

Tuesday, February 4, 2025  
Time of Issue: 1345 hours IST  
(MID-DAY)

## ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

### Significant Weather Features:

#### Weather Systems, Forecast and warning:

- ❖ A Western Disturbance seen as a trough in lower to upper tropospheric levels runs roughly along Long. 65°E to the north of Lat. 23°. An induced cyclonic circulation lies over northwest Rajasthan & adjoining central Pakistan in lower tropospheric levels. Under the influence of these systems,
  - ✓ Scattered to Fairly widespread light to moderate rainfall/snowfall accompanied with thunderstorm & lightning likely over Western Himalayan Region on 04<sup>th</sup> & 05<sup>th</sup>; Isolated to Scattered light rainfall accompanied with thunderstorm & lightning likely over Punjab, Haryana, Uttar Pradesh, East Rajasthan & Madhya Pradesh on 04<sup>th</sup> February and isolated light rainfall likely over Punjab, Haryana & West Uttar Pradesh on 05<sup>th</sup> February, 2025.
  - ✓ Isolated to Fairly Widespread light to moderate rainfall accompanied with thunderstorm & lightning likely over Arunachal Pradesh and Assam & Meghalaya on 06<sup>th</sup> & 07<sup>th</sup> February with isolated **heavy rainfall** likely over Arunachal Pradesh on 07<sup>th</sup> February.
- ❖ Another fresh Western Disturbance is likely to affect Northwest India from 08<sup>th</sup> February, 2025. Under its influence,
  - ✓ Isolated to scattered light rainfall/snowfall activity likely over Western Himalayan Region during 08<sup>th</sup> - 10<sup>th</sup> February, 2025.

#### Temperature and Fog Forecast:

- ❖ Minimum temperatures are in the range of **6-13°C** over many parts of plains of Northwest India, adjoining Uttarakhand & Bihar; **13-20°C** over many parts of Central, East & West India. Today, the lowest minimum temperature of **5.3°C** is reported at **Adampur (Punjab)** over the plains of the country.
- ❖ During the past 24 hours, **minimum temperatures has fallen by 1-4°C** over many parts of West Bengal & Sikkim, Tamilnadu Puducherry & Karaikal; at isolated places over Jharkhand, Bihar, Madhya Maharashtra, Interior Karnataka, Kerala & Mahe and **rise by 1-4°C** in many parts of Northwest & Central India; in some parts of Vidarbha & Odisha; at isolated places over Gujarat Region.
- ❖ Maximum temperatures are in the range of **35-38°C** over some parts of Maharashtra, Vidarbha, Telangana, Coastal Andhra Pradesh & Yanam; at isolated places over south Chhattisgarh, Odisha, Coastal Karnataka, Kerala & Mahe. Yesterday, the highest **maximum temperature of 37.3°C** was reported at **Adilabad (Telangana)** over the plains of the country.

#### Forecast of temperature:

- ❖ No significant change in minimum temperatures likely over Northwest & Central India during next 24 hours and gradual fall by 2-4°C during subsequent 2-4 days.
- ❖ Gradual fall in minimum temperatures by about 2°C likely over West India during next 2 days and gradual rise by 2-3°C during subsequent 3 days.
- ❖ No significant change in minimum temperatures likely over East India during next 5 days.
- ❖ Maximum temperatures are likely to be above normal by 3-5°C over Central, East & South India during next 4-5 days.

#### Dense Fog Warnings:

- ❖ **Dense fog conditions** very likely to continue to prevail during early morning hours in isolated pockets of Uttar Pradesh till 05<sup>th</sup>, West Bengal & Sikkim on 05<sup>th</sup>, Odisha during 05<sup>th</sup>-07<sup>th</sup>, Himachal Pradesh on 07<sup>th</sup>& 08<sup>th</sup> February.

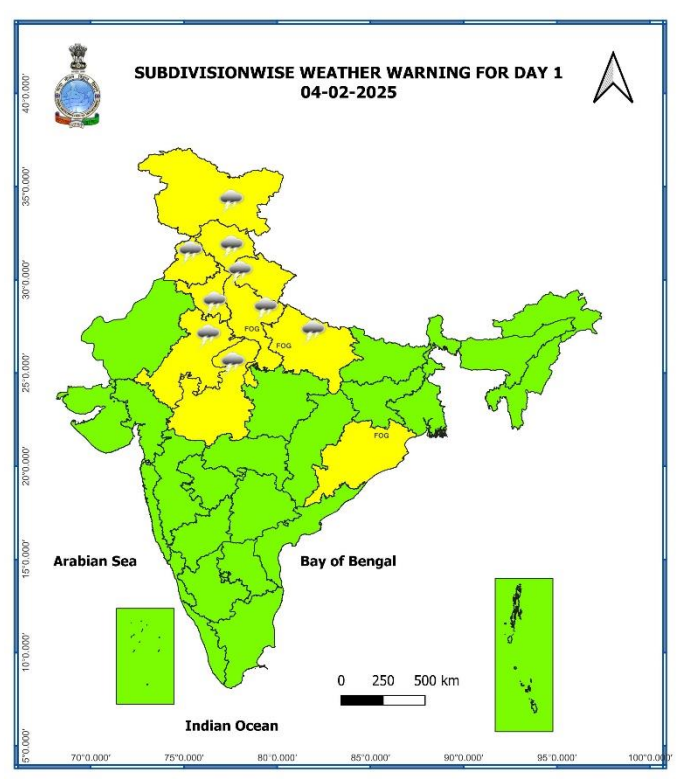
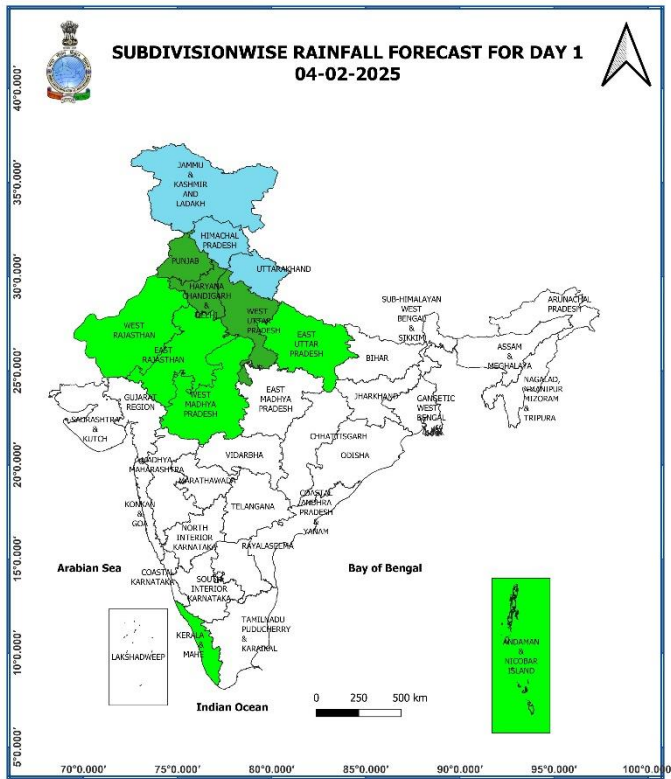
## Main Weather Observations:

- ❖ **Rainfall/Snowfall distribution** (from 0830 hours IST of yesterday to 0830 hours IST of today): **at isolated places over** Himachal Pradesh, Punjab, Haryana-Chandigarh-Delhi, Uttar Pradesh, Rajasthan, West Madhya Pradesh, Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh, Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe.
- ❖ **Significant amount of rainfall** (from 0830 hours IST of yesterday to 0830 hours IST of today) (in cm): **NIL**.
- ❖ **Heavy rainfall recorded** (from 0830 hours IST of yesterday to 0830 hours IST of today): **NIL**.
- ❖ **Fog reported** (upto 0830 hours IST of today): **Dense to very dense fog conditions (visibility < 50 m)** reported in isolated pockets of Punjab, Bihar & Meghalaya and **dense fog (visibility 50-199 m)** reported in isolated pockets of Odisha, Sub-Himalayan West Bengal & Sikkim & Tamil Nadu.
- ❖ **Visibility reported** (upto 0830 hours IST of today) ( $\leq 200$  m): **Punjab:** Amritsar, Ludhiana 0 each; **Bihar:** Purnea 0; **Meghalaya:** Barapani 25, Shillong Airport 50; **Sub-Himalayan West Bengal & Sikkim:** Pakyong 50; **Odisha:** Phulbani 50; **Tamil Nadu:** Chennai Airport 150.
- ❖ **Cold wave conditions** prevailed in isolated pockets of Himachal Pradesh.
- ❖ **Minimum Temperature Departures (as on 04-02-2025):** Minimum temperatures are **markedly above normal (5.1°C or above)** at a few places over Madhya Pradesh; at isolated places over Odisha, Chhattisgarh, Vidarbha, East Rajasthan, Madhya Maharashtra and Marathwada; **appreciably above normal (3.1°C to 5.0°C)** at a few places over Delhi, West Uttar Pradesh; **above normal (1.6°C to 3.0°C)** at a few places over Gujarat State, Telangana, East Uttar Pradesh; at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Haryana, Coastal Andhra Pradesh & Yanam and Kerala & Mahe. These are **below normal (-1.6°C to -3.0°C)** at isolated places over North Interior Karnataka and near normal over rest parts of the country (**Fig. 4**). Today, the **lowest minimum temperature** of 5.3°C is reported at **Adampur (Punjab)** over the plains of the country.
- ❖ **Maximum Temperature Departures (as on 03-02-2025):** Maximum temperatures were **markedly above normal (5.1°C or above)** at many places over Chhattisgarh and Vidarbha; at a few places over Telangana; at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttar Pradesh, Odisha and Coastal Andhra Pradesh & Yanam; **appreciably above normal (3.1°C to 5.0°C)** at most places over Madhya Maharashtra and Marathwada; at a few places over Uttarakhand, Madhya Pradesh, East Uttar Pradesh, Bihar, Gangetic West Bengal and South Interior Karnataka; at isolated places over West Uttar Pradesh and Jharkhand; **above normal (1.6°C to 3.0°C)** at most places over North Interior Karnataka; at many places over Coastal Karnataka; at a few places over Delhi; at isolated places over Tamil Nadu, Puducherry & Karaikal and Nagaland, Manipur, Mizoram & Tripura. These were **below normal (-1.6°C to -3.0°C)** at a few places over Haryana-Chandigarh; at isolated places over Saurashtra & Kutch, Konkan & Goa and Andaman & Nicobar Islands and near normal over rest parts of the country (**Fig. 2**). Yesterday, the highest **maximum temperature** of 37.3°C was reported at **Adilabad (Telangana)** over the plains of the country.

## Meteorological Analysis (Based on 0830 hours IST)

- ❖ The **Western Disturbance** as a cyclonic circulation over West Afghanistan & neighbourhood now seen as a trough in lower to upper tropospheric levels with its axis at 3.1 km above mean sea level runs roughly along Long. 65°E to the north of Lat. 23°N.
- ❖ An **induced cyclonic circulation** lies over northwest Rajasthan & adjoining central Pakistan at 1.5 km above mean sea level.
- ❖ A **trough** runs from the above cyclonic circulation over northwest Rajasthan & adjoining central Pakistan to Northeast Arabian Sea across Gujarat at 1.5 km above mean sea level.
- ❖ The **cyclonic circulation** over north Gujarat & neighbourhood now lies over South Rajasthan & neighbourhood at 0.9 km above mean sea level.
- ❖ The **cyclonic circulation** over East Bangladesh extending upto 1.5 km above mean sea level persists.
- ❖ Subtropical **westerly Jet Stream** with core winds of the order upto 160 knots at 12.6 km above mean sea level is prevailing over western Himalayan region.
- ❖ A fresh **Western Disturbance** is likely to affect Northwest India from 08<sup>th</sup> February, 2025.

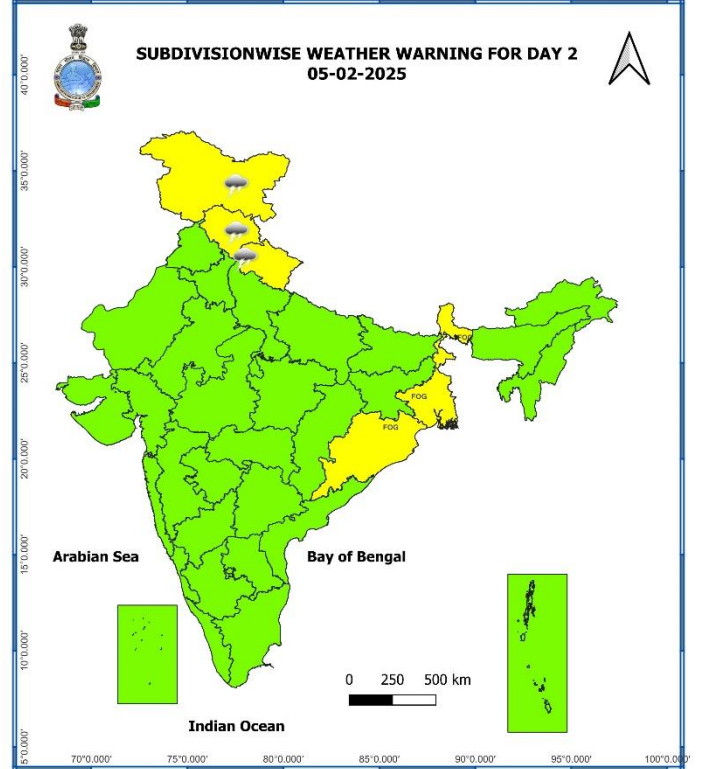
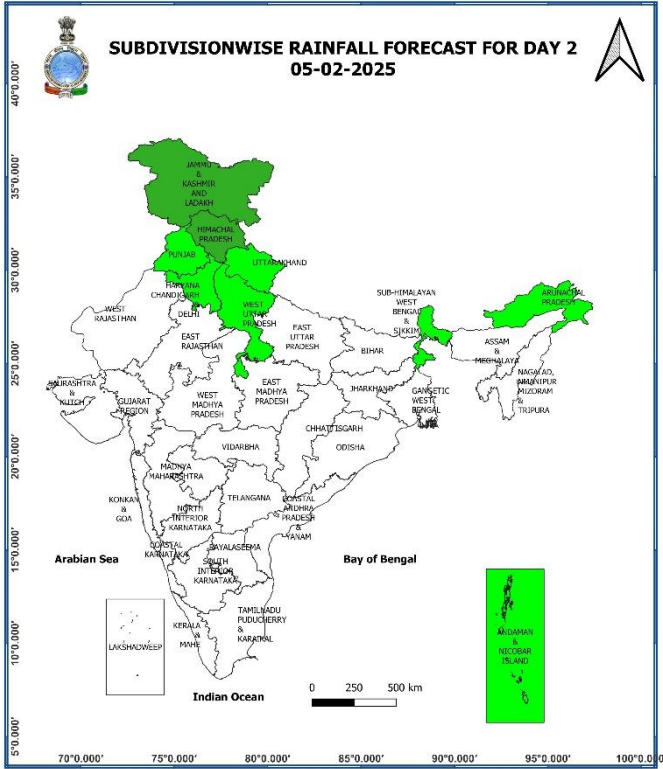
**Weather Forecast & Warnings for next 7 days (Upto 0830 hours IST of 10<sup>th</sup> February, 2025)**



**04<sup>th</sup> February (Day 1):**

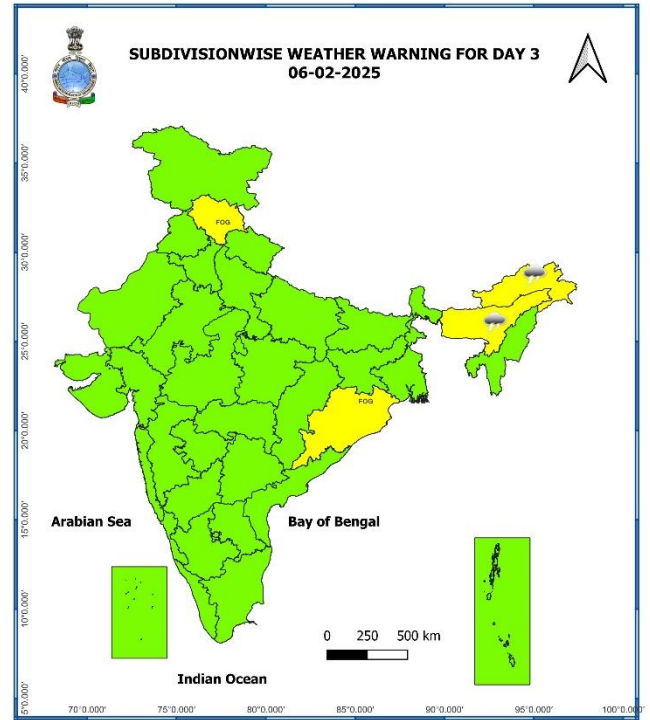
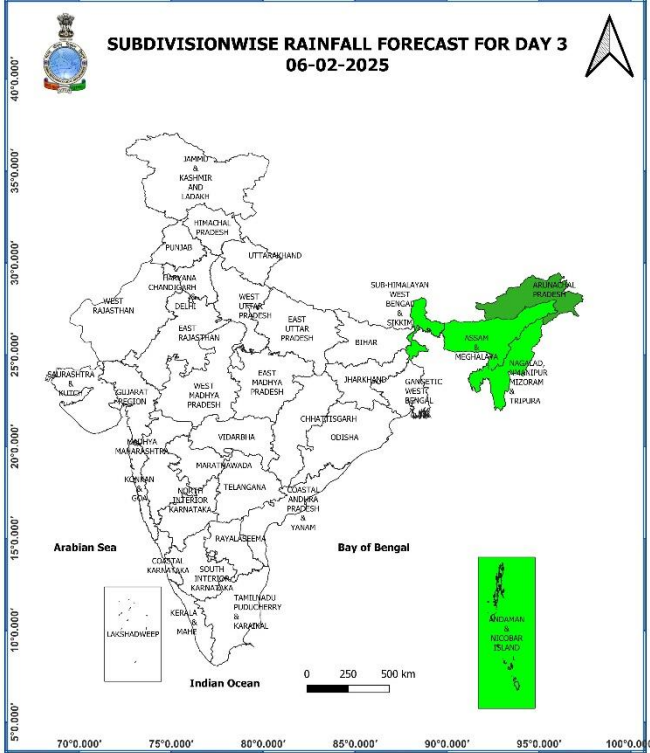
- ❖ **Dense fog conditions** very likely in isolated pockets of Uttar Pradesh and Odisha.
- ❖ **Thunderstorm accompanied with lightning** very likely at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand, Punjab, Haryana-Chandigarh-Delhi, East Rajasthan and Uttar Pradesh.





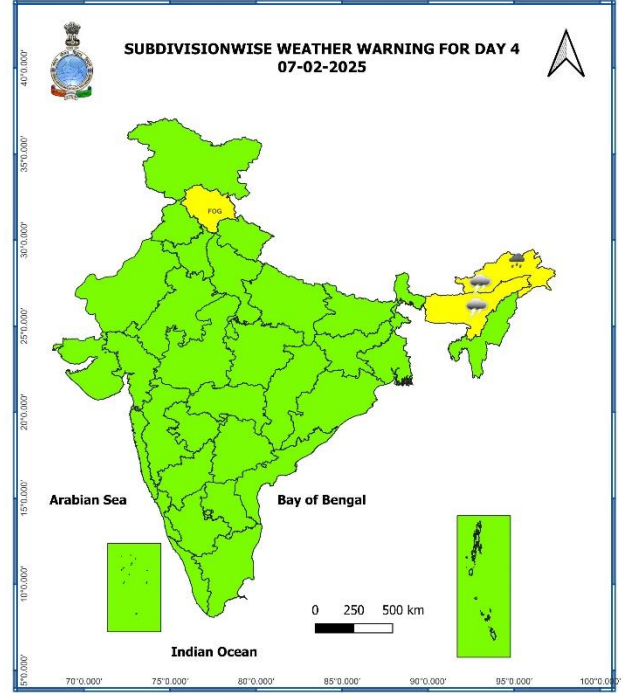
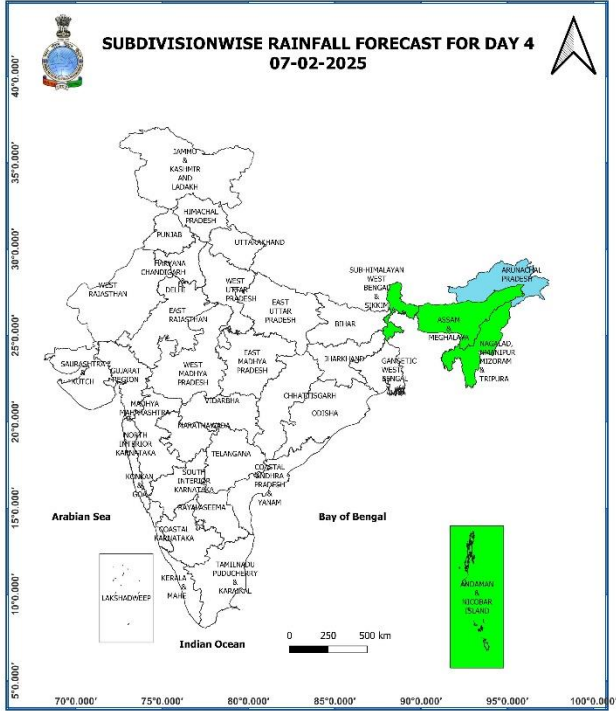
### 05<sup>th</sup> February (Day 2):

- ❖ **Dense fog conditions** very likely in isolated pockets of West Bengal & Sikkim and Odisha.
- ❖ **Thunderstorm accompanied with lightning** very likely at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh and Uttarakhand.



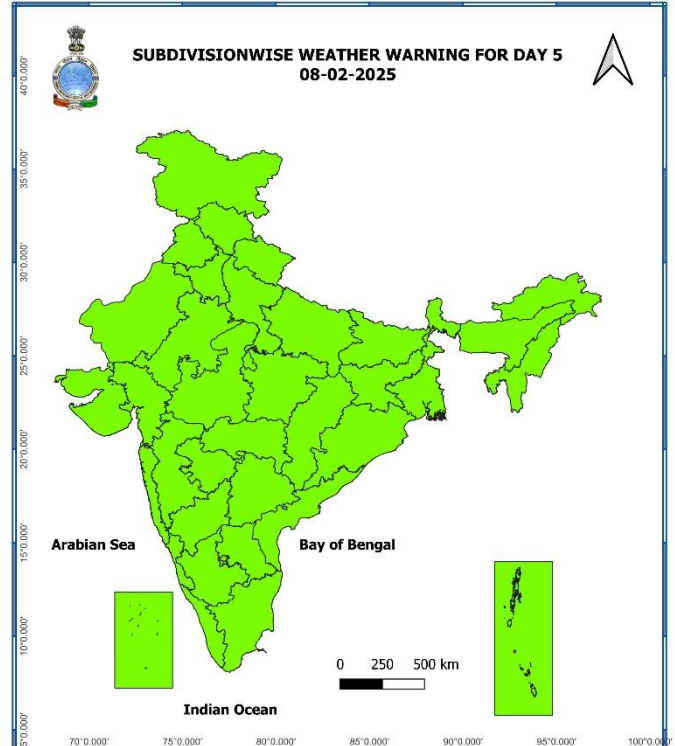
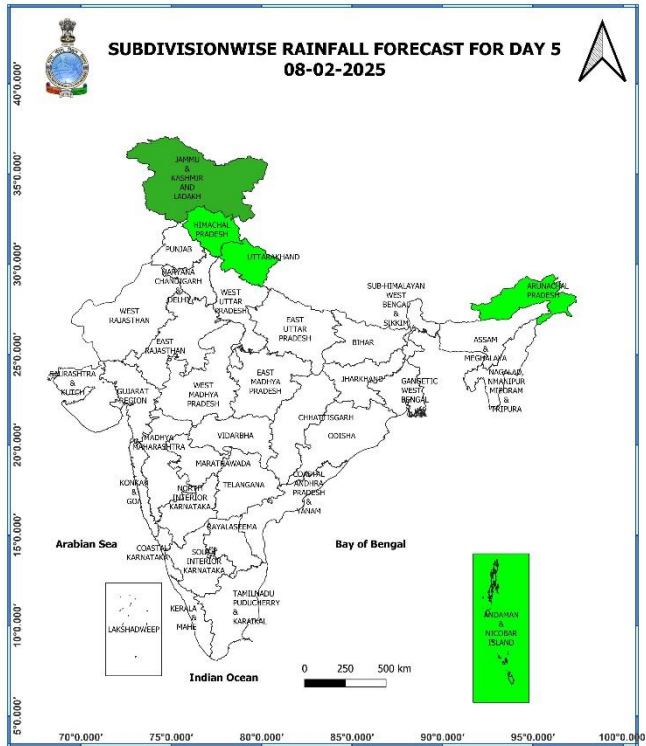
### 06<sup>th</sup> February (Day 3):

- ❖ **Dense fog conditions** very likely in isolated pockets of Himachal Pradesh and Odisha.
- ❖ **Thunderstorm accompanied with lightning** very likely at isolated places over Arunachal Pradesh and Assam & Meghalaya.



### 07<sup>th</sup> February (Day 4):

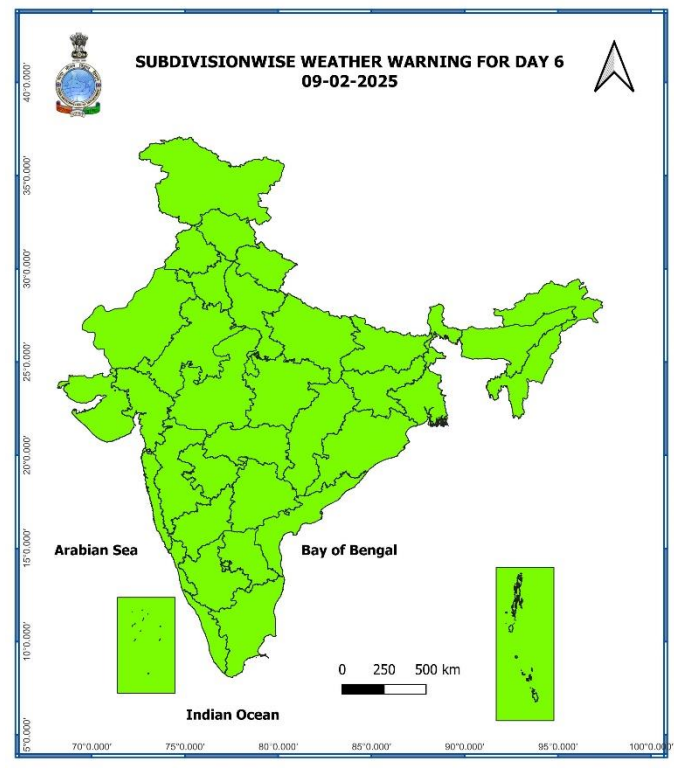
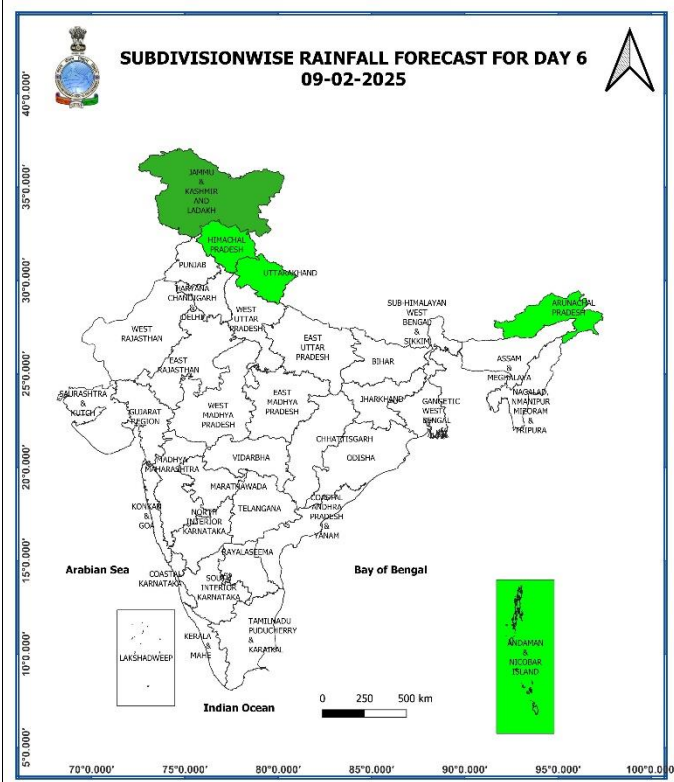
- ❖ **Heavy rainfall ( $\geq 7$  cm)** likely at isolated places over Arunachal Pradesh.
- ❖ **Thunderstorm accompanied with lightning** very likely at isolated places over Arunachal Pradesh and Assam & Meghalaya.
- ❖ **Dense fog conditions** very likely in isolated pockets of Himachal Pradesh.



**08<sup>th</sup> February (Day 5):**

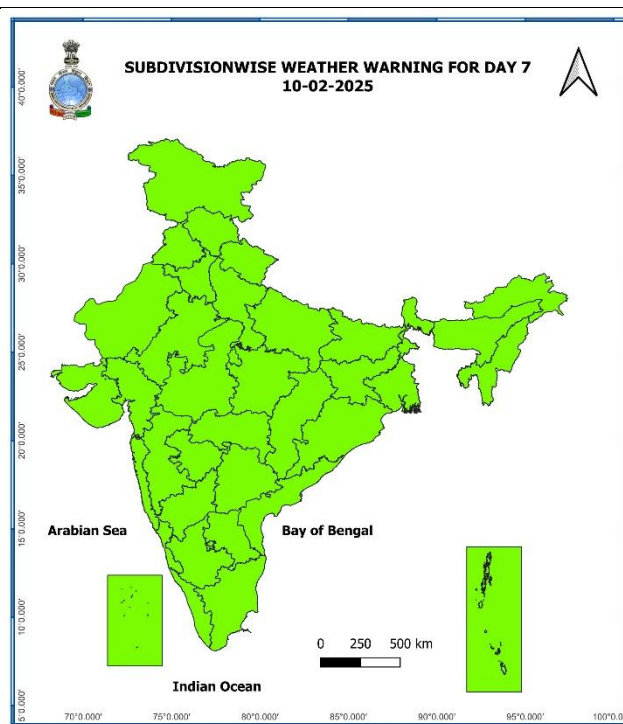
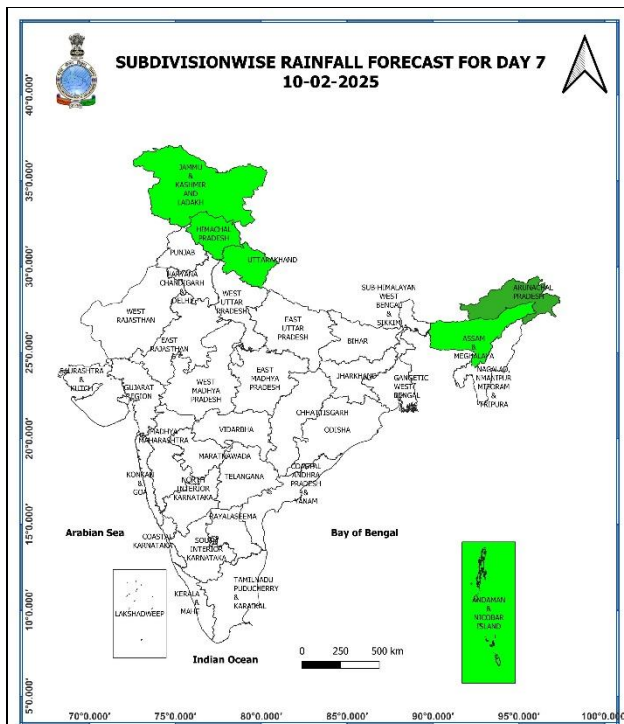
❖ **No Weather Warning.**





**09<sup>th</sup> February (Day 6):**

**❖ No Weather Warning.**



**10<sup>th</sup> February (Day 7):**

**❖ No Weather Warning.**

**Weather Outlook for subsequent 3 days (During 11<sup>th</sup> February- 13<sup>th</sup> February, 2025)**

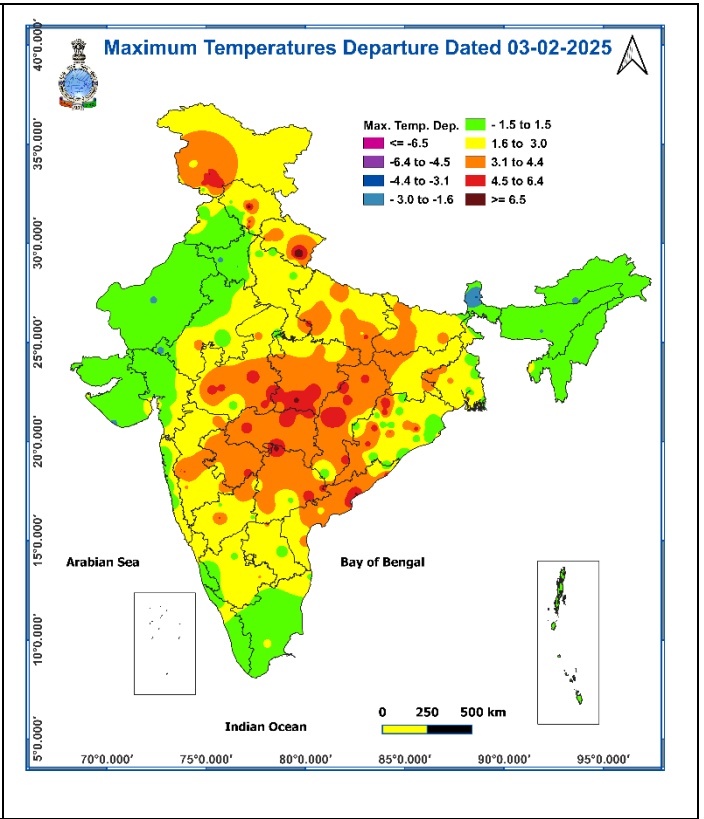
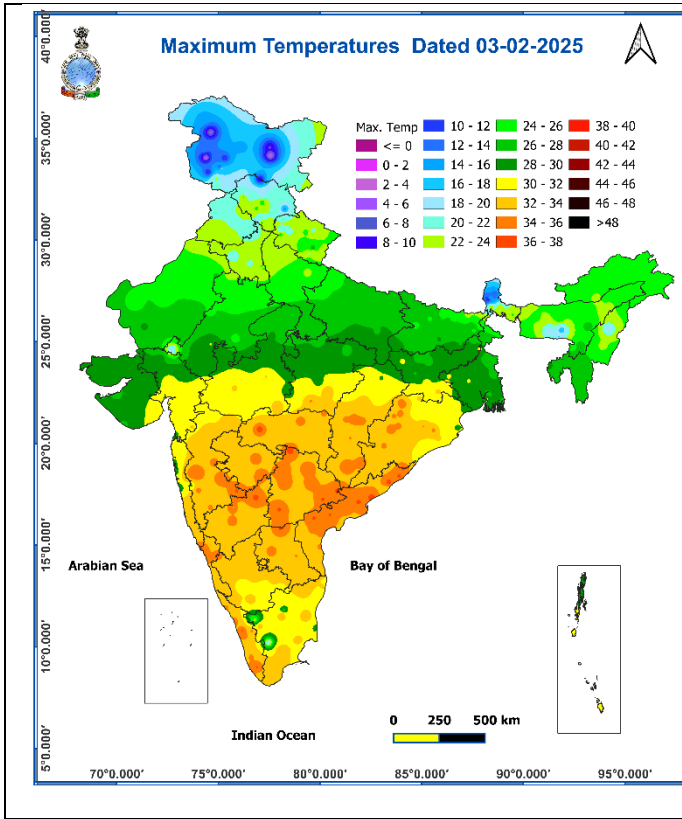
- ❖ **Scattered to fairly widespread rainfall likely** over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad and Himachal Pradesh.
- ❖ **Isolated to scattered rainfall likely** over Uttarakhand, Arunachal Pradesh and Nicobar Islands.

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.

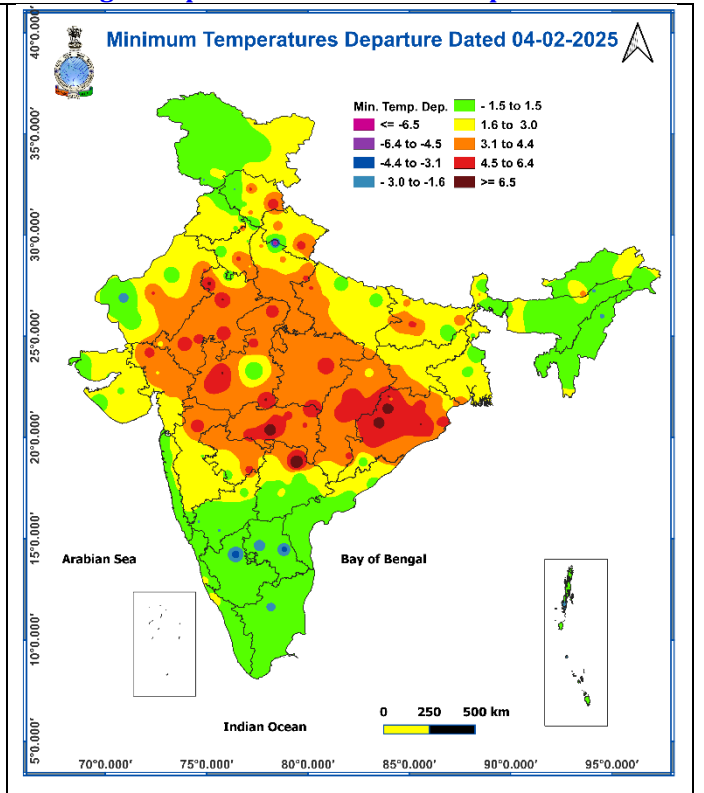
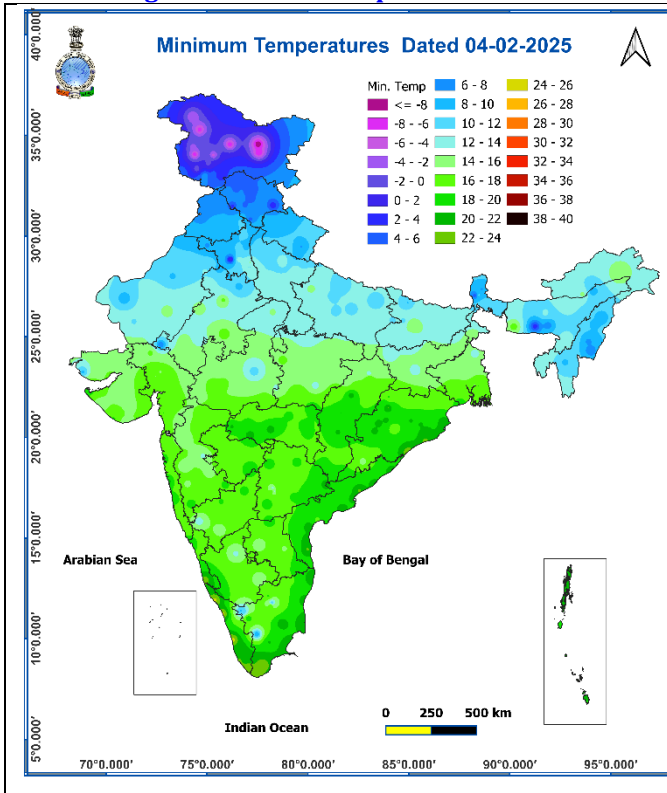
**Fig. 1: Maximum Temperatures**

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



**Fig. 3: Minimum Temperatures**

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



**\* 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)

## Impact expected due to dense fog in the night /morning hours over Northwest, East and Northeast India:

### ❖ Transport and Aviation:

- May affect some airports, highways and railway routes in the areas of met- sub-division.
  - Difficult driving conditions with slower journey times.
- Unless taken precautionary measures, it may lead to some road traffic collisions.

### ❖ Power Sector:

- Chances of Tripping of Power lines in the very dense fog routes.

### ❖ Human Health:

- Lung related health impacts: Dense fog contains particulate matter and other pollutants and in case exposed it gets lodged in the lungs, clogging them and decreasing their functional capacity which increases episodes of wheezing, coughing and shortness of breath.
- Impact on people having asthma bronchitis: Long time exposure to dense fog may cause respiratory problem for people having asthma bronchitis and other lung related health problems.
- Eye Irritation: Dense fog contains pollutions of various types and these Pollutants in the air if exposed may tend to irritate the membranes of the eye causing various infections leading to redness or swelling of the eye.

### Action suggested:

#### ❖ Transport and Aviation:

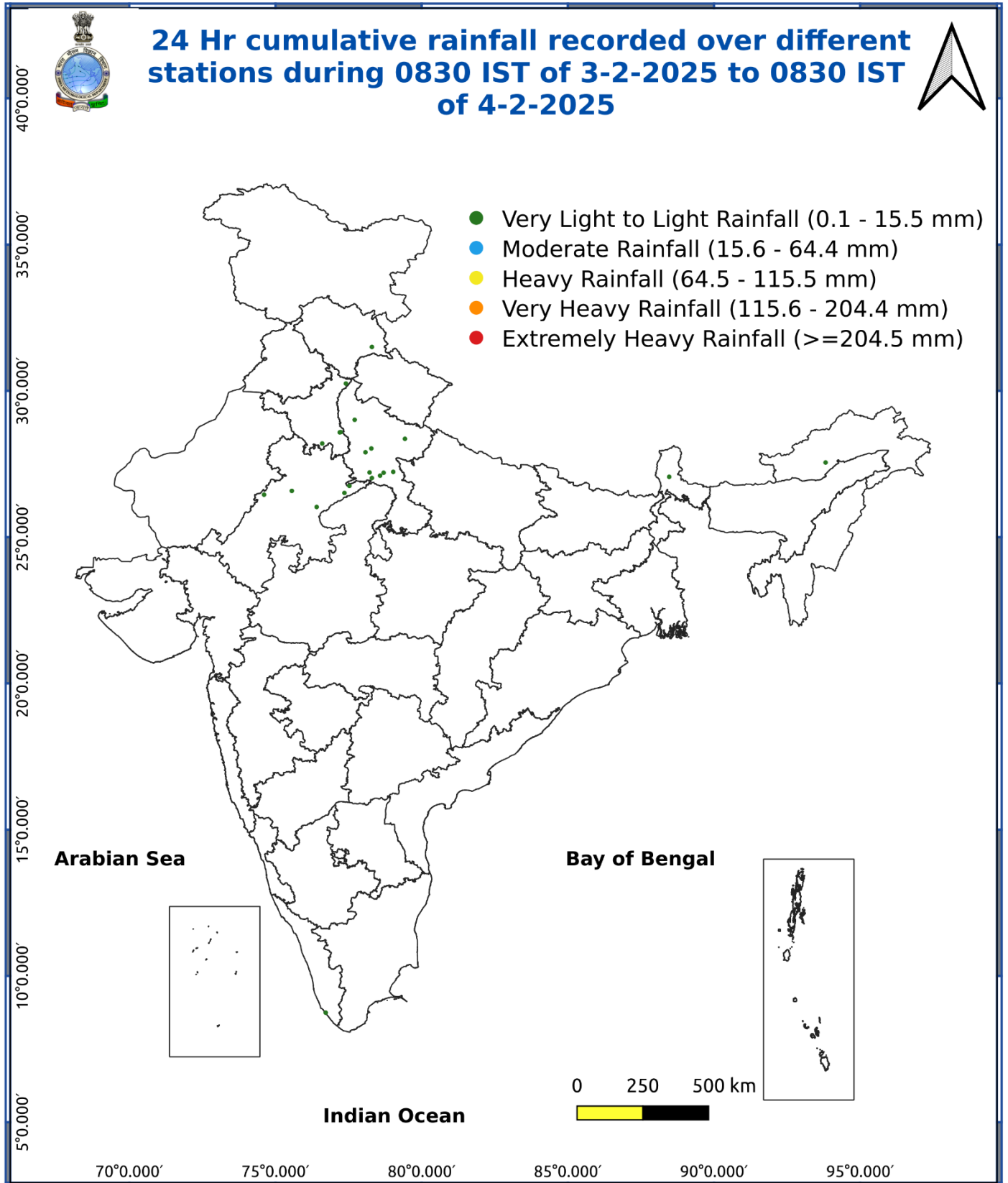
- Be careful while driving or outing through any transport.
- Use fog lights during driving.
- Be in touch with airlines, railways and state transport for schedule of your journey.

#### ❖ Power Sector:

- To keep ready Maintenance Team.
- Human Health: To avoid outing until unless emergency and to cover the face.



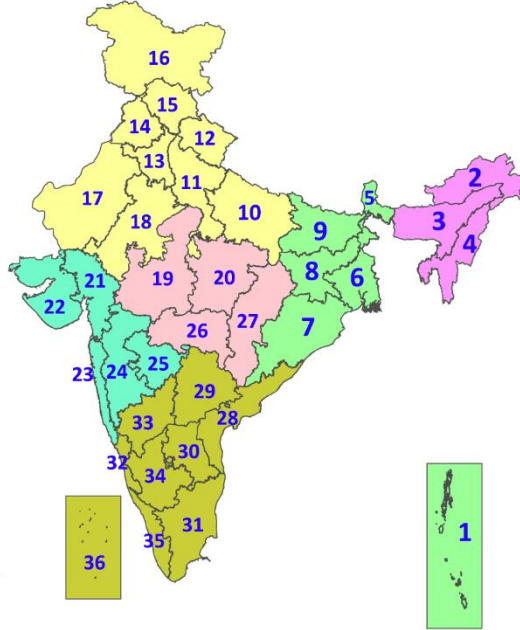
Fig. 5: Accumulated Rainfall (mm) during past 24 hours



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## 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



## 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)