



Government of India  
Ministry of Earth Sciences  
India Meteorological Department



Press Release

Date: 13<sup>th</sup> February, 2025

Time of Issue: 1315 hours IST

**Subject: Isolated Heavy Rainfall/Snowfall likely over Arunachal Pradesh on 13<sup>th</sup> February, 2025.**

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

**Temperature:**

- ❖ During Past 24 hours Day temperature has fallen by 1-3°C at many places over plains of Northwest India & Central India and fallen by about 1-2°C at few places over West Bengal State.
- ❖ Day temperatures continue 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 temperature has fallen by 1-3°C over many parts of plains of Northwest India & Central India while it was raised by about 1-2°C at few places over Bihar and Gangetic West Bengal.
- ❖ Night temperatures were **markedly above normal (5.1°C or more)** at isolated places over Assam & Meghalaya, Tripura, Gangetic West Bengal; **appreciably above normal (3.1°C to 5.0°C)** at many places over Bihar; at a few places over Gujarat State; at isolated places over Odisha; **above normal (1.6°C to 3.0°C)** at a few places over Madhya Maharashtra, Konkan & Goa, East Uttar Pradesh; at isolated places over Telangana, Chhattisgarh.
- ❖ Further detailed temperature observations during past 24 hours till 0830 hours IST of today are provided in **Annexure II.**

**Rainfall**

- ❖ Light **Rainfall/Snowfall** at isolated places over Sub-Himalayan West Bengal & Sikkim.

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

- ❖ A **cyclonic circulation** lies over northeast Assam & neighbourhood in lower tropospheric levels. Under its influence,
  - ✓ Scattered to Fairly widespread light to moderate rainfall/snowfall accompanied with thunderstorm & lightning activity likely over Arunachal Pradesh during 13<sup>th</sup>-15<sup>th</sup> February with isolated **heavy rainfall** on Arunachal Pradesh on 13<sup>th</sup> February.
  - ✓ Isolated light rainfall activity likely over Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura & Sub-Himalayan West Bengal & Sikkim during 13<sup>th</sup>-15<sup>th</sup> February.

**Temperature and Fog Forecast:**

**Forecast of temperature:**

**Minimum Temperature:**

- ❖ No significant change in minimum temperature likely over Western Himalayan Region during next 3 days and gradual rise by 1-2°C during subsequent 2 days. Gradual fall in minimum temperatures by 1-2°C likely over Northwest India and by 3-4°C likely over East India during next 2 days and gradual rise by 2-3°C thereafter during subsequent 3 days. Gradual fall in minimum temperatures by 1-3°C likely over Central India during next 24 hours and gradual rise by 2-4°C thereafter during subsequent 4 days. No significant change in minimum temperature likely over West India during next 3 days and gradual rise by 2-3°C thereafter during subsequent 2 days. No significant change in minimum temperature over remaining parts of the country during next 5 days.

**Maximum temperature:**

- ❖ Gradual fall in maximum temperatures by 1-2°C likely over Northwest India except Uttar Pradesh and by 2-4°C likely over Uttar Pradesh during next 2 days and gradual rise by 2-3°C thereafter.
- ❖ No significant change in maximum temperature likely over West, Central and East India during next 2-3 days and gradual rise by 2-3°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 15<sup>th</sup> February.

**Cold Wave Warnings:**

- ❖ **Cold Wave conditions** very likely in isolated pockets of Himachal Pradesh on 13<sup>th</sup> & 14<sup>th</sup> February.

**iii. Weather conditions and forecast over Delhi/NCR during 13<sup>th</sup> Feb. to 16<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**

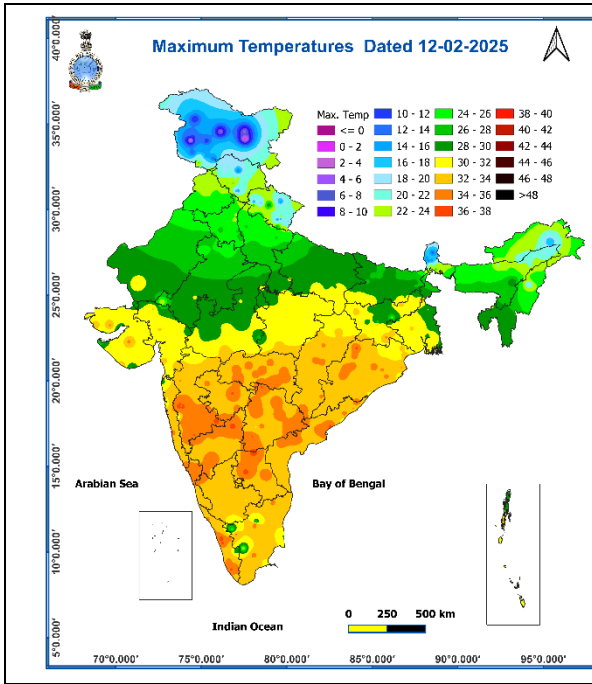
**Significant rainfall recorded during past 24 hours till 0830 hours IST of today 13.02.2025 (in cm):**

- ❖ **Sub-Himalayan West Bengal & Sikkim:** Singhik (dist Mangan) 3, Mangan (dist Mangan) 3, Kabi (dist Mangan) 1

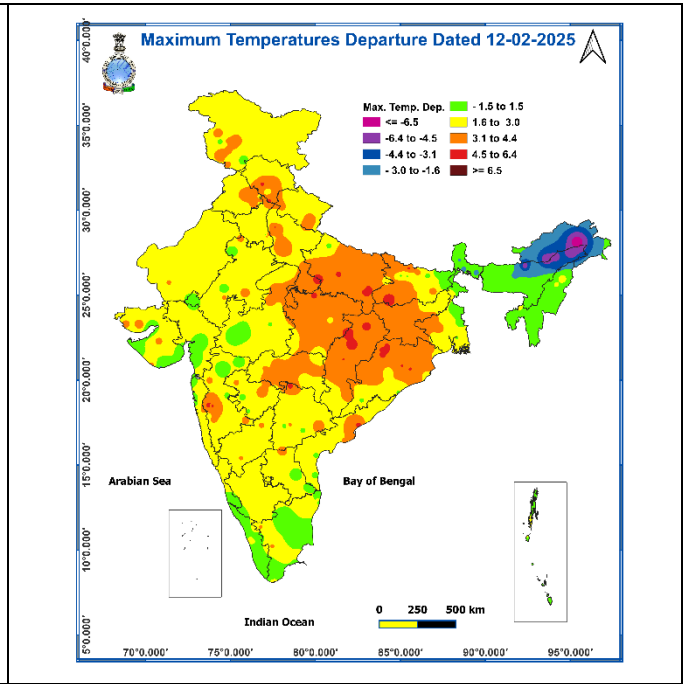
**ANNEXURE II**

- ❖ Minimum temperatures are in the range of **7-15°C** over many parts of plains of Northwest India, West India, Madhya Pradesh, Chhattisgarh, Bihar and Jharkhand. Today, the lowest minimum temperature of **4.4°C** is reported at **Adampur (Punjab)** over the plains of the country.
- ❖ During the past 24 hours, **minimum temperatures** has fallen by 1-3°C over many over plains of northwest India & central India and rose by about 1-2°C at few places over east India.
- ❖ Minimum temperatures are **markedly above normal (5.1°C or more)** at isolated places over Assam & Meghalaya, Tripura, Gangetic West Bengal; **appreciably above normal (3.1°C to 5.0°C)** at many places over Bihar; at a few places over Gujarat State; at isolated places over Odisha; **above normal (1.6°C to 3.0°C)** at a few places over Madhya Maharashtra, Konkan & Goa, East Uttar Pradesh; at isolated places over Telangana, Chhattisgarh. These are **appreciably below normal (-3.1°C to -5.0°C)** at isolated places over West Madhya Pradesh, Tamilnadu Puducherry & Karaikal; **below normal (-1.6°C to -3.0°C)** at isolated places over East Madhya Pradesh, West Uttar Pradesh, Jharkhand, Vidarbha, Rayalaseema and near normal over rest parts of the country.
- ❖ Maximum temperatures are in the range of **33-36°C** over most parts of Kerala & Mahe; at many places over Telangana, Coastal Andhra Pradesh & Yanam, Rayalaseema, Tamilnadu Puducherry & Karaikal; at some places over North Interior Karnataka. Yesterday, the highest **maximum temperature of 37.3°C was reported at Kurnool (Rayalaseema)** over the plains of the country.
- ❖ Maximum temperatures were **markedly above normal (5.1°C or more)** at isolated places over East Uttar Pradesh; **appreciably above normal (3.1°C to 5.0°C)** at most places over Jharkhand, Chhattisgarh, East Madhya Pradesh, Vidarbha; at many places over Odisha; at a few places over Bihar, Telangana; at isolated places over Himachal Pradesh, Jammu Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Punjab, West Uttar Pradesh, West Madhya Pradesh, Coastal Andhra Pradesh & Yanam, Marathwada, Madhya Maharashtra, Saurashtra & Kutch, North Interior Karnataka and Gangetic West Bengal; **above normal (1.6°C to 3.0°C)** at most places over Rajasthan, Haryana-Chandigarh-Delhi; at a few places over Tamil Nadu, Puducherry & Karaikal; at isolated places over Konkan & Goa, Lakshadweep, Coastal Karnataka, Gujarat Region, Rayalaseema, Kerala & Mahe, Nagaland, Manipur, Mizoram & Tripura and Uttarakhand. These were **markedly below normal (-5.0°C or less)** at a few places over Assam & Meghalaya; at isolated places over Arunachal Pradesh and near normal over rest parts of the country. Yesterday, the highest maximum temperature of **37.8°C** was reported at **Kurnool (Rayalaseema)** over the country.

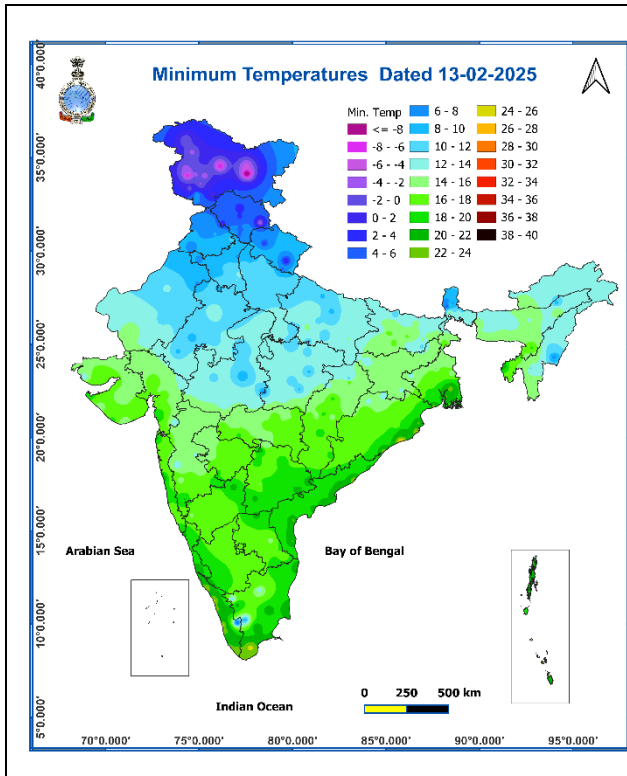
**Fig. 1: Maximum Temperatures**



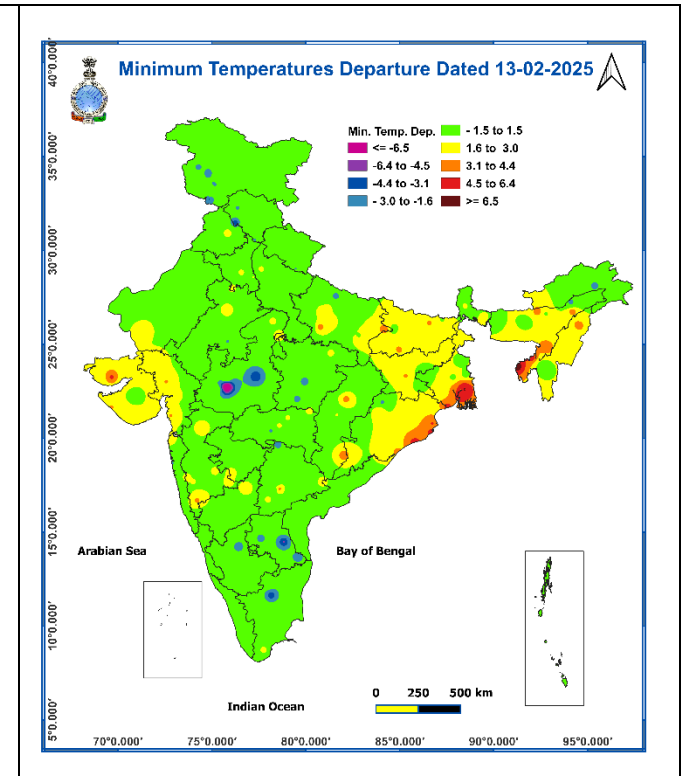
**Fig. 2: Departure of Maximum Temperatures**



**Fig. 3: Minimum Temperatures**



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



**Agromet advisories for likely impact of Heavy Rainfall**

- In **Arunachal Pradesh**, postpone harvesting of rice during rainfall period and shift the already harvested produce to a well-covered storage facilities to prevent damage. Provide extensive drainage in the fields of rice, mustard, other standing crops, vegetables and horticultural crops. Provide mechanical support to horticultural crops and staking to vegetables.
- 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**

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

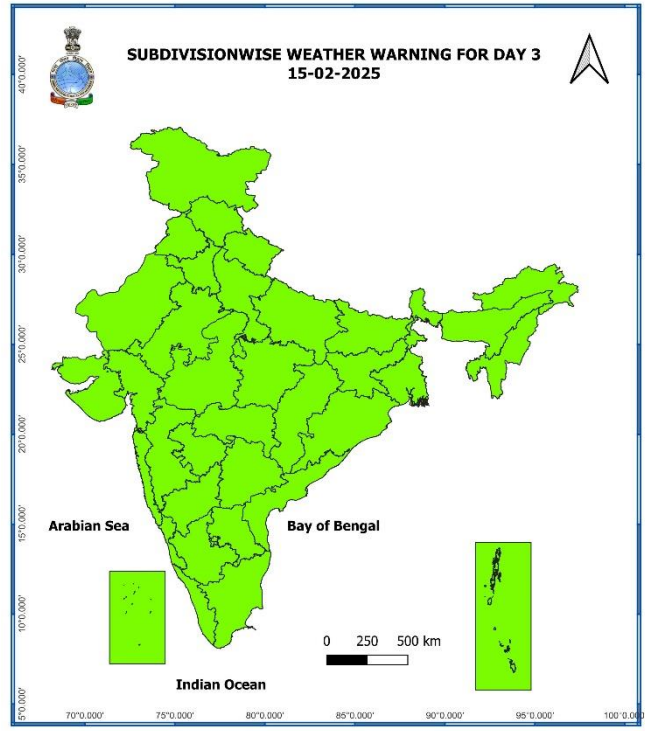
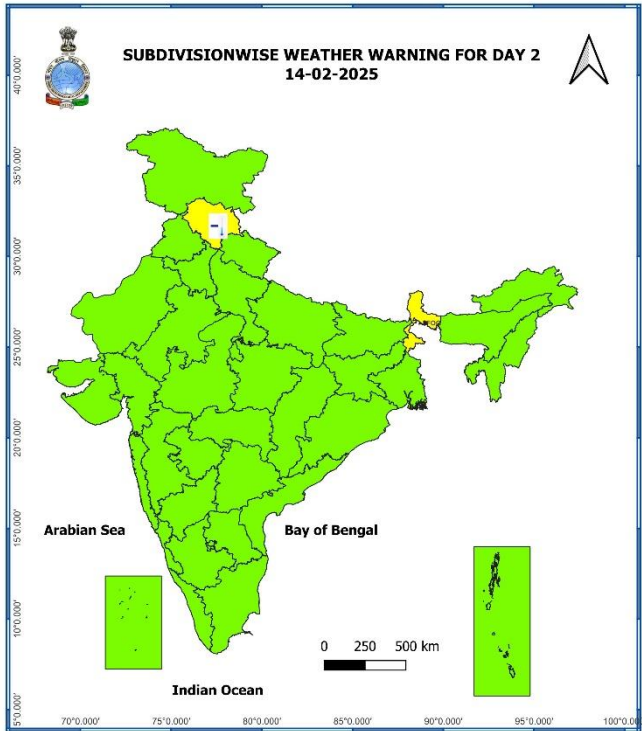
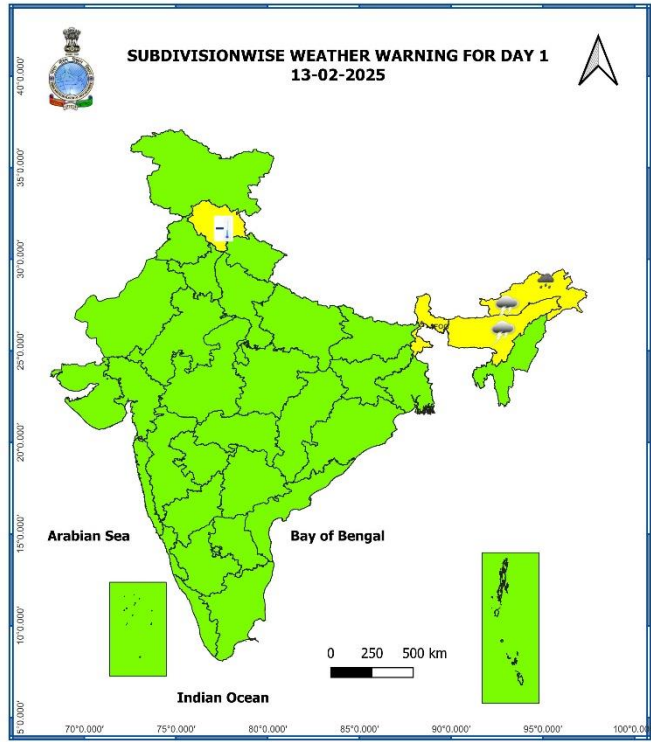
### **Agromet Advisories**

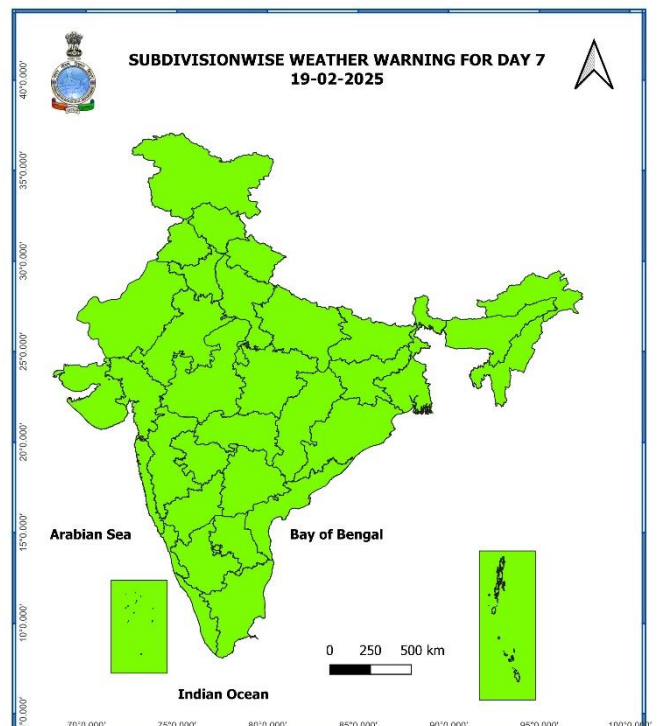
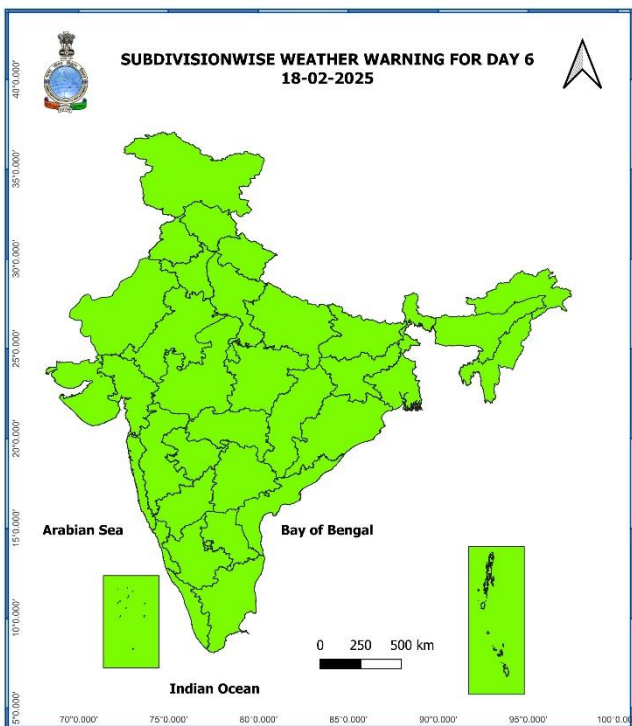
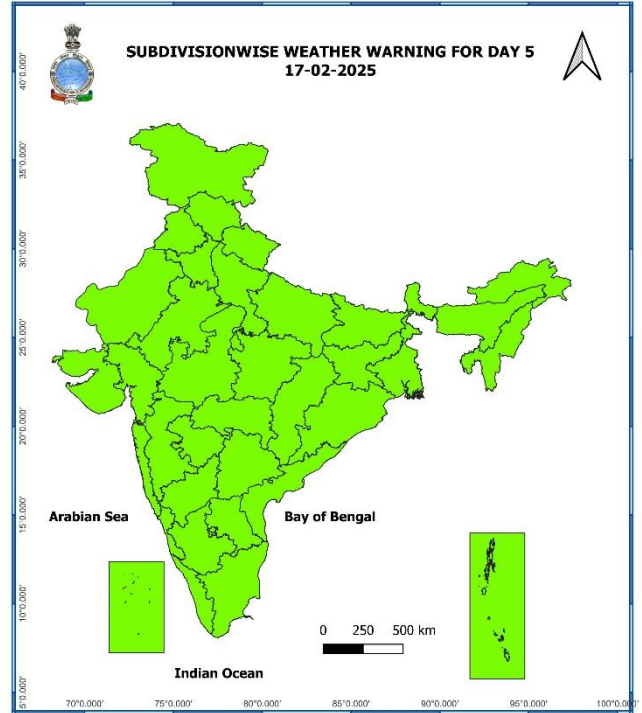
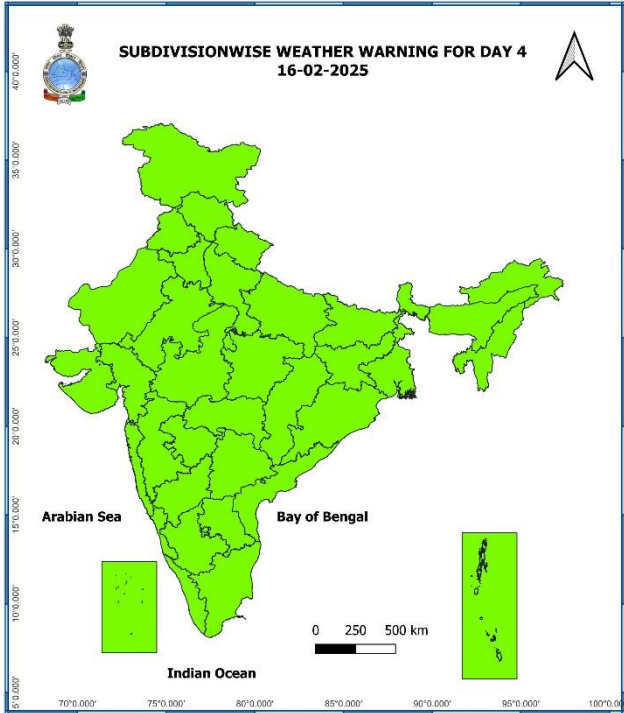
- Provide light and life-saving irrigation during sensitive growth stages such as grain filling, flowering, and tuber formation.
- Apply mulching to retain optimum soil moisture and regulate temperature.
- Chemical sprays like potassium chloride and mineral nutrients are recommended to manage heat stress.

## 7 Days Rainfall Forecast

S. No.	Subdivision	13-Feb	14-Feb	15-Feb	16-Feb	17-Feb	18-Feb	19-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	ISOL	SCT	SCT	SCT
3	ASSAM & MEGHALAYA	ISOL	ISOL	ISOL	DRY	ISOL	ISOL	ISOL
4	NAGALAND, MANIPUR, MIZORAM & TRIPURA	ISOL	ISOL	ISOL	DRY	ISOL	ISOL	ISOL
5	SUB-HIMALAYAN WEST BENGAL & SIKKIM	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
6	GANGETIC WEST BENGAL	DRY	DRY	DRY	DRY	DRY	DRY	ISOL
7	ODISHA	DRY	DRY	DRY	DRY	DRY	DRY	DRY
8	JHARKHAND	DRY	DRY	DRY	DRY	DRY	DRY	DRY
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	DRY	DRY	ISOL	ISOL	DRY	ISOL
13	HARYANA CHANDIGARH & DELHI	DRY	DRY	DRY	DRY	DRY	DRY	ISOL
14	PUNJAB	DRY	DRY	DRY	DRY	DRY	ISOL	ISOL
15	HIMACHAL PRADESH	DRY	DRY	DRY	ISOL	ISOL	ISOL	SCT
16	JAMMU & KASHMIR AND LADAKH	DRY	DRY	DRY	ISOL	ISOL	ISOL	SCT
17	WEST RAJASTHAN	DRY	DRY	DRY	DRY	DRY	DRY	ISOL
18	EAST RAJASTHAN	DRY	DRY	DRY	DRY	DRY	DRY	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.





- 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 13<sup>th</sup> Feb. to 16<sup>th</sup> Feb. 2025

### Past Weather:

There has been a slight rise in minimum temperature and fall in maximum temperature upto 03°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 12°C respectively. The minimum temperature was above normal upto 02°C 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 18 to 20 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:

**13.02.2025:** Mainly clear sky. Strong surface wind (speed 20-30 kmph) likely during the day. The maximum temperature over Delhi is likely to be in the range of 24 to 26°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.

**14.02.2025:** Partly cloudy sky. Strong surface wind (speed 20-30 kmph) likely during the day. The maximum and minimum temperatures over Delhi are likely to be in the range of 25 to 27°C and 09 to 11°C respectively. The predominant surface wind is likely to be from the northwest direction with a wind speed less than 12 kmph during morning hours. The wind speed will gradually increase thereafter becoming 18-20 kmph from the northwest direction during the afternoon. It will decrease further becoming less than 12 kmph from the northwest direction during evening and 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 will likely to be from the northwest direction with a wind speed of less than 08 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 north direction during evening and night.

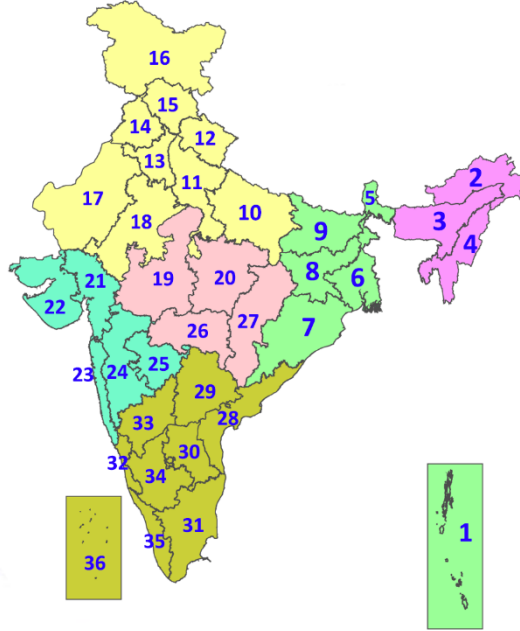
**16.02.2025:** Partly cloudy sky. The maximum and minimum temperatures over Delhi are likely to be in the range of 28 to 30°C and 11 to 13°C respectively. The predominant surface wind will likely to be from west direction with a wind speed of less than 04 kmph during morning hours. The wind speed will gradually increase thereafter becoming 08-10 kmph from the northwest direction during the afternoon. It will decrease becoming less than 06 kmph from north 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 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)