राष्ट्रीय मौसम पूर्वानुमान केन्द्र
भारत मौसम विज्ञान विभाग
पृथ्वी विज्ञान मंत्रालय

National Weather Forecasting Centre
India Meteorological Department
Ministry of Earth Sciences

Monday, February 17, 2025
Time of Issue: 0800 hours IST
(MORNING)

ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

Significant Weather Features:

i. Realised Maximum Temperatures from 0830 hours IST to 1730 hours IST of yesterday

Temperature:

- During Past 24 hours, Day temperatures had risen by 1-3°C at many places over Bihar, Gangetic West Bengal, Odisha, East Madhya Pradesh, Jharkhand, Chhattisgarh, Uttarakhand, east Vidarbha and North Telangana. It has fallen by 1-3 °C at many places over East Rajasthan, Gujarat state and Coastal Andhra Pradesh & Yanam.

ii. Weather Systems, Forecast and warning:

- A cyclonic circulation lies over northeast Assam & neighbourhood at lower tropospheric level. Under its influence,
  - ✓ Scattered to Fairly widespread light to moderate rainfall/snowfall activity likely over Arunachal Pradesh during 17th-22nd February with Heavy rainfall activity likely over Arunachal Pradesh on 19th February.
  - ✓ Isolated to scattered light rainfall activity likely over Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura and Sub-Himalayan West Bengal & Sikkim during next 7 days;
  - ✓ Thunderstorm & lightning activity on 17th & 18th -20th over Arunachal Pradesh, Assam & Meghalaya; over Nagaland, Manipur, Mizoram & Tripura on 18th & 19th February.

- A fresh western disturbance is likely to impact the western Himalayan regions and adjoining plains during from night of 18th Feb till 20th February with peak intensity on the 19th and 20th February.
- Under its influence,

✓ **Isolated to scattered light rainfall/snowfall activity likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Uttarakhand & Himachal Pradesh during 17th-22nd; Isolated light rainfall activity likely over West Rajasthan during 17th-19th; Punjab, Haryana on 19th & 20th; East Rajasthan on 18th & 19th; West Uttar Pradesh on 20th February. Thunderstorm & lightning activity over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh on 19th & 20th; Uttarakhand on 20th; Punjab, Haryana Chandigarh & Delhi on 19th February.**

✓ **With movement of this Western Disturbance further eastwards & a north-south Trough at lower levels: Thunderstorm accompanied with lightning & light rainfall likely over Gangetic West Bengal during 19th -22nd; Odisha and Jharkhand during 19th -21st February.**

Temperature, Cold wave and Fog Forecast:

Forecast of temperature:

Minimum Temperature:

- Gradual rise in minimum temperatures by 2-3°C likely over Northwest India & Central India during next 2-3 days.
- Gradual rise in minimum temperatures by 1-3°C likely over Rajasthan during next 2-3 days.
- Gradual rise in minimum temperatures by 2-3°C likely over East India during next 2 days and no significant change thereafter.
- No significant change in minimum temperature likely over rest parts of India during next 2-3 days.

Maximum temperature:

- Gradual rise in maximum temperature by 1-3°C likely over Northwest & Central India during next 2-3 days.
- Gradual rise in maximum temperature by about 2°C over Bihar during next 2-3 days.
- Gradual rise in maximum temperature by about 2-3°C over Northeast India during next 2 days & no significant change thereafter.
- No significant change in maximum temperature likely over Rajasthan, Gujarat, Maharashtra & Peninsular India during next 5 days.
- No significant change in maximum temperature likely over rest parts of India during next 2-3 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 till 17th February.

Main Weather Observations:

- **Rainfall distribution** (from 0830 hours IST to 1730 hours IST of yesterday): **at isolated places** over Sub-Himalayan West Bengal & Sikkim.

- **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 fog reported in isolated pockets of Gangetic West Bengal and Shallow fog in isolated pockets of Odisha.

- **Visibility reported** (at 0530 hours IST of today) (≤500 m): Gangetic West Bengal: Diamond Harbour-0; Odisha: Chandbali-200, Bhubaneshwar-500.

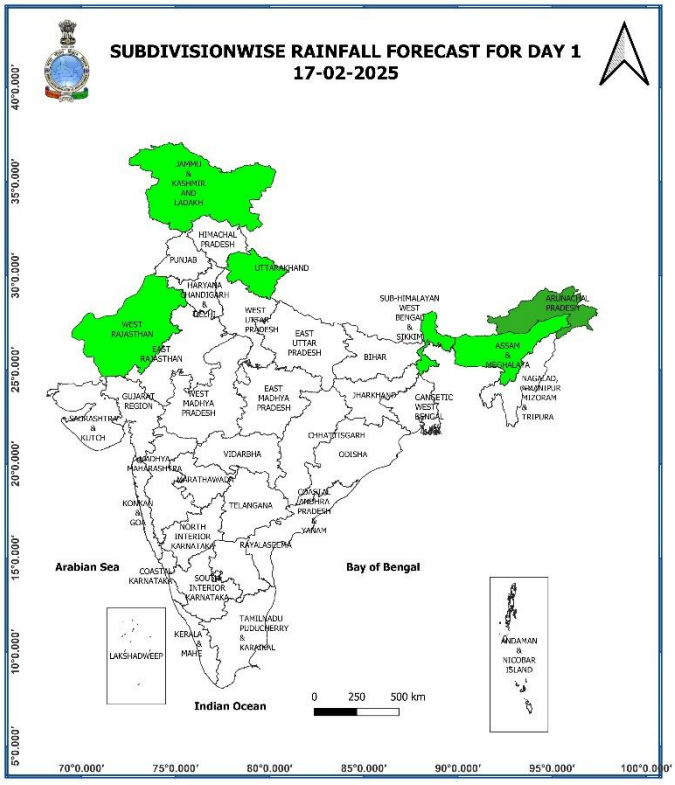
- **Minimum Temperature Departures (as on 16-02-2025):** Minimum temperatures were **appreciably above normal (3.1°C to 5.0°C)** at a few places over Rajasthan and Gujarat Region; at isolated places over Saurashtra & Kutch and West Madhya Pradesh; **above normal (1.6°C to 3.0°C)at many places over Punjab;** at a few places over Karnataka; at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, East Madhya Pradesh, Madhya Maharashtra, Gangetic West Bengal and Coastal Andhra Pradesh & Yanam. These were **appreciably below normal (-3.1°C to -5.0°C)** at isolated places over Tamil Nadu, Puducherry & Karaikal; **below normal (-1.6°C to -3.0°C)** at a few places over Chhattisgarh and Assam & Meghalaya and near normal over rest parts of the country **(Fig. 4)**. Yesterday, the **lowest minimum temperature** of **8.4°C** was reported at **Rohtak (Haryana)** over the plains of the country.

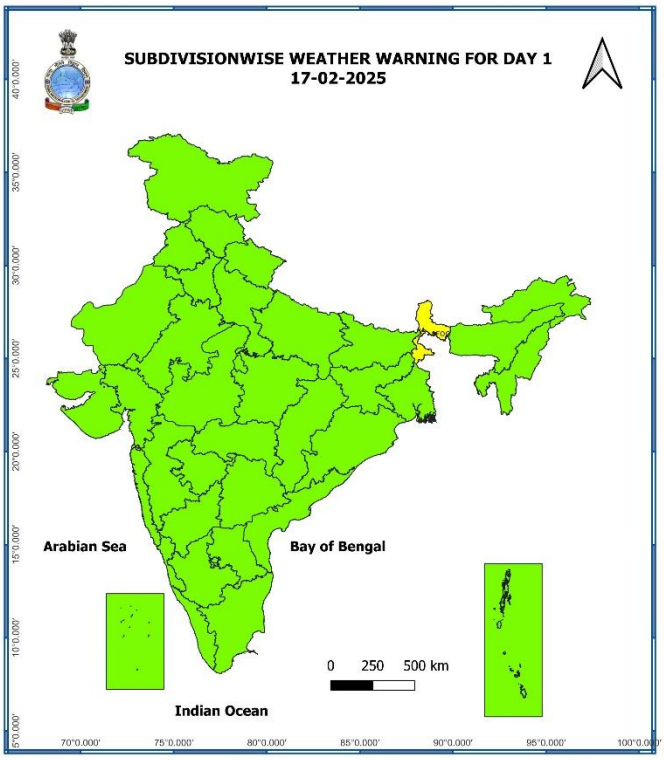
- **Maximum Temperature Departures (as on 16-02-2025**): Maximum temperatures were **markedly above normal (5.1°C or more)** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad and West Rajasthan; **appreciably above normal (3.1°C to 5.0°C)** at most places over Chhattisgarh; at many places over East Madhya Pradesh; at a few places over Vidarbha; at isolated places over East Rajasthan, East Uttar Pradesh, West Uttar Pradesh, Haryana-Chandigarh-Delhi, Himachal Pradesh, Gujarat state, West Madhya Pradesh, Konkan & Goa, Odisha, Gangetic West Bengal and Jharkhand; **above normal (1.6°C to 3.0°C)** at most places over Punjab, Telangana and North Interior Karnataka; at many places over Uttarakhand and Madhya Maharashtra; at a few places over Marathwada, Coastal Andhra Pradesh & Yanam and Coastal Karnataka; at isolated places over Rayalaseema, South Interior Karnataka, Tamil Nadu, Puducherry & Karaikal, km and Lakshadweep. These were **appreciably below normal (-3.1°C to -5.0°C)** at isolated places over Assam & Meghalaya and Sub-Himalayan West Bengal & Sikkim and near normal over rest parts of the country (Fig. 2). Yesterday, the highest **maximum temperature of 38.2°C** was reported at **Kurnool (Madhya Maharashtra)** over the country.

Meteorological Analysis (Based on 0530 hours IST)

- The **Western Disturbance** as a trough in middle tropospheric westerlies with its axis at 3.1 km above mean sea level now runs roughly along Long. 71°E to the north of Lat. 33°N.
- The **Induced cyclonic circulation** over Haryana & neighbourhood at 1.5 km above mean sea level persists.
- Subtropical **westerly Jet Stream** with core winds of the order of 110-120 knots at 12.6 km above mean sea level prevails over plains of Northwest India.
- The **cyclonic circulation** over northeast Assam & neighbourhood at 1.5 km above mean sea level persists.
- A fresh **Western Disturbance** is likely to affect Western Himalayan region from night of 18th February, 2025.

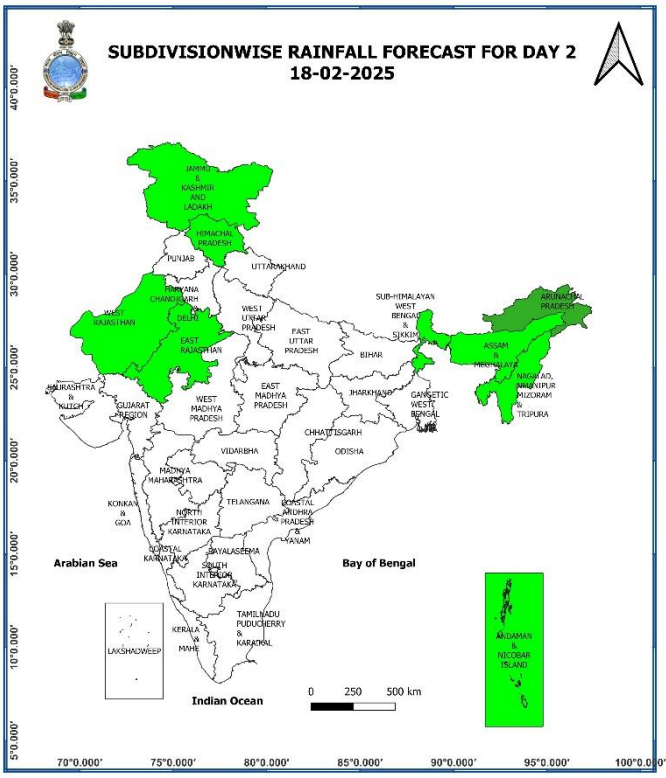
Weather Forecast & Warnings for next 7 days (Upto 0830 hours IST of 24th February, 2025)

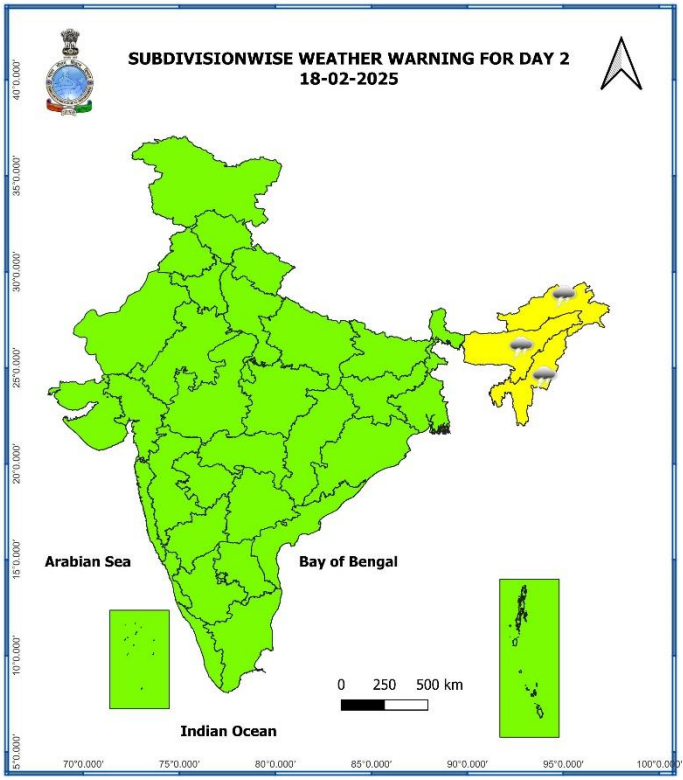




17th February (Day 1):

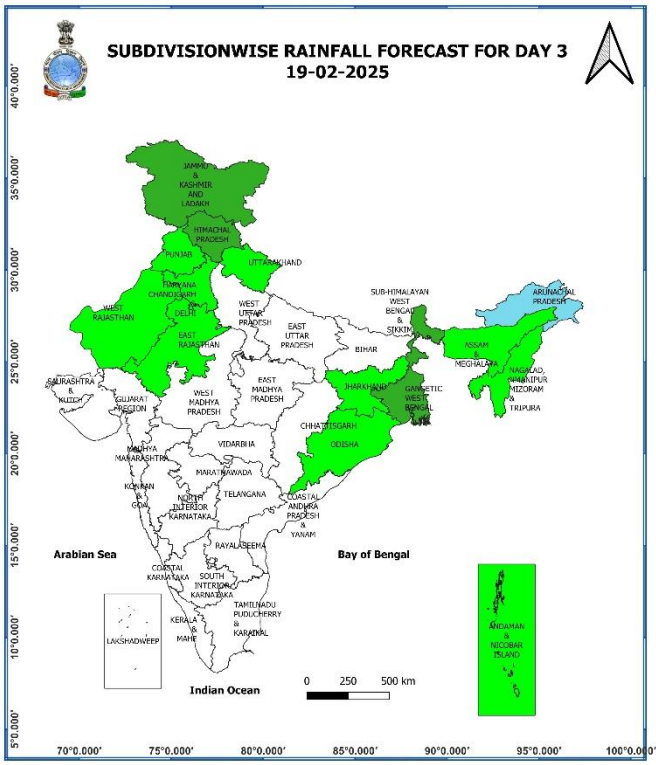
- **Dense fog conditions** very likely in isolated pockets of Sub-Himalayan West Bengal & Sikkim**.**

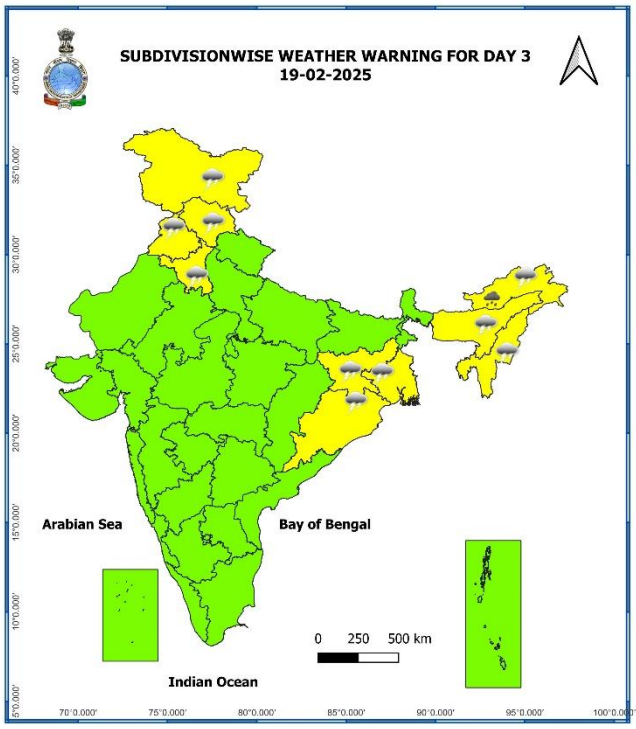




18th February (Day 2):

- **Thunderstorm accompanied with squally winds (30-40 kmph) & lightning** very likely at isolated places over Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura; **with lightning** at isolated places over Arunachal Pradesh.

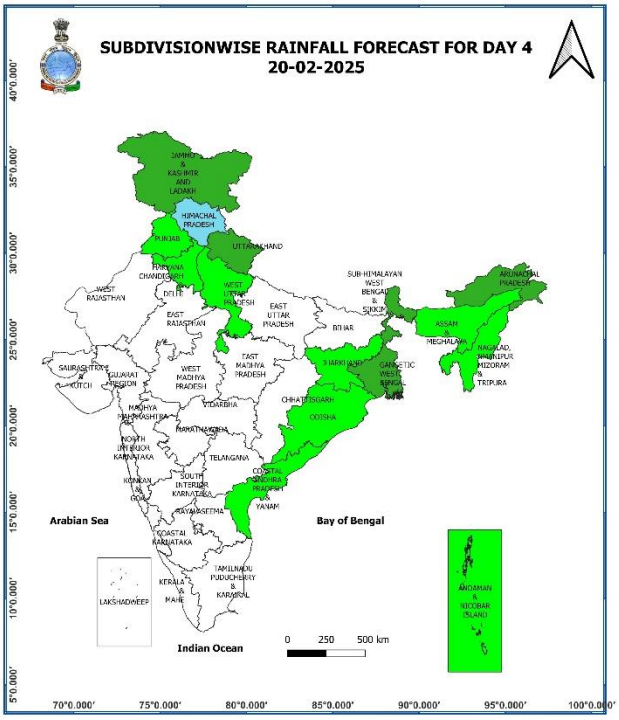


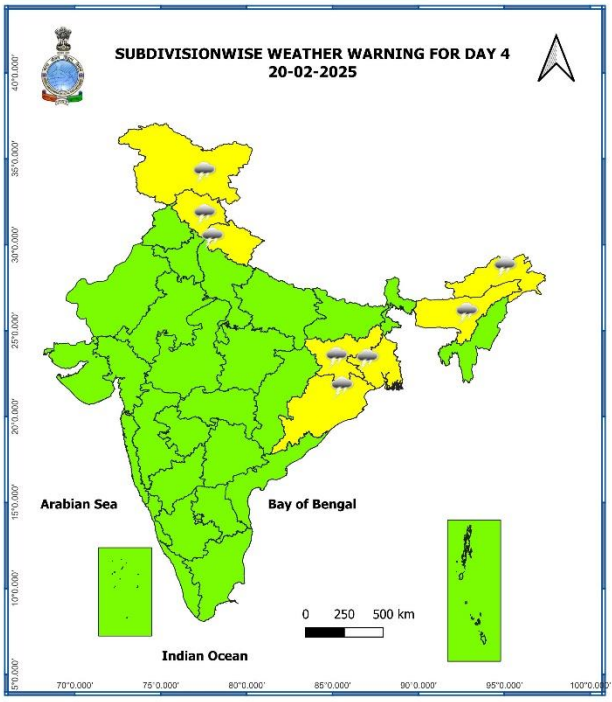


19th February (Day 3):

- **Heavy rainfall (≥7 cm)** likely at isolated places over Arunachal Pradesh.

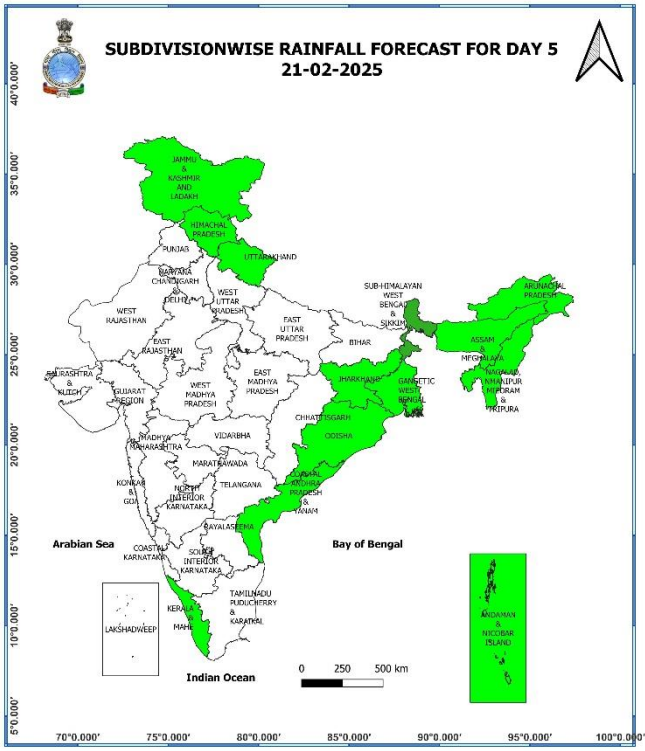
- **Thunderstorm accompanied with lightning** likely at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Punjab, Haryana-Chandigarh-Delhi, Gangetic West Bengal, Jharkhand, Odisha, Arunachal Pradesh, Nagaland, Manipur, Mizoram & Tripura and Assam & Meghalaya.

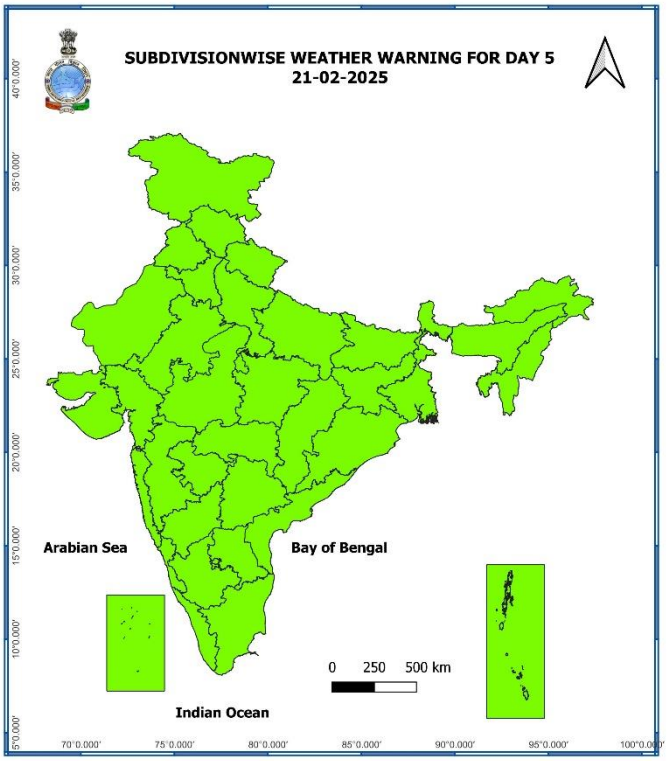




20th February (Day 4):

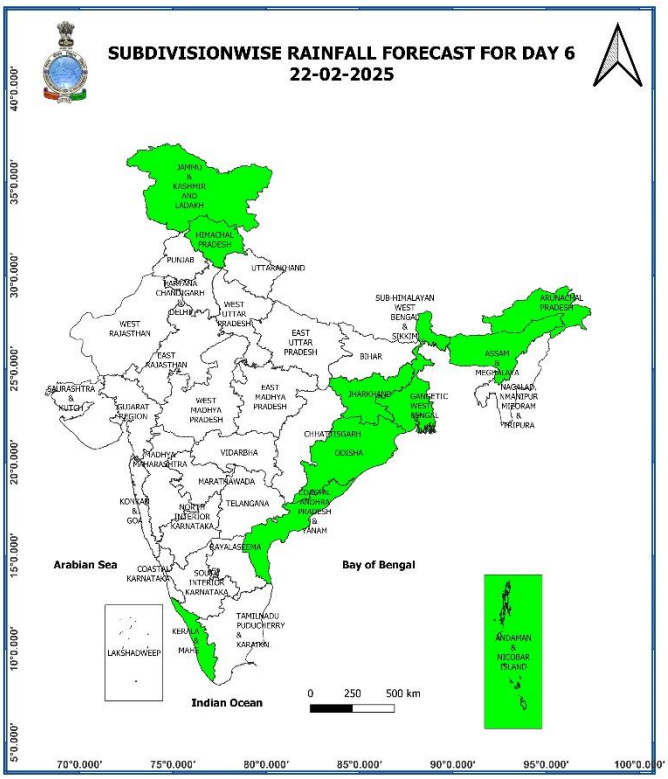
- **Thunderstorm accompanied with lightning** likely at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand, Gangetic West Bengal, Jharkhand, Odisha, Arunachal Pradesh and Assam & Meghalaya.

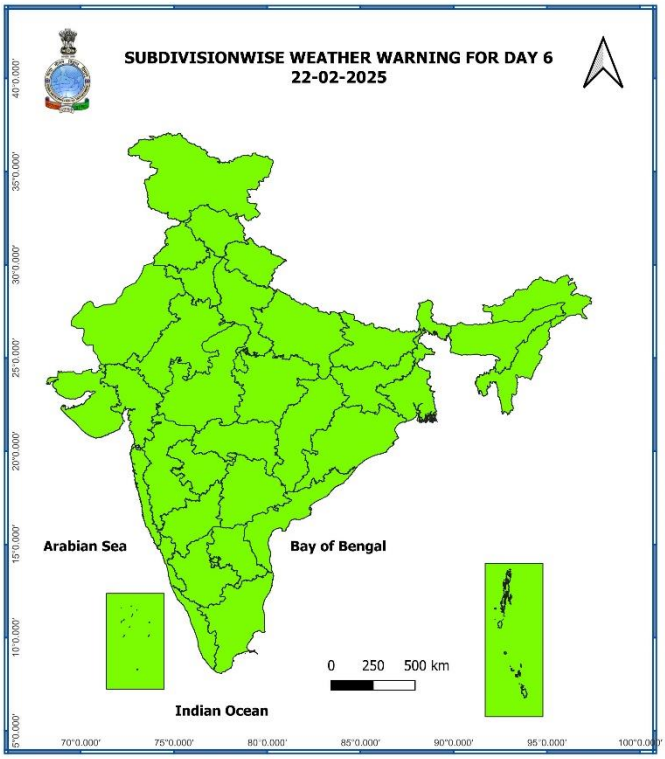




21st February (Day 5):

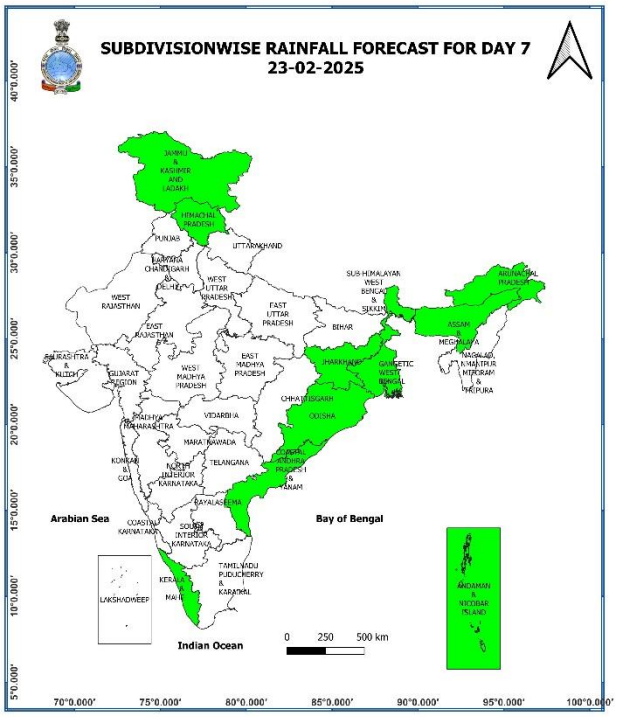
- **No Weather Warning.**

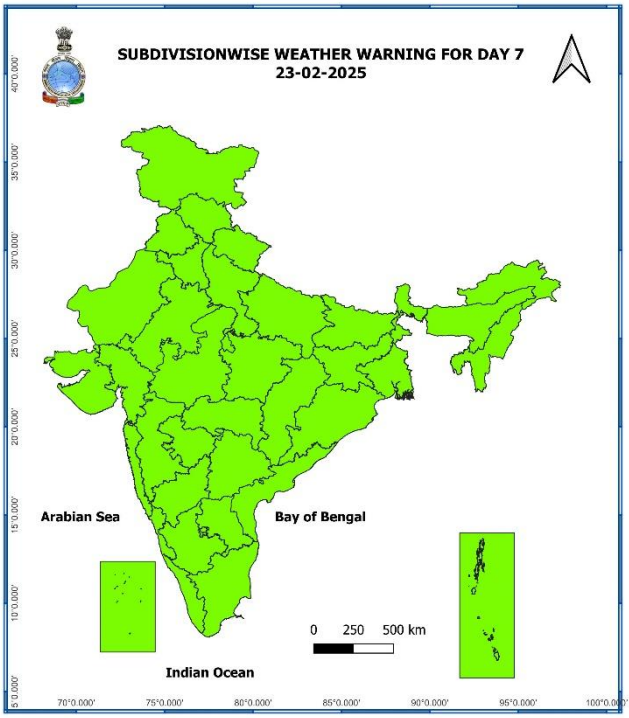




22nd February (Day 6):

- **No Weather Warning.**





23rd February (Day 7):

- **No Weather Warning.**

Weather Outlook for subsequent 3 days (During 24th February- 26th 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

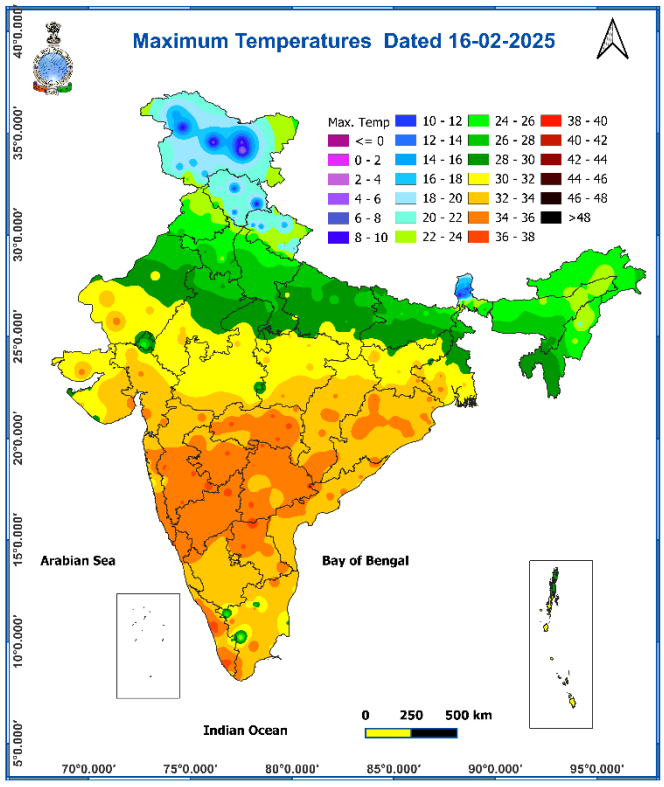


Fig. 2: Departure of Maximum Temperatures

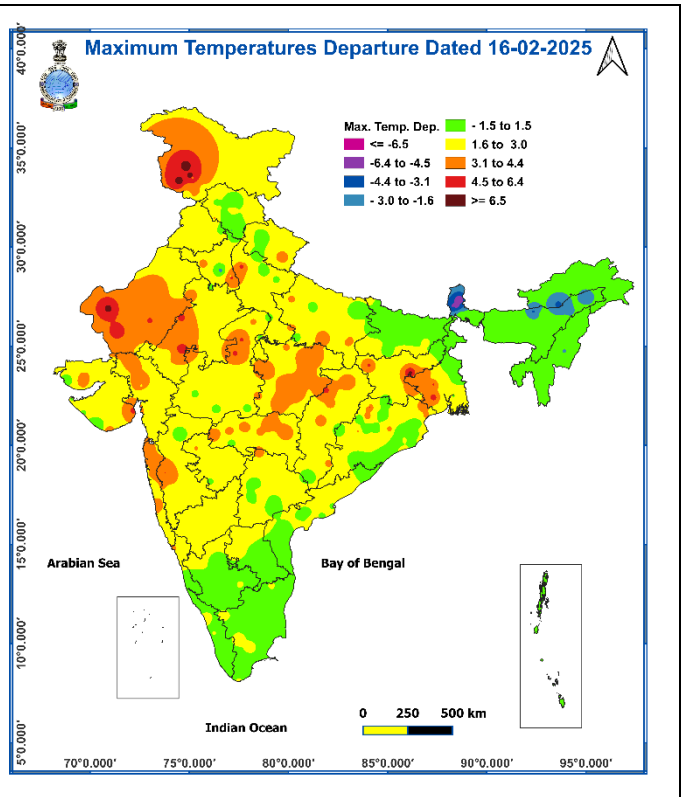


Fig. 3: Minimum Temperatures

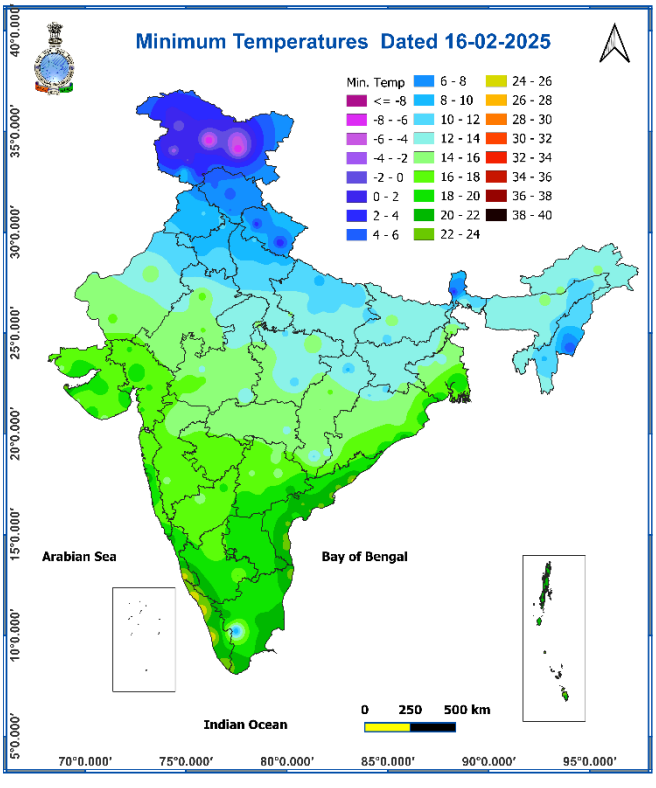
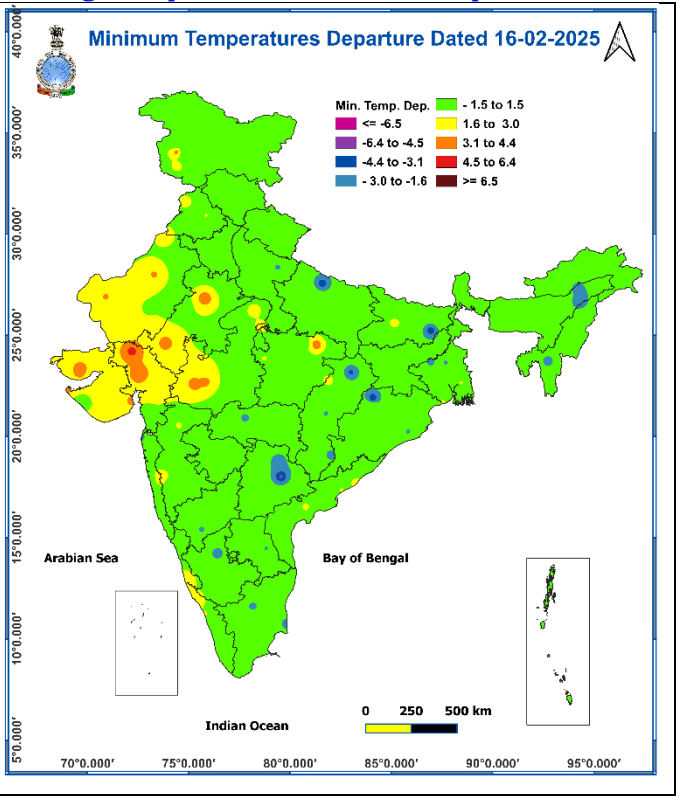


Fig. 4: Departure of Minimum Temperatures



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Likely Impact of prevailing above-normal temperatures on Agriculture

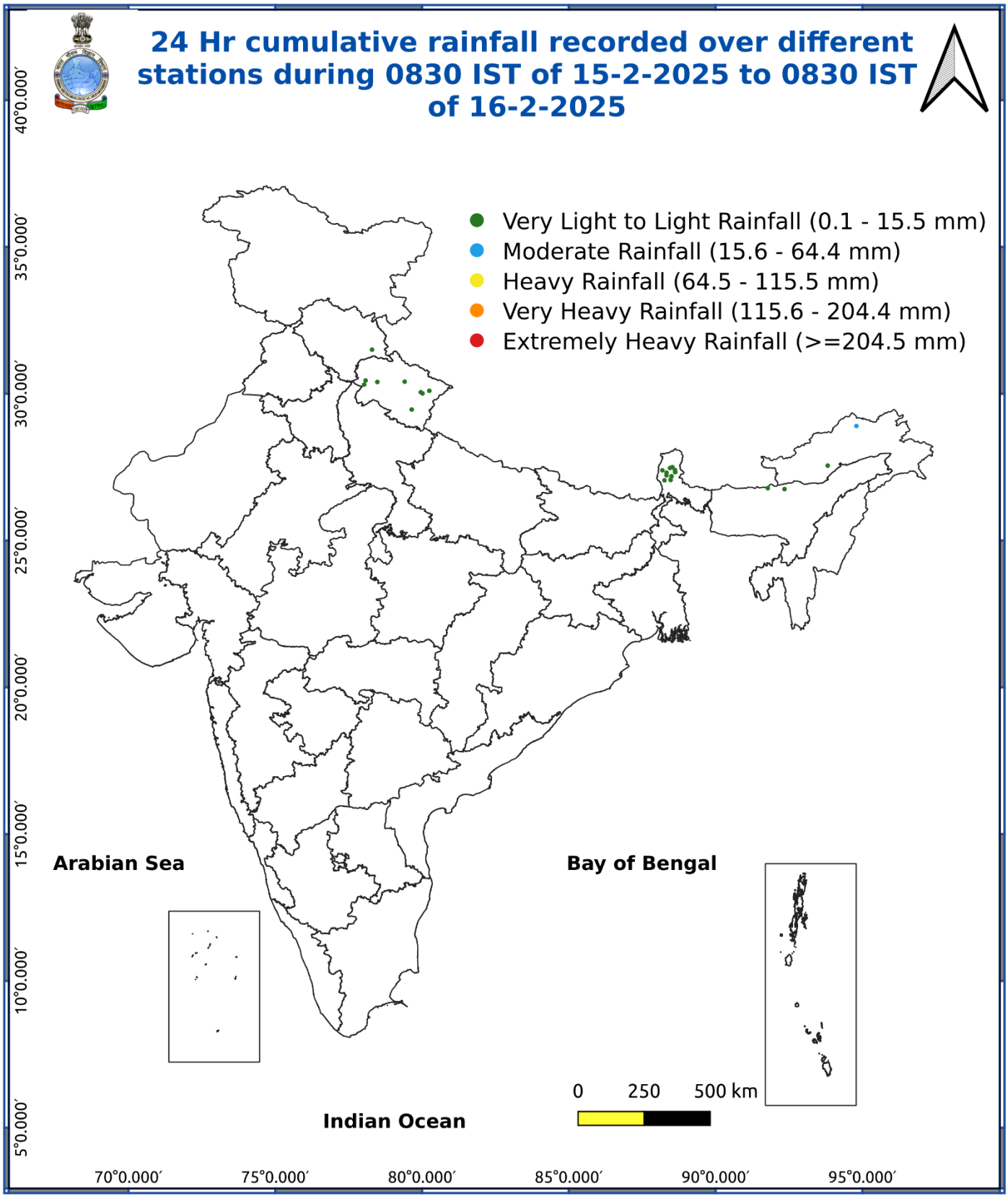
- Above normal temperatures in parts of Northwest and Central India may lead to forced maturity, sterile spikelets, and chaffy grains, reducing yields during critical growth stages like flowering and grain filling in crops like wheat and barley. Crops like mustard and chickpea may also experience early 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.

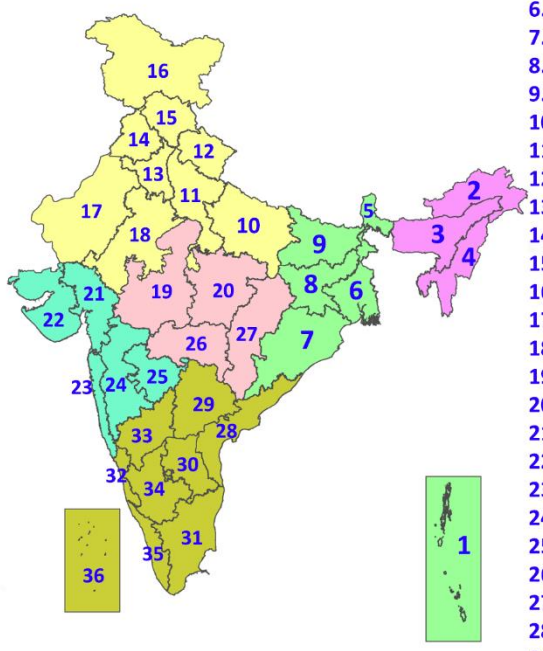
Chemical sprays like potassium chloride and mineral nutrients are recommended to manage heat stress.

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



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 Rain
Very Heavy Rain
Extremely Heavy Rain
Thunder & Lightning
Hailstorm
Dust Raising Winds
Heavy Snow
Dust Storm
Heat Wave
Warm Night
Hot Day
Hot & Humid
Strong Surface Winds
Cold Wave
Cold Day
Ground Frost

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

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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 ≥40° C for plains and ≥30° 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 ≥6.5° C **(b). Based on Actual maximum temperature** **Heat Wave:** When actual maximum temperature ≥45°C. **Severe Heat Wave:** When actual maximum temperature ≥47°C **(c). Criteria for heat wave for coastal stations** When maximum temperature departure is >4.5°C from normal. Heat Wave may be described provided maximum temperature ≥37°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 °C.
Cold Wave	**When minimum temperature of a station ≤10°C for plains and ≤0°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 ≤ -6.5 °C **(b) Based on actual Minimum Temperature (for Plains only)** **Cold Wave :** When Minimum Temperature is ≤ 4.0 °C **Severe Cold Wave:** When Minimum Temperature is ≤ 2.0 °C **(c) For Coastal Stations** When Minimum Temperature departure is ≤-4.5 °C & actual Minimum Temperature is ≤ 15 °C
Cold Day	**When minimum temperature of a station ≤10°C for plains and ≤0°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 ≤ -6.5 °C
Fog	**Phenomenon of small droplets suspended in air and the horizontal visibility < 1km** **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 ≤4°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)

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