

Monday, February 3, 2025
Time of Issue: 1330 hours IST
(MID-DAY)

ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

Significant Weather Features:

Weather Systems, Forecast and warning (Annexure II & III):

- ❖ A Western Disturbance is seen as a cyclonic circulation over West Afghanistan & adjoining Iran in lower & middle tropospheric levels and another fresh Western Disturbance is likely to affect Northwest India from 08th February, 2025.
- ❖ Under the influence of the first system,
 - ✓ Scattered to Fairly widespread light to moderate rainfall/snowfall accompanied with thunderstorm & lightning likely over Western Himalayan Region on 04th & 05th February. Light rainfall also likely over adjoining plains of Northwest India during 03rd - 05th February.
- ❖ Under the influence of the second system,
 - ✓ Isolated light rainfall/snowfall activity likely over Western Himalayan Region on 08th & 09th February, 2025.

Temperature and Fog Forecast:

(Temperature Conditions during past 24 hours till 0830 hours IST of today is provided in **Annexure IV**)

Forecast of temperature:

- ❖ Gradual rise in minimum temperatures by about 2-3°C likely over Northwest India during next 2 days and gradual fall by 2-3°C during subsequent 3 days.
- ❖ No significant change in minimum temperatures likely over West India during next 24 hours and fall by 2-4°C during subsequent 3 days
- ❖ No significant change in minimum temperatures likely over Central India during next 2 days and fall by 2-3°C thereafter.

Dense Fog Warnings:

- ❖ **Dense fog conditions** very likely to continue to prevail during night/early morning hours in isolated pockets of Punjab, Haryana, West Uttar Pradesh, Bihar till 04th; Sub-Himalayan West Bengal & Sikkim, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura till 05th and over Odisha till 06th February.

iii. Weather conditions and forecast over Delhi/NCR during 03rd Feb. to 06th Feb. 2025

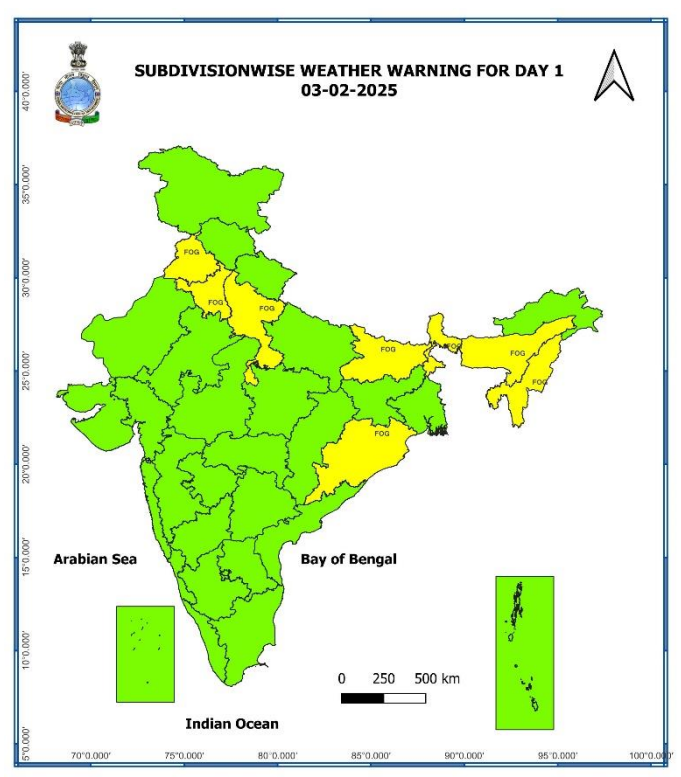
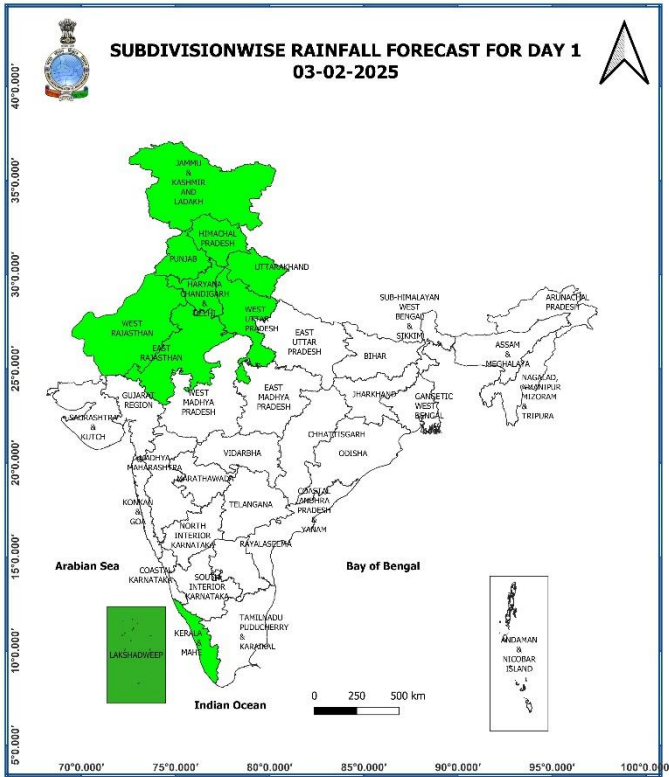
Main Weather Observations:

- ❖ **Rainfall/Snowfall distribution** (from 0830 hours IST of yesterday to 0830 hours IST of today): **at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Arunachal Pradesh, Punjab, Haryana-Chandigarh-Delhi, 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): **Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad: Kul gum -1.**
- ❖ **Heavy rainfall recorded** (from 0830 hours IST of yesterday to 0830 hours IST of today): **NIL.**
- ❖ **Fog reported** (at 0830 hours IST of today): **Dense to very dense fog condition (visibility < 50 m)** reported in isolated pockets of Punjab, Haryana, Bihar, West Bengal and South Interior Karnataka; **shallow to moderate fog conditions (visibility < 200 m)** reported in isolated pockets of Himachal Pradesh, Delhi, West Madhya Pradesh, West Rajasthan, East Uttar Pradesh.
- ❖ **Visibility reported** (at 0830 hours IST of today) (≤ 200 m): **Punjab:** Amritsar 0 each; **Haryana:** Hissar -0; Karnal -500; **Delhi:** Palam, Ayanagar & Ridge -200 each; Safdarjung 500; **West Rajasthan:** Ganganagar 500; **West Bengal:** Salt Lake, Gangtok, Haldia & Diamond Harbour -0 each, Cooch Behar -200; Jalpaiguri & Darjeeling -500 each; **Bihar:** Supaul -0; **East Uttar Pradesh:** Varanasi -500; **West Madhya Pradesh:** Gwalior -500; **South Interior Karnataka:** Bangalore -0.
- ❖ **Minimum Temperature Departures (as on 03-02-2025):** Minimum temperatures are **markedly above normal (5.1°C or above)** at isolated places over West Madhya Pradesh, Madhya Maharashtra and Gangetic West Bengal; **appreciably above normal (3.1°C to 5.0°C)** at a few places over Chhattisgarh, Marathwada and Vidarbha; at isolated places over Bihar, Jharkhand, Odisha, Nagaland, Manipur, Mizoram & Tripura, Gujarat Region, East Madhya Pradesh and Konkan & Goa; **above normal (1.6°C to 3.0°C)** at most places over Sub-Himalayan West Bengal & Sikkim; at many places over East Rajasthan, East Uttar Pradesh, Arunachal Pradesh and Assam & Meghalaya; at a few places over Saurashtra & Kutch; at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand, Punjab, Haryana-Chandigarh-Delhi, West Uttar Pradesh, North Interior Karnataka, Kerala & Mahe and Tamil Nadu, Puducherry & Karaikal. These are **below normal (-1.6°C to -3.0°C)** at isolated places over Rayalaseema and near normal over rest parts of the country (Fig. 4). Today, the **lowest minimum temperature** of 4.0°C is reported at **Ganganagar (West Rajasthan)** over the plains of the country.
- ❖ **Maximum Temperature Departures (as on 02-02-2025):** Maximum temperatures were **markedly above normal (5.1°C or above)** at a few places over Chhattisgarh; at isolated places over East Uttar Pradesh, Himachal Pradesh, East Madhya Pradesh and Odisha; **appreciably above normal (3.1°C to 5.0°C)** at many places over Vidarbha and Jharkhand; at a few places over Bihar and Telangana; at isolated places over West Uttar Pradesh, Marathwada and Coastal Andhra Pradesh & Yanam; **above normal (1.6°C to 3.0°C)** at many places over Uttarakhand, West Madhya Pradesh, Madhya Maharashtra, Interior Karnataka, Rayalaseema and Kerala & Mahe; at a few places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Punjab and Tamil Nadu, Puducherry & Karaikal; at isolated places over Haryana-Chandigarh-Delhi, East Rajasthan, Konkan & Goa and Gangetic West Bengal and near normal over rest parts of the country (Fig. 2). Yesterday, the highest **maximum temperature** of 36.9°C was reported at **Kurnool (Rayalaseema)** over the plains of the country.

Meteorological Analysis (Based on 0830 hours IST)

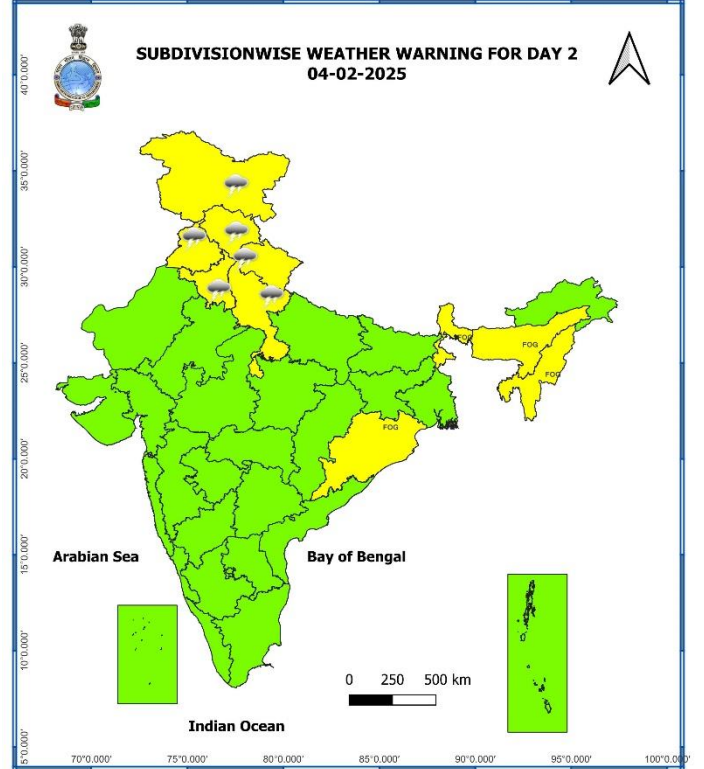
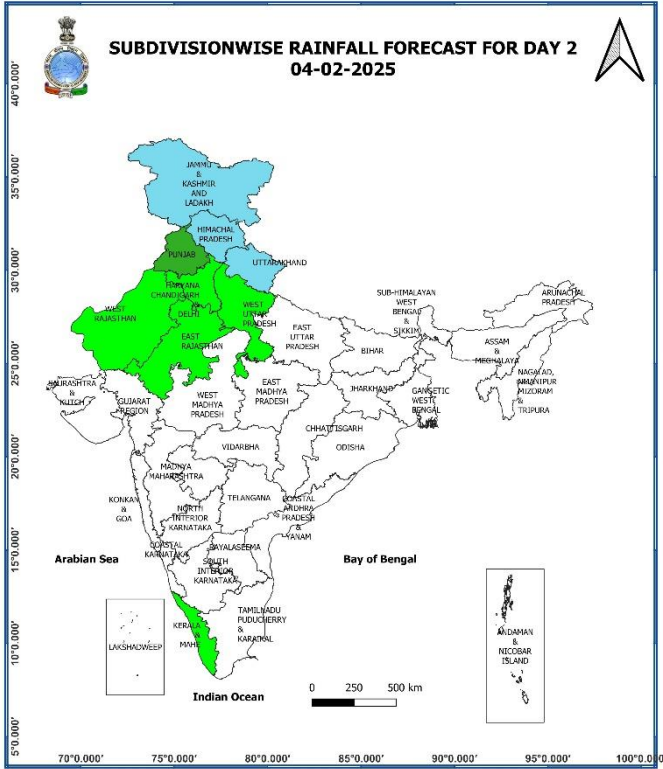
- ❖ The **Western Disturbance** as a cyclonic circulation over southeast Iran & adjoining Afghanistan now lies over West Afghanistan & adjoining Iran between 3.1 & 9.4 km above mean sea level.
- ❖ A **cyclonic circulation** lies over north Gujarat & neighbourhood at 0.9 km above mean sea level.
- ❖ A **cyclonic circulation** lies over East Bangladesh and extends upto 1.5 km above mean sea level.
- ❖ Subtropical **westerly Jet Stream** with core winds of the order upto 130 knots at 12.6 km above mean sea level continues to prevail over Northwest India.
- ❖ A fresh **Western Disturbance** is likely to affect Northwest India from 08th February, 2025.
- ❖ The Western Disturbance as a cyclonic circulation over Jammu & adjoining North Pakistan between 3.1 & 5.8 km above mean sea level has moved away east-northeastwards.
- ❖ The induced cyclonic circulation over southeast Rajasthan at 1.5 km above mean sea level has become less marked.
- ❖ The cyclonic circulation over northeast Assam & neighbourhood at 1.5 km above mean sea level has become less marked.

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



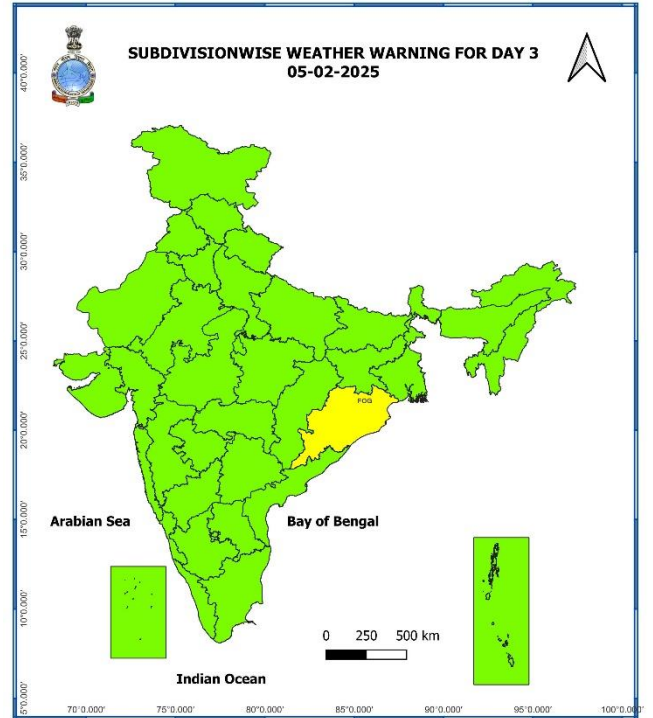
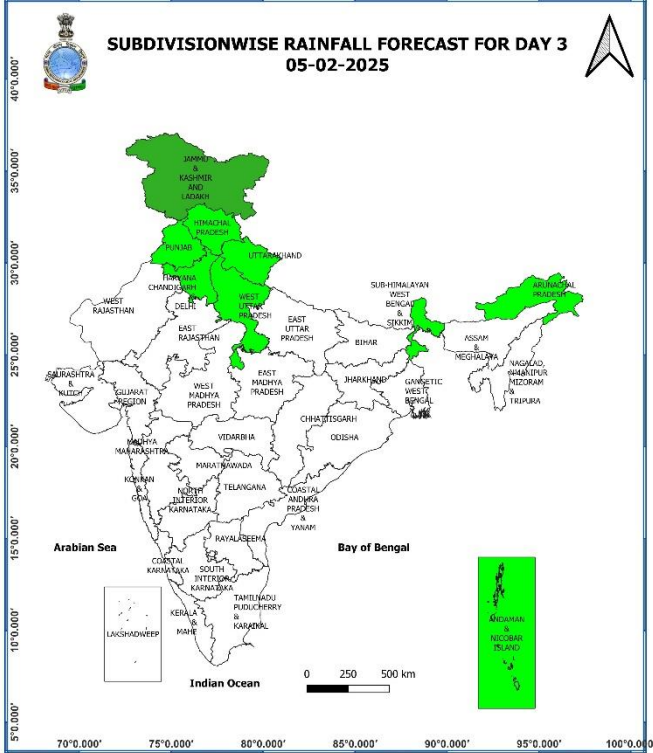
03rd February (Day 1):

- ❖ **Dense fog conditions** very likely in isolated pockets of Punjab, Haryana- Chandigarh-Delhi, West Uttar Pradesh, Sub-Himalayan West Bengal & Sikkim, Bihar, Odisha, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.



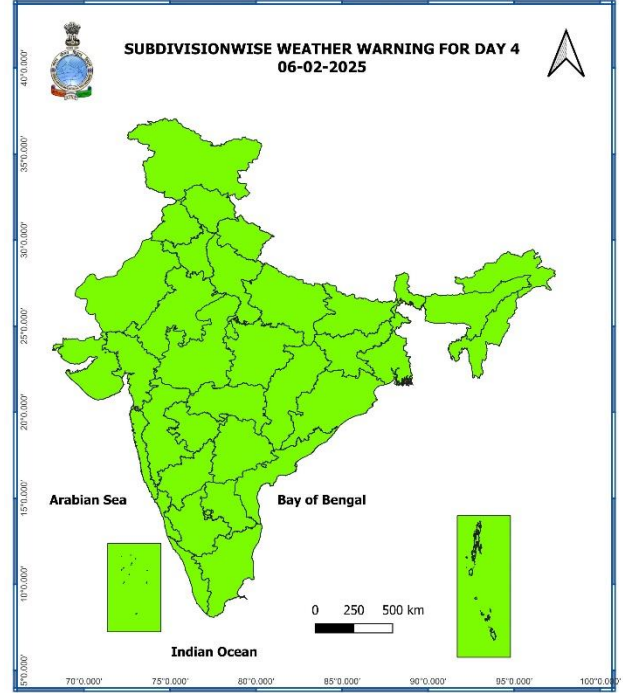
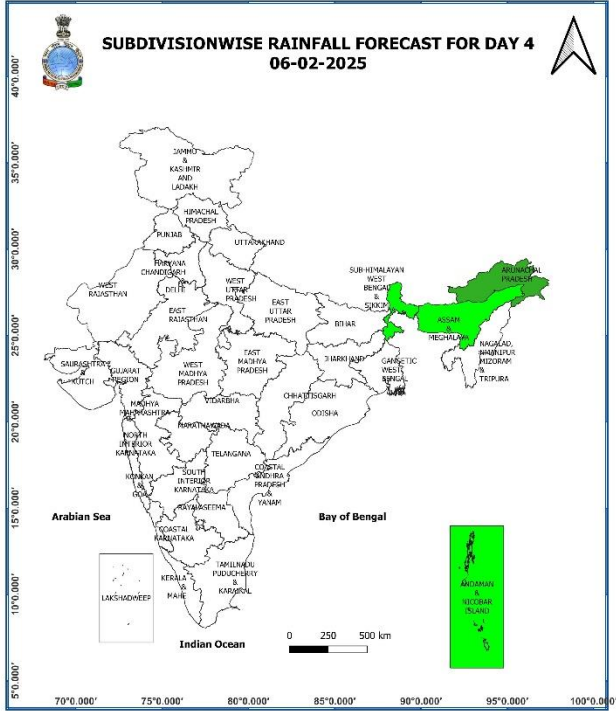
04th February (Day 2):

- ❖ **Dense fog conditions** very likely in isolated pockets of Sub-Himalayan West Bengal & Sikkim, Odisha, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.
- ❖ **Thunderstorm accompanied with lighting** very likely at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand, Punjab, Haryana-Chandigarh-Delhi and West Uttar Pradesh.



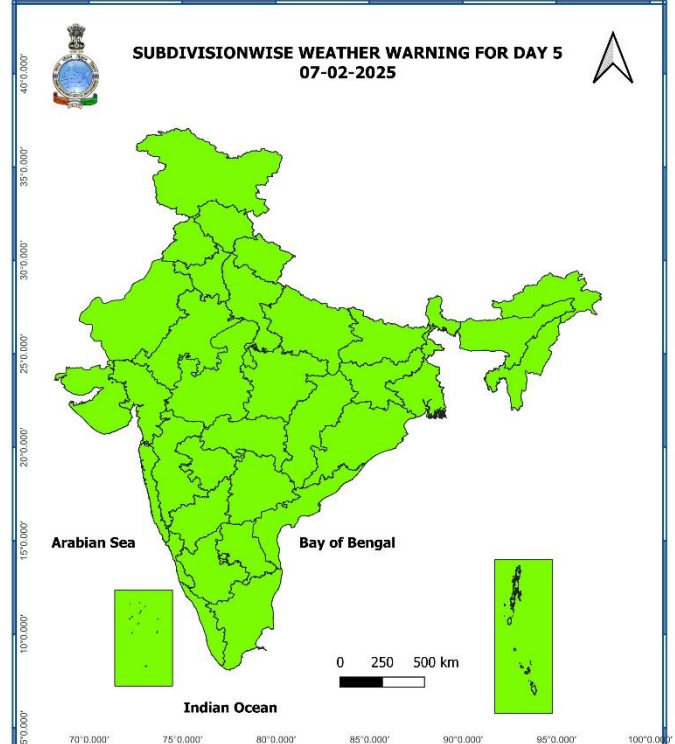
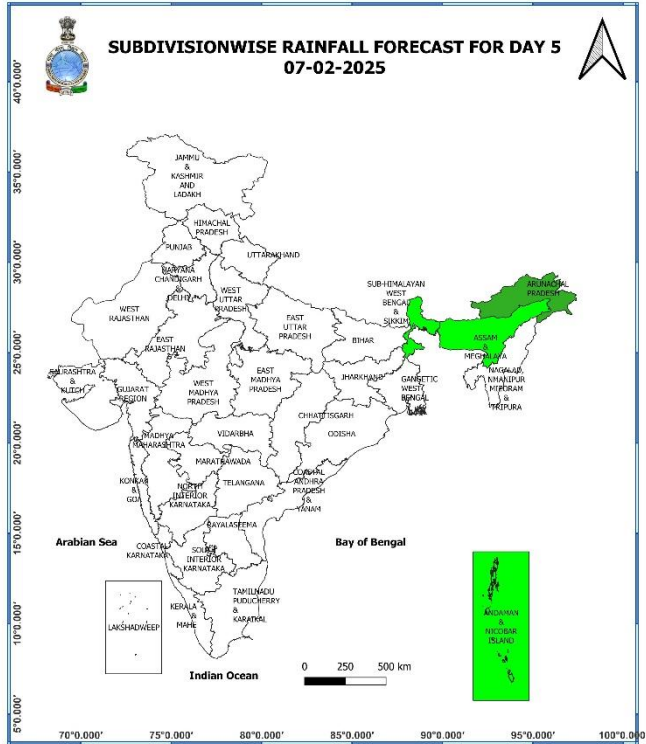
05th February (Day 3):

❖ **Dense fog conditions very likely in isolated pockets of Odisha.**



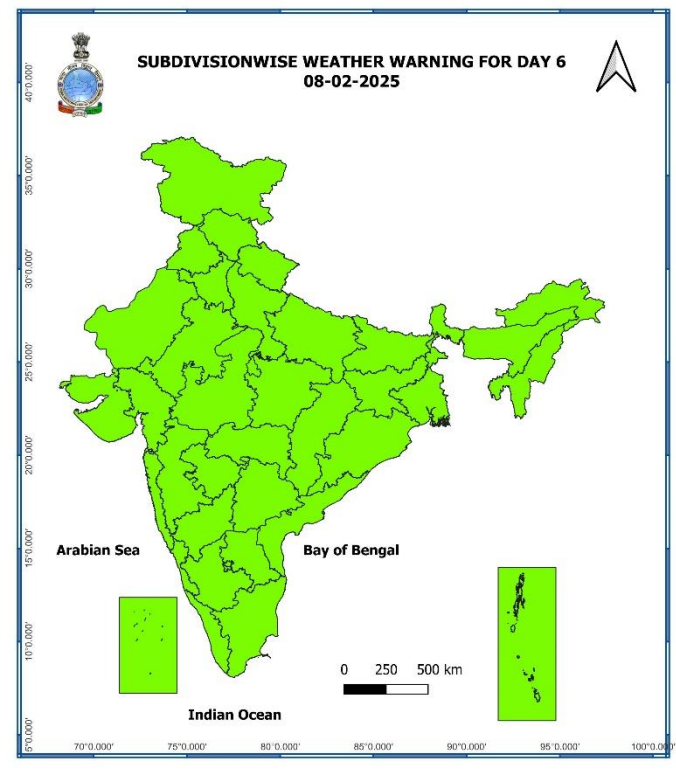
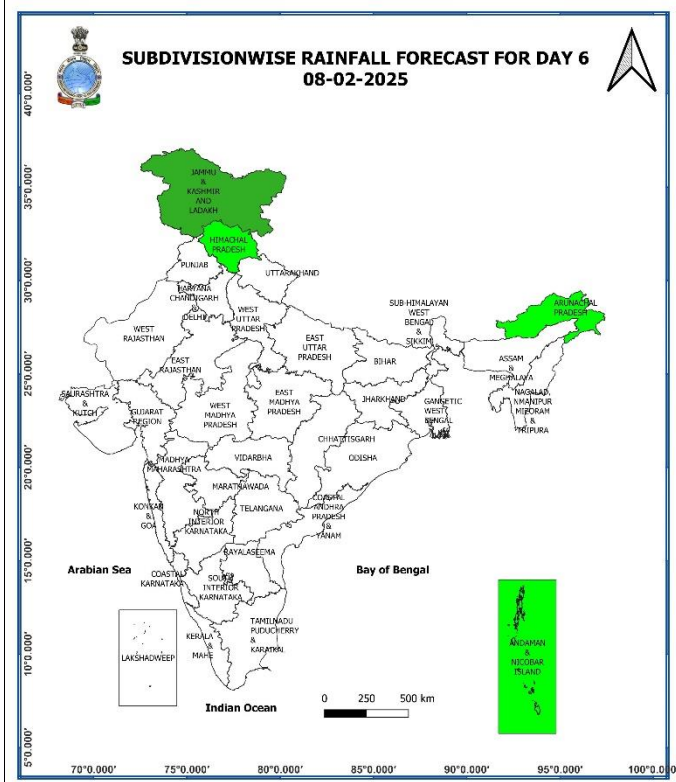
06th February (Day 4):

❖ **No Weather Warning.**



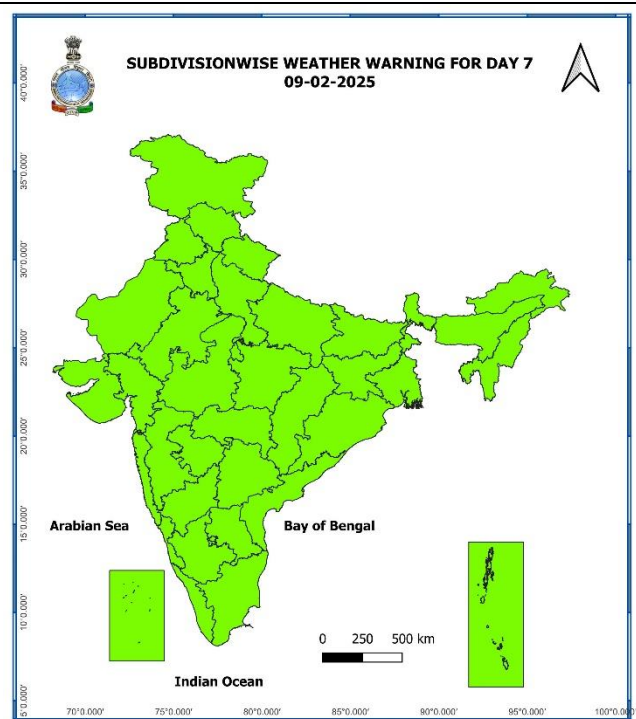
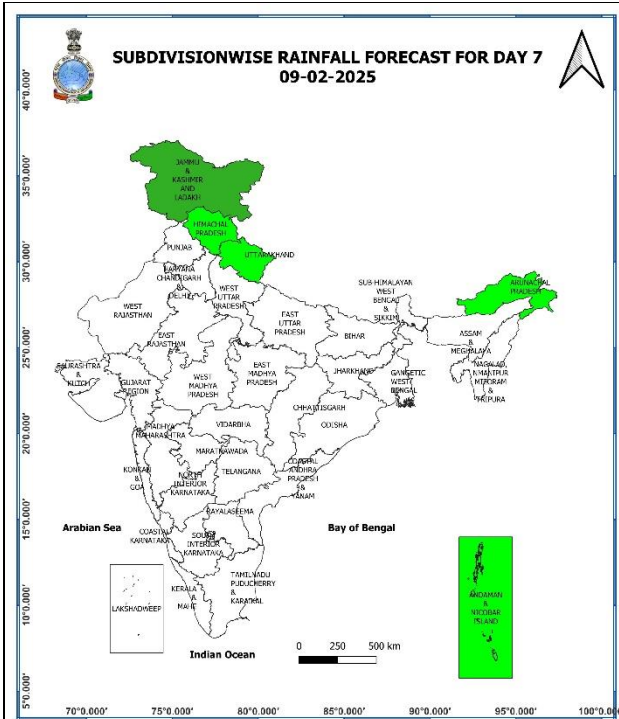
07th February (Day 5):

❖ **No Weather Warning.**



08th February (Day 6):

❖ **No Weather Warning.**



09th February (Day 7):

❖ No Weather Warning.

Weather Outlook for subsequent 3 days (During 10th February- 12th 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

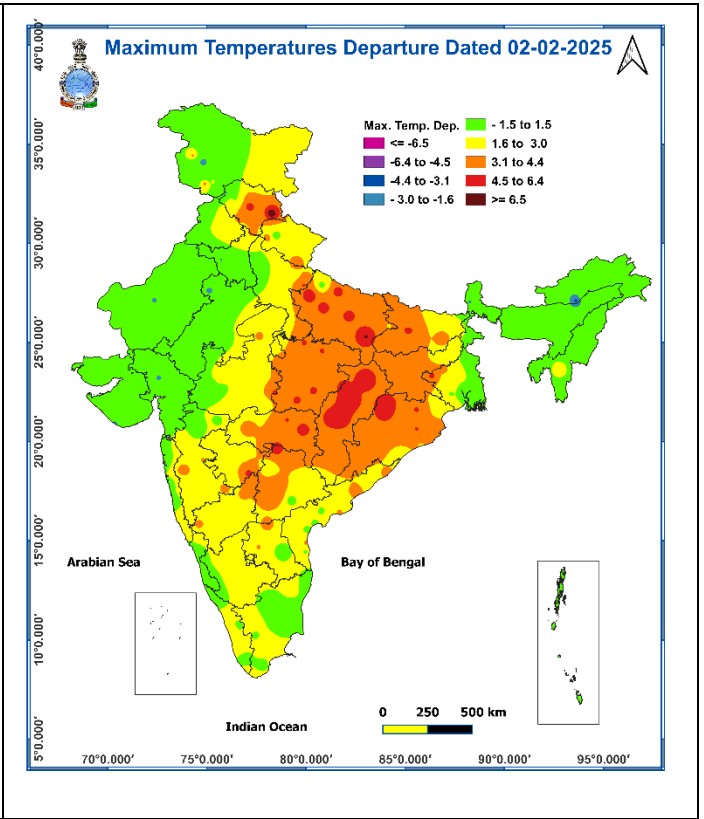
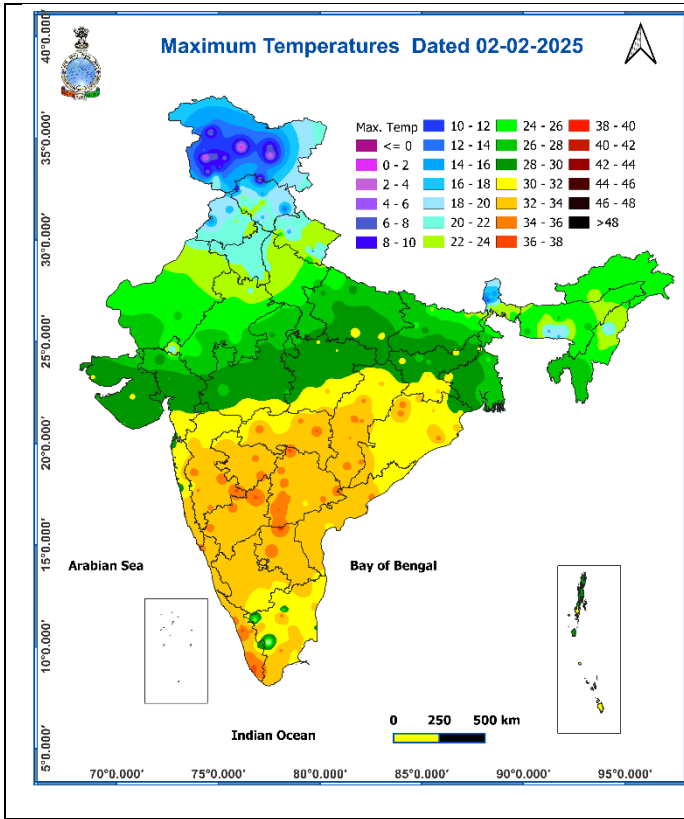
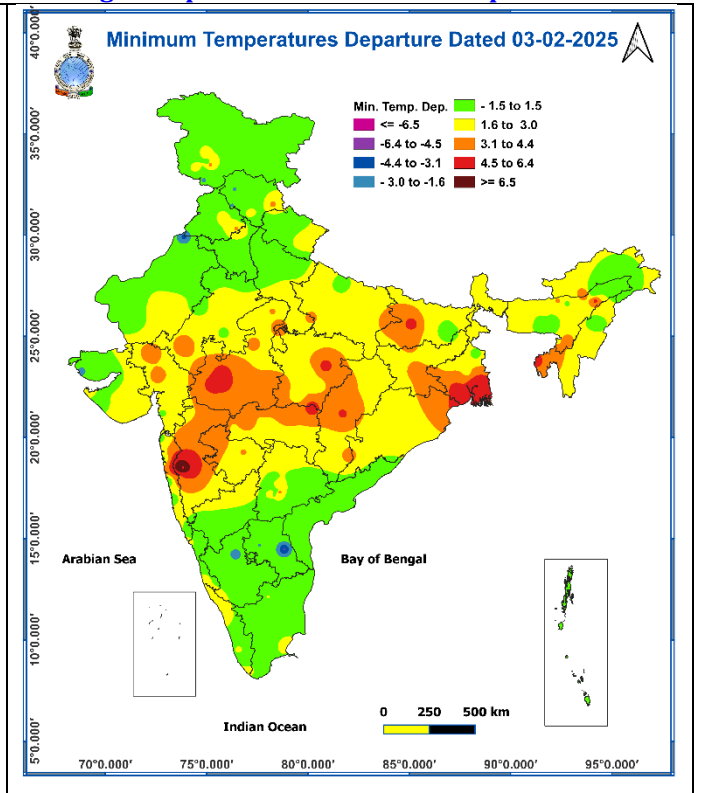
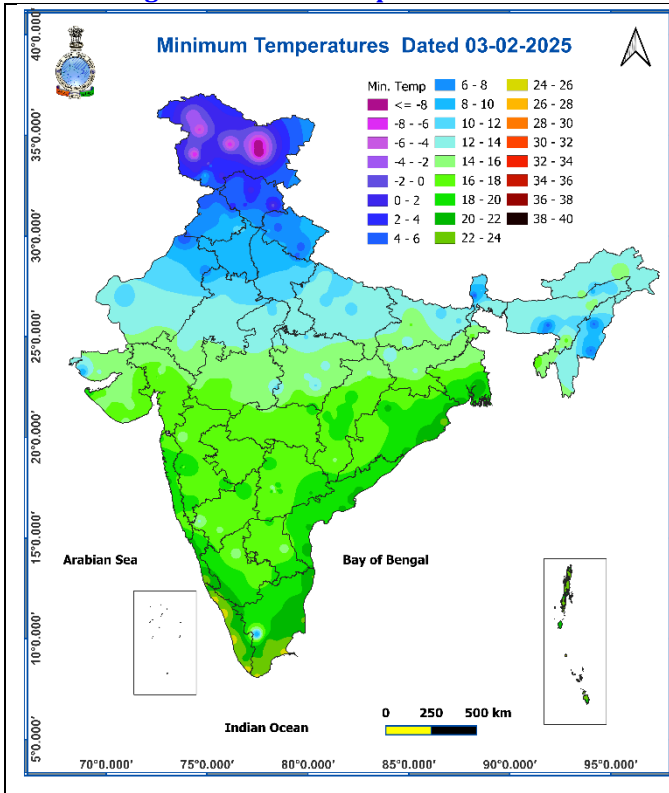


Fig. 3: Minimum Temperatures

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:

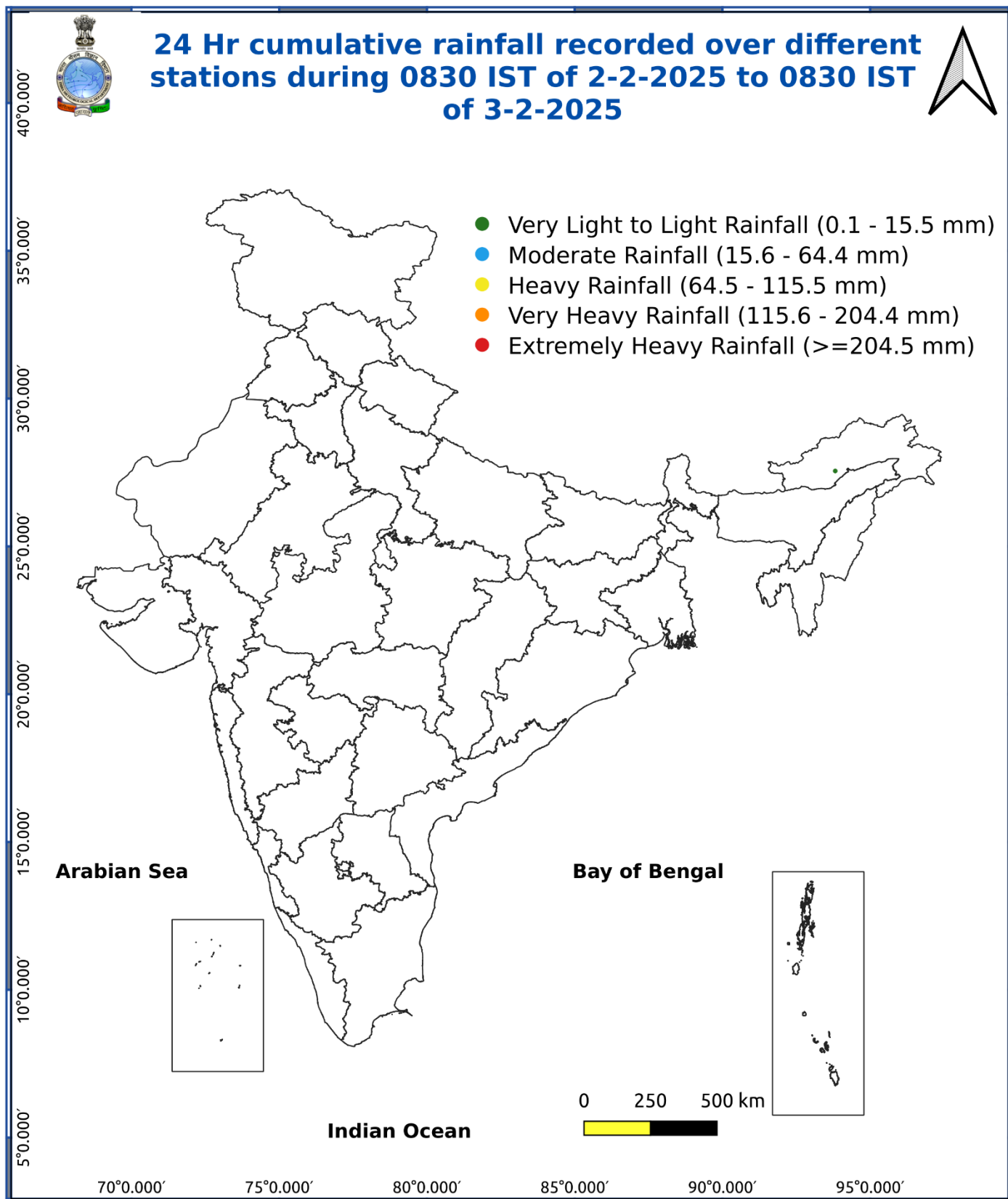
❖ Transport and Aviation:

- 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.

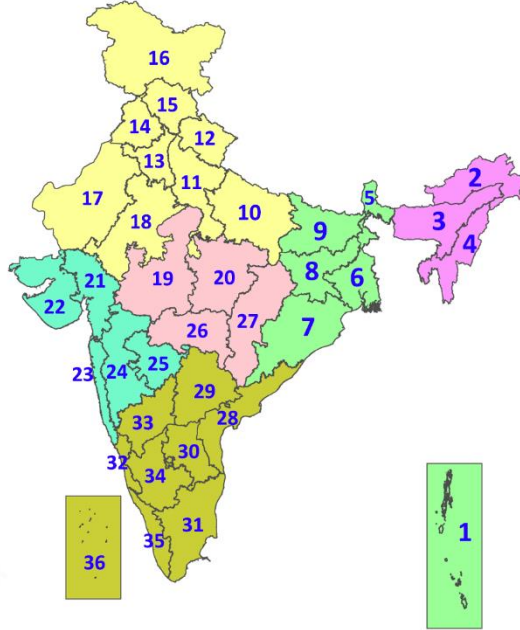
Fig. 5: Accumulated Rainfall (mm) during past 24 hours



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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 *	<p>Heavy: 64.5 to 115.5 mm/cm *</p> <p>Very Heavy: 115.6 to 204.4 mm/cm*</p> <p>Extremely Heavy: > 204.4 mm/cm *</p>
Heat Wave	<p>When maximum temperature of a station reaches $\geq 40^\circ\text{C}$ for plains and $\geq 30^\circ\text{C}$ for hilly regions</p> <p>(a) Based on Departure from normal</p> <p>Heat Wave: Maximum Temperature Departure from normal 4.5°C to 6.4°C.</p> <p>Severe Heat Wave: Maximum Temperature Departure from normal $\geq 6.5^\circ\text{C}$</p> <p>(b). Based on Actual maximum temperature</p> <p>Heat Wave: When actual maximum temperature $\geq 45^\circ\text{C}$.</p> <p>Severe Heat Wave: When actual maximum temperature $\geq 47^\circ\text{C}$</p> <p>(c). Criteria for heat wave for coastal stations</p> <p>When maximum temperature departure is $>4.5^\circ\text{C}$ from normal. Heat Wave may be described provided maximum temperature $\geq 37^\circ\text{C}$</p>
Warm Night	<p>When maximum temperature remains 40°C</p> <p>Warm Night: When minimum temperature departure 4.5°C to 6.4°C.</p> <p>Severe Warm Night: When minimum temperature departure $>6.4^\circ\text{C}$.</p>
Cold Wave	<p>When minimum temperature of a station $\leq 10^\circ\text{C}$ for plains and $\leq 0^\circ\text{C}$ for hilly regions.</p> <p>(a). Based on departure</p> <p>Cold Wave: Minimum Temperature Departure from normal -4.5°C to -6.4°C.</p> <p>Severe Cold Wave: Minimum Temperature Departure from normal $\leq -6.5^\circ\text{C}$</p> <p>(b) Based on actual Minimum Temperature (for Plains only)</p> <p>Cold Wave : When Minimum Temperature is $\leq 4.0^\circ\text{C}$</p> <p>Severe Cold Wave: When Minimum Temperature is $\leq 2.0^\circ\text{C}$</p> <p>(c) For Coastal Stations</p> <p>When Minimum Temperature departure is $\leq -4.5^\circ\text{C}$ & actual Minimum Temperature is $\leq 15^\circ\text{C}$</p>
Cold Day	<p>When minimum temperature of a station $\leq 10^\circ\text{C}$ for plains and $\leq 0^\circ\text{C}$ for hilly regions</p> <p>Based on departure</p> <p>Cold Day: Maximum Temperature Departure from normal -4.5°C to -6.4°C.</p> <p>Severe Cold Day: Maximum Temperature Departure from normal $\leq -6.5^\circ\text{C}$</p>
Fog	<p>Phenomenon of small droplets suspended in air and the horizontal visibility $< 1\text{km}$</p> <p>Moderate Fog: When the visibility between 500-200 metres</p> <p>Dense Fog: when the visibility between 50- 200 metres</p> <p>Very Dense Fog: when the visibility < 50 metres</p>
Thunderstorm	<p>Sudden electrical discharges manifested by a flash of light (Lightning) and a sharp rumbling sound (thunder)</p>
Dust/Sand Storm	<p>An ensemble of particles of dust or sand energetically lifted to great heights by a strong and turbulent wind.</p>
Frost	<p>Ice deposits on ground</p> <p>Air temperature $\leq 4^\circ\text{C}$ (over Plains)</p>
Squall	<p>A strong wind that rises suddenly, lasts for atleast 1 minute.</p> <p>Moderate: Wind speed 52-61 kmph</p> <p>Severe: Wind speed 62-87 kmph</p> <p>Very Severe: Wind speed >87 kmph</p>
Sea State	<p>Effect of various waves in the sea over specific area</p> <p>Rough to very rough: Wind speed 41-62 kmph (22-33 knots) & Wave height 2.5-6 metre</p> <p>High to very high: Wind speed 63-117 kmph (34-63 knots) & Wave height 6-14 metre</p> <p>Phenomenal: Wind speed >117 kmph (>63 knots) & Wave height >14 metre</p>
Cyclone	<p>Cyclonic Storm: Wind speed 62-87 kmph (34-47 knots)</p> <p>Severe Cyclonic Storm: Wind speed 88-117 kmph (48-63 knots)</p> <p>Very Severe Cyclonic Storm: Wind speed 118-165 kmph (64 - 89 knots)</p> <p>Extremely Severe Cyclonic Storm: Wind speed 166-220 kmph (90 -119 knots)</p> <p>Super Cyclone Strom: Wind speed >220 kmph (>119 knots)</p>