

Wednesday, February 12, 2025

Time of Issue: 1400 hours IST

(MID-DAY)

ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

Significant Weather Features:

Weather Systems, Forecast and warning:

- ❖ A **Western Disturbance** is seen as a cyclonic circulation over Jammu-Kashmir & neighbourhood in lower tropospheric levels. Subtropical **westerly Jet Stream** with core winds of the order of 130 knots at 12.6 km above mean sea level is prevailing over the plains of northwest & northeast India. A **cyclonic circulation** lies over northeast Assam & neighbourhood in lower tropospheric levels. Under their influence,
 - ✓ Scattered to Fairly widespread light rainfall/snowfall accompanied with thunderstorm & lightning activity likely over Arunachal Pradesh and isolated over Assam & Meghalaya during 12th-14th February with isolated **heavy rainfall** on Arunachal Pradesh on 12th & 13th February.
 - ✓ Isolated light rainfall activity likely over Nagaland, Manipur, Mizoram & Tripura & Sub-Himalayan West Bengal & Sikkim during 12th-14th February with isolated **heavy rainfall** on Sub-Himalayan West Bengal & Sikkim on 12th February.
 - ✓ Isolated light rainfall/snowfall activity likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad on 12th February, 2025.

Temperature and Fog Forecast:

Forecast of temperature:

Minimum Temperature:

- ❖ Gradual fall in minimum temperatures by about 1-2°C likely over Northwest and adjoining Central India and by 2-3°C likely over East India during next 2 days; gradual rise by about 2-3°C over these regions thereafter.
- ❖ Gradual fall in minimum temperatures by 1-3°C likely over Maharashtra during next 2 days and gradual rise by 1-2°C thereafter.
- ❖ No significant change in minimum temperature over remaining parts of the country during next 5 days.

Maximum temperature:

- ❖ Gradual fall in maximum temperature by about 1-2°C likely over Northwest India during next 1-2 days and gradual rise by about 2-3°C thereafter.
- ❖ No significant change in maximum temperature likely over Central India during next 3 days and gradual fall by 2-3°C during subsequent 3 days.
- ❖ Gradual fall in maximum temperatures by 2-3°C likely over East India during next 3 days and gradual rise by 2-3°C thereafter.

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 till 15th and Gangetic West Bengal till 13th February.

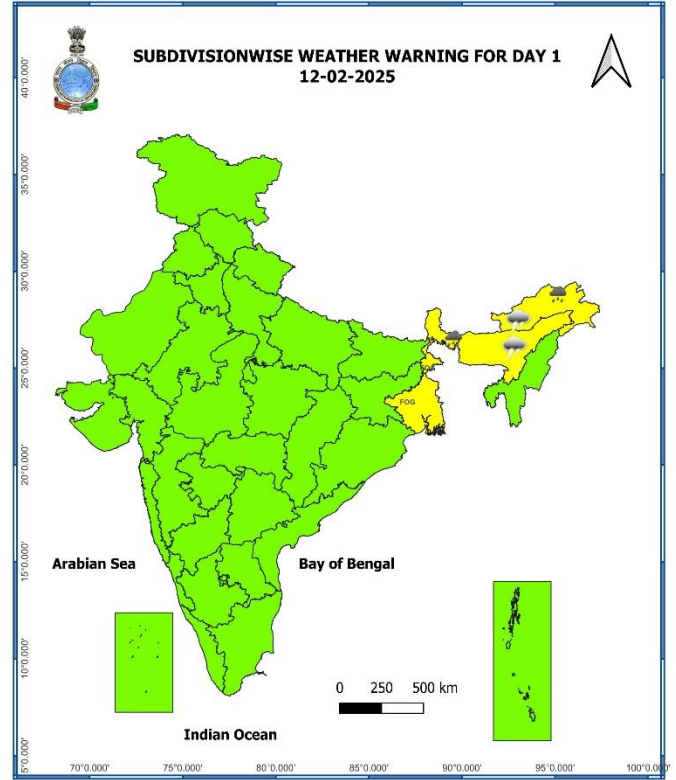
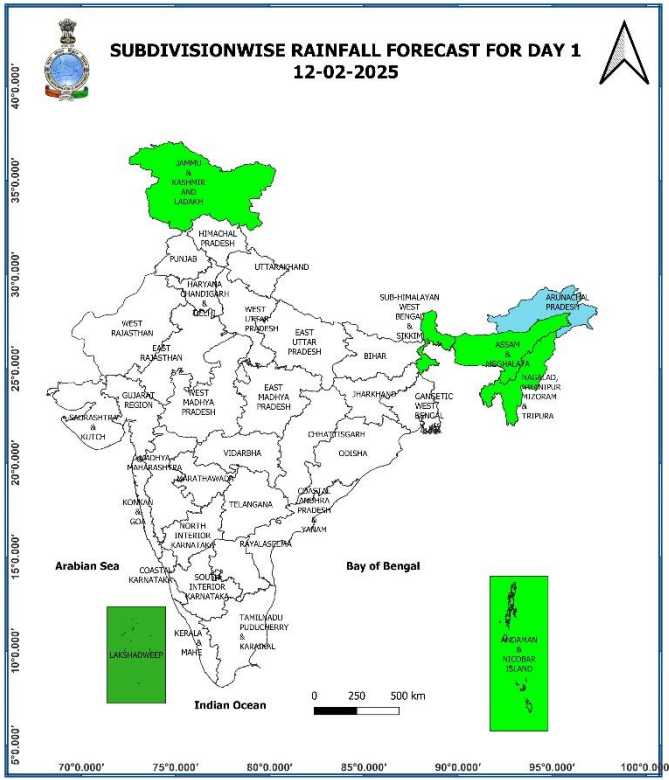
Main Weather Observations:

- ❖ **Rainfall/Snowfall distribution** (from 0830 hours IST of yesterday to 0830 hours IST of today): **at many places** over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad and Arunachal Pradesh; **at isolated places** over Himachal Pradesh.
- ❖ **Rainfall distribution** (from 0830 hours IST of yesterday to 0830 hours IST of today): **at isolated places** over Sub-Himalayan West Bengal & Sikkim, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.
- ❖ **Significant amount of rainfall** (from 0830 hours IST of yesterday to 0830 hours IST of today): (in cm): **Arunachal Pradesh:** Kabu Basti (dist West Siang) 2, Daparijo (dist Upper Subansiri) 1; **Assam & Meghalaya:** Sivasagar (dist Sibsagar) 2, Hazuah (dist Barpeta) 2, Dhemaji (dist Dhemaji) 2; **Jammu-Kashmir-Ladakh:** Kupwara Kvk Aws (dist Kupwara) 1
- ❖ **Fog reported** (at 0830 hours IST of today): **Dense fog** reported in isolated pockets of Gangetic West Bengal.
- ❖ **Visibility reported** (at 0830 hours IST of today) (≤ 500 m): **Gangetic West Bengal:** Dum Dum 50
- ❖ **Minimum Temperature Departures (as on 12-02-2025):** Minimum temperatures are **appreciably above normal (3.1°C to 5.0°C)** at a few places over Gangetic West Bengal, Nagaland, Manipur, Mizoram & Tripura, Chhattisgarh; at isolated places over East Rajasthan, Saurashtra & Kutch, Assam & Meghalaya, Odisha, Vidarbha; **above normal (1.6°C to 3.0°C)** at most places over Marathwada; at many places over West Rajasthan, Punjab, East Uttar Pradesh, Telangana, Gujarat Region, Madhya Maharashtra; at a few places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, West Uttar Pradesh, Bihar, Jharkhand, Madhya Pradesh, Haryana-Chandigarh-Delhi; at isolated places over Himachal Pradesh, Uttarakhand, Arunachal Pradesh, Coastal Andhra Pradesh & Yanam, Konkan & Goa, North Interior Karnataka. 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 6.1°C** is reported at **Fatehpur AWS (Rajasthan)** over the plains of the country.
- ❖ **Maximum Temperature Departures (as on 11-02-2025):** Maximum temperatures were **markedly above normal (5.1°C or more)** at many places over Delhi; at a few places over West Uttar Pradesh: at isolated places over West Rajasthan, Chhattisgarh, Jharkhand and Odisha; **appreciably above normal (3.1°C to 5.0°C)** at many places over East Madhya Pradesh; at a few places over East Uttar Pradesh; at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Punjab, Haryana, East Rajasthan, West Madhya Pradesh, Bihar, Vidarbha and Gangetic West Bengal; **above normal (1.6°C to 3.0°C)** at most places over North Interior Karnataka; at a few places over Coastal Andhra Pradesh & Yanam, Telangana, Madhya Maharashtra and Tamil Nadu, Puducherry & Karaikal; at isolated places over Himachal Pradesh, Gujarat state and Konkan & Goa. These were **markedly below normal (-5.0°C or less)** at a few places over Assam & Meghalaya and near normal over rest parts of the country (Fig. 2). Yesterday, the highest **maximum temperature of 37.3°C** was reported at **Kurnool (Rayalaseema)** over the plains of the country.

Meteorological Analysis (Based on 0830 hours IST)

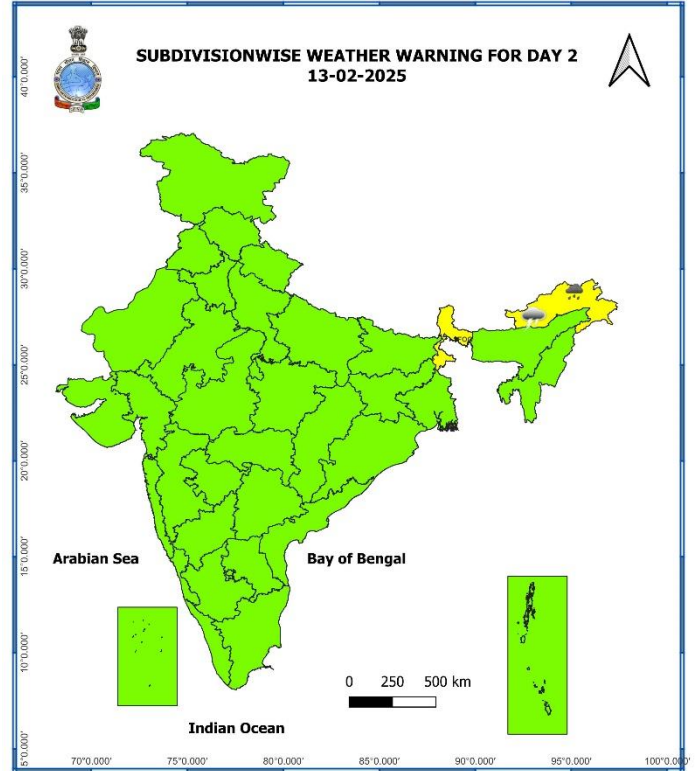
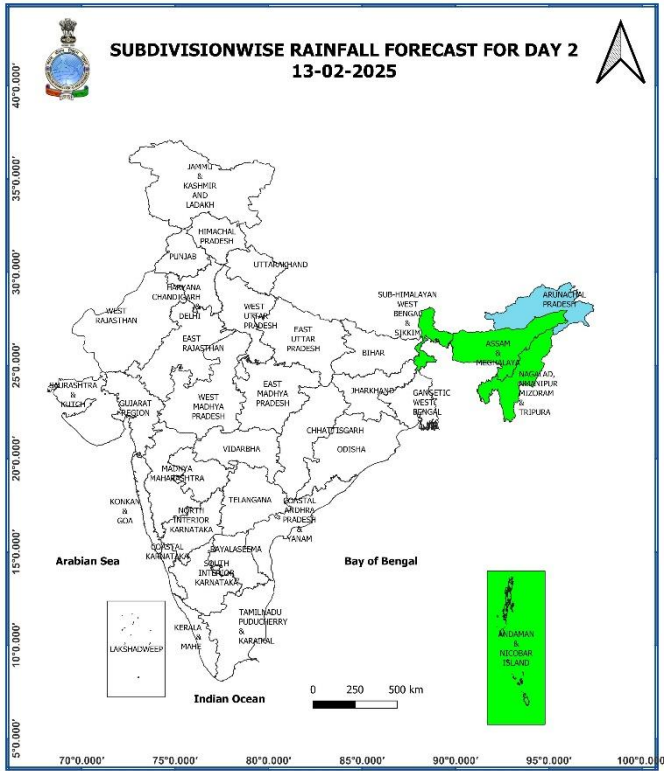
- ❖ The **Western Disturbance** as a cyclonic circulation over north Pakistan & neighbourhood now lies over Jammu-Kashmir & neighbourhood at 3.1 km above mean sea level.
- ❖ The **cyclonic circulation** over northeast Assam & neighbourhood persists and now extends upto 1.5 km above mean sea level.
- ❖ Subtropical **westerly Jet Stream** with core winds of the order of 130 knots at 12.6 km above mean sea level is prevailing over the plains of northwest & northeast India.

Weather Forecast & Warnings for next 7 days (Upto 0830 hours IST of 19th February, 2025)



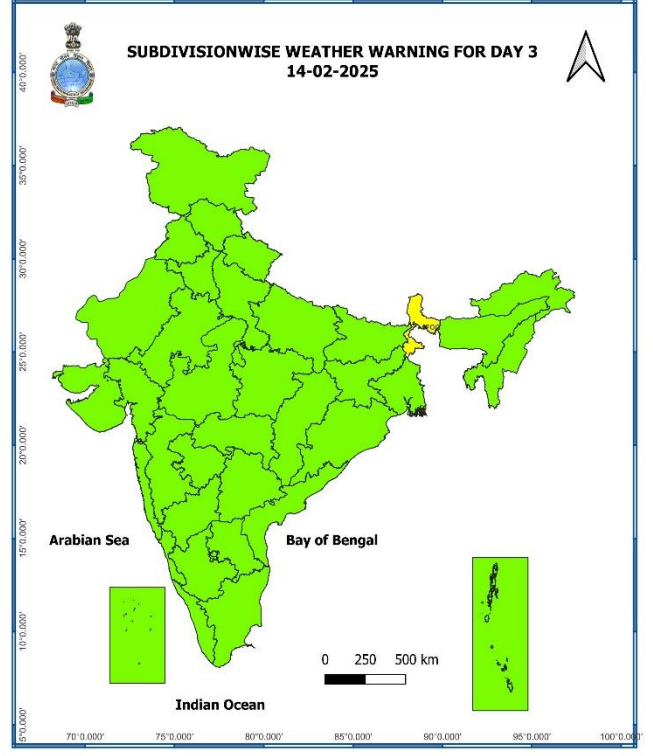
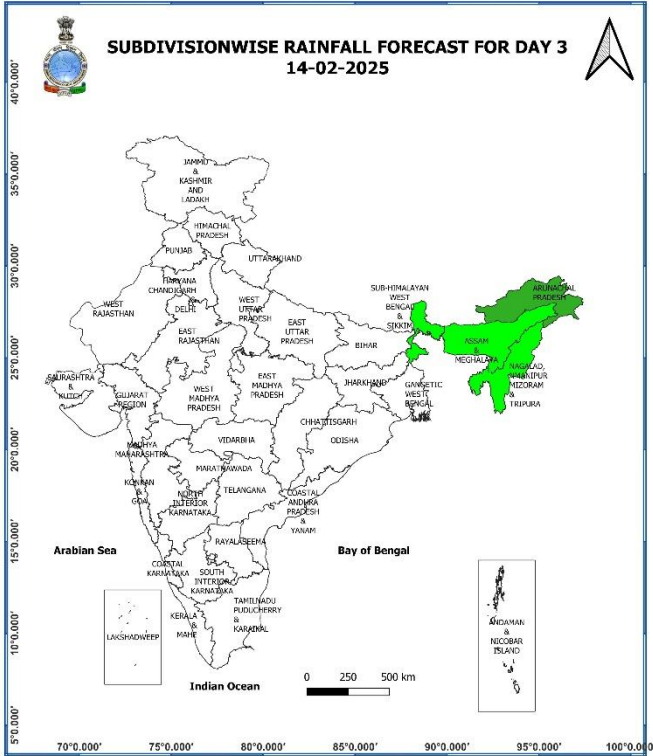
12th February (Day 1):

- ❖ **Heavy Rainfall/snowfall (≥ 7 cm)** very likely at isolated places over Sub-Himalayan West Bengal & Sikkim and 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 Sikkim and Gangetic West Bengal.



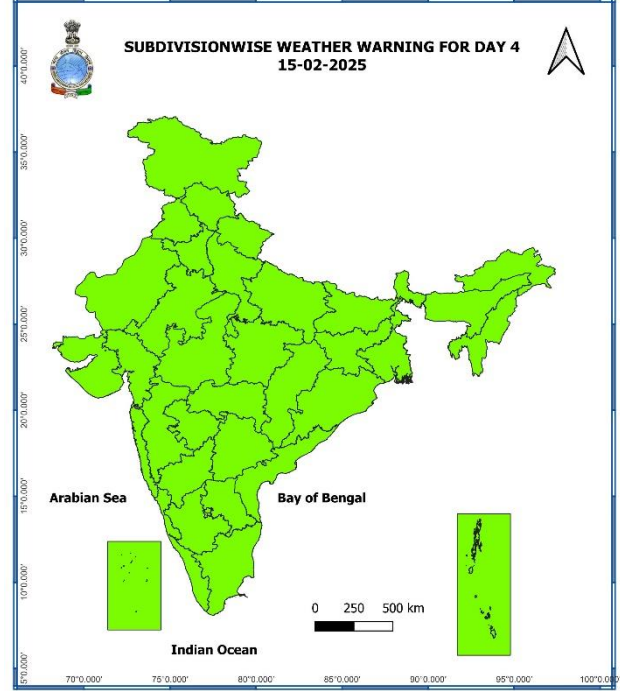
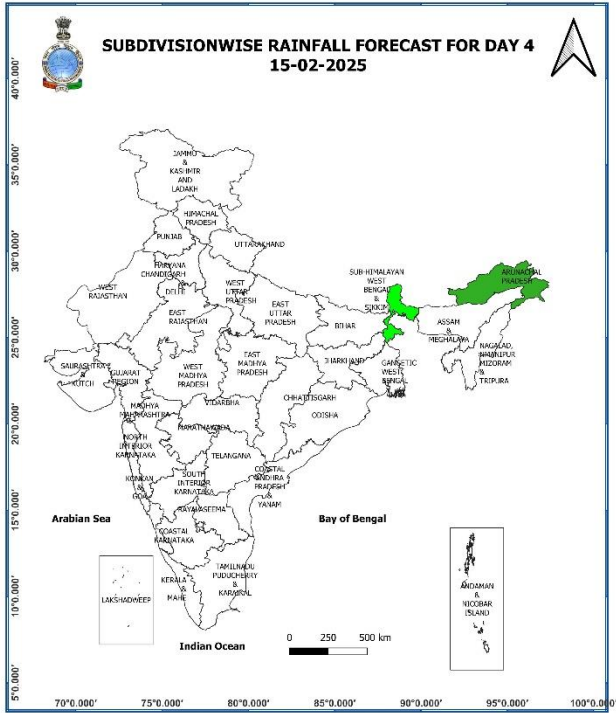
13th February (Day 2):

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



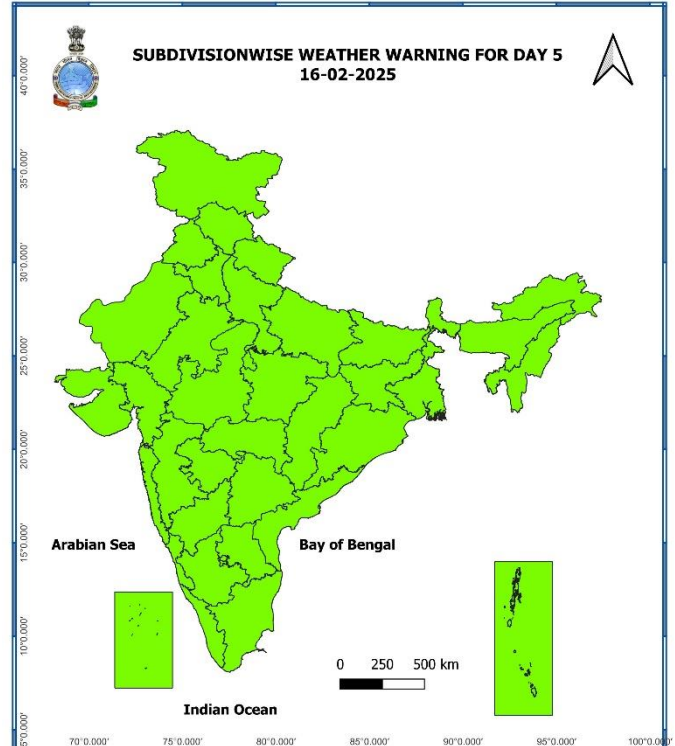
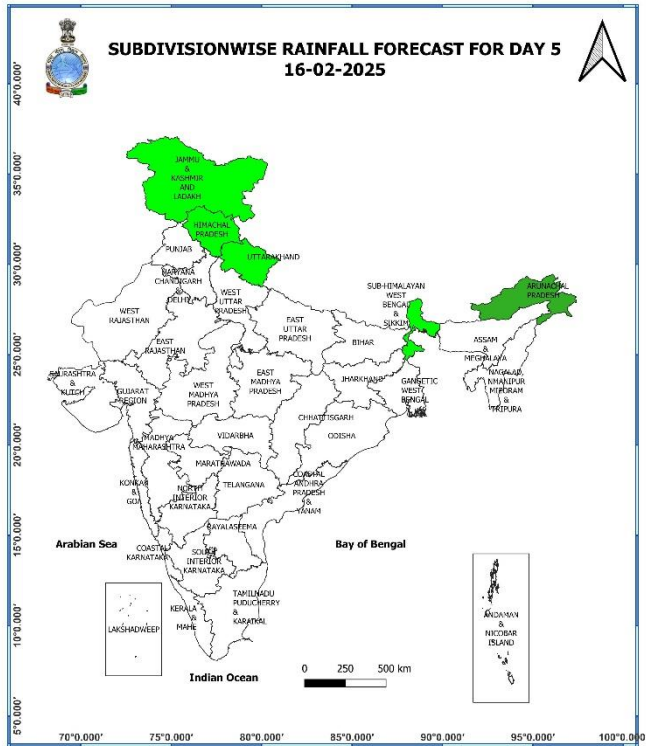
14th February (Day 3):

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



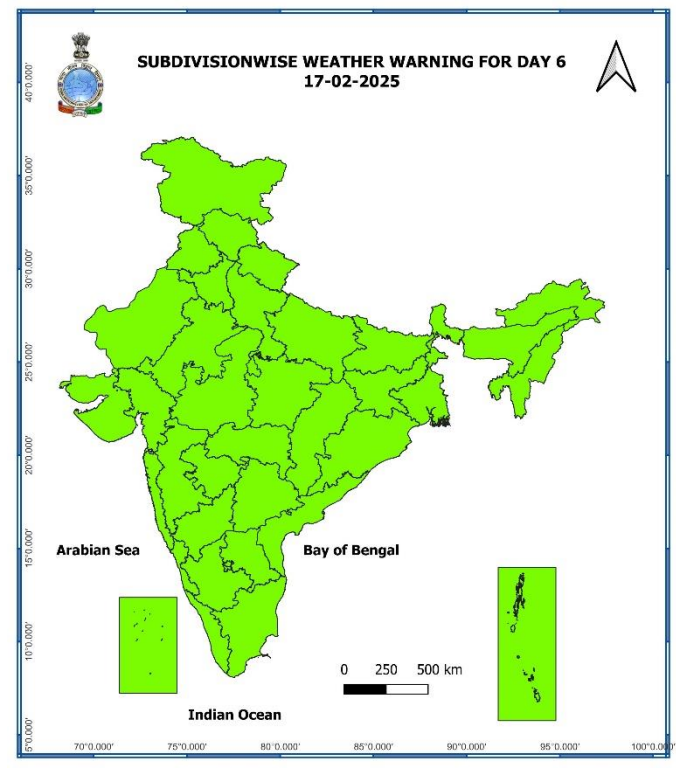
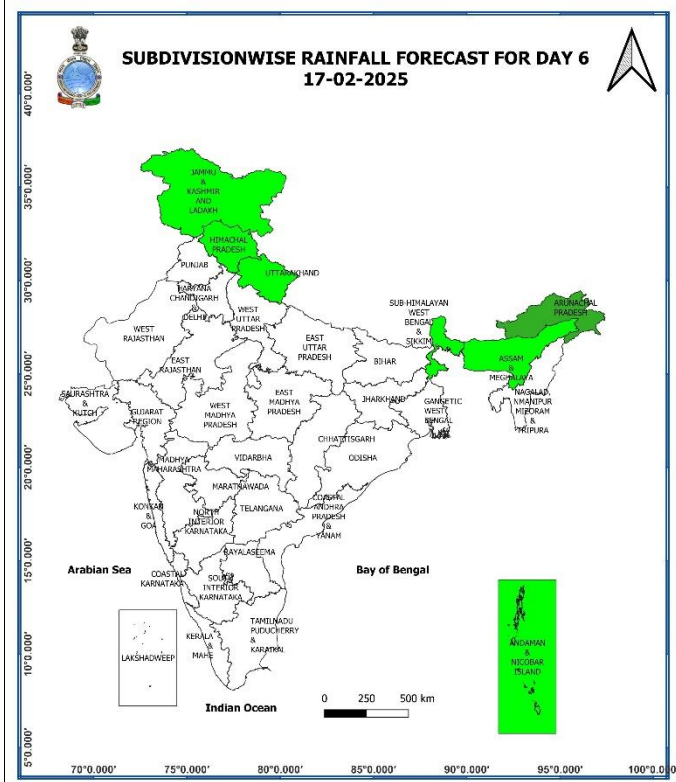
15th February (Day 4):

❖ **No Weather Warning.**



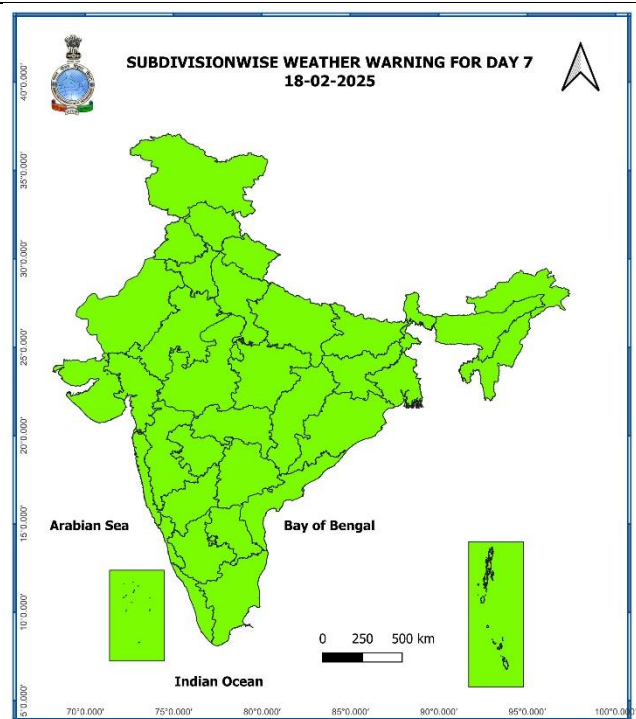
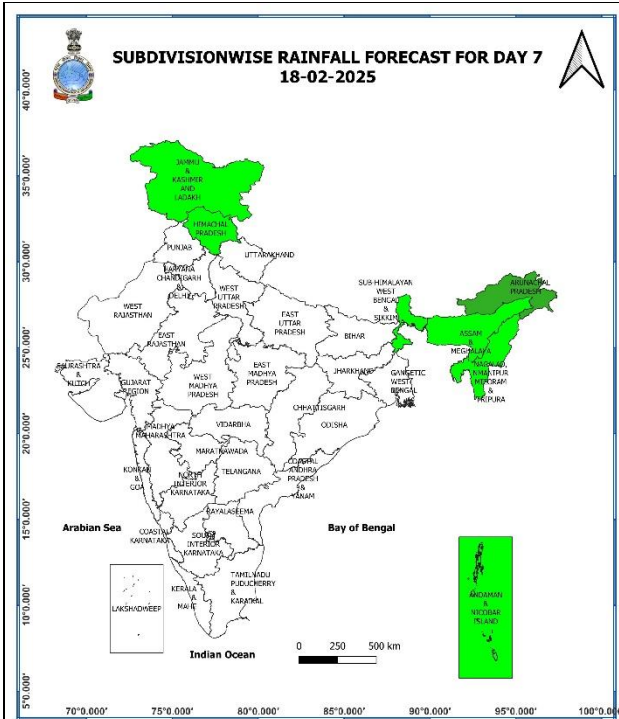
16th February (Day 5):

❖ **No Weather Warning.**



17th February (Day 6):

❖ **No Weather Warning.**



18th February (Day 7):

❖ **No Weather Warning.**

Weather Outlook for subsequent 3 days (During 19th February- 21st February, 2025)

- ❖ **Scattered to fairly widespread rainfall/snowfall** likely over Western Himalayan region.
- ❖ **Isolated rainfall** likely over plains of Northwest, adjoining Central, East 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

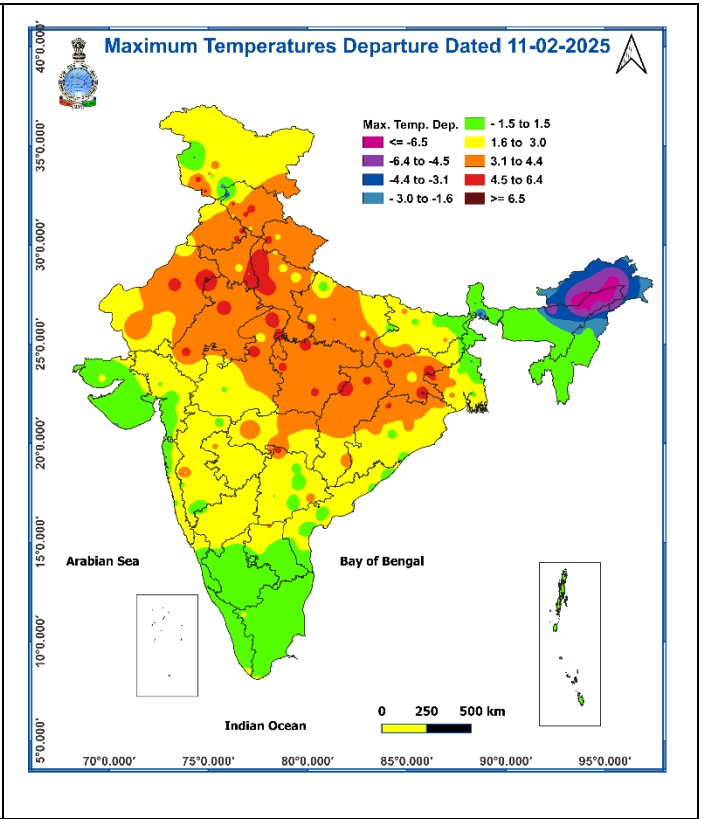
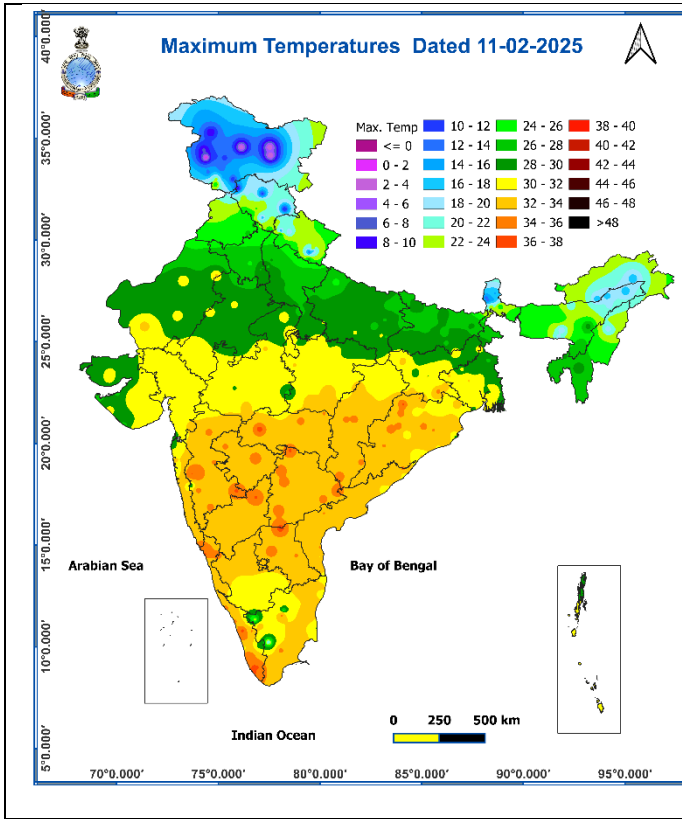
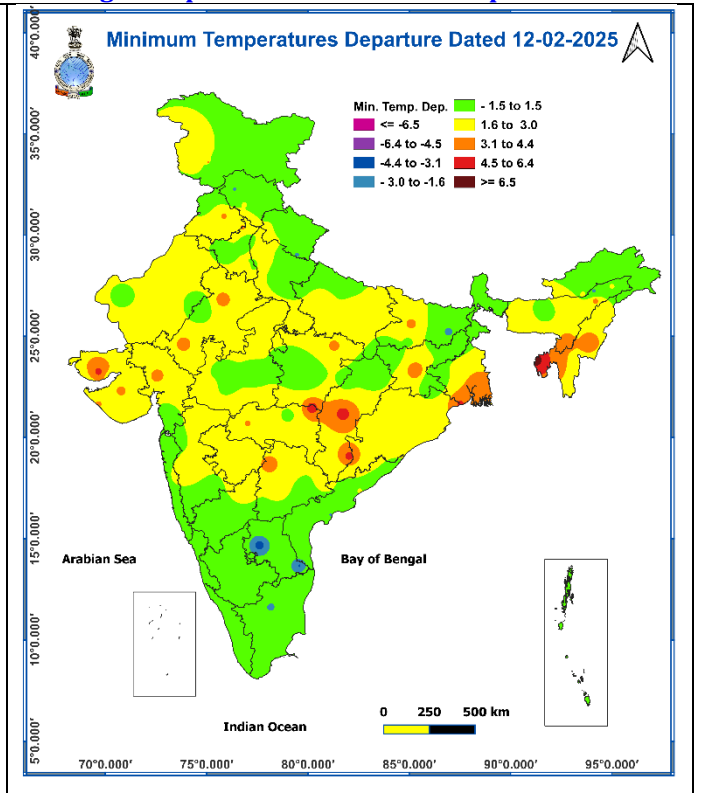
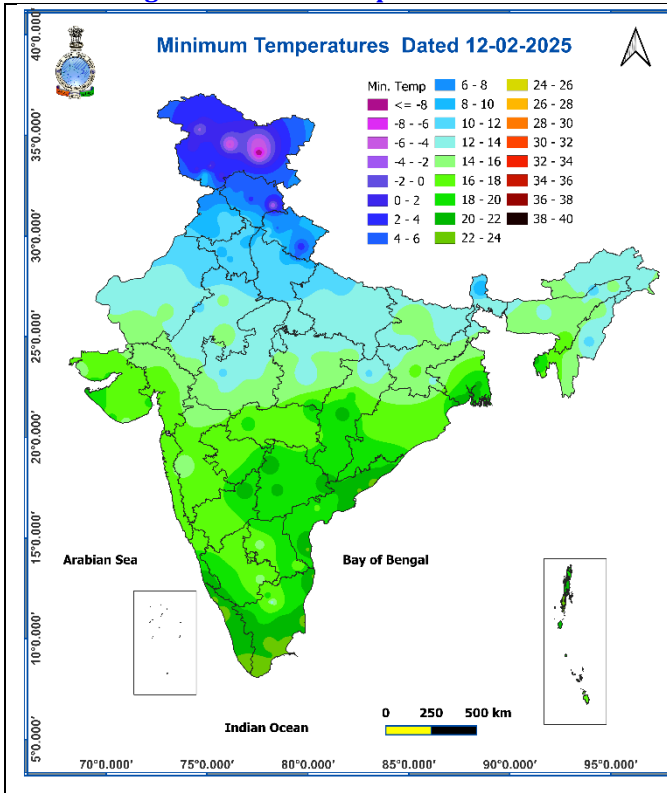


Fig. 3: Minimum Temperatures

Fig. 4: Departure of Minimum Temperatures



Agromet advisories for likely impact of Heavy Rainfall

- In **Arunachal Pradesh**, postpone harvesting of rice during rainfall period and shift the already harvested produce to a well-covered storage facilities to prevent damage. Provide extensive drainage in the fields of rice, mustard, other standing crops, vegetables and horticultural crops.
- Provide mechanical support to horticultural crops and staking to vegetables.

Livestock

- Keep the animals inside the shed during heavy rainfall period and provide them with balanced feed. Store feed and fodder in a safe place to prevent spoilage.

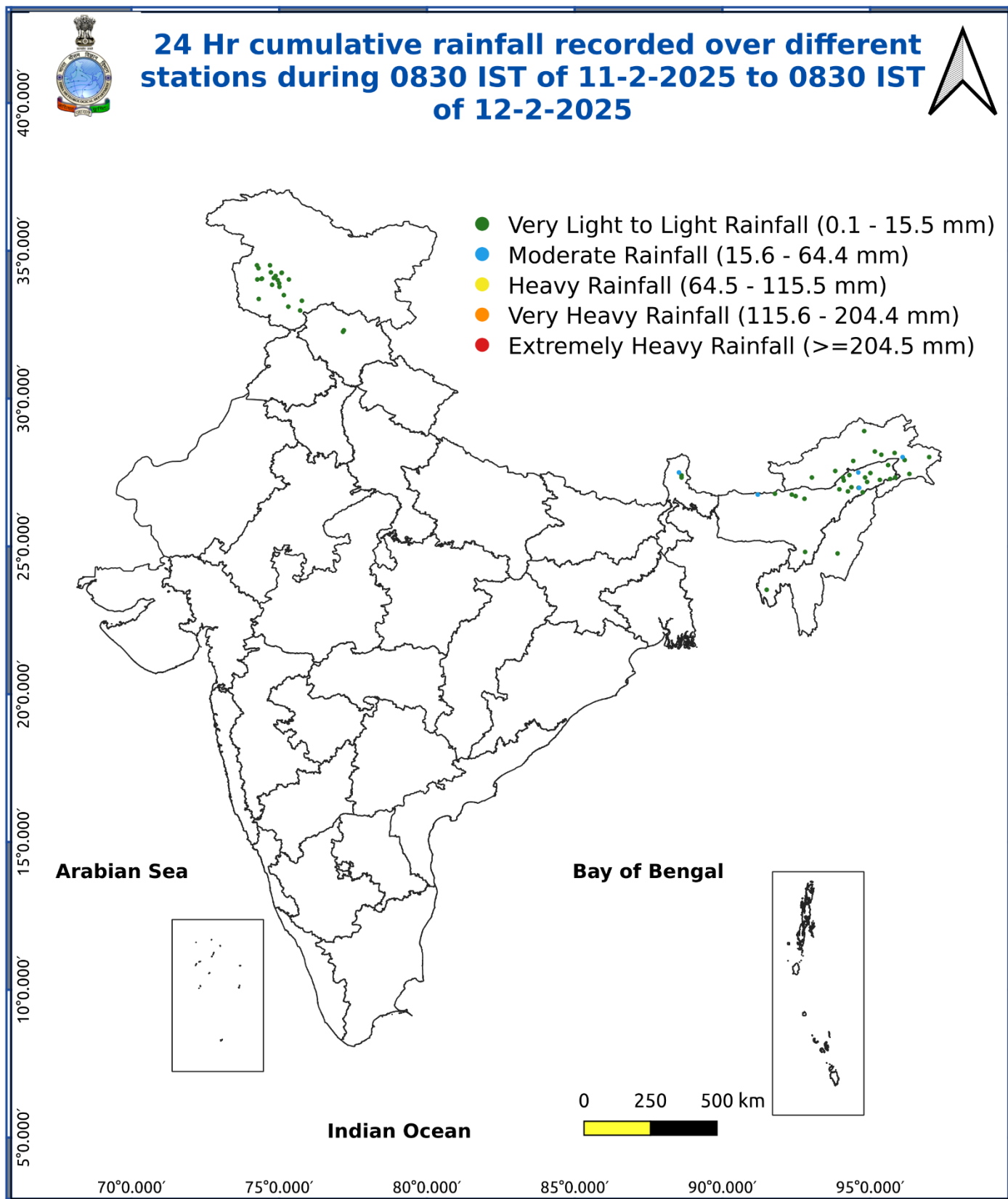
Likely Impact of prevailing above-normal temperatures on Agriculture

- Above normal temperatures in Northwest and Central India may lead to forced maturity, sterile spikelets, and chaffy grains, reducing yields during critical growth stages like flowering and grain filling in crops like wheat and barley. Crops like mustard and chickpea may also experience early harvest.
- Vegetables like onions, garlic, and tomatoes may be affected during bulb formation or flowering, resulting in tip burning, bolting, and mismatched pollination, reducing their quality and yield. Horticultural crops like apples and stone fruits may experience early blooming due to warmer temperatures, resulting in poor fruit setting and quality.
- Livestock may experience heat stress, requiring adjustments in care and feeding practices, while fisheries face challenges in maintaining water quality.

Agromet Advisories

- Provide light and life-saving irrigation during sensitive growth stages such as grain filling, flowering, and tuber formation.
- Apply mulching to retain optimum soil moisture and regulate temperature.
- Chemical sprays like potassium chloride and mineral nutrients are recommended to manage heat stress.

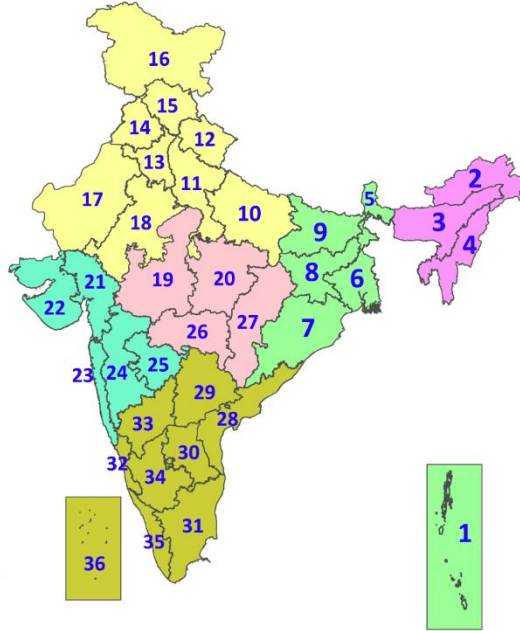
Fig. 5: Accumulated Rainfall (mm) during past 24 hours



* 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)

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>