

Friday, February 7, 2025
Time of Issue: 0800 hours IST
(MORNING)

ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

Significant Weather Features:

Weather Systems, Forecast and warning:

- ❖ The Western Disturbance as a cyclonic circulation over lies over Jammu region & adjoining north Pakistan at 3.1 km above mean sea level with a trough aloft in middle tropospheric level with its axis at 5.8 km above mean sea level roughly along Long. 73°E to the north of Lat. 31°N.
- ❖ A **cyclonic circulation** lies over central Assam & neighbourhood in lower tropospheric levels. Under its influence,
 - ✓ Isolated to scattered light to moderate rainfall accompanied with thunderstorm & lightning likely over Arunachal Pradesh and northeast Assam on 07th February.
- ❖ Another **fresh Western Disturbance** is likely to affect Western Himalayan Region from 08th February, 2025. Under its influence,
 - ✓ Isolated to scattered light rainfall/snowfall activity likely over Western Himalayan Region during 08th-13th February, 2025.

Forecast of temperature:

- ❖ Gradual rise in minimum temperatures likely over Northwest India by 2-3°C during subsequent 4 days.
- ❖ Gradual fall in minimum temperatures by 2-3°C likely over Central India during next 2 days and no significant change during subsequent 2 days.
- ❖ Gradual fall in minimum temperatures by 3-5°C likely over East India during next 24 hours, then no significant change during subsequent 3 days.
- ❖ Gradual rise in minimum temperatures likely over Maharashtra by 2-3°C during subsequent 4 days.
- ❖ Gradual rise in minimum temperatures by 2-3°C likely over Gujarat state during next 48 hours and no significant change thereafter
- ❖ Maximum temperatures are likely to be above normal by 3-5°C over north Peninsular & East 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 Himachal Pradesh and Odisha till 08th February.

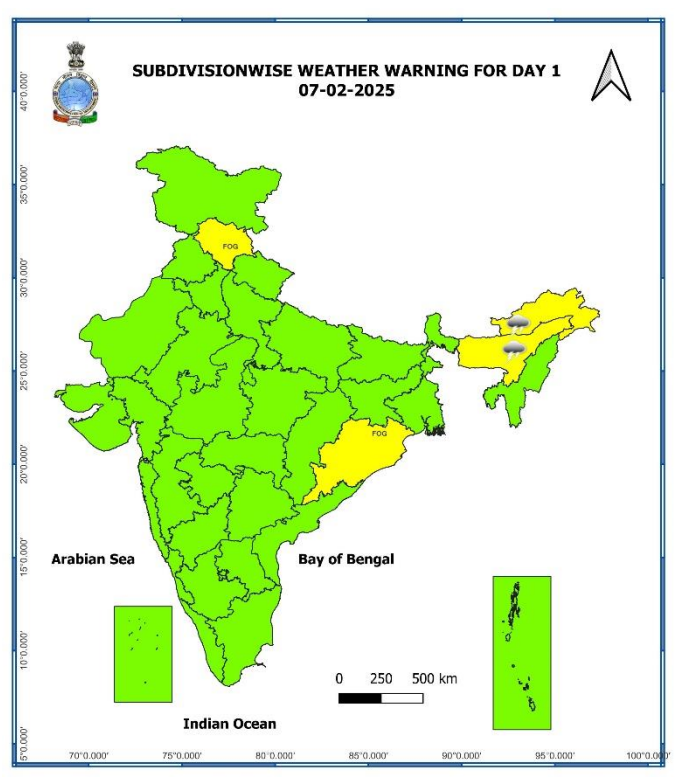
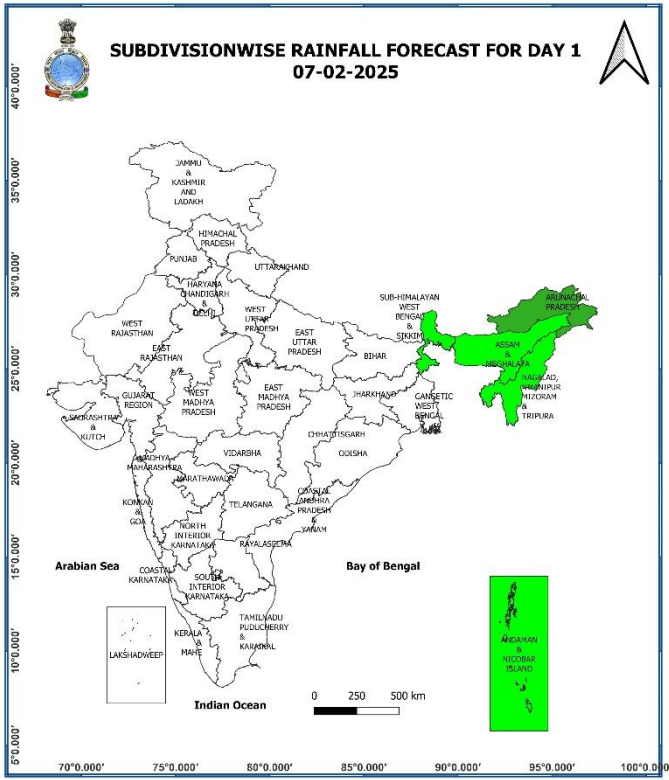
Main Weather Observations:

- ❖ **Rainfall/Snowfall distribution** (from 0830 hours IST to 1730 hours IST of yesterday): isolated places over Assam and Arunachal Pradesh.
- ❖ **Significant amount of rainfall** (from 0830 hours IST to 1730 hours IST of yesterday) (in cm): **NIL**.
- ❖ **Fog reported** (at 0530 hours IST of today): **NIL**.
- ❖ **Visibility reported** (at 0530 hours IST of today) (≤ 500 m): **NIL**.
- ❖ **Minimum Temperature Departures (as on 06-02-2025)**: Minimum temperatures were **markedly above normal (5.1°C or above)** at a few places over Odisha; at isolated places over Bihar, Assam & Meghalaya; **appreciably above normal (3.1°C to 5.0°C)** at a few places over Vidarbha, Chhattisgarh; at isolated places over Madhya Maharashtra, East Madhya Pradesh, Jharkhand; **above normal (1.6°C to 3.0°C)** at a few places over Marathwada; at isolated places over Telangana, West Madhya Pradesh, Sub-Himalayan West Bengal & Sikkim, Coastal Andhra Pradesh & Yanam, Tamil Nadu, Puducherry & Karaikal, West Uttar Pradesh, Nagaland, Manipur, Mizoram & Tripura. These were **below normal (-1.6°C to -3.0°C)** at isolated places over Rajasthan, Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Haryana-Chandigarh-Delhi, Saurashtra & Kutch, East Uttar Pradesh and near normal over rest parts of the country (**Fig. 4**). Yesterday, the **lowest minimum temperature of 3.5°C** was reported at **Sikar (East Rajasthan)** over the plains of the country.
- ❖ **Maximum Temperature Departures (as on 06-02-2025)**: Maximum temperatures were **appreciably above normal (3.1°C to 5.0°C)** at isolated places over Gangetic West Bengal, Odisha, Coastal Andhra Pradesh & Yanam and Telangana; **above normal (1.6°C to 3.0°C)** at a few places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad; at isolated places over Himachal Pradesh, Rayalaseema, Tamil Nadu, Puducherry & Karaikal, Madhya Maharashtra and Tripura. These are **appreciably below normal (-3.1°C to -5.0°C)** at isolated places over West Madhya Pradesh and Assam; **below normal (-1.6°C to -3.0°C)** at many places over East Rajasthan; at a few places over East Madhya Pradesh and Saurashtra & Kutch and near normal over rest parts of the country (**Fig. 2**). Yesterday, the highest **maximum temperature of 36.6°C** was reported at **Tuni and Nandigama (Coastal Andhra Pradesh)** over the plains of the country.

Meteorological Analysis (Based on 0530 hours IST)

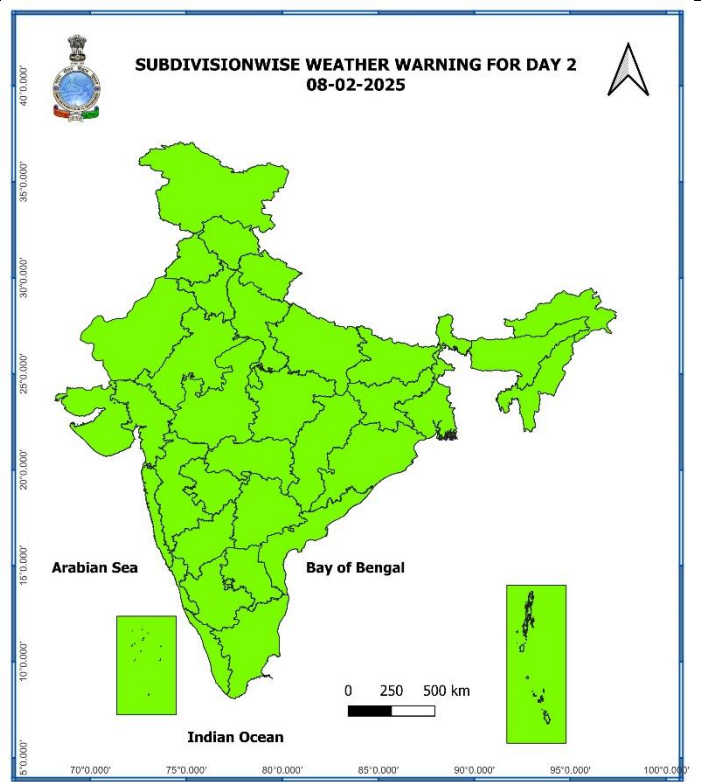
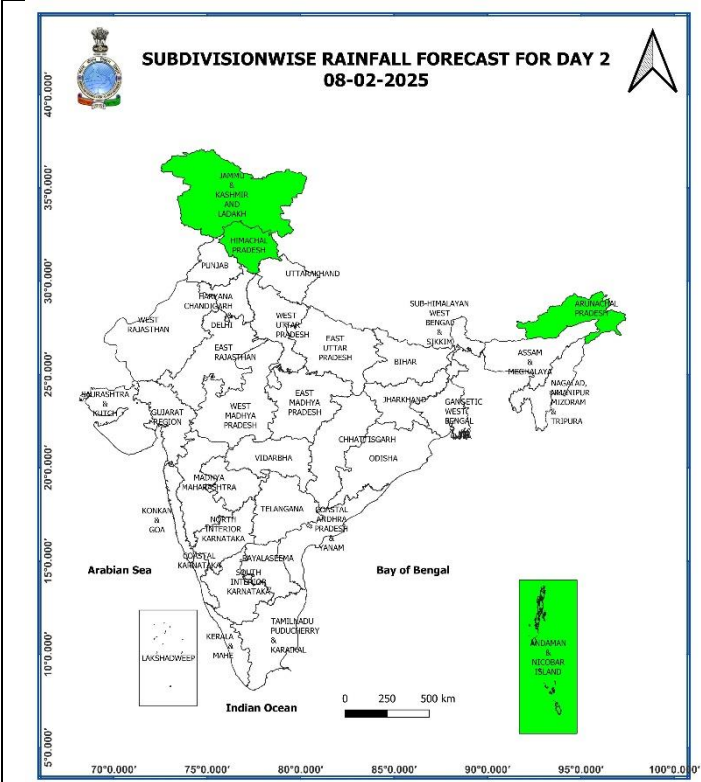
- ❖ The **Western Disturbance** as a cyclonic circulation over north Pakistan and adjoining Jammu region now lies over Jammu region & adjoining north Pakistan at 3.1 km above mean sea level with a trough aloft in middle tropospheric level with its axis at 5.8 km above mean sea level roughly along Long. 73°E to the north of Lat. 31°N persists.
- ❖ The **cyclonic circulation** over central Assam & neighbourhood persists and now extends upto 1.5 km above mean sea level.
- ❖ Subtropical **westerly Jet Stream** with core winds of the order upto 140 knots at 12.6 km above mean sea level is prevailing over North India.
- ❖ A fresh **Western Disturbance** is likely to affect Western Himalayan region from 08th February, 2025.

Weather Forecast & Warnings for next 7 days (Upto 0830 hours IST of 14th February, 2025)



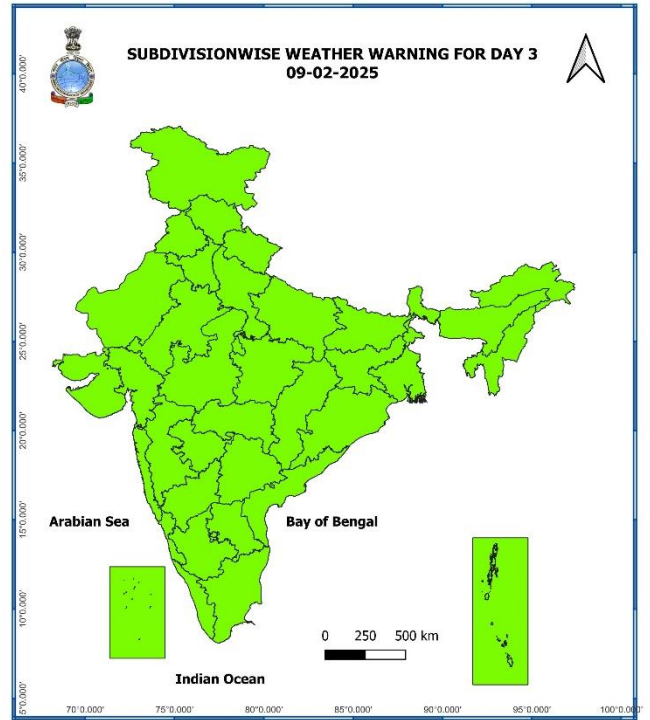
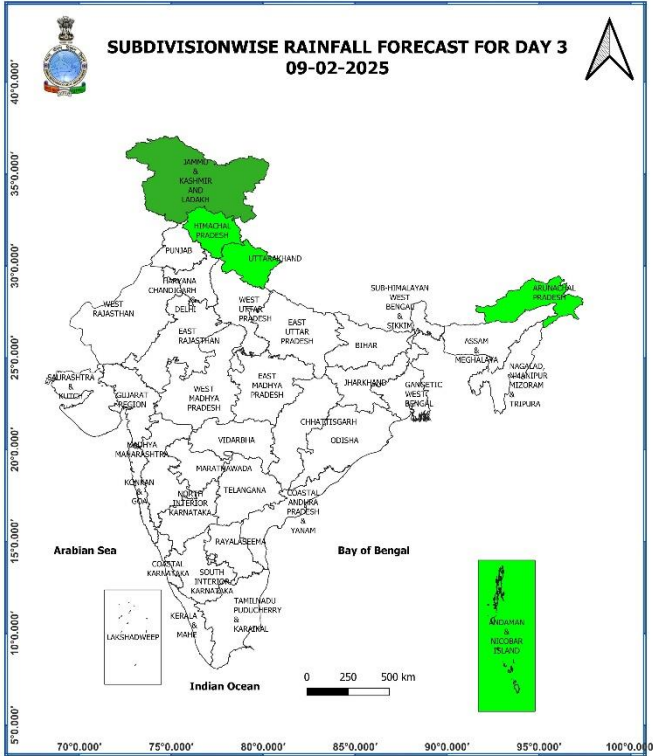
07th February (Day 1):

- ❖ **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 and Odisha.



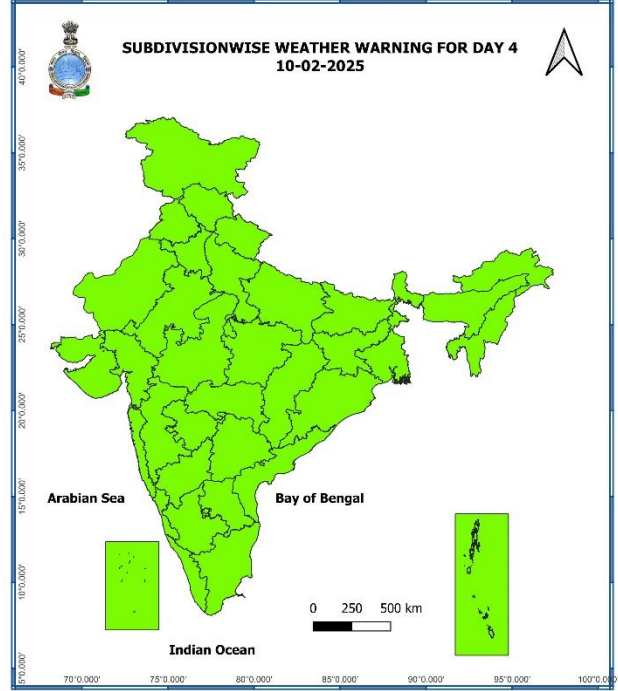
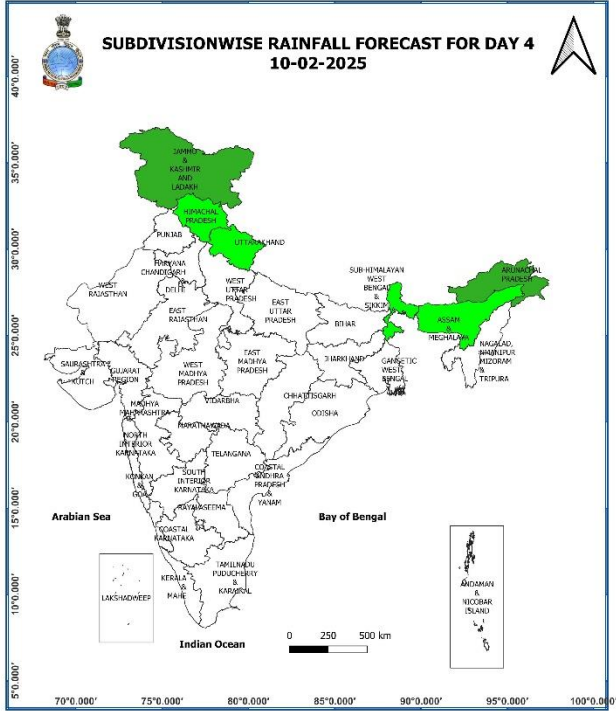
08th February (Day 2):

❖ No Weather Warning.



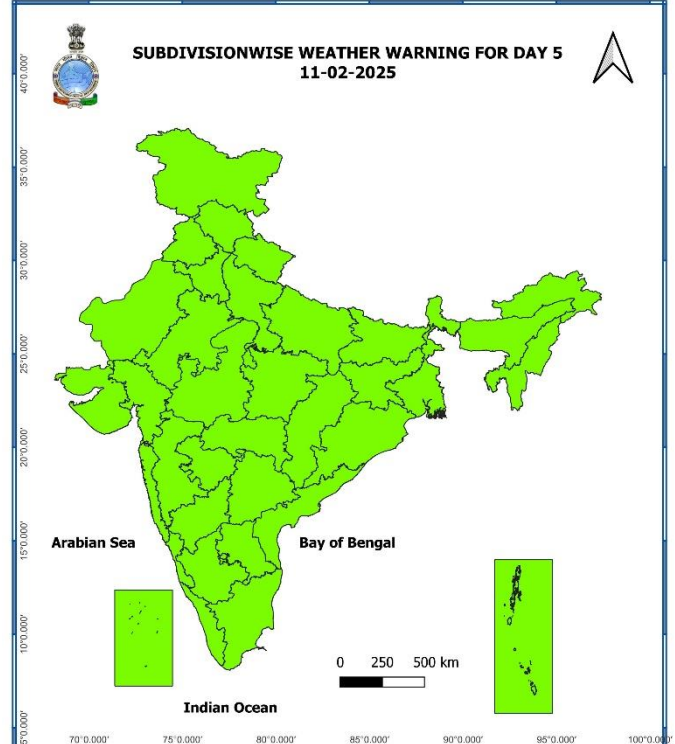
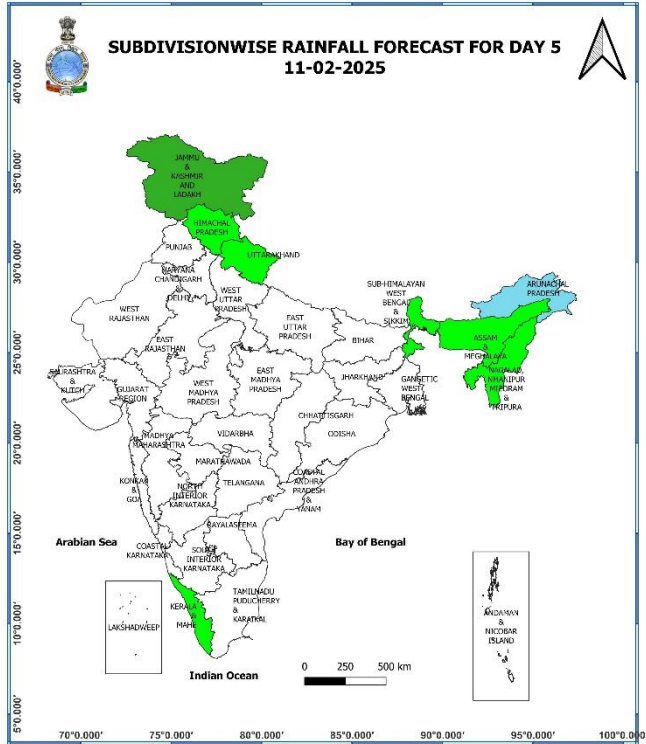
09th February (Day 3):

❖ **No Weather Warning.**



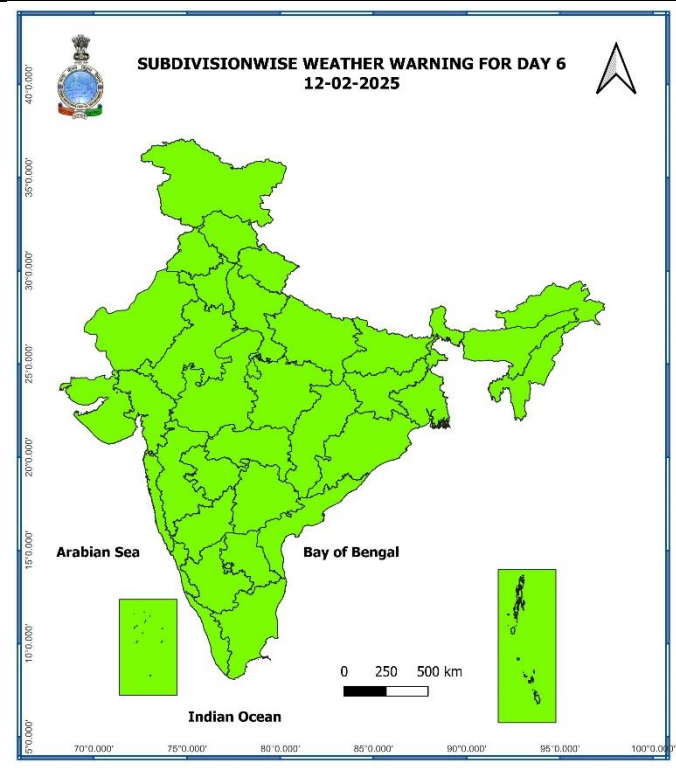
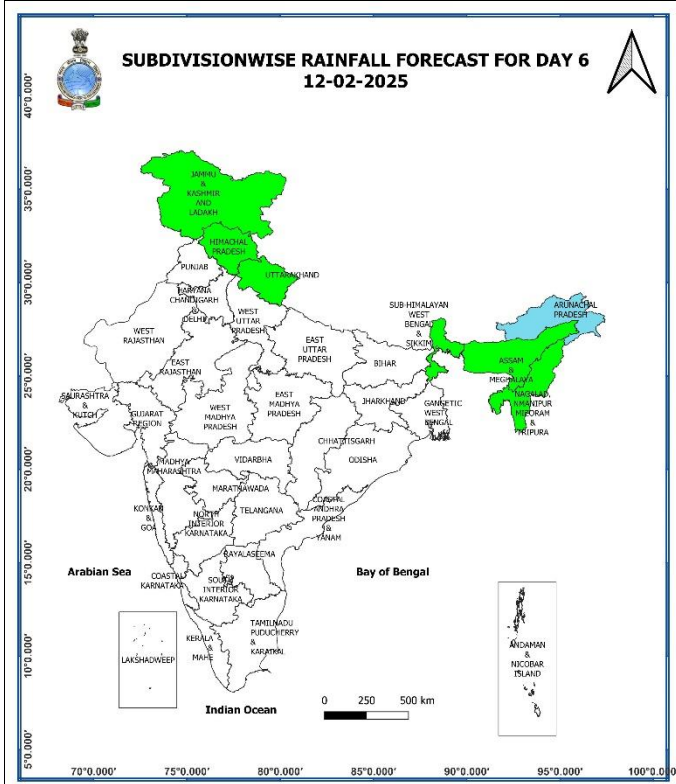
10th February (Day 4):

❖ **No Weather Warning.**



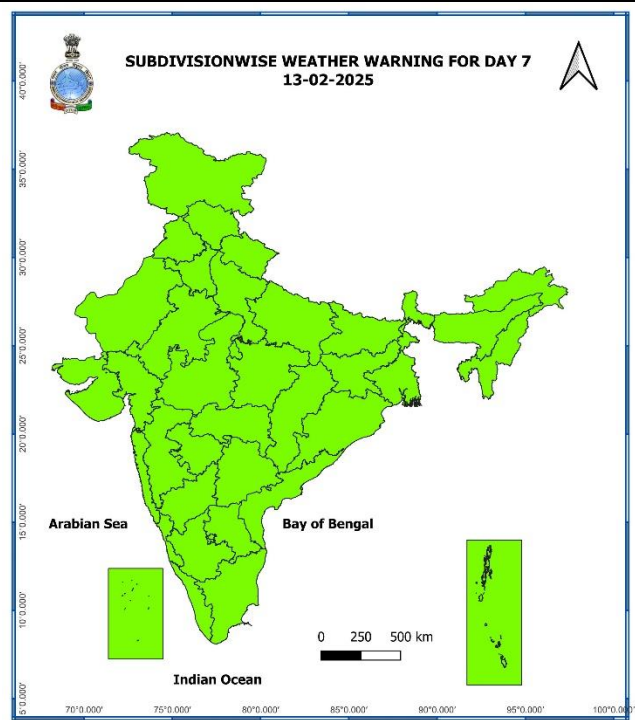
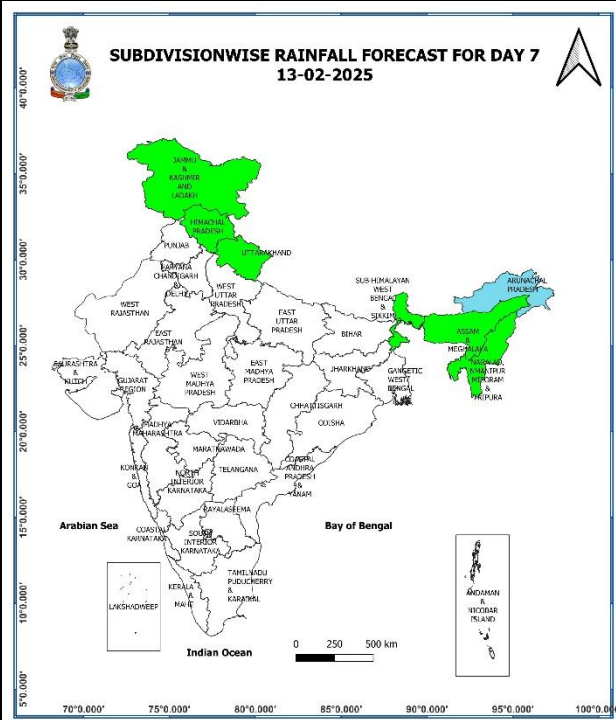
11th February (Day 5):

❖ **No Weather Warning.**



12th February (Day 6):

❖ No Weather Warning.



13th February (Day 7):

❖ **No Weather Warning.**

Weather Outlook for subsequent 3 days (During 14th February- 15th 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

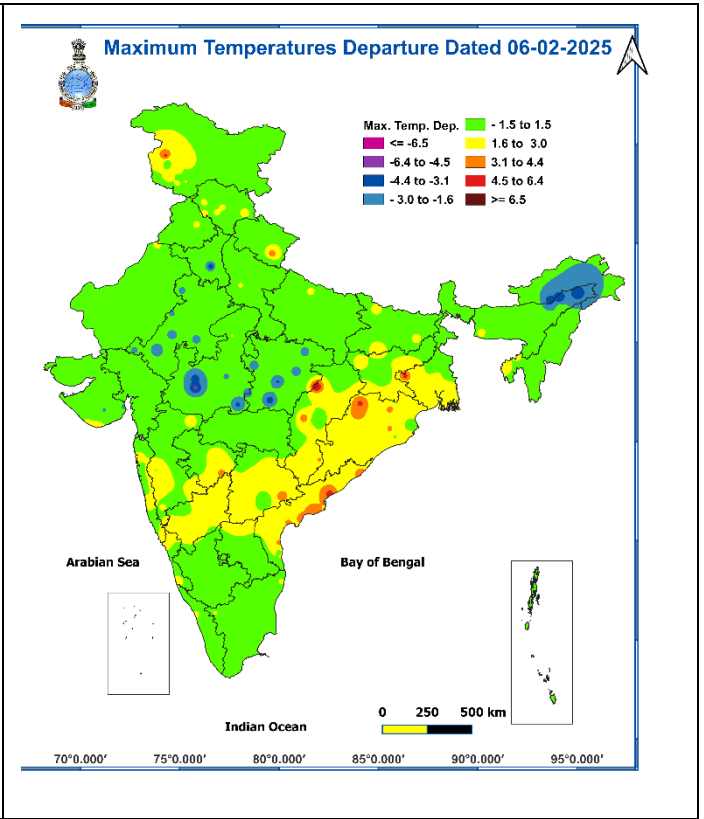
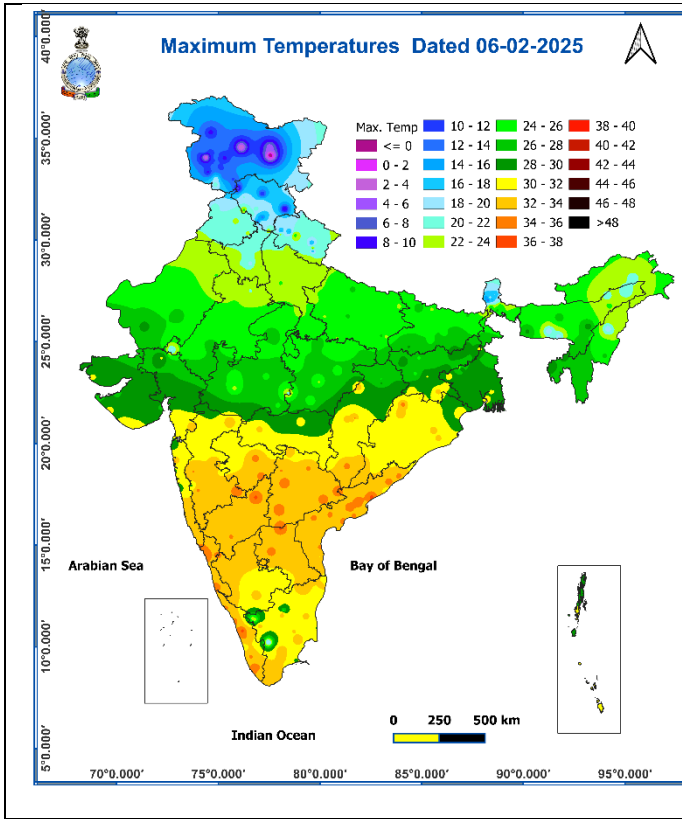
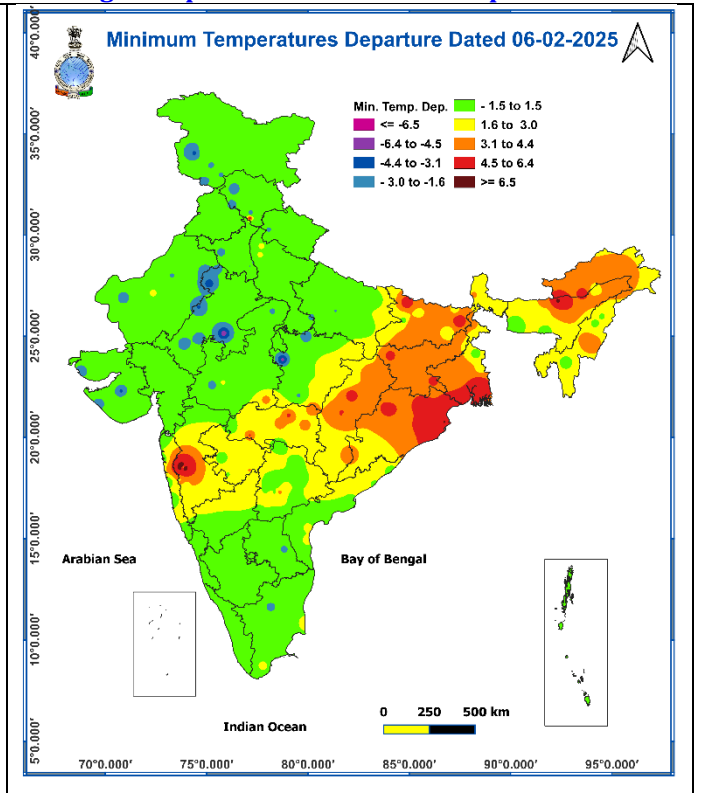
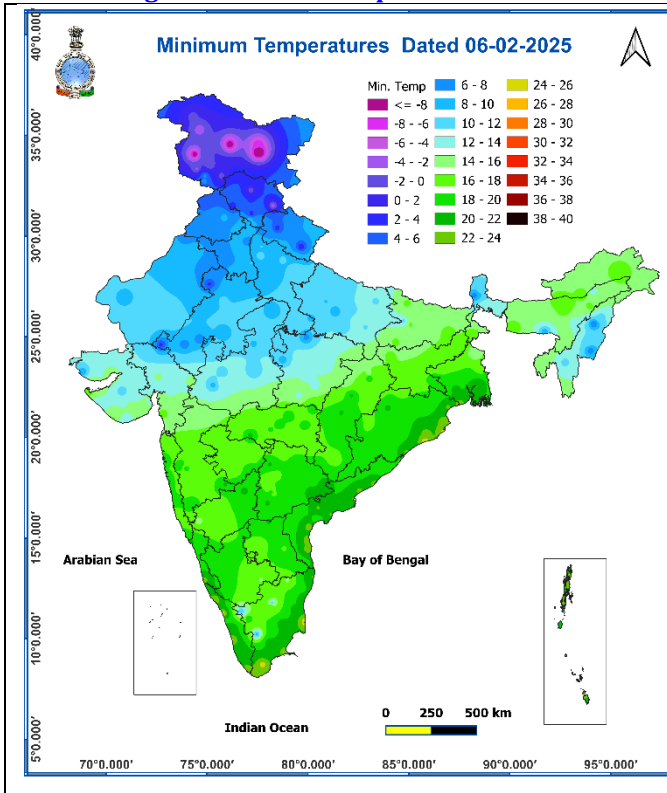


Fig. 3: Minimum Temperatures

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 Himachal Pradesh and Odisha:

❖ 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:

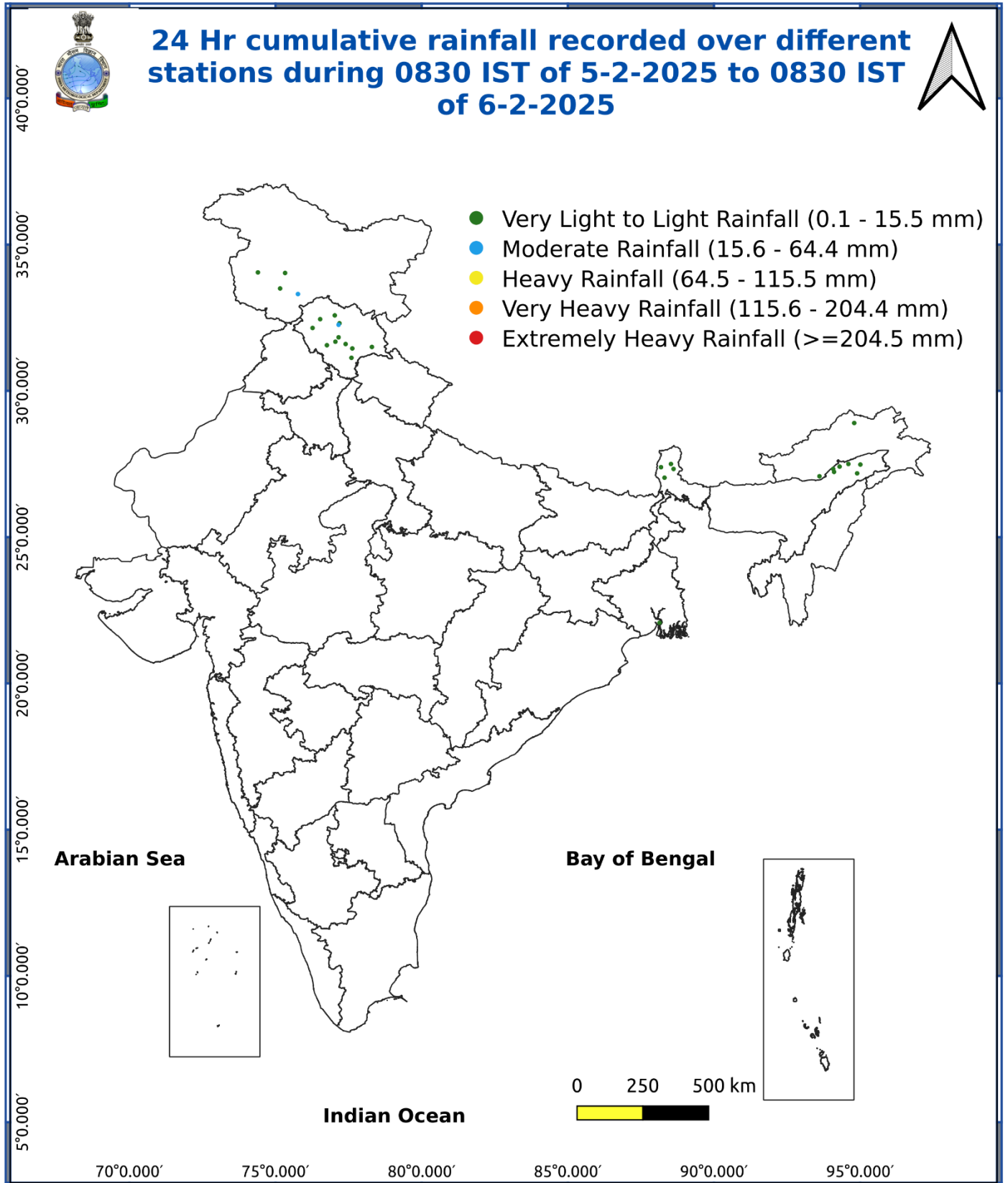
❖ Transport and Aviation:

- 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.

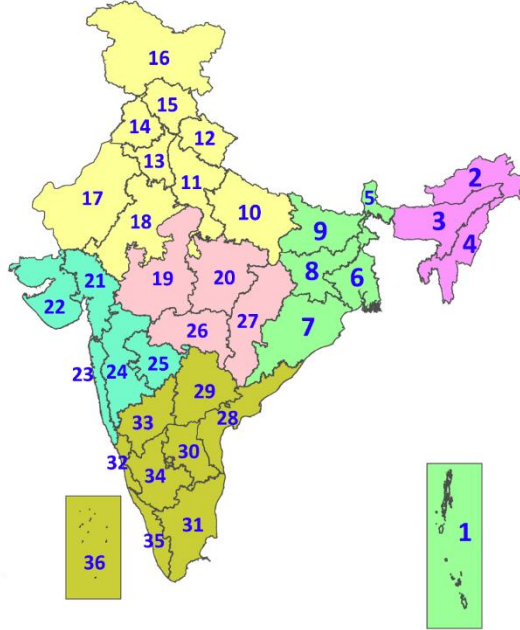
Fig. 5: Accumulated Rainfall (mm) during past 24 hours



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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°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)