$

Warm Night: When minimum temperature departure  $4.5^{\circ}\text{C}$  to  $6.4^{\circ}\text{C}$ .

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  $-4.5^{\circ}\text{C}$  to  $-6.4^{\circ}\text{C}$ .

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  $-4.5^{\circ}\text{C}$  to  $-6.4^{\circ}\text{C}$ .

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)