

Friday, March 28, 2025
Time of Issue: 0800 hours IST
(MORNING)

ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

Significant Weather Features:

Weather Systems, Forecast and Warnings:

- ❖ A Western Disturbance as a trough in lower to upper tropospheric levels runs roughly along Long. 68°E to the north of Lat. 25°N. A cyclonic circulation lies over central Pakistan & neighbourhood and another over northeast Assam & neighbourhood in lower tropospheric levels. Under their influence:
 - ✓ **Scattered to fairly widespread** light/moderate rainfall accompanied with **thunderstorm, lightning** likely over Arunachal Pradesh, Assam & Meghalaya, Sub-Himalayan West Bengal & Sikkim on 28th & 29th March.
 - ✓ **Strong Surface winds (25-35 kmph)** very likely at isolated places over Punjab, West Uttar Pradesh, Haryana, Chandigarh & Delhi on 28th March.
 - ✓ **Dust raising winds (20-30 kmph)** very likely at isolated places over West Rajasthan on 28th March.
 - ✓ **Heavy rainfall/snowfall** likely at isolated places over Arunachal Pradesh on 28th & 29th March.
- ❖ A north-south trough runs from north Madhya Maharashtra to north Kerala across interior Karnataka in lower tropospheric levels. Under its influence:
 - ✓ **Isolated to scattered** light/moderate rainfall accompanied with **thunderstorm, lightning & gusty winds (speed 30-50 kmph)** likely over Madhya Maharashtra, North Interior Karnataka on 29th & 30th, Konkan & Goa on 29th; Marathawada on 30th; Kerala & Mahe, South Interior Karnataka during 28th -31st; Coastal Karnataka, Coastal Andhra Pradesh & Yanam on 30th & 31st March.

Temperature Forecast:

- ❖ Gradual fall in maximum temperatures by 3-5°C likely over Northwest India during next 3 days and rise by 2-3°C thereafter.
- ❖ Gradual rise in maximum temperatures by 2-3°C likely over East India during next 2 days and no significant change thereafter.
- ❖ No significant change in maximum temperatures over Gujarat state during next 3 days and rise by 2-3°C thereafter.
- ❖ Gradual fall in maximum temperatures by 2-3°C likely over Central India during next 3 days and no significant change thereafter.

Heat wave and Hot & Humid weather warning:

- ❖ **Heat wave conditions very likely in isolated pockets of interior Odisha during 28th-30th March.**
- ❖ **Hot & humid weather conditions very likely to prevail in isolated pockets of Coastal Andhra Pradesh & Yanam on 28th & 29th; coastal areas of Gujarat during 29th-31st March.**

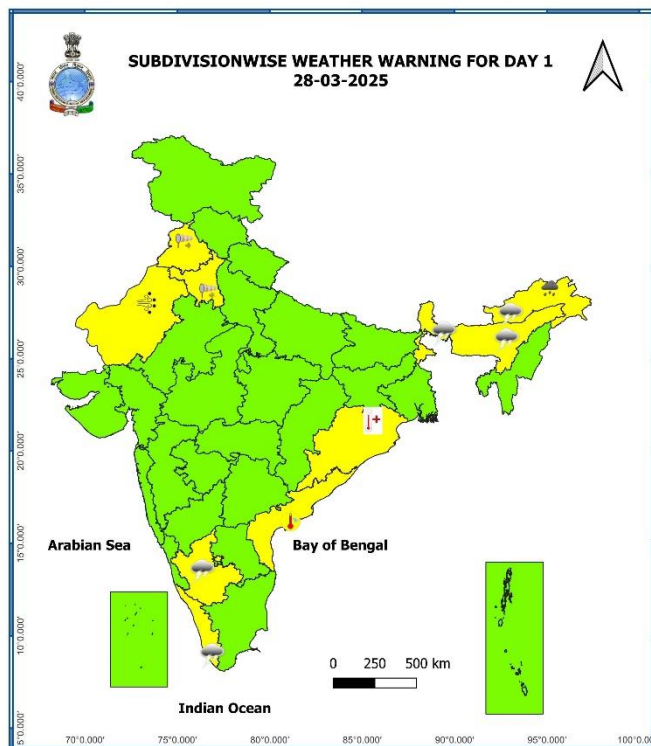
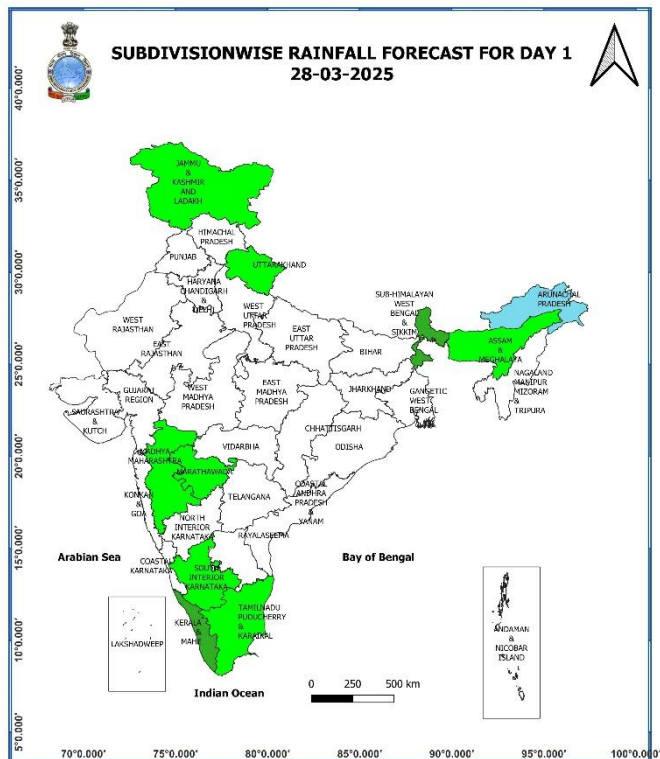
Main Weather Observations:

- ❖ **Rainfall distribution** (from 0830 hours IST to 1730 hours IST of yesterday): **at isolated places** over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, South Interior Karnataka and Kerala & Mahe.
- ❖ **Significant amount of rainfall** (from 0830 hours IST to 1730 hours IST of yesterday) (in cm): **NIL**
- ❖ **Minimum Temperature Departures (as on 27-03-2025):** Minimum temperatures were **markedly above normal (5.1°C or more)** at isolated places over Punjab, West Rajasthan; **appreciably above normal (3.1°C to 5.0°C)** at isolated places Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad and Himachal Pradesh; **above normal (1.6°C to 3.0°C)** at most places over Uttarakhand; at many places over Haryana-Chandigarh-Delhi, East Rajasthan; at a few places over Sub-Himalayan West Bengal & Sikkim, and Gujarat Region; at isolated places over Uttar Pradesh, Bihar, West Madhya Pradesh, Madhya Maharashtra, Saurashtra & Kutch. These were **below normal (-3.0°C to -1.6°C)** at isolated places over Gangetic West Bengal, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Odisha, Chhattisgarh, East Madhya Pradesh, Vidarbha and near normal over rest parts of the country (**Fig. 4**). Yesterday, the **lowest minimum temperature of 13.9°C** was reported at **Nahan (Himachal Pradesh)** over the plains of the country.
- ❖ **Maximum Temperature Departures (as on 27-03-2025):** Maximum Temperatures were **markedly above normal (5.1°C or more)** at isolated places over Himachal Pradesh; **appreciably above normal (3.1°C to 5.0°C)** at most places over Uttarakhand, Haryana-Chandigarh-Delhi; at many places over Punjab, East Uttar Pradesh; at a few places over West Uttar Pradesh, East Rajasthan, East Madhya Pradesh; at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Bihar, Jharkhand, West Madhya Pradesh, Gangetic West Bengal, Assam, ; **above normal (1.6°C to 3.0°C)** at many places over Odisha; at a few places over Coastal Andhra Pradesh & Yanam, Telangana, Lakshadweep; at isolated places over Chhattisgarh, Tamil Nadu, Puducherry & Karaikal. These were **appreciably below normal (-3.1°C to -5.0°C)** at isolated places over Gujarat state; **below normal (-3.0°C to -1.6°C)** at a few places over Konkan & Goa, South Interior Karnataka; at isolated places over Madhya Maharashtra, Kerala & Mahe and near normal over rest parts of the country (**Fig. 2**). Yesterday, the highest **maximum temperature of 42.0°C** was reported at **Ghoorpur (East Uttar Pradesh)** over the country.

Meteorological Analysis (Based on 0530 hours IST)

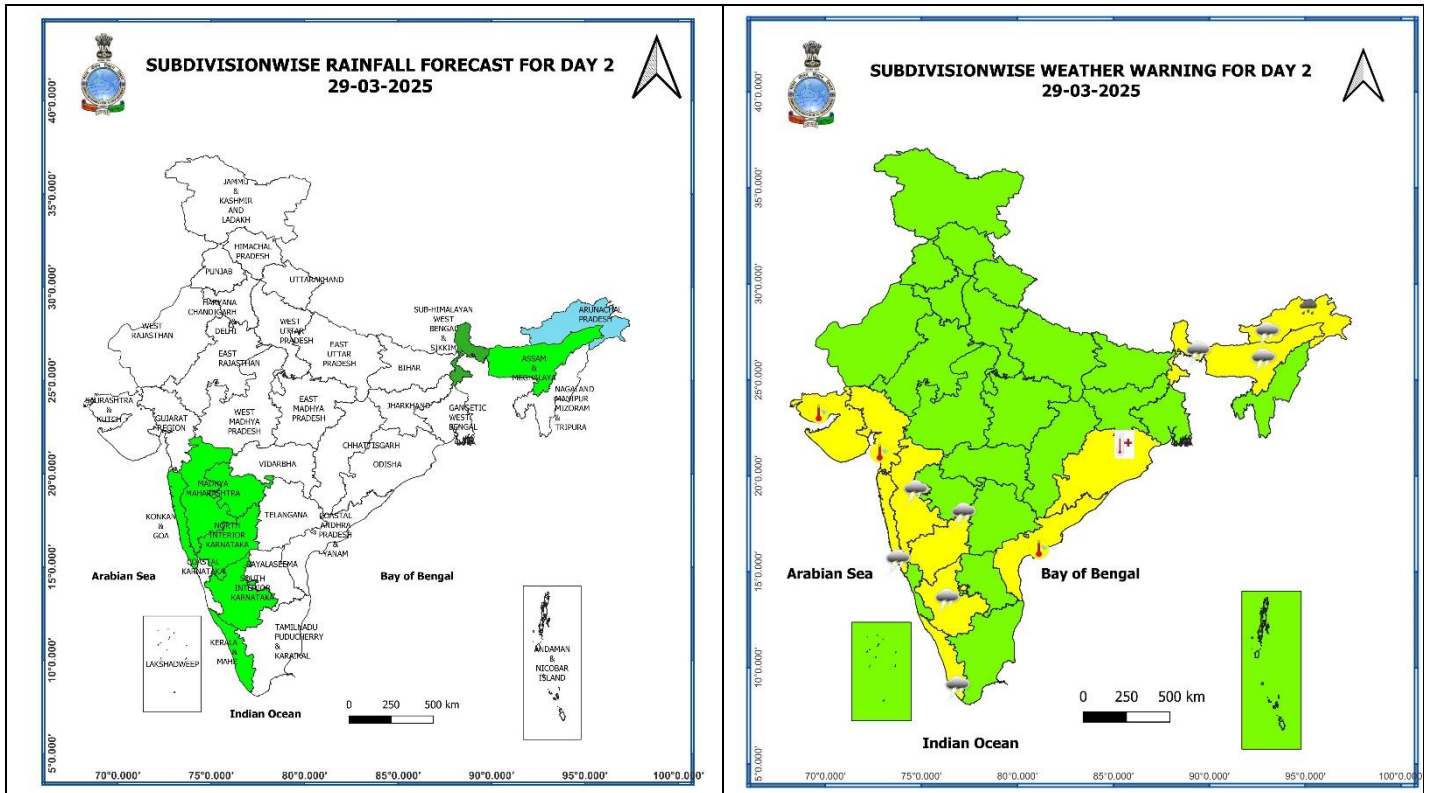
- ❖ The **Western Disturbance** as a trough in lower to upper tropospheric levels with its axis at 5.8 km above mean sea level now runs roughly along Long. 68°E to the north of Lat. 25°N.
- ❖ The upper air **cyclonic circulation** over central Pakistan & neighbourhood extending upto 1.5 km above mean sea level persists.
- ❖ The north-south **trough** from north Madhya Maharashtra to north Kerala across interior Karnataka at 0.9 km above mean sea level persists.
- ❖ The **cyclonic circulation** over northeast Assam & neighbourhood between 1.5 & 3.1 km above mean sea level persists.

Weather Forecast & Warnings for next 7 days (Upto 0830 hours IST of 03rd April, 2025)



28th March (Day 1):

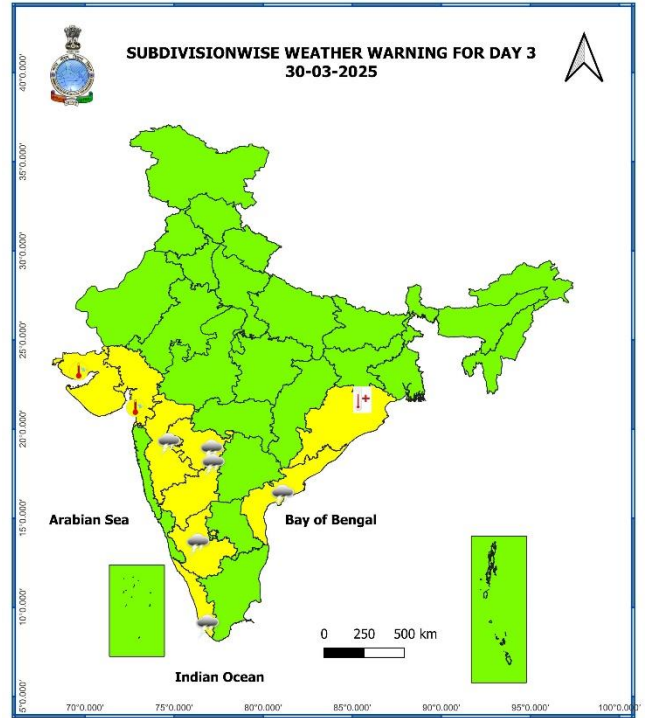
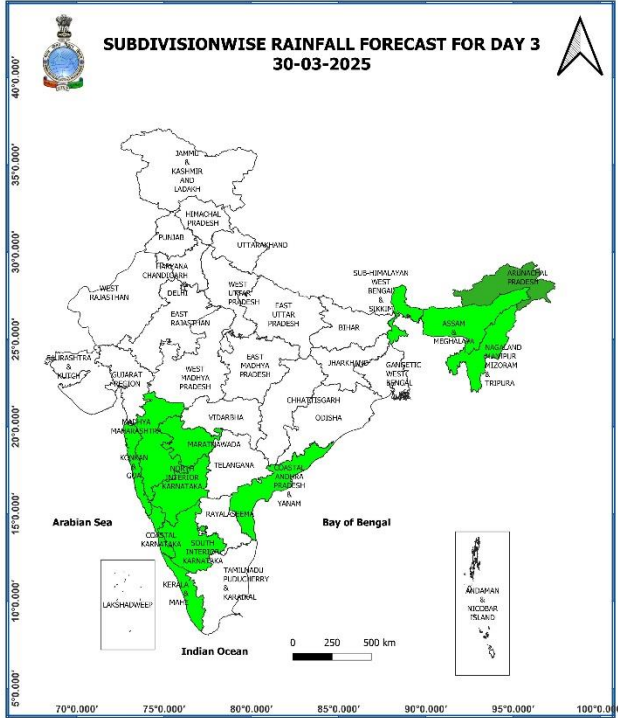
- ❖ **Heavy rainfall/snowfall** very likely at isolated places over Arunachal Pradesh.
- ❖ **Thunderstorm accompanied with lightning & gusty winds (speed reaching 30 - 40 kmph)** at isolated places over Coastal Kerala & Mahe, South Interior Karnataka; **with lightning** at isolated places over Arunachal Pradesh, Assam & Meghalaya, Sub-Himalayan West Bengal & Sikkim.
- ❖ **Heat wave conditions** very likely at isolated places over Interior Odisha.
- ❖ **Hot and Humid Conditions** very likely at isolated places over Coastal Andhra Pradesh & Yanam.
- ❖ **Dust raising winds (speed reaching 20 - 30 kmph)** very likely at isolated places over West Rajasthan



29th March (Day 2):

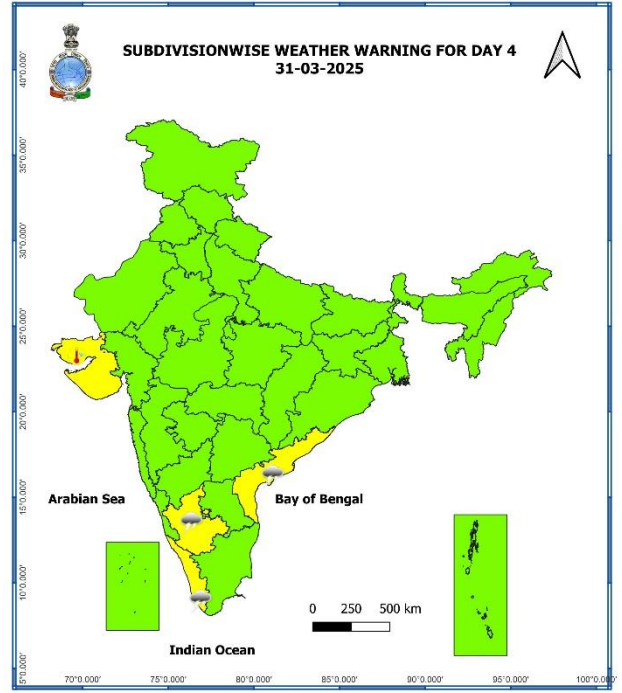
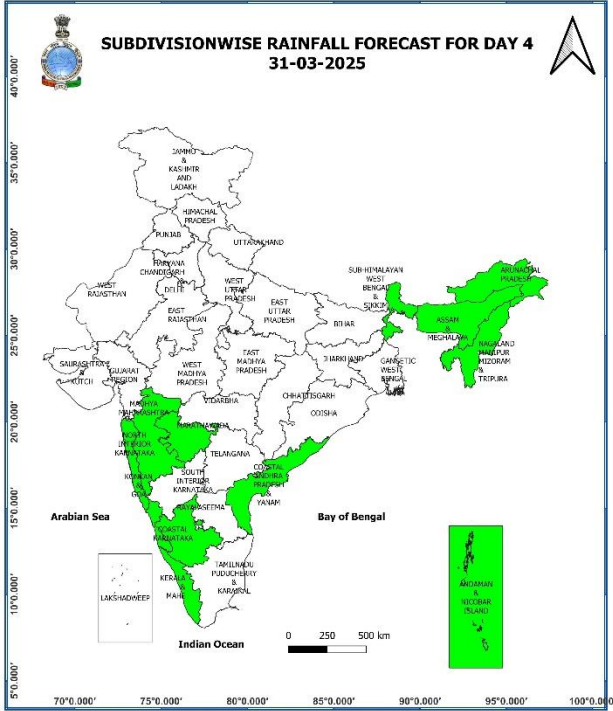
- ❖ **Heavy rainfall/snowfall** very likely at isolated places over Arunachal Pradesh.
- ❖ **Thundersquall (speed reaching 50 - 60 kmph) & lightning** very likely at isolated places over Madhya Maharashtra; **Thunderstorm accompanied with lightning & gusty winds (speed reaching 40 - 50 kmph)** at isolated places over North Interior Karnataka; **with lightning & gusty winds (speed reaching 30 - 40 kmph)** at isolated places over Konkan & Goa and **with lightning** at isolated places over Arunachal Pradesh, Assam & Meghalaya, Sub-Himalayan West Bengal & Sikkim, Kerala & Mahe and South Interior Karnataka.
- ❖ **Heat wave conditions** very likely at isolated places over Interior Odisha.
- ❖ **Hot and Humid Conditions** very likely at isolated places over Coastal Andhra Pradesh & Yanam and coastal areas of Gujarat state.

*** 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
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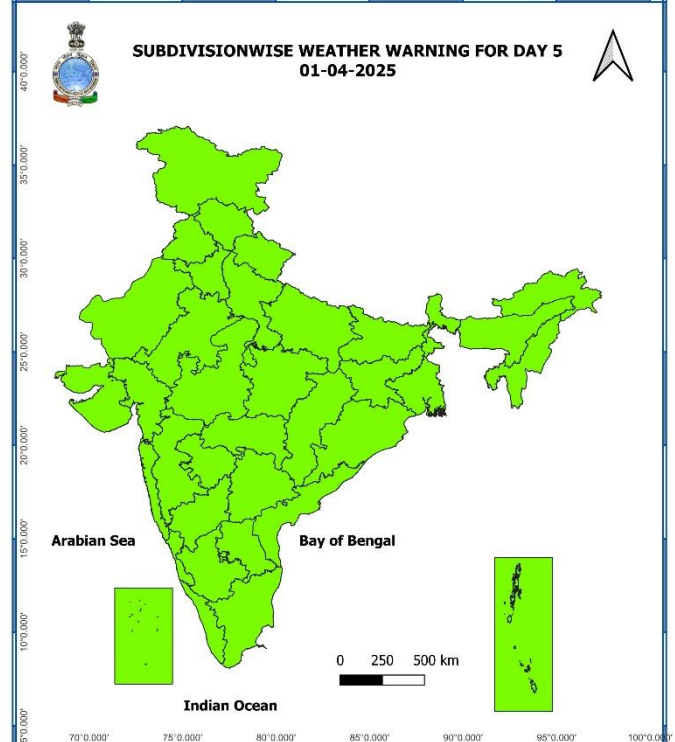
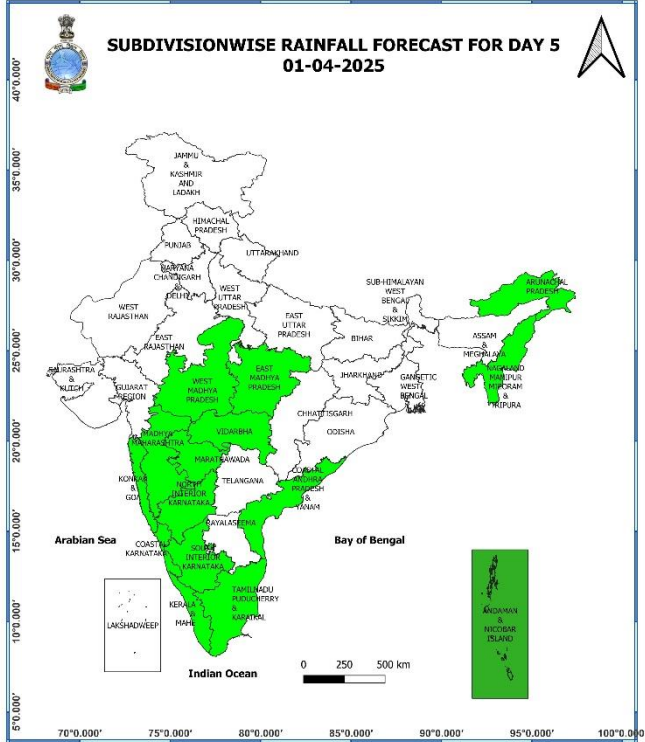
30th March (Day 3):

- ❖ **Thunderstorm accompanied with lightning & gusty winds (speed reaching 40 - 50 kmph)** likely at isolated places over Madhya Maharashtra, North Interior Karnataka; **with lightning & gusty winds (speed reaching 30 - 40 kmph)** at isolated places over Marathwada and **with lightning** at isolated places over Kerala & Mahe, Coastal Andhra Pradesh & Yanam, Coastal Karnataka and South Interior Karnataka.
- ❖ **Heat wave conditions** likely at isolated places over interior Odisha.
- ❖ **Hot and Humid Conditions** likely at isolated places over coastal areas of Gujarat state.



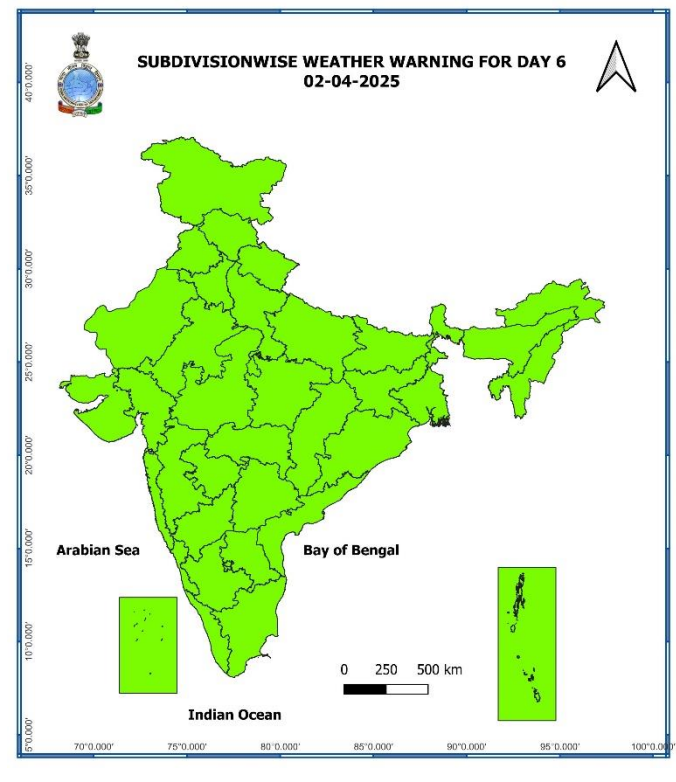
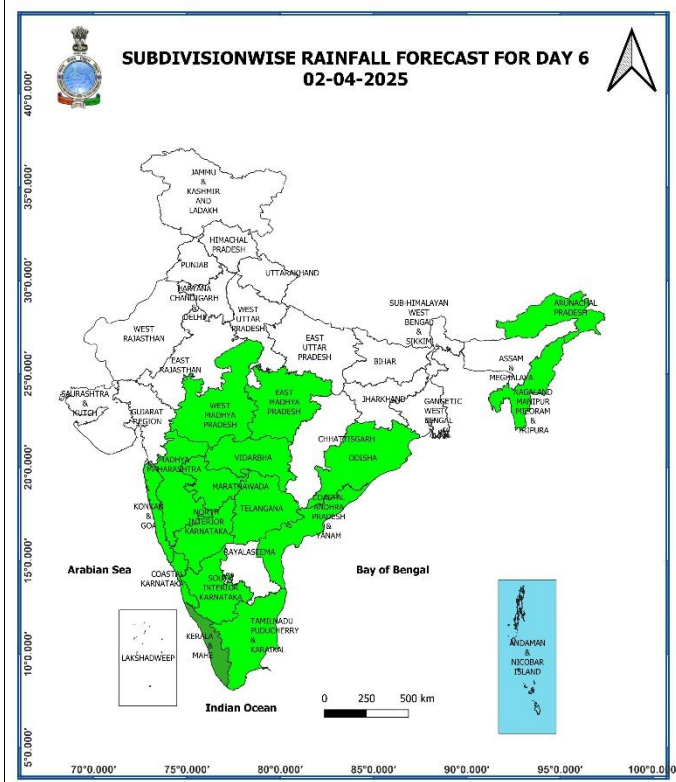
31st March (Day 4):

- ❖ **Thunderstorm accompanied with lightning** likely at isolated places over Kerala & Mahe, Coastal Andhra Pradesh & Yanam, Coastal Karnataka and South Interior Karnataka.
- ❖ **Hot and Humid Conditions** likely at isolated places over coastal areas of Gujarat state.



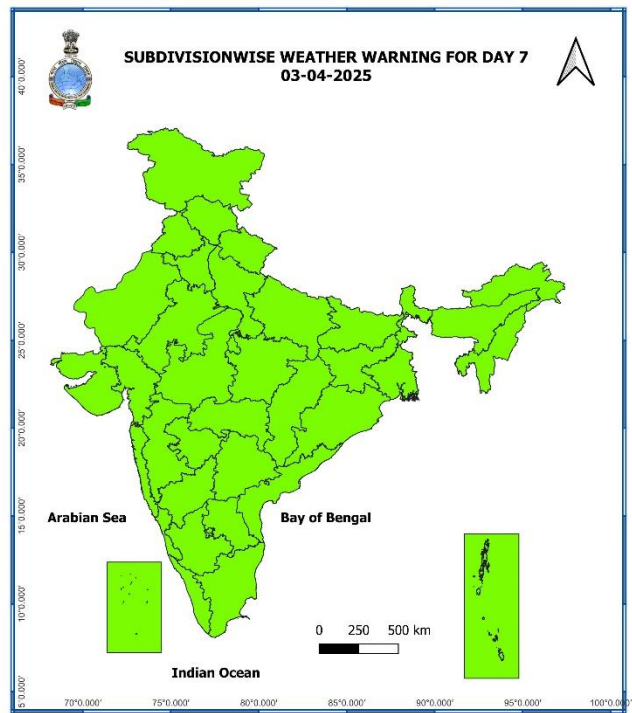
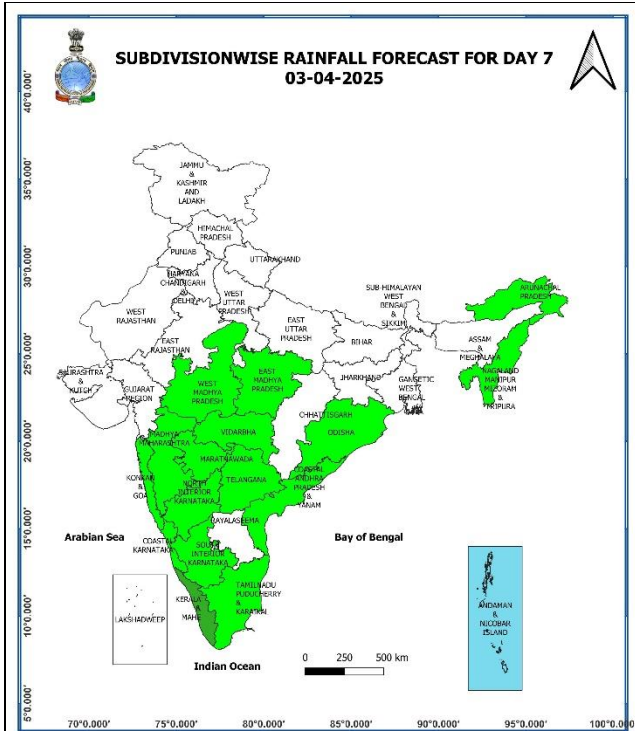
01st April (Day 5):

❖ **No warning.**



02nd April (Day 6):

❖ **No warning.**



03rd April (Day 7):

❖ **No warning.**

Weather Outlook for subsequent 3 days (During 04th April- 06th April, 2025)

❖ **Isolated to scattered rainfall** likely over central India, Arunachal Pradesh, Andaman & Nicobar Islands, Odisha and south peninsular 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

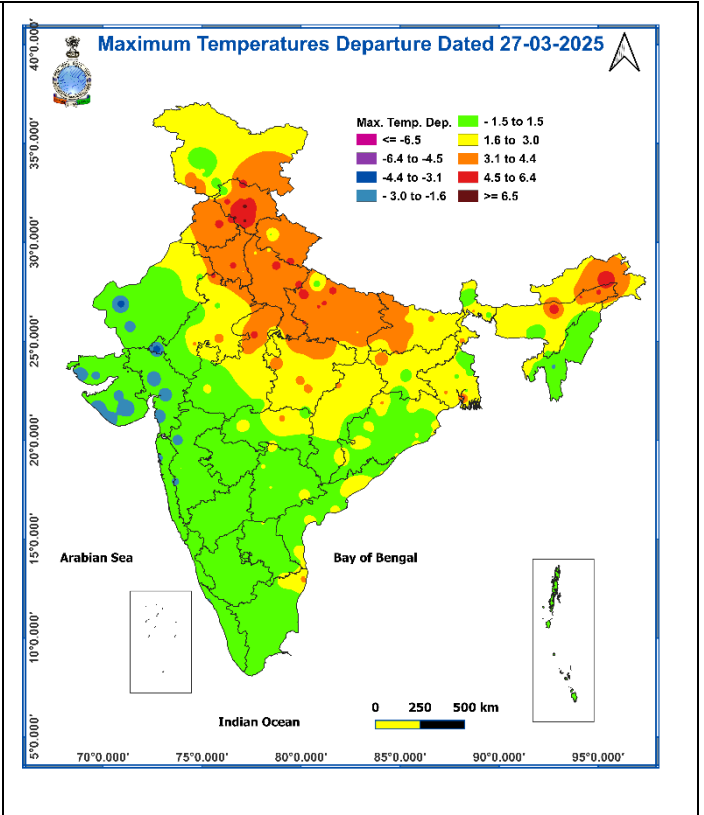
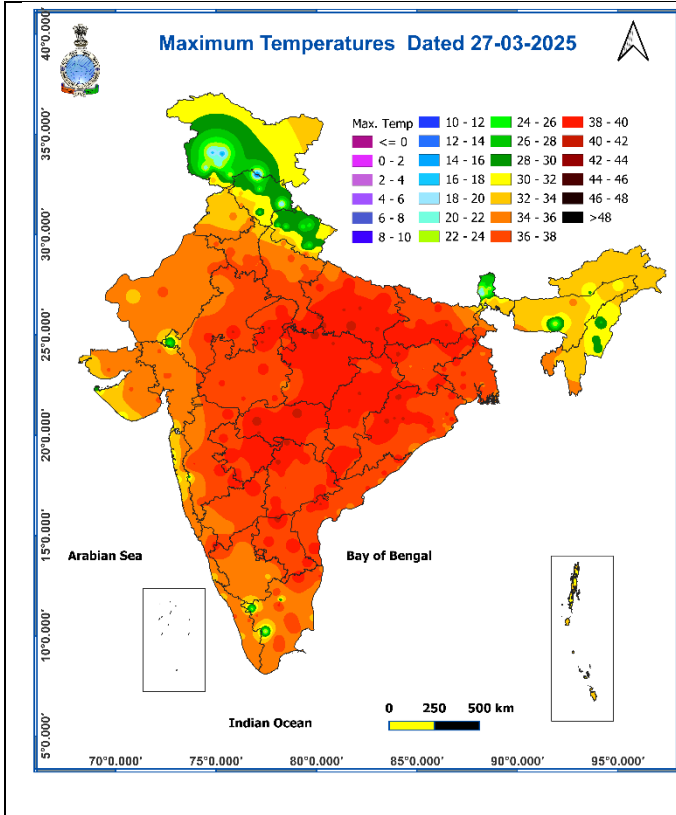


Fig. 3: Minimum Temperatures

Fig. 4: Departure of Minimum Temperatures

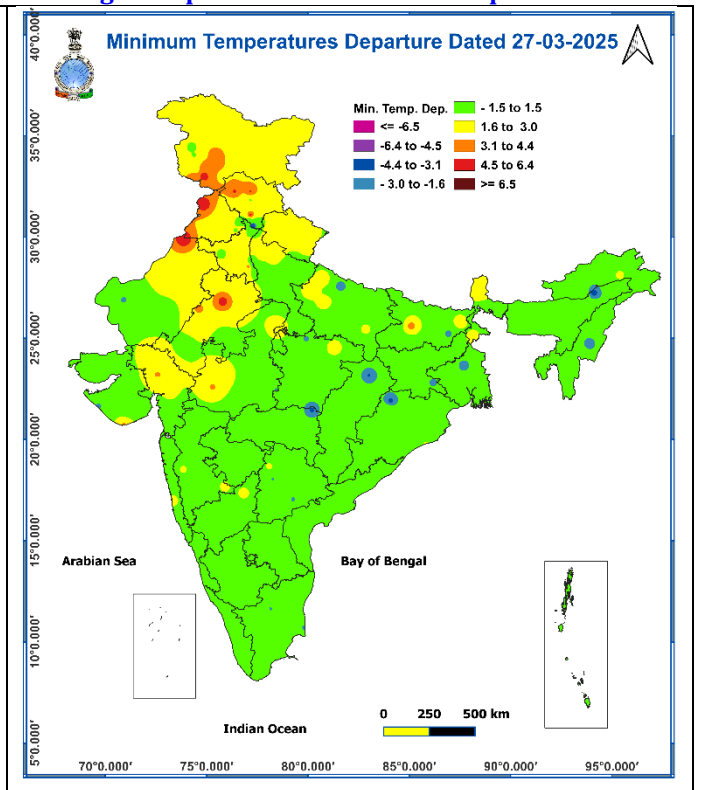
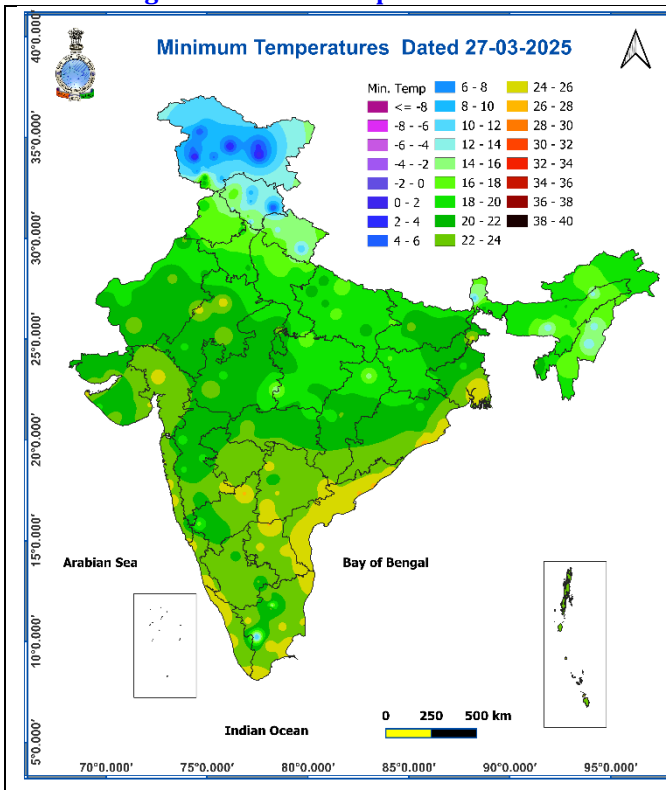
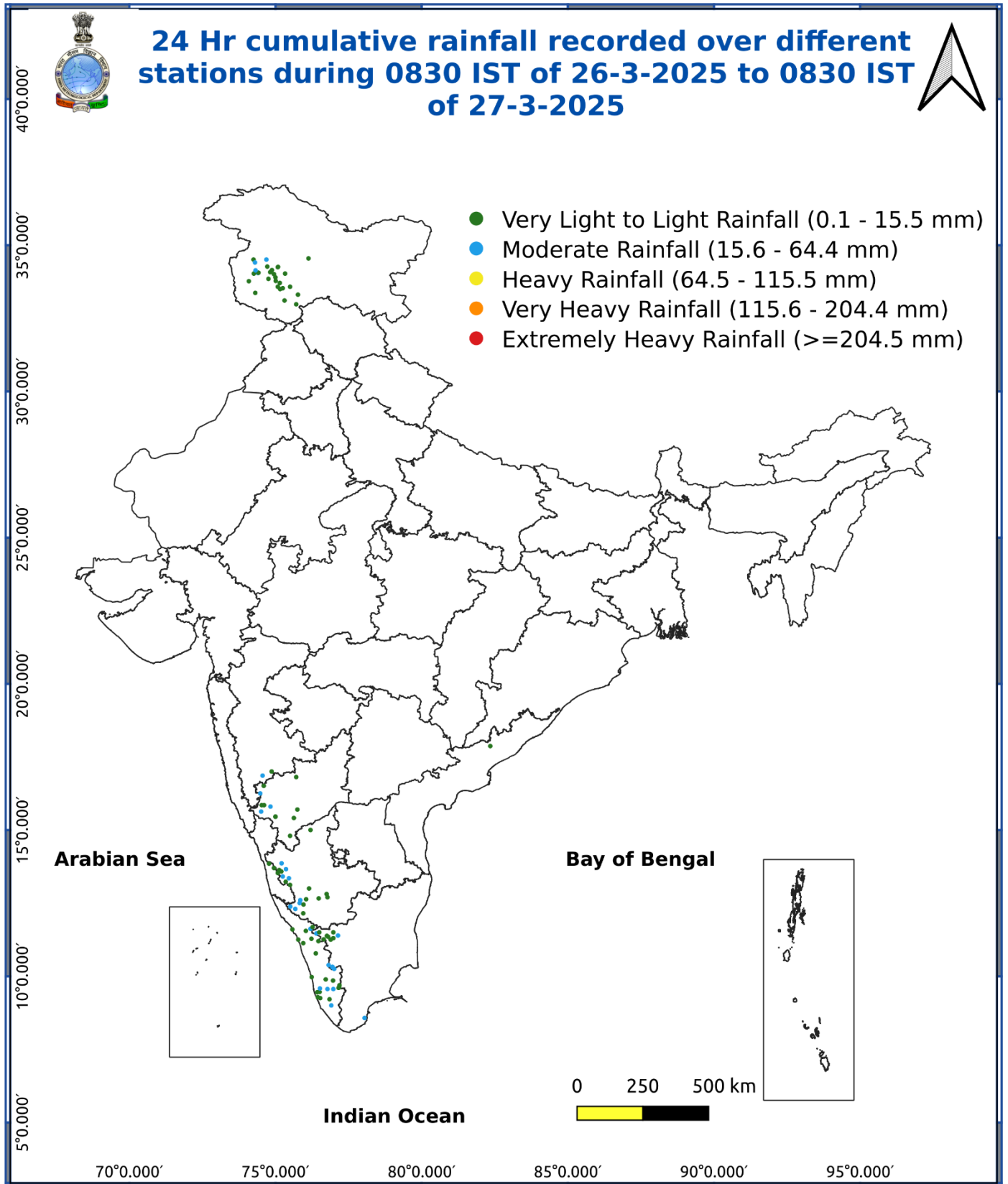


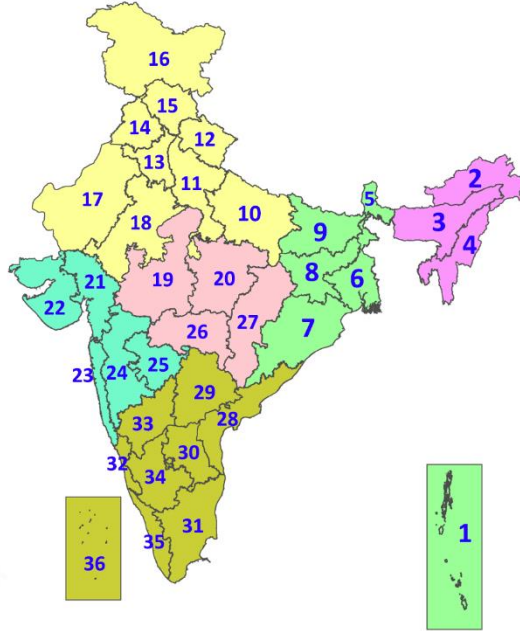
Fig. 5: Accumulated Rainfall (mm) during past 24 hours



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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)

Hot and Humid: When maximum temperatures remains 3°C above normal along with the above normal relative humidity.