

Sunday, February 9, 2025
Time of Issue: 1315 hours IST
(MID-DAY)

ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

Significant Weather Features:

Weather Systems, Forecast and warning:

- ❖ A **cyclonic circulation** lies over northeast Bangladesh and neighbourhood in lower tropospheric levels. Under its influence,
 - ✓ Isolated to scattered light rainfall/snowfall activity likely over Arunachal Pradesh during 09th-15th increasing to Fairly widespread to widespread rainfall accompanied with thunderstorm & lightning during 11th-13th February with isolated heavy rainfall on 11th & 12th February.
 - ✓ Isolated to scattered light rainfall/snowfall activity likely over Sub-Himalayan West Bengal & Sikkim during 09th-14th; northeast Assam during 10th-14th; Nagaland, Manipur, Mizoram & Tripura during 10th-12th February.
- ❖ A **Western Disturbance** as a cyclonic circulation in lower & middle tropospheric levels over north Afghanistan & neighbourhood. The Subtropical westerly Jet Stream with core winds of the order upto 110 knots at 12.6 km above mean sea level prevail over Northeast India. Under their influence,
 - ✓ Isolated to scattered light rainfall/snowfall activity likely over Western Himalayan Region during 09th-11th February, 2025.

Temperature, Cold wave and Fog Forecast:

- ❖ Minimum temperatures are in the range of **6-10°C** over many parts of north India. Today, the lowest minimum temperature of **5.3°C** is reported at **Adampur (Punjab)** over the plains of the country.
- ❖ Maximum temperatures are in the range of **30-35°C** over many parts of Peninsular India. Yesterday, the highest **maximum temperature** of **37.6°C** was reported at **Nandigama (Coastal Andhra Pradesh)** over the plains of the country.

Forecast of temperature:

- ❖ Gradual rise in minimum temperatures by 2-3°C likely over Northwest, central & East India during next 3 days and no significant change thereafter.
- ❖ No significant change in minimum and maximum temperatures likely over rest parts of the country during next 5 days.
- ❖ Maximum temperatures are likely above normal by 2-3°C over south peninsular 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 Sub-Himalayan West Bengal & Sikkim on 09th; Gangetic West Bengal on 10th & 11th; south Odisha on 09th & 10th February.

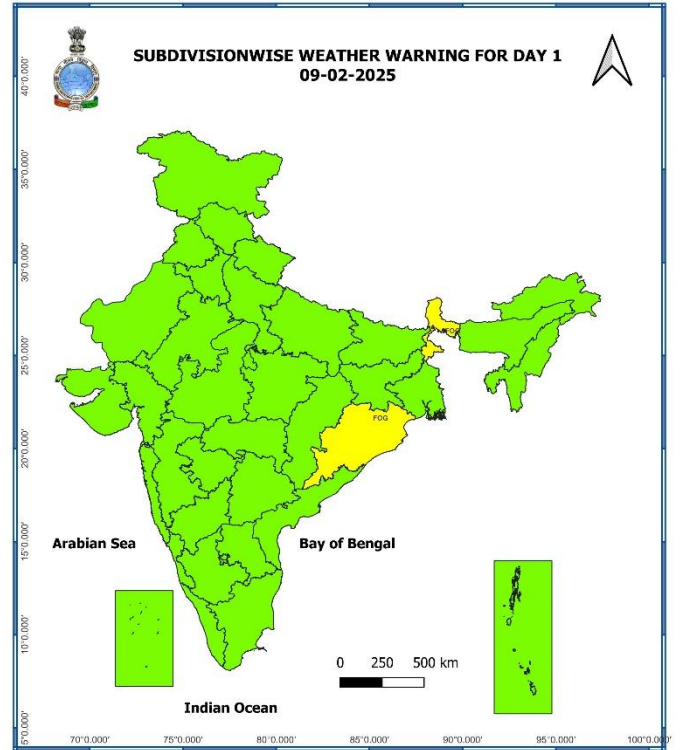
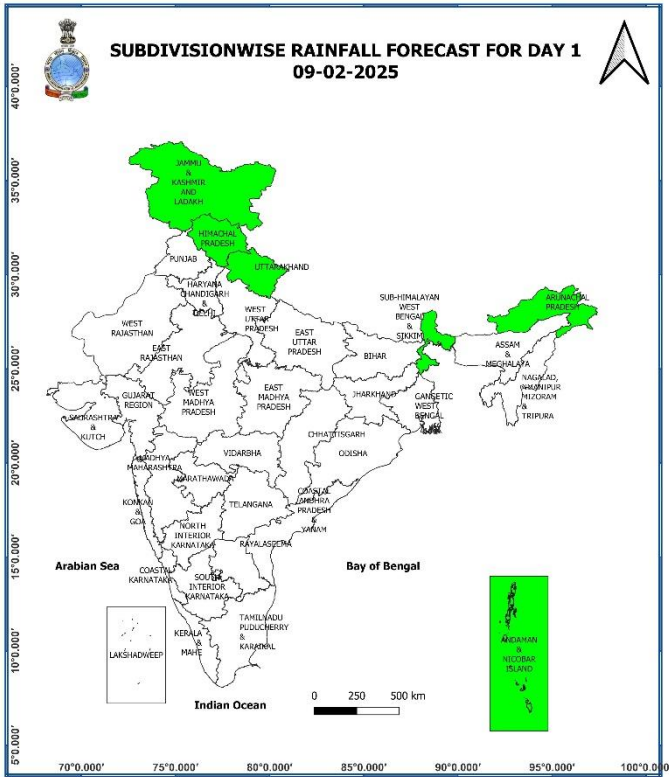
Main Weather Observations:

- ❖ **Rainfall/Snowfall distribution** (from 0830 hours IST of yesterday to 0830 hours IST of today): at isolated places over Himachal Pradesh and Arunachal Pradesh.
- ❖ **Significant amount of rainfall** (from 0830 hours IST of yesterday to 0830 hours IST of today): (in cm): **NIL**.
- ❖ **Fog reported** (upto 0830 hours IST of today): **Dense fog (visibility 50-199 m)** reported in isolated pockets of Sikkim, Meghalaya and South interior Odisha.
- ❖ **Visibility reported** (upto 0830 hours IST of today) (≤ 200 m): **Sikkim:** Pakyong 50; **Odisha:** Koraput 100; **Meghalaya:** Barapani 150.
- ❖ **Cold wave conditions** prevailed in isolated pockets of Himachal Pradesh.
- ❖ **Minimum Temperature Departures (as on 09-02-2025):** Minimum temperatures are **appreciably above normal (3.1°C to 5.0°C)** at many places over Madhya Maharashtra; at a few places over Marathwada; **above normal (1.6°C to 3.0°C)** at many Coastal Andhra Pradesh & Yanam; at a few places over Saurashtra & Kutch and Andaman & Nicobar Islands; at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, West Rajasthan, Konkan & Goa, Vidarbha, Gujarat Region and Telangana. These are **appreciably below normal (-3.1°C to -5.0°C)** at a few places over East Madhya Pradesh; below **normal (-1.6°C to -3.0°C)** at a few places over Delhi; at isolated places over Uttar Pradesh, Madhya Pradesh, Chhattisgarh, Jharkhand, Odisha, Gangetic West Bengal, Tripura, Kerala & Mahe 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 08-02-2025):** Maximum temperatures were **appreciably above normal (3.1°C to 5.0°C)** at many places over Saurashtra & Kutch; at a few places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Konkan & Goa, Himachal Pradesh, Punjab; at isolated places over Gujarat Region, Rajasthan, Uttarakhand, Telangana, Chhattisgarh, Odisha; **above normal (1.6°C to 3.0°C)** at many places over North Interior Karnataka, Rayalaseema, Coastal Andhra Pradesh & Yanam; at a few places over Kerala & Mahe, Marathwada, Madhya Maharashtra, Vidarbha, Haryana-Chandigarh-Delhi; at isolated places over Tamil Nadu, Puducherry & Karaikal, Madhya Pradesh, Uttar Pradesh. These were **appreciably below normal (-3.1°C to -5.0°C)** at isolated places over Assam; **below normal (-1.6°C to -3.0°C)** at isolated places over Gangetic West Bengal, Bihar, Sub-Himalayan West Bengal & Sikkim and Andaman & Nicobar Islands and near normal over rest parts of the country (**Fig. 2**). Yesterday, the highest **maximum temperature of 37.6°C** was reported at **Nandigama (Coastal Andhra Pradesh)** over the plains of the country.

Meteorological Analysis (Based on 0830 hours IST)

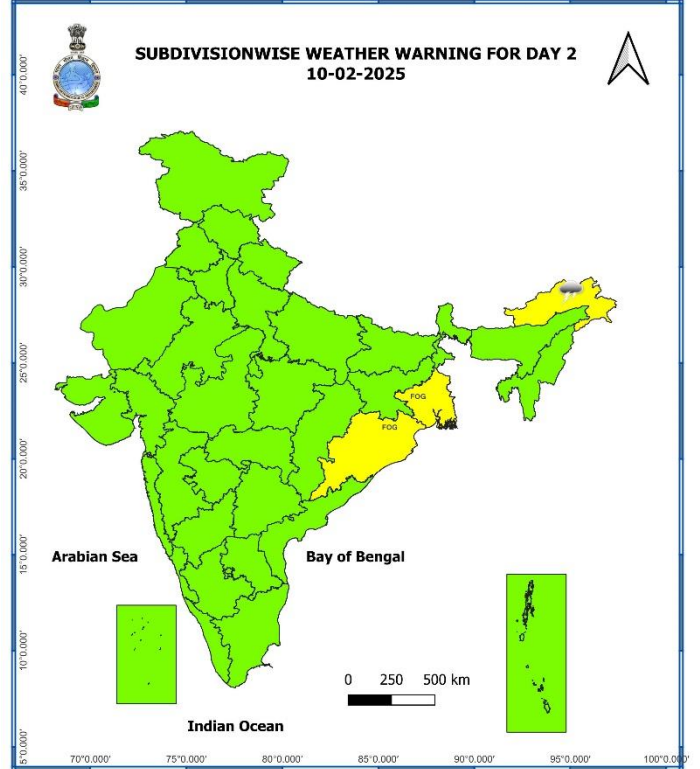
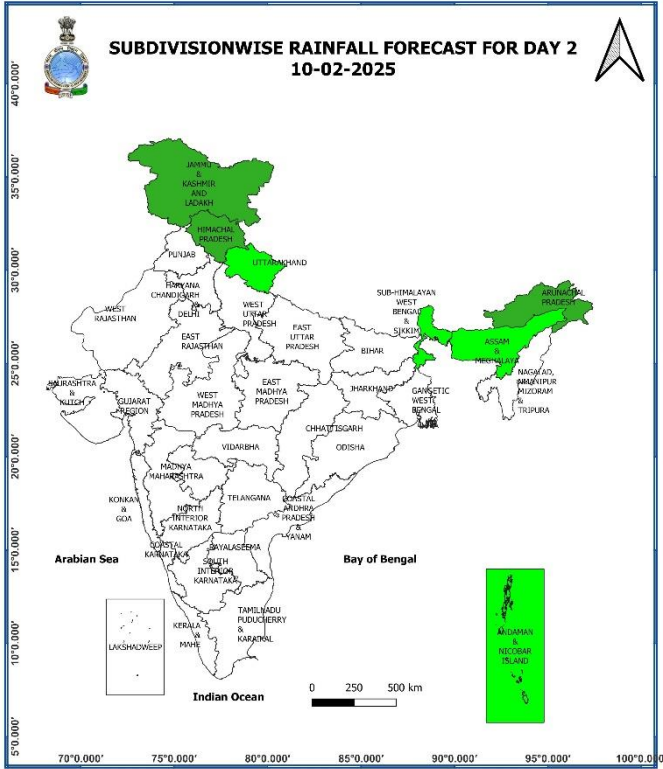
- ❖ The **Western Disturbance** is now seen as a cyclonic circulation over North Afghanistan & neighbourhood between 3.1 & 5.8 km above mean sea level.
- ❖ The **induced cyclonic circulation** over southwest Rajasthan & neighbourhood at 1.5 km above mean sea level persists.
- ❖ A **cyclonic circulation** lies over northeast Bangladesh & neighbourhood and extends upto 1.5 km above mean sea level.
- ❖ Subtropical **westerly Jet Stream** with core winds of the order upto 110 knots at 12.6 km above mean sea level is prevailing over Northeast India.

Weather Forecast & Warnings for next 7 days (Upto 0830 hours IST of 16th February, 2025)



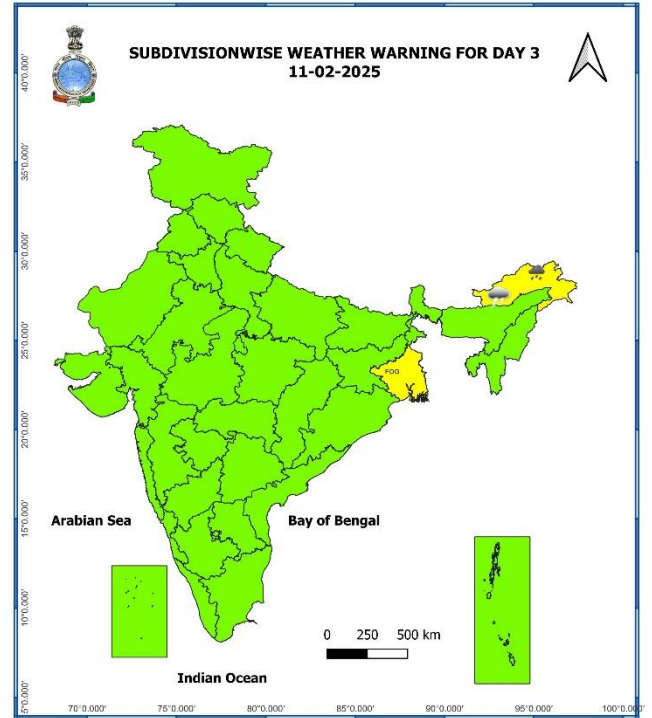
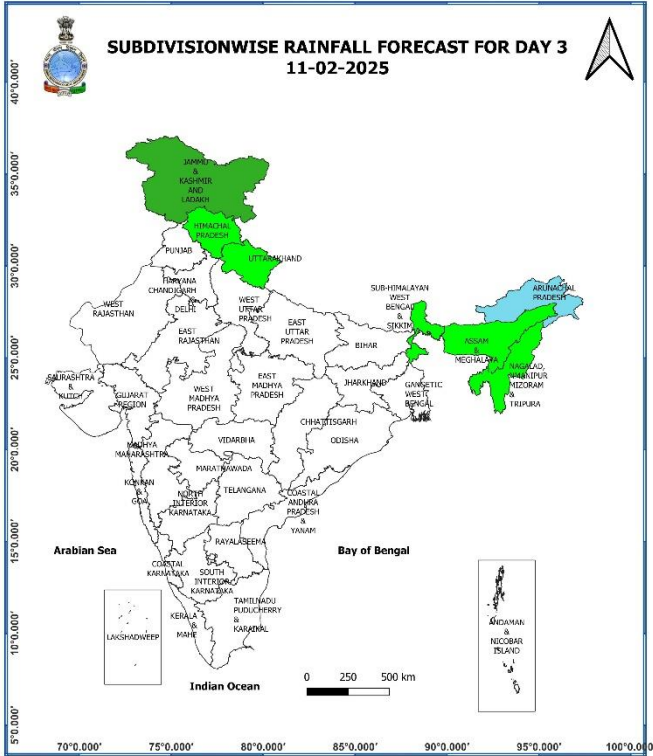
09th February (Day 1):

- ❖ **Dense fog conditions** very likely in isolated pockets of Sub-Himalayan West Bengal & Sikkim and south Odisha.



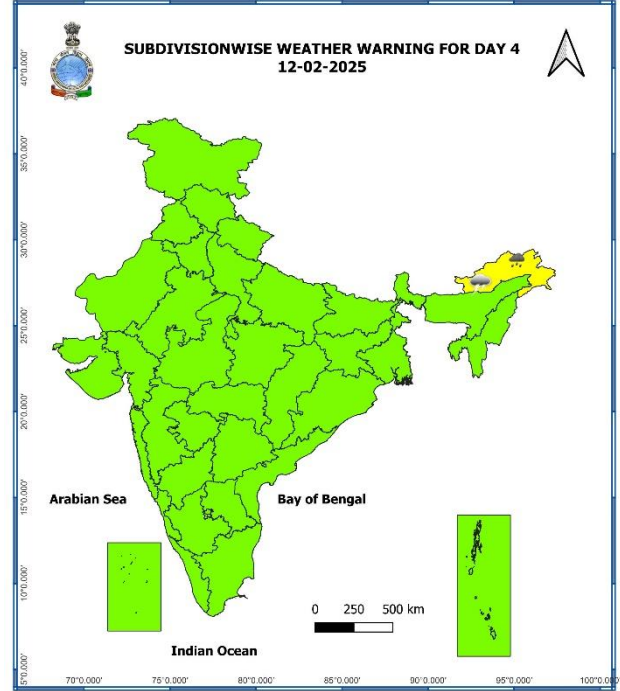
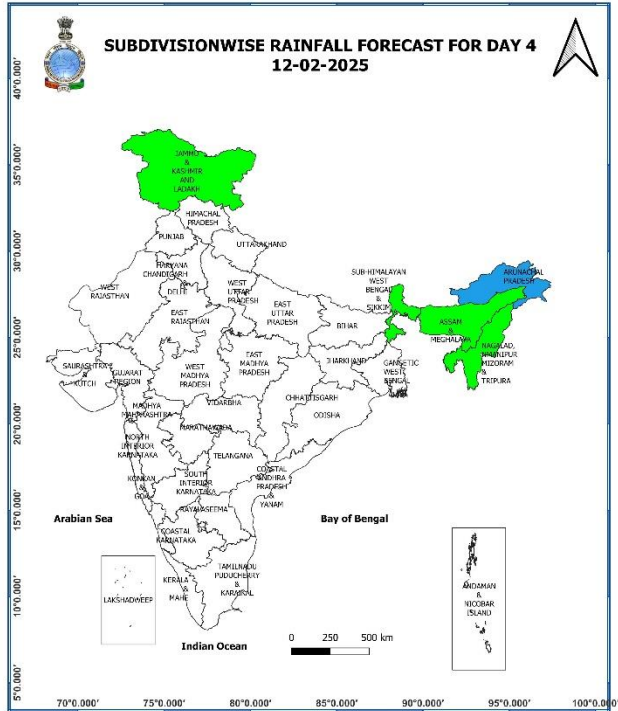
10th February (Day 2):

- ❖ **Dense fog conditions** very likely in isolated pockets of Gangetic West Bengal and south Odisha.
- ❖ **Thunderstorm accompanied with lightning** likely at isolated places over Arunachal Pradesh.



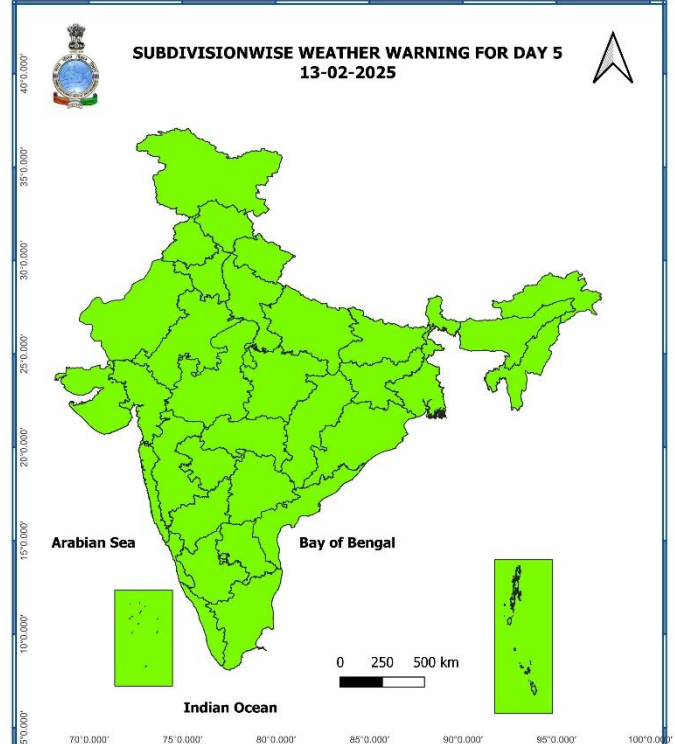
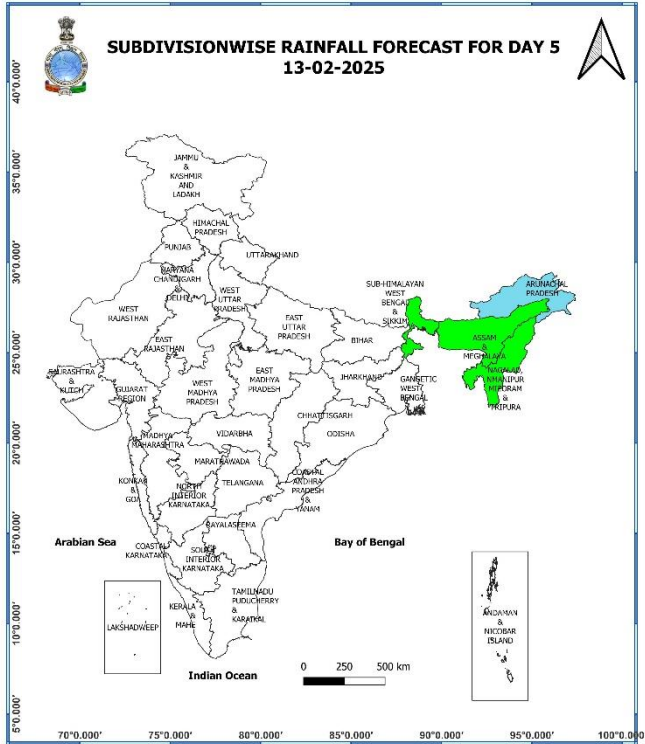
11th February (Day 3):

- ❖ **Heavy Rainfall/snowfall (≥ 7 cm)** very likely at isolated places of Arunachal Pradesh.
- ❖ **Thunderstorm accompanied with lightning** likely at isolated places over Arunachal Pradesh.
- ❖ **Dense fog conditions** very likely in isolated pockets of Gangetic West Bengal.



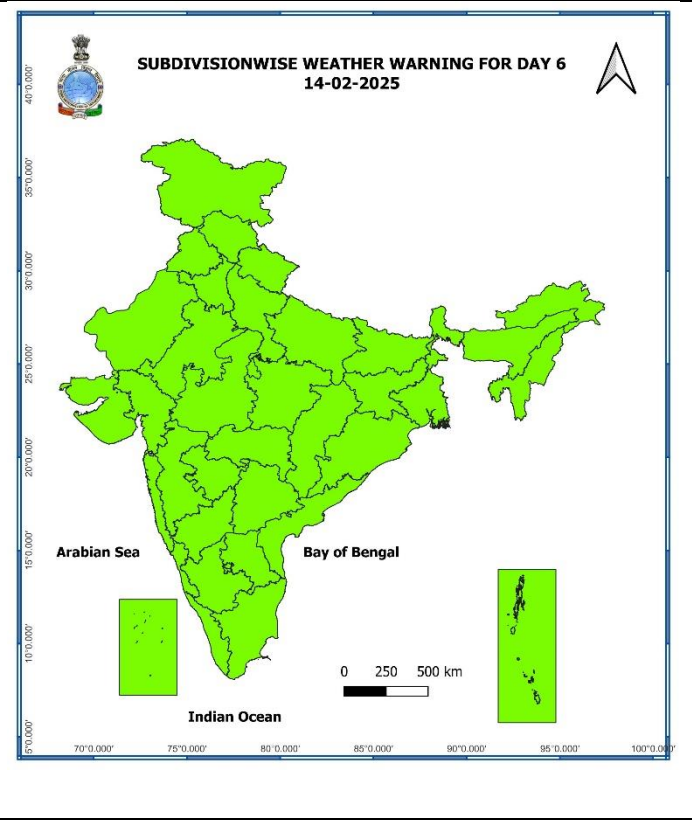
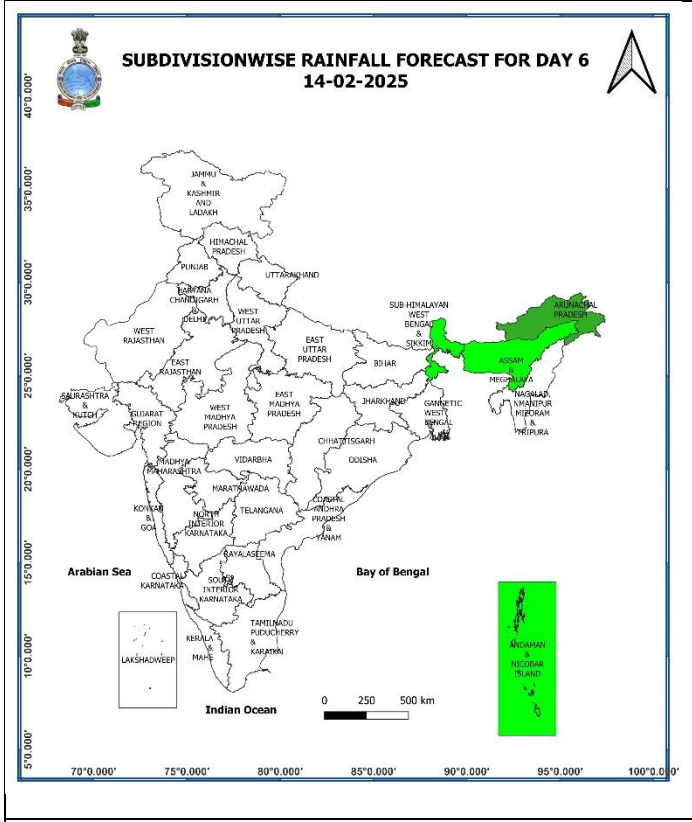
12th February (Day 4):

- ❖ **Heavy rainfall/snowfall ($\geq 7\text{cm}$)** very likely at isolated places over Arunachal Pradesh.
- ❖ **Thunderstorm accompanied with lightning** likely at isolated places over Arunachal Pradesh.



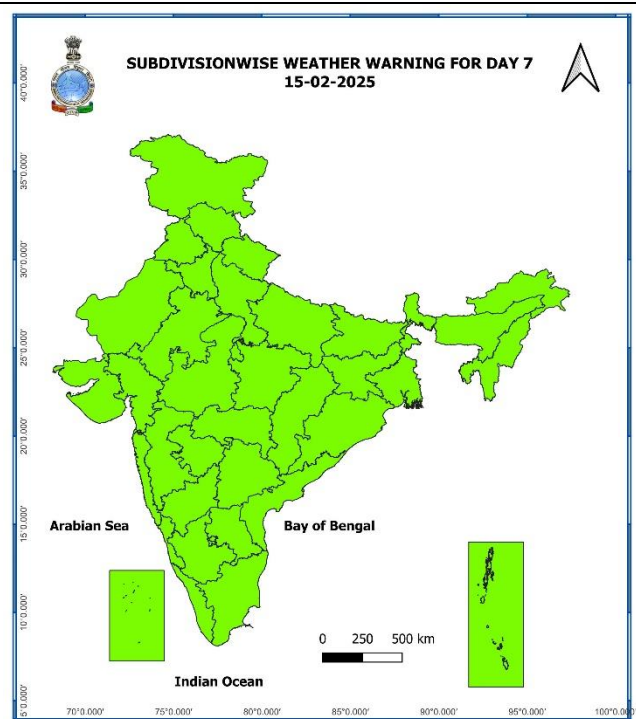
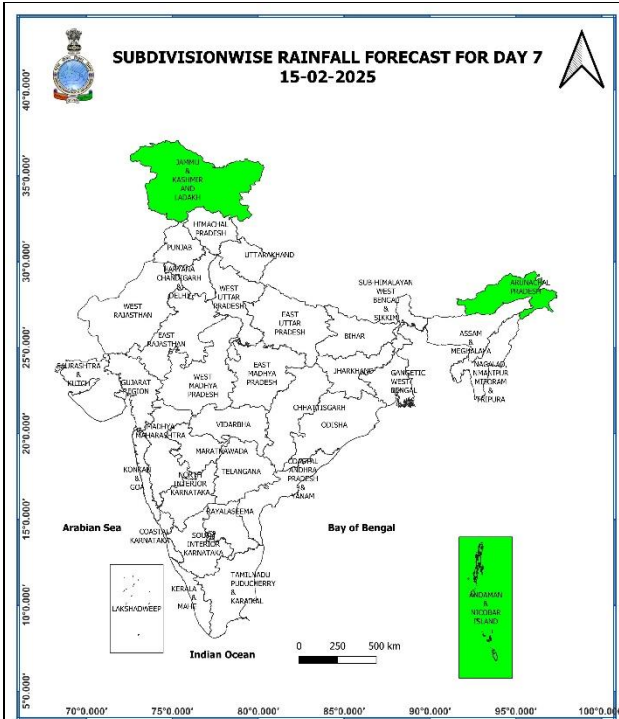
13th February (Day 5):

❖ **No Weather Warning.**



14th February (Day 6):

❖ No Weather Warning.



15th February (Day 7):

❖ No Weather Warning.

Weather Outlook for subsequent 3 days (During 16th February- 18th February, 2025)

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

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

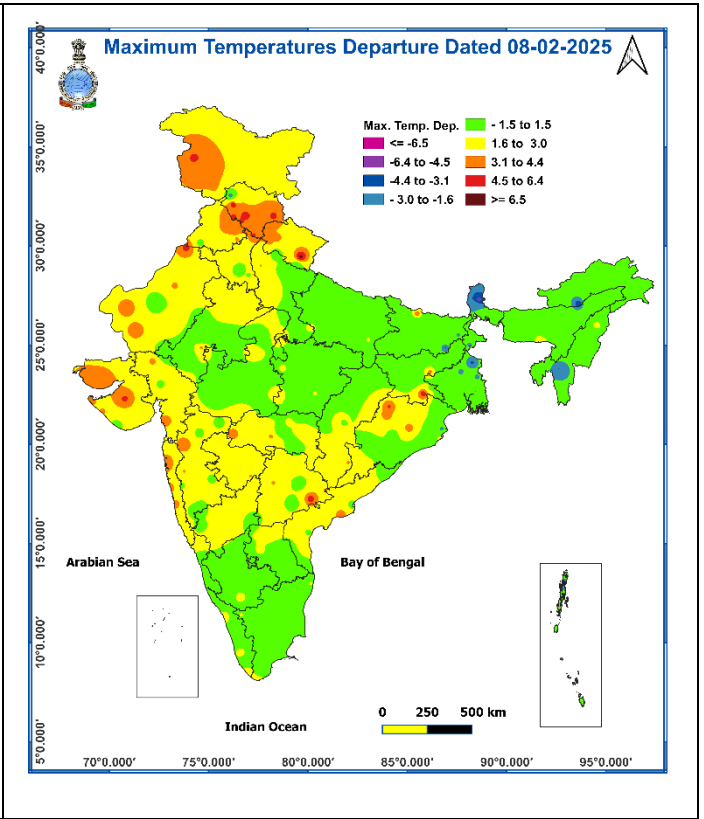
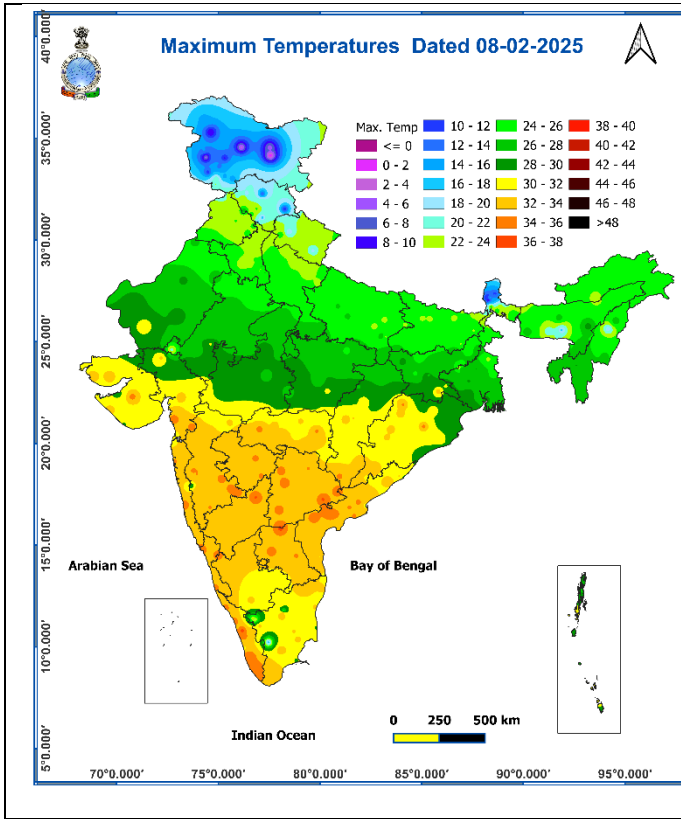
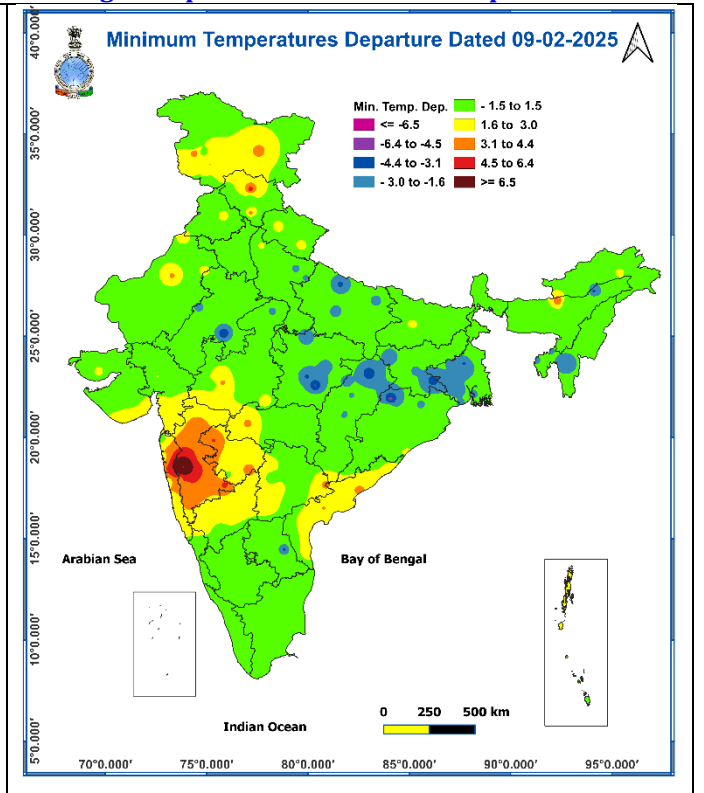
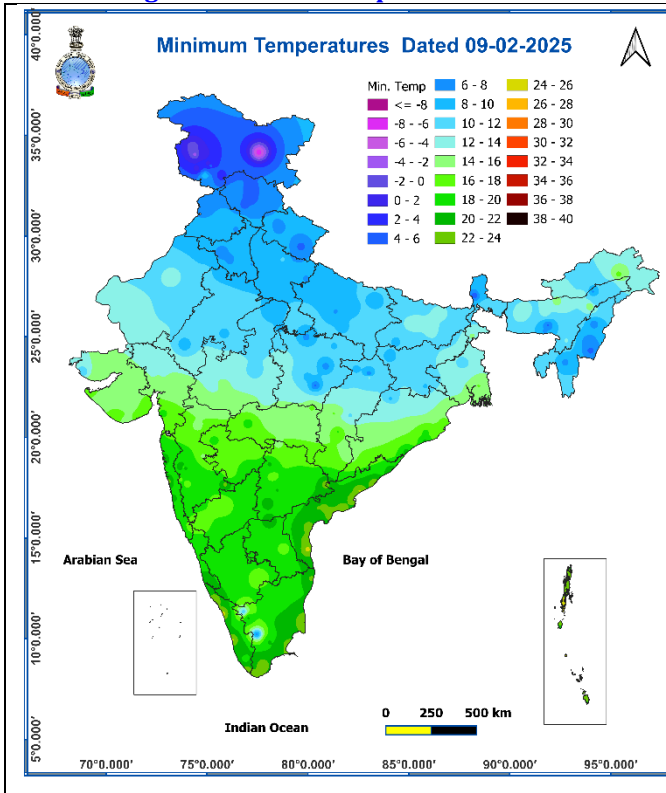


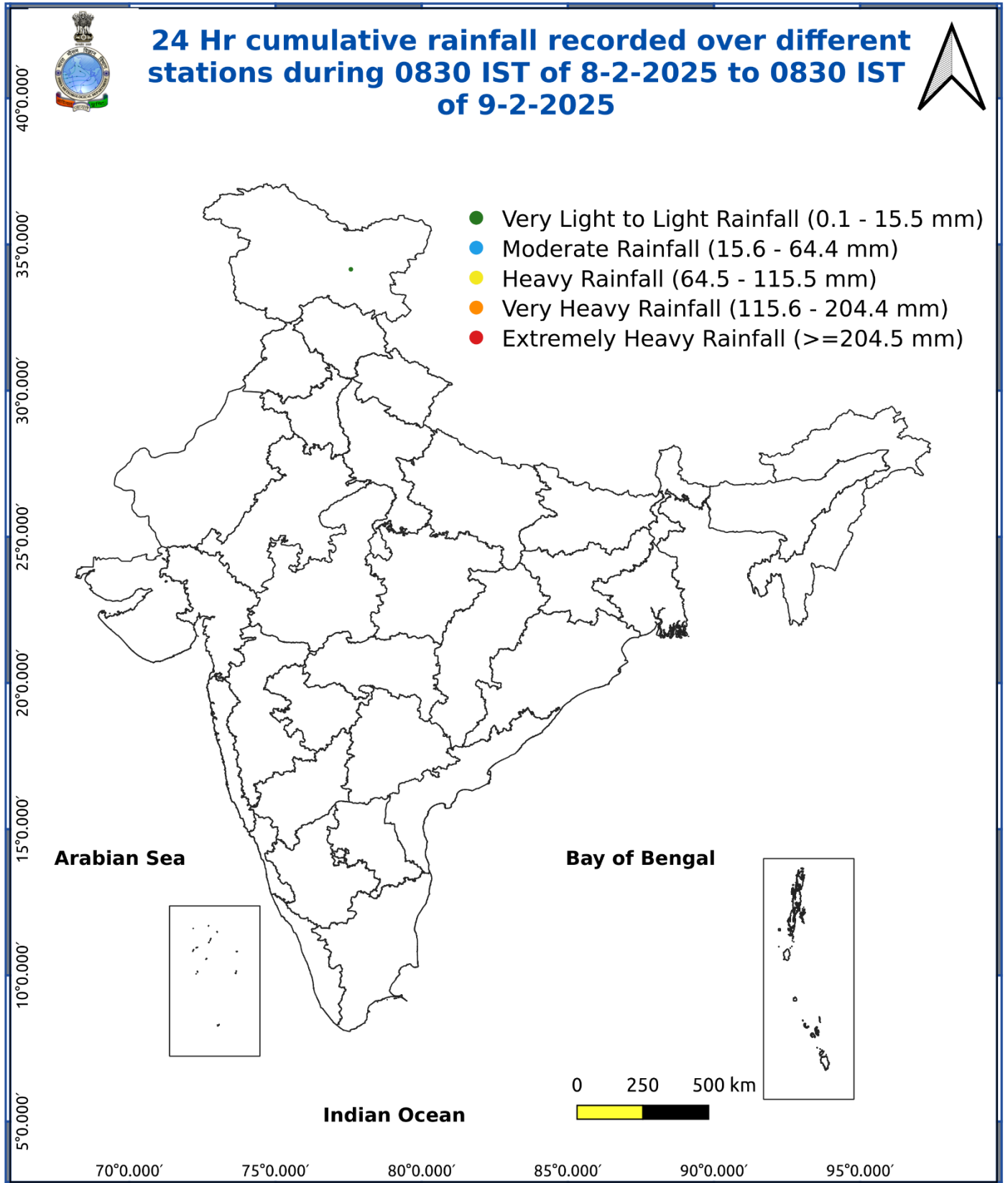
Fig. 3: Minimum Temperatures

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)

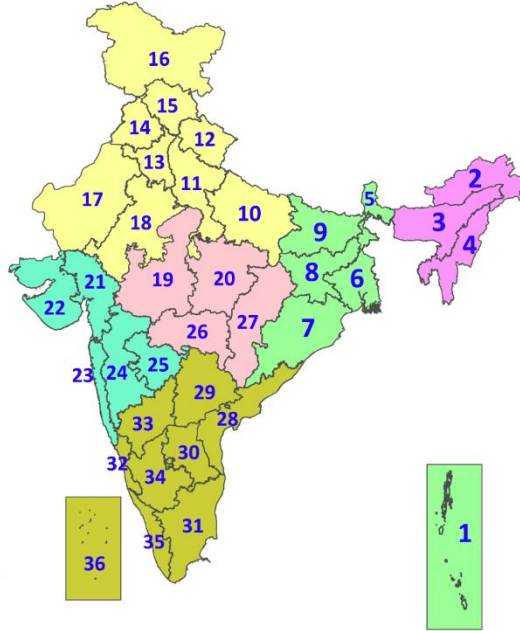
Fig. 5: Accumulated Rainfall (mm) during past 24 hours



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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°C to 6.4°C .
Severe Heat Wave: Maximum Temperature Departure from normal $\geq 6.5^\circ\text{C}$

(b). Based on Actual maximum temperature

Heat Wave: When actual maximum temperature $\geq 45^\circ\text{C}$.
Severe Heat Wave: When actual maximum temperature $\geq 47^\circ\text{C}$

(c) Criteria for heat wave for coastal stations

When maximum temperature departure is $> 4.5^\circ\text{C}$ from normal. Heat Wave may be described provided maximum temperature $\geq 37^\circ\text{C}$

Warm Night

When maximum temperature remains 40°C

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

Cold Wave

When minimum temperature of a station $\leq 10^\circ\text{C}$ for plains and $\leq 0^\circ\text{C}$ for hilly regions.
(a). Based on departure

Cold Wave: Minimum Temperature Departure from normal -4.5°C to -6.4°C .
Severe Cold Wave: Minimum Temperature Departure from normal $\leq -6.5^\circ\text{C}$

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

Cold Wave : When Minimum Temperature is $\leq 4.0^\circ\text{C}$
Severe Cold Wave: When Minimum Temperature is $\leq 2.0^\circ\text{C}$

(c) For Coastal Stations

When Minimum Temperature departure is $\leq -4.5^\circ\text{C}$ & actual Minimum Temperature is $\leq 15^\circ\text{C}$

Cold Day

When minimum temperature of a station $\leq 10^\circ\text{C}$ for plains and $\leq 0^\circ\text{C}$ for hilly regions
Based on departure

Cold Day: Maximum Temperature Departure from normal -4.5°C to -6.4°C .
Severe Cold Day: Maximum Temperature Departure from normal $\leq -6.5^\circ\text{C}$

Fog

Phenomenon of small droplets suspended in air and the horizontal visibility $< 1\text{km}$

Moderate Fog: When the visibility between 500-200 metres
Dense Fog: when the visibility between 50- 200 metres
Very Dense Fog: when the visibility < 50 metres

Thunderstorm

Sudden electrical discharges manifested by a flash of light (Lightning) and a sharp rumbling sound (thunder)

Dust/Sand Storm

An ensemble of particles of dust or sand energetically lifted to great heights by a strong and turbulent wind.

Frost

Ice deposits on ground

Air temperature $\leq 4^\circ\text{C}$ (over Plains)

Squall

A strong wind that rises suddenly, lasts for atleast 1 minute.

Moderate: Wind speed 52-61 kmph
Severe: Wind speed 62-87 kmph
Very Severe: Wind speed > 87 kmph

Sea State

Effect of various waves in the sea over specific area

Rough to very rough: Wind speed 41-62 kmph (22-33 knots) & Wave height 2.5-6 metre
High to very high: Wind speed 63-117 kmph (34-63 knots) & Wave height 6-14 metre
Phenomenal: Wind speed > 117 kmph (> 63 knots) & Wave height > 14 metre

Cyclone

Cyclonic Storm: Wind speed 62-87 kmph (34-47 knots)
Severe Cyclonic Storm: Wind speed 88-117 kmph (48-63 knots)
Very Severe Cyclonic Storm: Wind speed 118-165 kmph (64 - 89 knots)
Extremely Severe Cyclonic Storm: Wind speed 166-220 kmph (90 -119 knots)
Super Cyclone Strom: Wind speed > 220 kmph (> 119 knots)