

Tuesday, February 11, 2025
Time of Issue: 0800 hours IST
(MORNING)

ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

Significant Weather Features:

Weather Systems, Forecast and warning:

- ❖ A **cyclonic circulation** lies over northeast Assam & neighbourhood in lower tropospheric levels. Under its influence,
 - ✓ Scattered to Fairly widespread light rainfall/snowfall accompanied with thunderstorm & lightning activity likely over Arunachal Pradesh on 11th & 12th February with isolated **heavy rainfall** on 11th February.
 - ✓ Isolated light rainfall activity likely over Assam during 11th-13th; Nagaland, Manipur, Mizoram & Tripura on 11th & 12th February.
- ❖ A **Western Disturbance** as a cyclonic circulation in lower & middle tropospheric levels over northeast Afghanistan & adjoining Pakistan. The Subtropical westerly Jet Stream with core winds of the order upto 125 knots at 12.6 km above mean sea level prevail over the plains of Northwest India. Under their influence,
 - ✓ Isolated to scattered light rainfall/snowfall activity likely over Western Himalayan Region on 11th & 12th February, 2025.

Temperature and Fog Forecast:

Forecast of temperature:

- ❖ Gradual fall in minimum temperatures by 2-3°C likely over Western Himalayan Region after next 24 hours.
- ❖ No significant change in minimum temperature likely over plains of Northwest India during next 4 days.
- ❖ No significant change in minimum temperature likely over Central India and fall by 2-4°C subsequent 2-3 Days.
- ❖ Gradual rise in minimum temperatures by 2-3°C likely over East India during next 24 hours and fall by 2-3°C subsequent 2-3 Days.
- ❖ No significant change in minimum temperature likely over Maharashtra region during next 24 hours and fall by 2-4°C subsequent 3-4 Days.
- ❖ Gradual rise in Maximum temperatures likely above normal by 2-3°C over central India during next 24 hours and fall by 3-4°C subsequent 2-3 days.

Dense Fog Warnings:

- ❖ **Dense fog conditions** very likely to continue to prevail during early morning hours in isolated pockets of Gangetic West Bengal on 11th & 12th February.

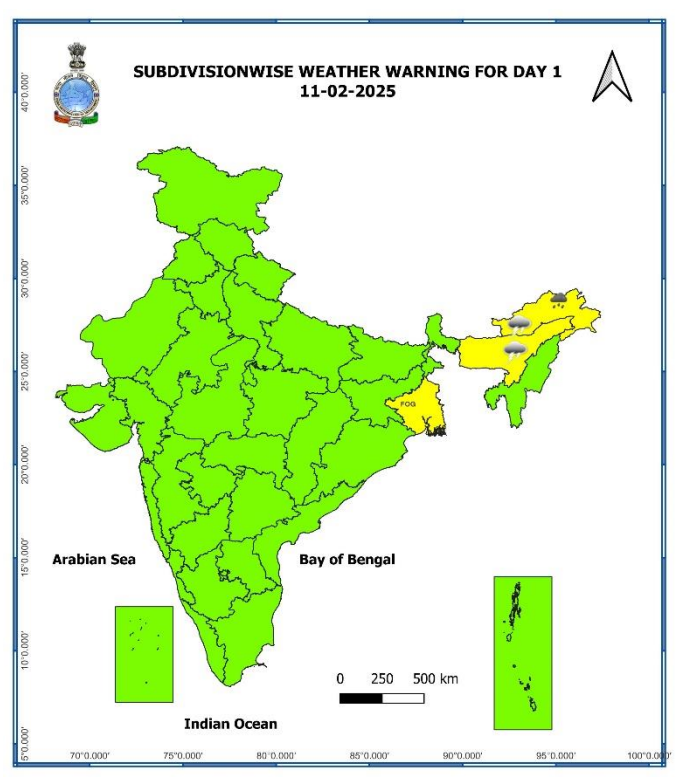
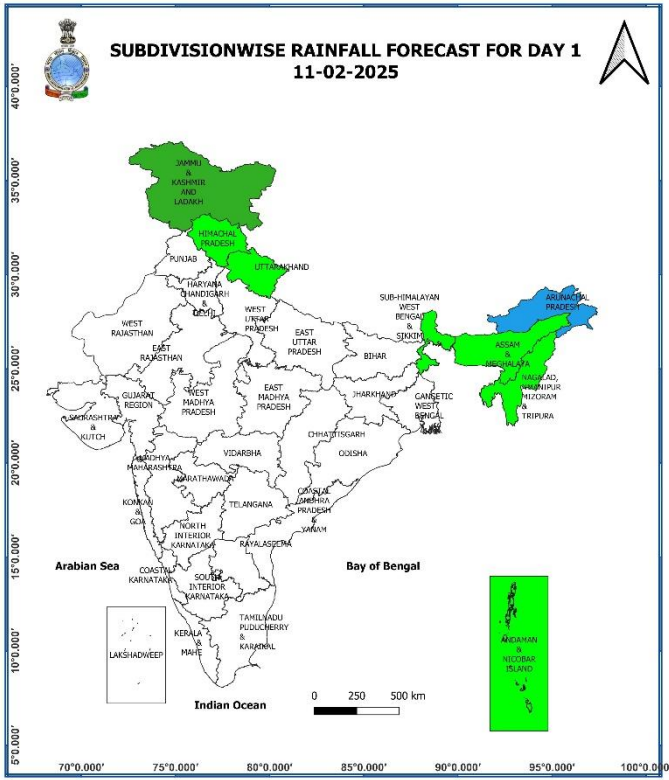
Main Weather Observations:

- ❖ **Rainfall/Snowfall distribution** (from 0830 hours IST to 1730 hours IST of yesterday): at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Sub-Himalayan West Bengal & Sikkim and Himachal 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): **Dense to very dense** condition reported in isolated pockets of Odisha; **Dense fog** condition reported in isolated pockets of Saurashtra & Kutch and South Interior Karnataka; **Moderate fog conditions** reported in isolated pockets of Bihar.
- ❖ **Visibility reported** (at 0530 hours IST of today) (≤ 500 m): **Odisha**: Balasore 0; **Saurashtra & Kutch**: Rajkot Airport 50; **South Interior Karnataka**: Bangalore 50; **Bihar**: Purnea 200.
- ❖ **Minimum Temperature Departures (as on 10-02-2025)**: Minimum temperatures were **appreciably above normal (3.1°C to 5.0°C)** at a few places over Konkan & Goa, West Madhya Pradesh, Madhya Maharashtra; at isolated places over Marathwada, Vidarbha; **above normal (1.6°C to 3.0°C)** at a few places over Coastal Andhra Pradesh & Yanam; at isolated places over Bihar, Rajasthan, Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Gujarat state, Telangana, North Interior Karnataka, Tamil Nadu, Puducherry & Karaikal. These were **below normal (-1.6°C to -3.0°C)** at a few places over Gangetic West Bengal; at isolated places over Jharkhand, Odisha, Uttar Pradesh and near normal over rest parts of the country (**Fig. 4**). Yesterday, the **lowest minimum temperature of 6.5°C** was reported at **Sangaria (Rajasthan)** over the plains of the country.
- ❖ **Maximum Temperature Departures (as on 10-02-2025)**: Maximum temperatures were **markedly above normal (5.1°C or more)** at isolated places over Himachal Pradesh, Punjab, West Rajasthan, West Uttar Pradesh, East Madhya Pradesh, Chhattisgarh ; **appreciably above normal (3.1°C to 5.0°C)** at many places over Uttarakhand, Haryana-Chandigarh-Delhi, East Rajasthan and Jharkhand; at a few places over East Uttar Pradesh and West Madhya Pradesh; at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Odisha, Vidarbha and Gujarat Region; **above normal (1.6°C to 3.0°C)** at most places over Marathwada and Konkan & Goa; at many places over Bihar, Saurashtra & Kutch and Madhya Maharashtra; at a few places over Gangetic West Bengal, Coastal Andhra Pradesh & Yanam, Telangana and Coastal Karnataka; at isolated places over North Interior Karnataka, Kerala & Mahe and near normal over rest parts of the country (**Fig. 2**). Yesterday, the highest **maximum temperature of 36.6°C** was reported at **Karwar (Coastal Karnataka)** over the plains of the country.

Meteorological Analysis (Based on 0530 hours IST)

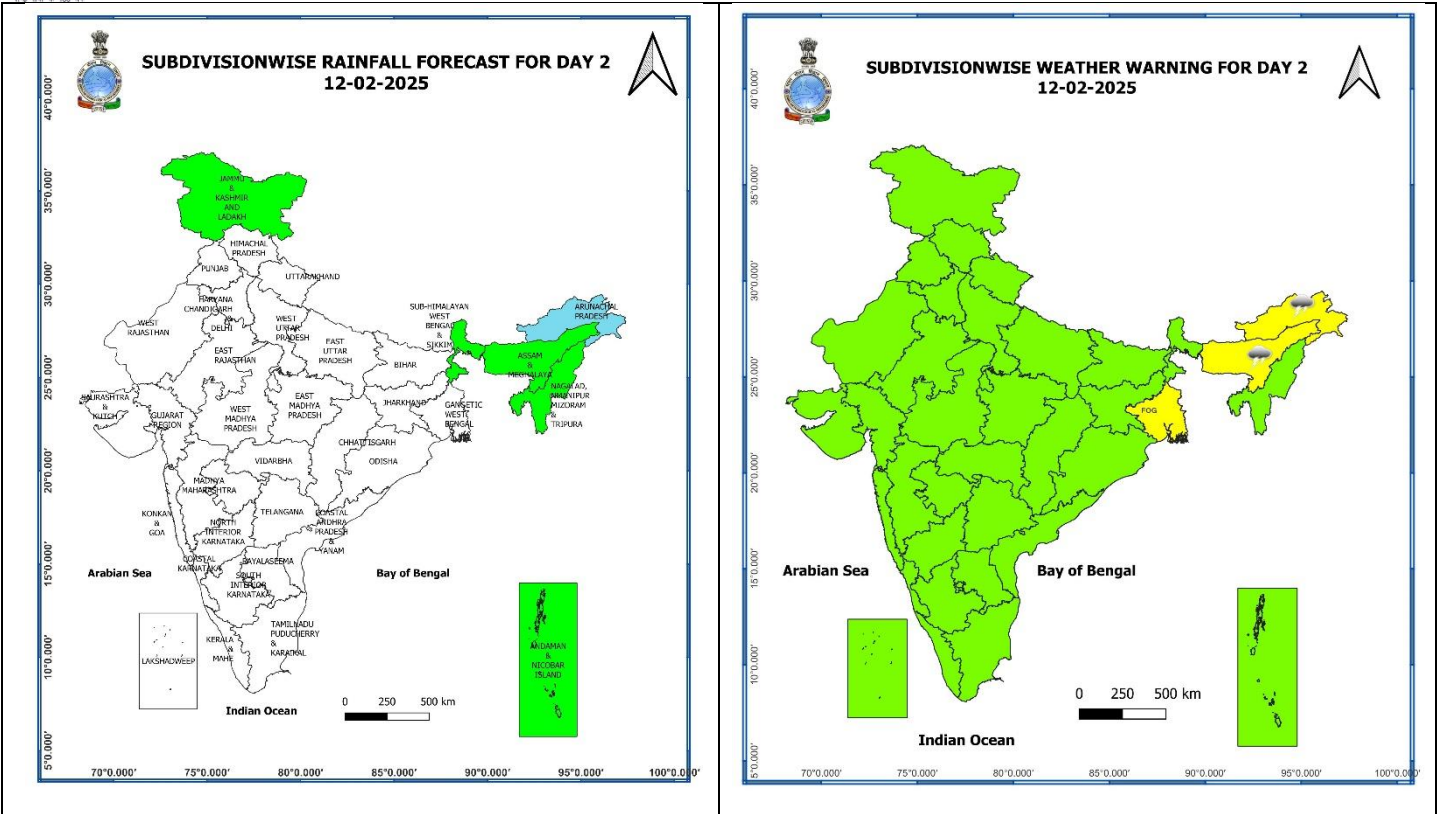
- ❖ The **Western Disturbance** as a cyclonic circulation over North Afghanistan & neighbourhood now lies over northeast Afghanistan & adjoining Pakistan between 3.1 & 5.8 km above mean sea level.
- ❖ The **induced cyclonic circulation** over southwest Rajasthan & neighbourhood at 1.5 km above mean sea level persists.
- ❖ The **cyclonic circulation** over northeast Assam & neighbourhood between 1.5 & 3.1 km above mean sea level persists.
- ❖ Subtropical **westerly Jet Stream** with core winds of the order of 125 knots at 12.6 km above mean sea level is prevailing over the plains of northwest India.
- ❖ The **cyclonic circulation** over northeast Bangladesh & 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 18th February, 2025)



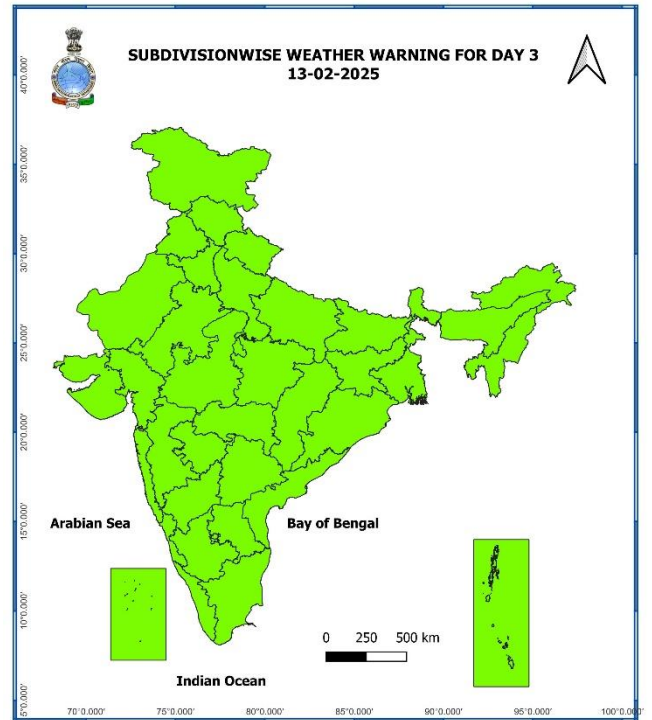
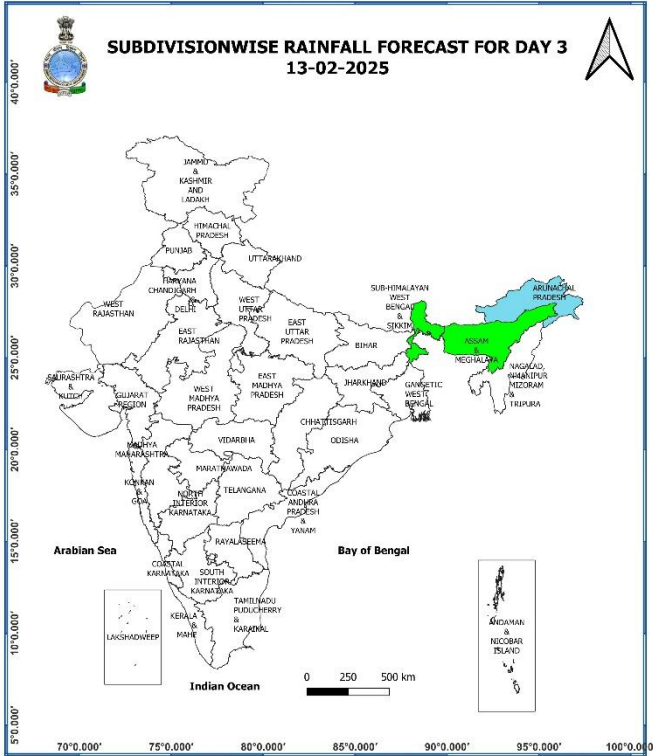
11th February (Day 1):

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



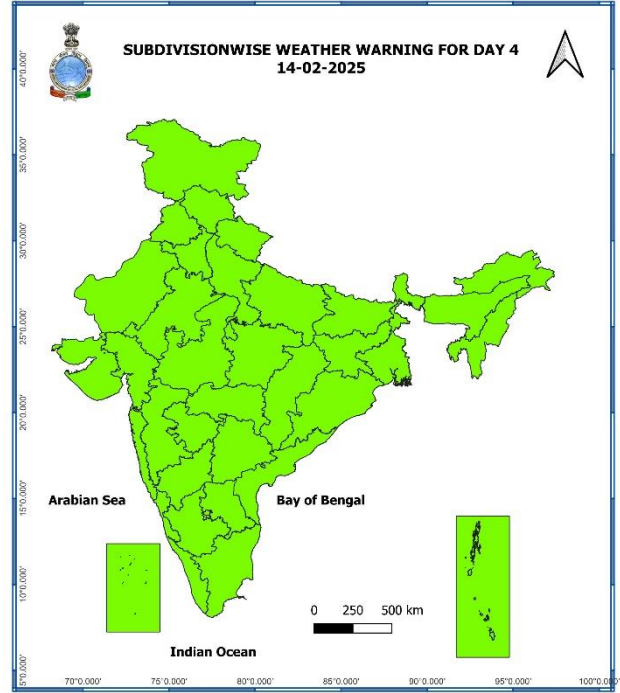
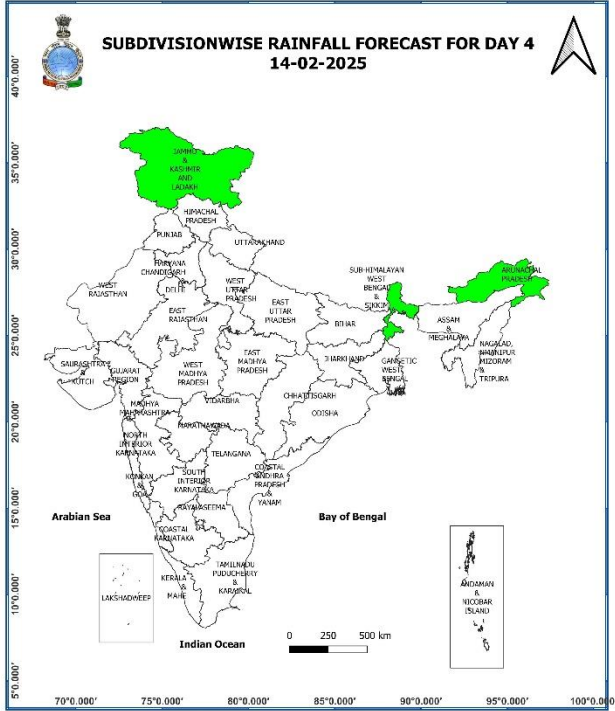
12th February (Day 2):

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



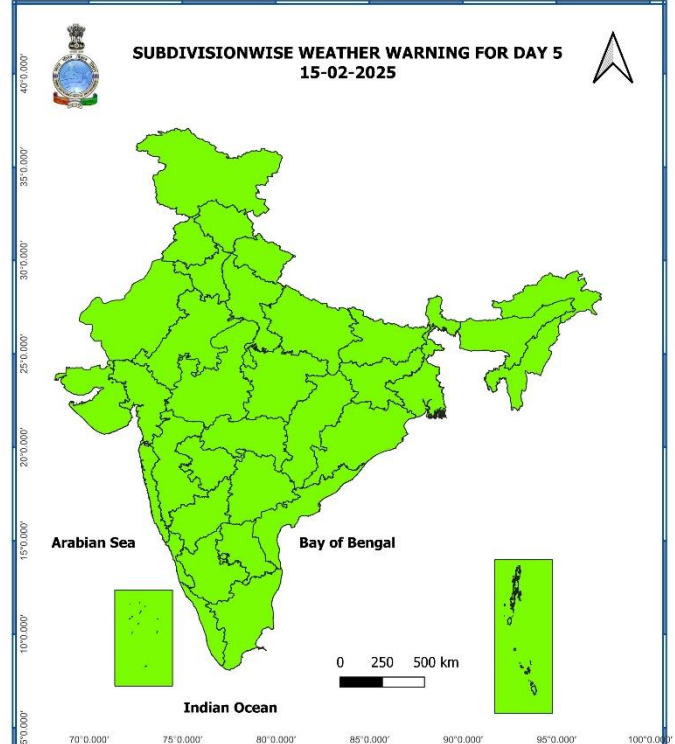
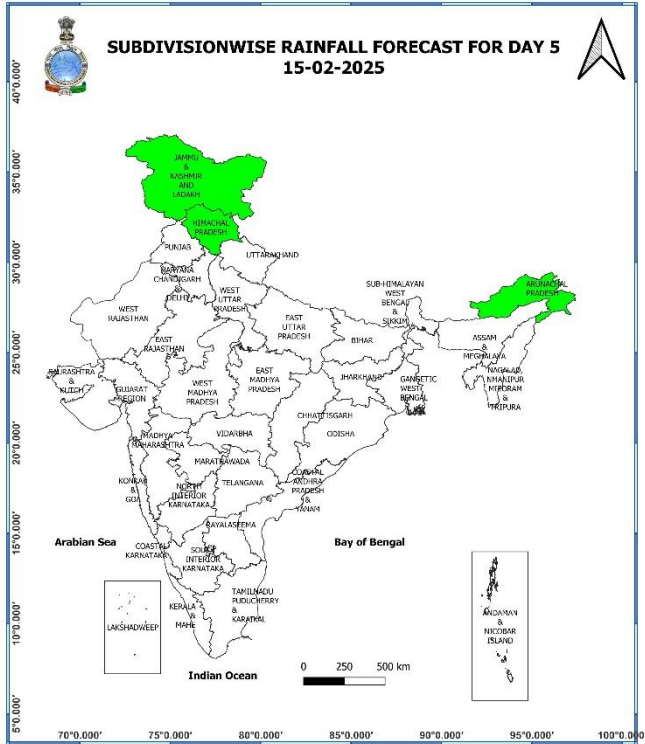
13th February (Day 3):

❖ No Weather Warning.



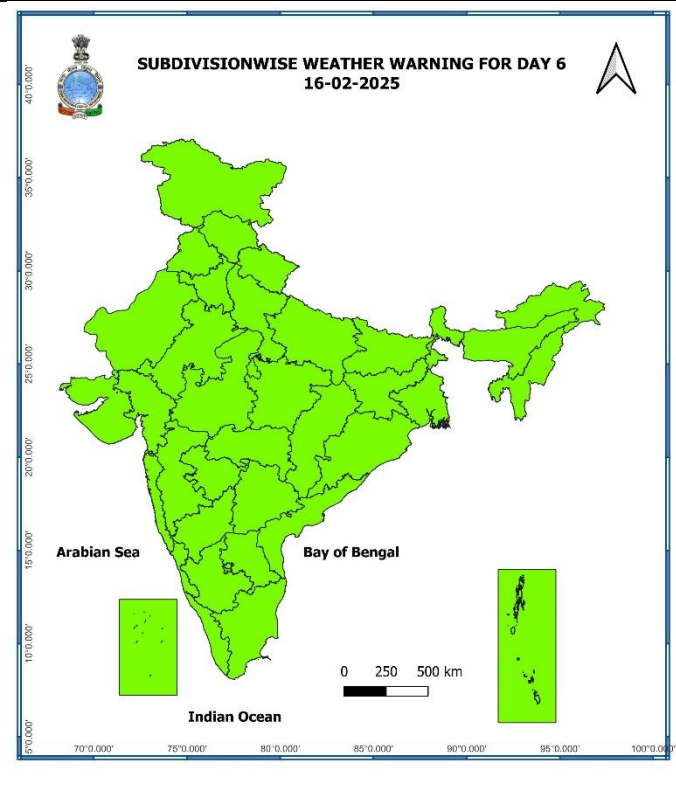
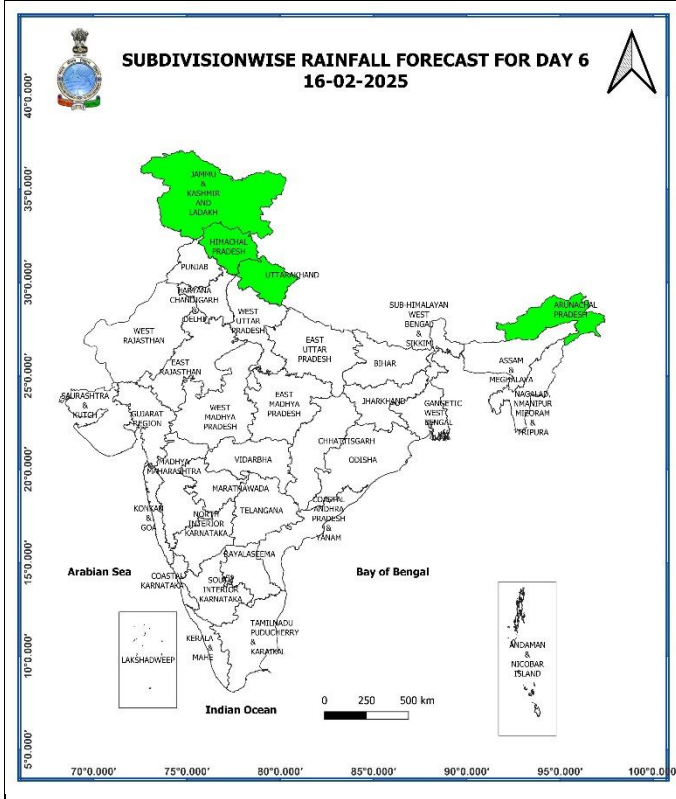
14th February (Day 4):

❖ **No Weather Warning.**



15th February (Day 5):

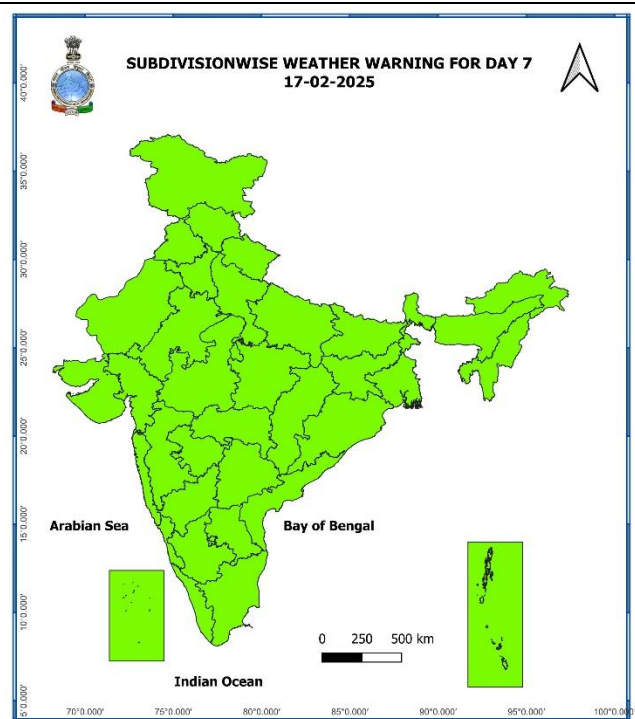
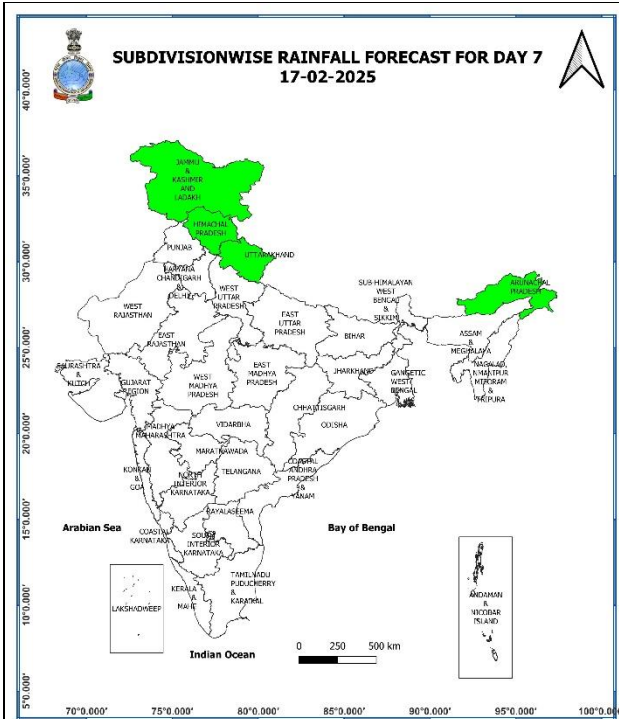
❖ **No Weather Warning.**



16th February (Day 6):

❖ **No Weather Warning.**

* 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)



17th February (Day 7):

❖ **No Weather Warning.**

Weather Outlook for subsequent 3 days (During 18th February- 19th February, 2025)

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

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

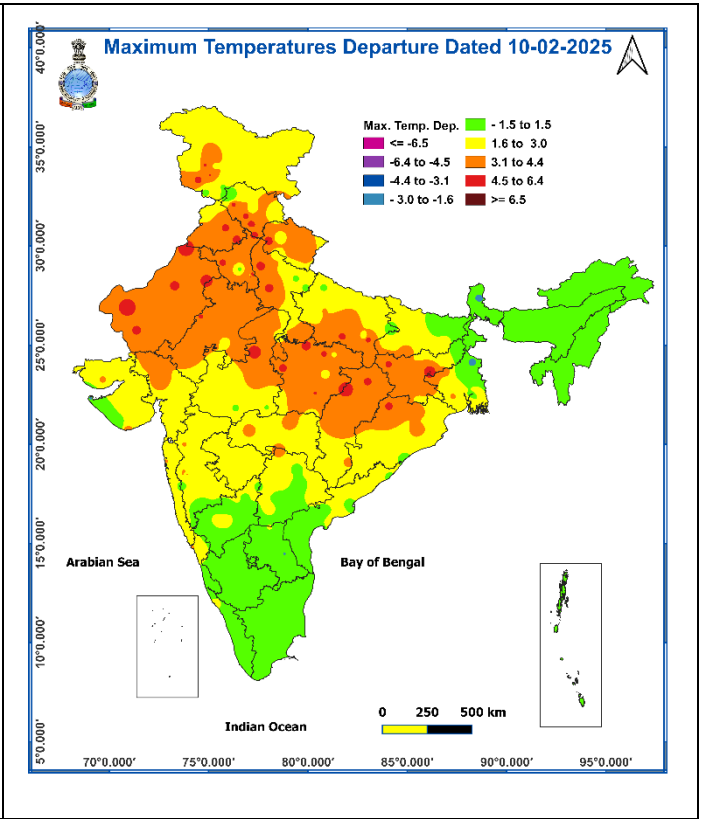
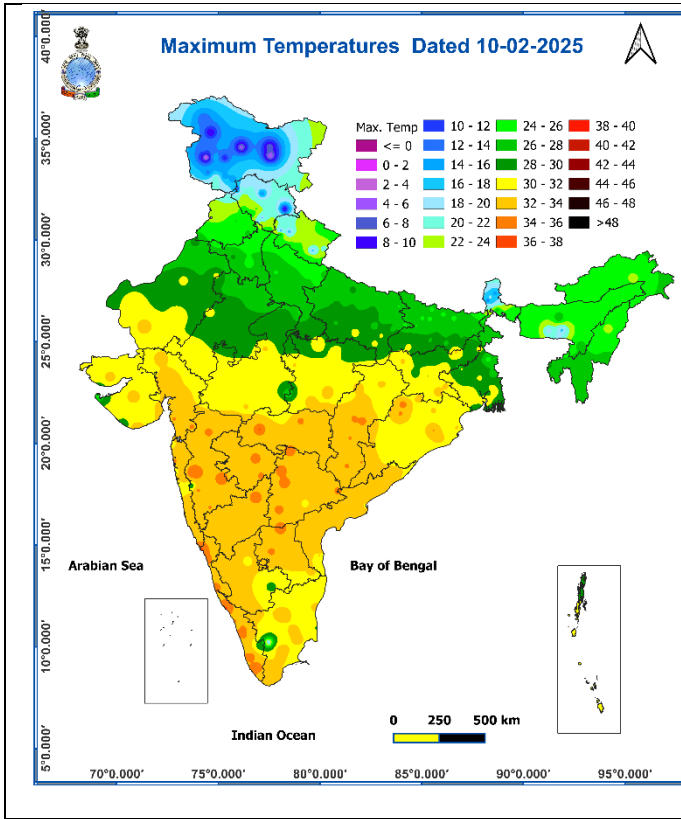
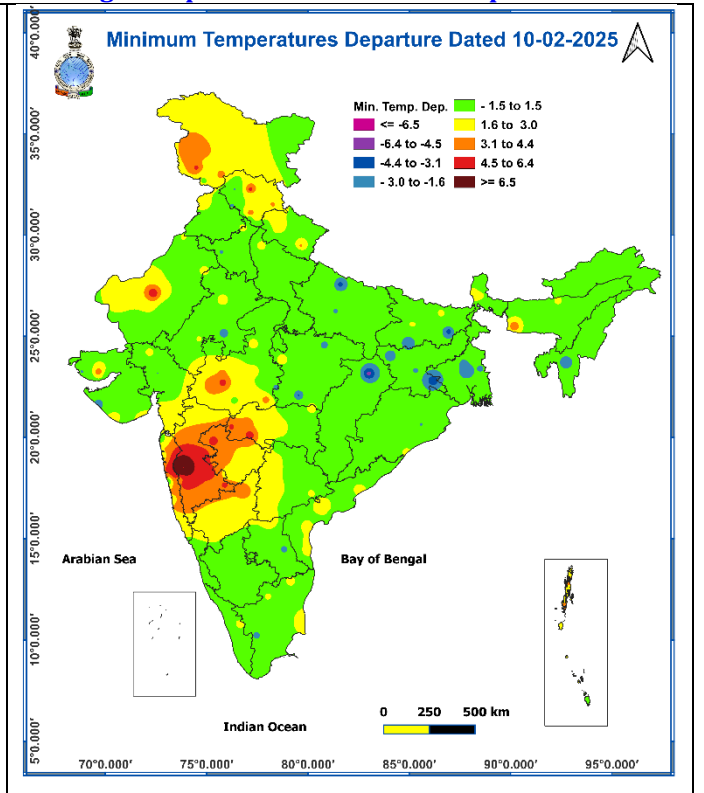
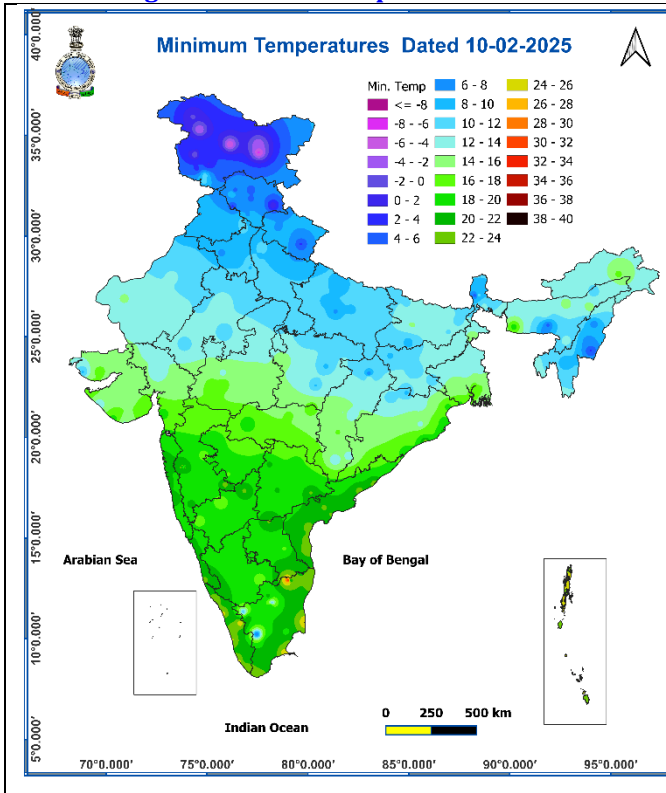


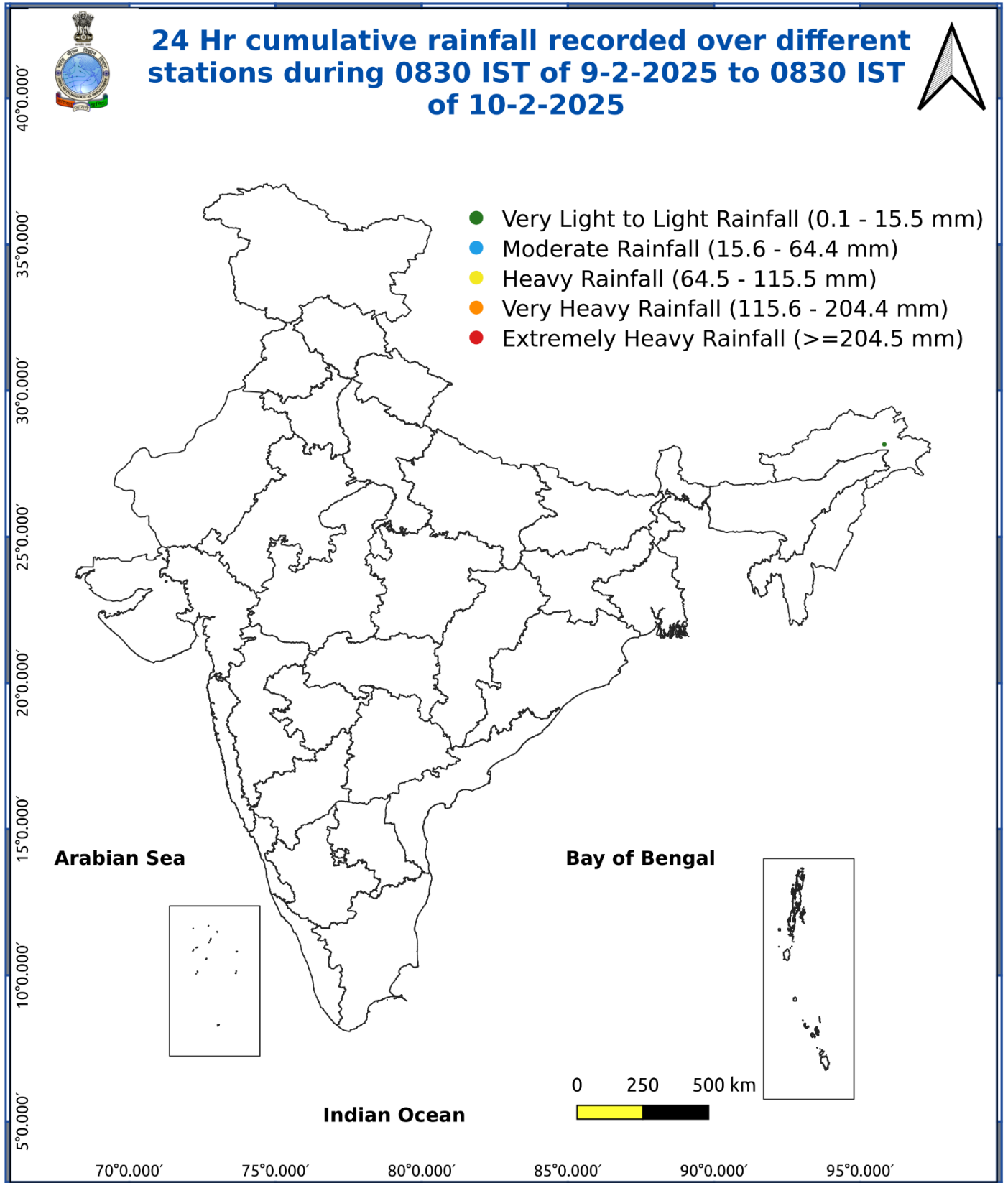
Fig. 3: Minimum Temperatures

Fig. 4: Departure of Minimum Temperatures



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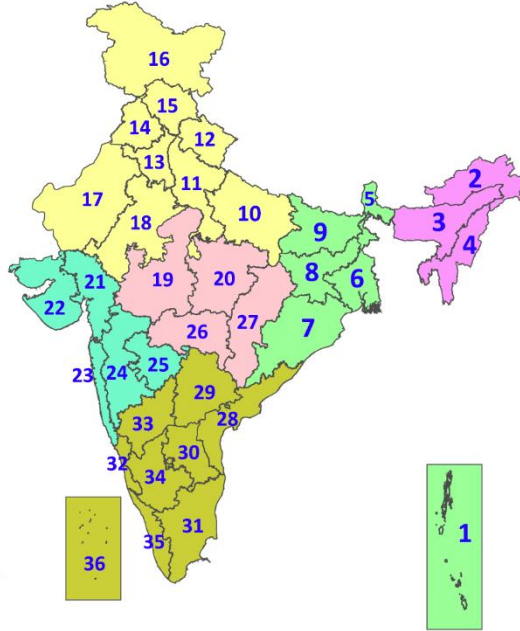
Fig. 5: Accumulated Rainfall (mm) during past 24 hours



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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)