

Tuesday, March 4, 2025
Time of Issue: 0800 hours IST
(MORNING)

ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

Significant Weather Features:

Weather Systems, Forecast and warning:

- ❖ A Western Disturbance as a trough in lower to upper tropospheric levels with its axis at 5.8 km above mean sea level runs roughly along Long. 65°E to the north of Lat. 28°N. There is Divergence of the order of $20-30 \times 10^{-6} \text{ s}^{-1}$ in forward sector of the trough over Western Himalayas region. Under its influence;
- ❖ **Fairly widespread to widespread** light/moderate rainfall/snowfall accompanied with isolated **thunderstorms and lightning** very likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh on 04th; also isolated to scattered light/moderate rainfall/snowfall over Uttarakhand on 04th.
- ❖ A fresh **Western Disturbance** is likely to affect western Himalayan region from 09th March, 2025. Under its influence;
- ❖ **Isolated to Scattered** light/moderate rainfall/snowfall likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh & Uttarakhand on 09th March.
- ❖ A cyclonic circulation lies over northeast Assam & neighbourhood in lower tropospheric levels.

Forecast of temperature:

Maximum temperature:

- ❖ Gradual fall in maximum temperatures by about 2-3°C likely over Rajasthan during next 3 days and gradual rise by 2-3°C during subsequent 2 days.
- ❖ No significant change in maximum temperatures likely over Gujarat region during next 24 hours and gradual fall by about 2-3°C thereafter.
- ❖ No significant change in maximum temperatures likely over rest parts of India during next 4-5 days.

Heat Wave and Hot & Humid weather warnings:

- ❖ **Hot and humid weather** very likely to prevail over Konkan & Goa on during 04th 06th; Coastal Karnataka during 04th-07th March.

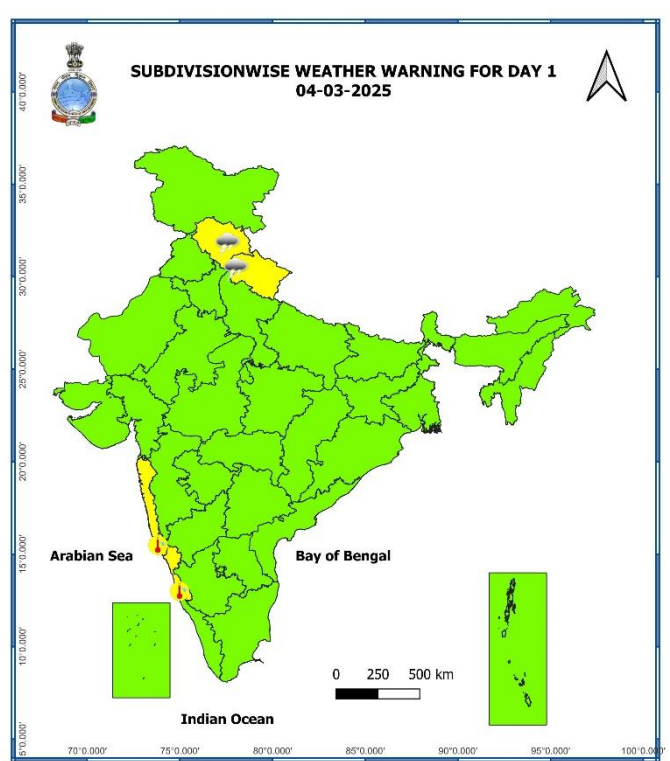
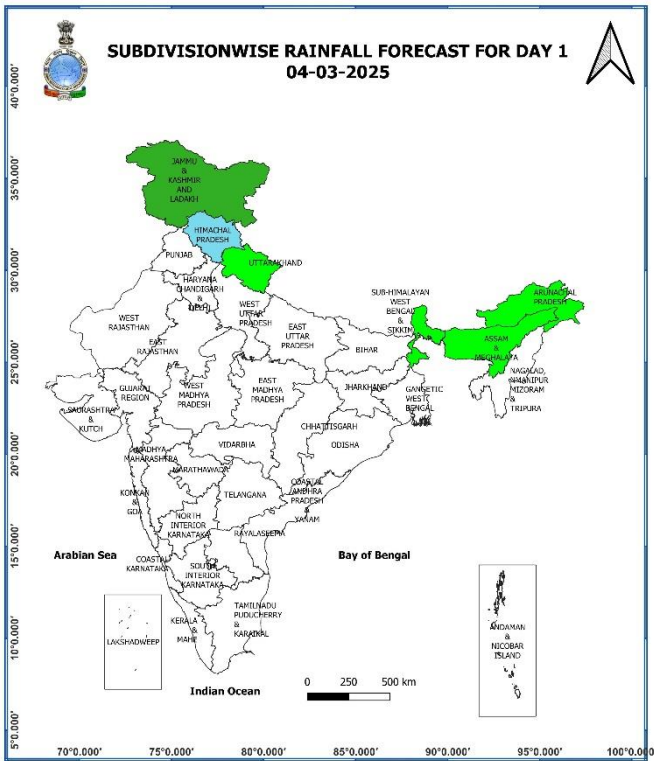
Main Weather Observations:

- ❖ **Rainfall/snowfall distribution** (from 0830 hours IST to 1730 hours IST of yesterday): **at most places** over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad and Himachal Pradesh.
- ❖ **Rainfall distribution** (from 0830 hours IST to 1730 hours IST of yesterday): **at a few places** over Punjab; **at isolated places** over Assam & Meghalaya.
- ❖ **Significant amount of rainfall** (from 0830 hours IST to 1730 hours IST of yesterday) (in cm): **Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad:** Banihal & Batote 3 each; **Himachal Pradesh:** Bhuntar 2.
- ❖ **Minimum Temperature Departures (as on 03-03-2025):** Minimum temperatures were **markedly above normal (5.1°C or more)** at isolated places over Nagaland, Manipur, Mizoram & Tripura; **appreciably above normal (3.1°C to 5.0°C)** at isolated places over Gangetic West Bengal, Bihar and Jharkhand; **above normal (1.6°C to 3.0°C)** at many places over Odisha, Chhattisgarh, Konkan & Goa, Madhya Maharashtra, Marathwada, Rayalaseema, Coastal & South Interior Karnataka, Kerala & Mahe and Tamil Nadu, Puducherry & Karaikal; at a few places over Assam & Meghalaya; at isolated places over Arunachal Pradesh, East Madhya Pradesh, East Uttar Pradesh, Coastal Andhra Pradesh & Yanam, Rajasthan and Sub-Himalayan West Bengal & Sikkim. These were **markedly below normal (-5.1°C or less)** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad; **below normal (-3.0°C to -1.6°C)** at many places over Haryana-Chandigarh-Delhi; at isolated places over West Uttar Pradesh and West Madhya Pradesh and near normal over rest parts of the country. **(Fig. 4).** Yesterday, the **lowest minimum temperature of 8.0°C** was reported **Karnal (Haryana)** over the plains of the country.
- ❖ **Maximum Temperature Departures (as on 03-03-2025):** Maximum temperatures were **appreciably above normal (3.1°C to 5.0°C)** at a few places over Delhi; at isolated places over Madhya Maharashtra, Odisha and Gangetic West Bengal; **above normal (1.6°C to 3.0°C)** at most places over Coastal Andhra Pradesh & Yanam and Rayalaseema; at many places over Telangana and North Interior Karnataka; at a few places over Uttarakhand, Chhattisgarh, Jharkhand, Saurashtra & Kutch, Konkan & Goa and Coastal Karnataka; at isolated places over East Uttar Pradesh, Haryana-Chandigarh, Gujarat Region, East Madhya Pradesh, Vidarbha, Assam & Meghalaya, Kerala & Mahe, Tamil Nadu, Puducherry & Karaikal and Lakshadweep. These were **markedly below normal (-5.1°C or less)** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad and Himachal Pradesh; **appreciably below normal (-3.1°C to -5.0°C)** at a few places over Punjab and near normal over rest parts of the country **(Fig. 2).** Yesterday, the highest **maximum temperature of 39.5°C** was reported at **Kurnool (Rayalaseema)** over the country.

Meteorological Analysis (Based on 0530 hours IST)

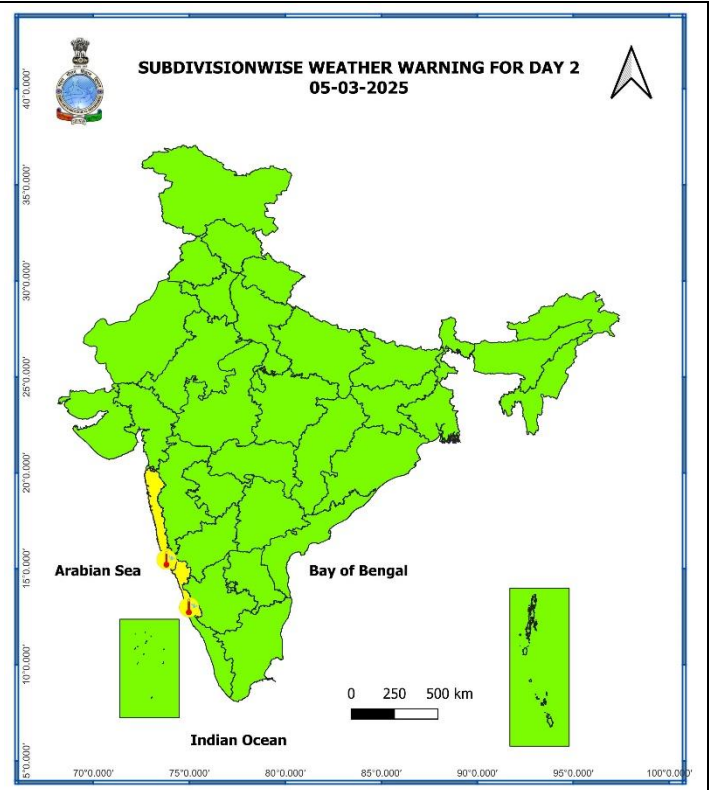
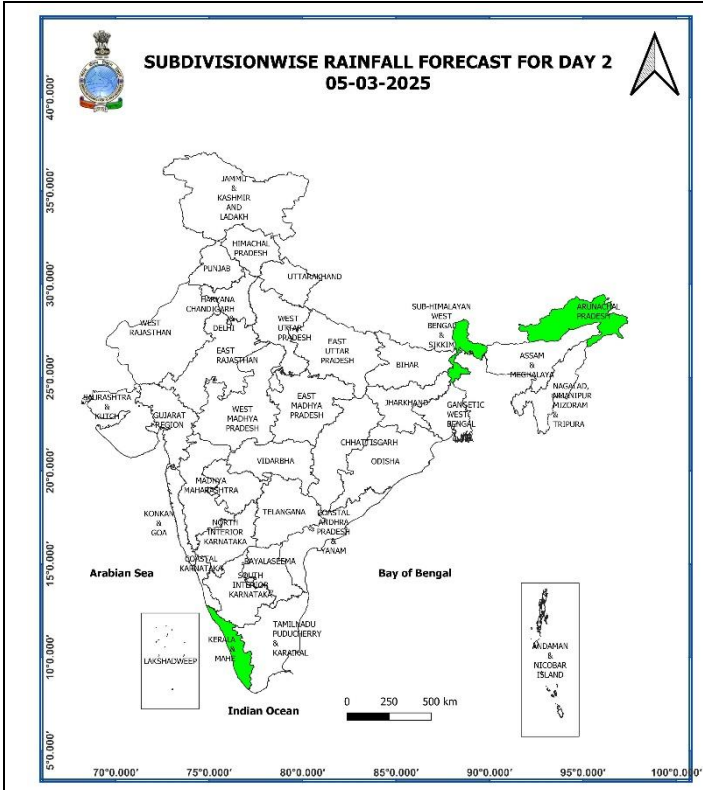
- ❖ The **Western Disturbance** as a trough in lower to upper tropospheric levels with its axis at 5.8 km above mean sea level now runs roughly along Long. 65°E to the north of Lat. 28°N. There is a **Divergence** of the order of $20-30 \times 10^{-6} \text{ s}^{-1}$ in forward sector of the trough over Western Himalayan region.
- ❖ The upper air **cyclonic circulation** over West Equatorial Indian Ocean & adjoining Maldives area extending upto 5.8 km above mean sea level tilting southwestwards with height persists.
- ❖ The **cyclonic circulation** over Gulf of Mannar & neighbourhood at 0.9 km above mean sea level persists.
- ❖ The **cyclonic circulation** over northeast Assam & neighbourhood extending upto 3.1 km above mean sea level persists.
- ❖ A fresh **Western Disturbance** is likely to affect Western Himalayan region from 09th March, 2025.

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



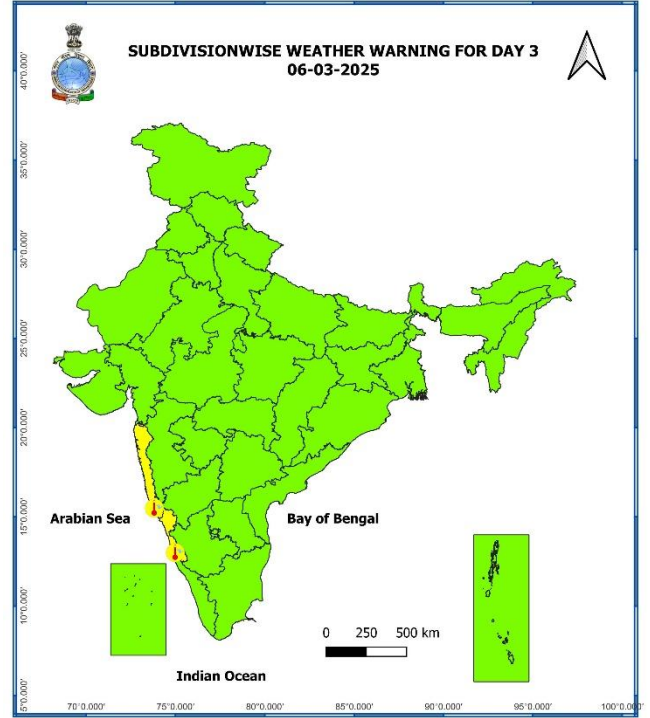
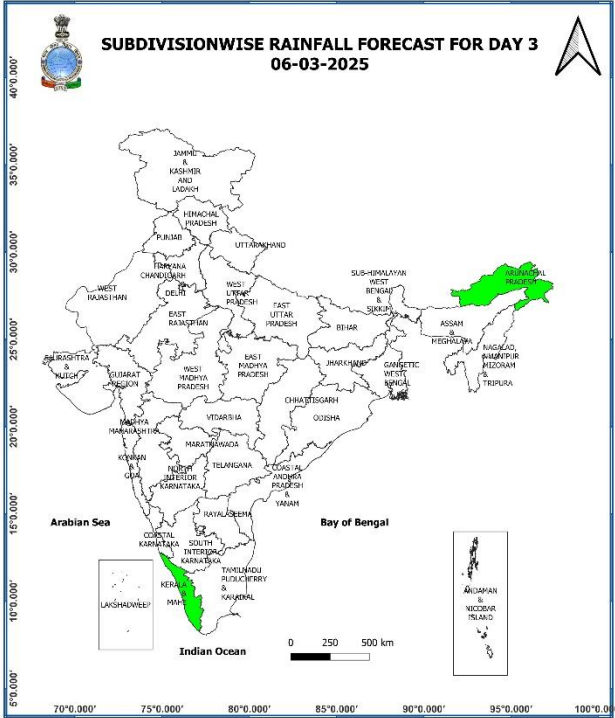
04th March (Day 1):

- ❖ **Thunderstorm accompanied with lightning** very likely at isolated places over Himachal Pradesh and Uttarakhand.
- ❖ **Hot & Humid conditions** very likely in isolated pockets of Coastal Karnataka and Konkan & Goa.



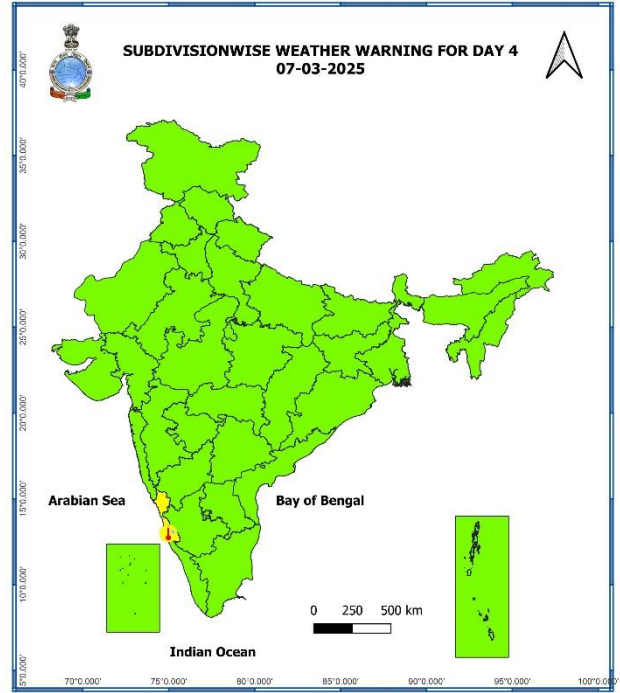
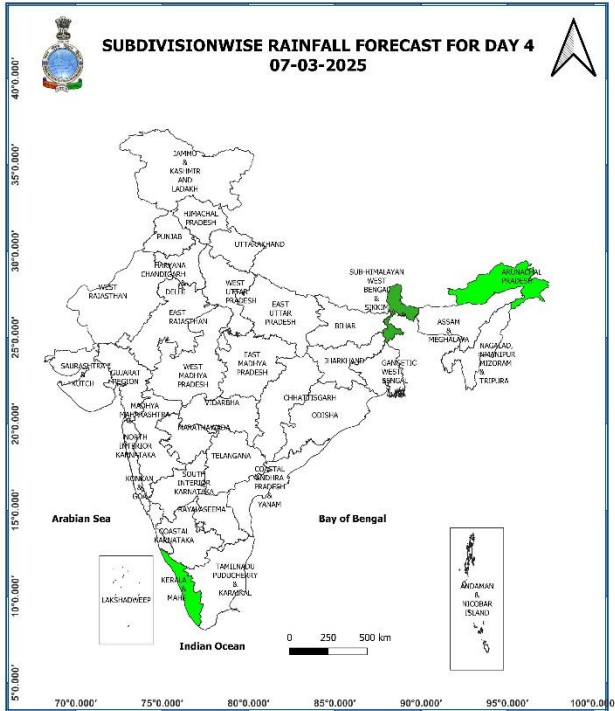
05th March (Day 2):

- ❖ **Hot & Humid conditions** likely in isolated pockets of Coastal Karnataka and Konkan & Goa.



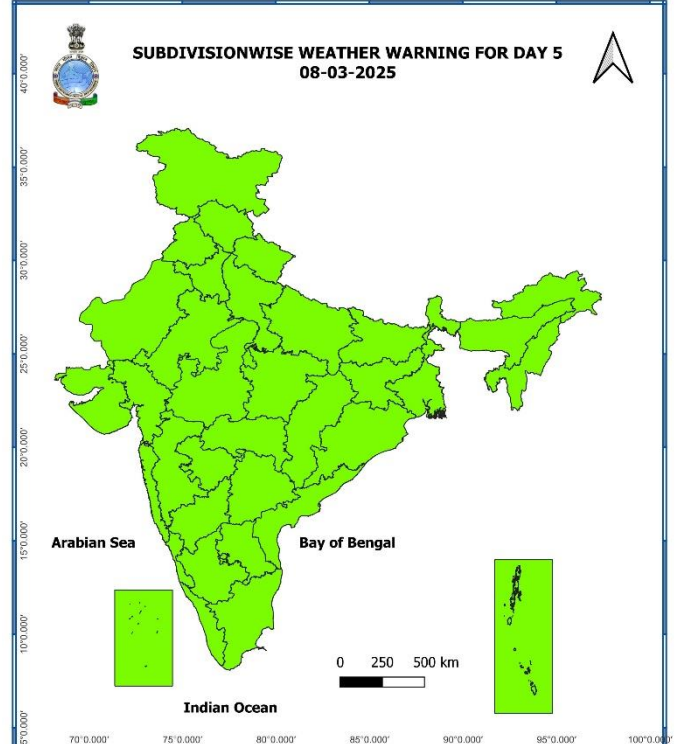
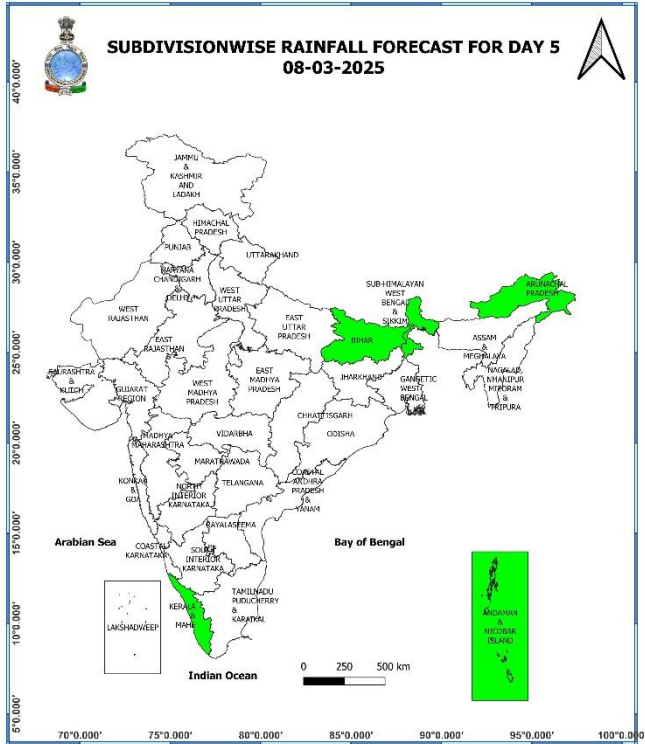
06th March (Day 3):

❖ **Hot & Humid conditions** likely in isolated pockets of Coastal Karnataka and Konkan & Goa.



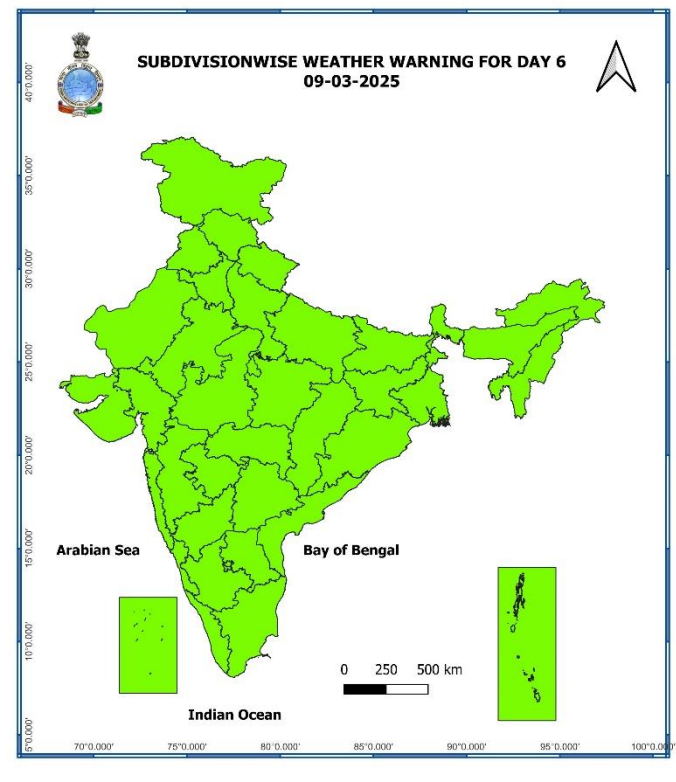
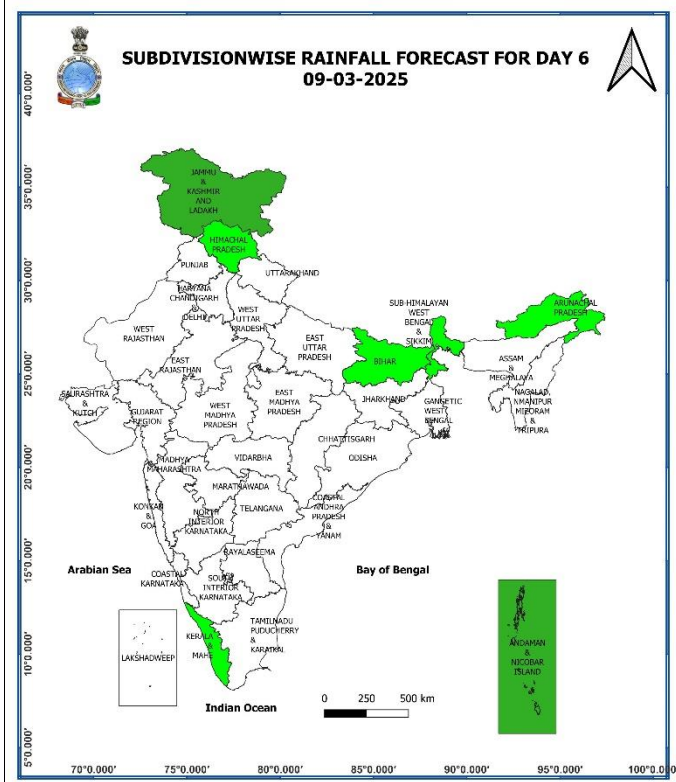
07th March (Day 4):

❖ **Hot & Humid conditions** likely in isolated pockets of Coastal Karnataka.



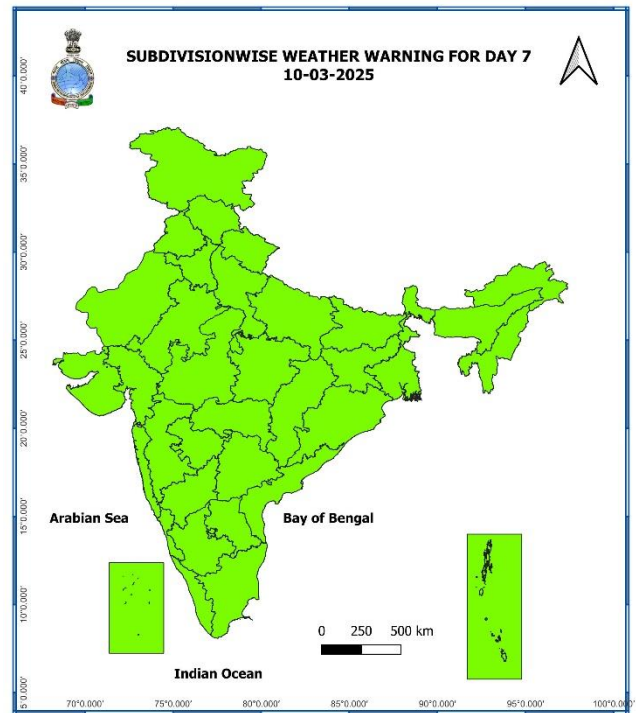
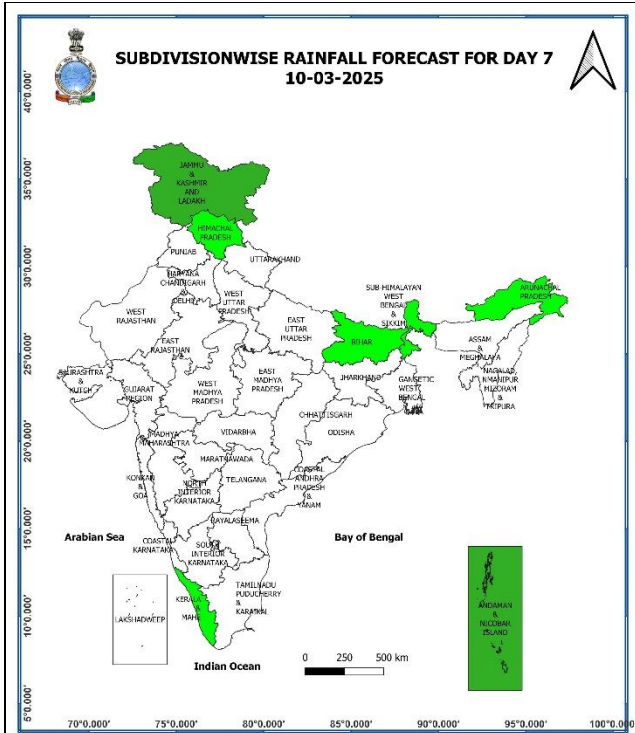
08th March (Day 5):

❖ **No Weather Warning.**



09th March (Day 6):

❖ **No Weather Warning.**



10th March (Day 7):

- ❖ **No Weather Warning.**

Weather Outlook for subsequent 3 days (During 11th March- 13th March, 2025)

- ❖ **Scattered to fairly widespread rainfall/snowfall** likely over Western Himalayan region.
- ❖ **Isolated to scattered rainfall** likely over plains of Northwest India, Kerala & Mahe, Tamil Nadu, Puducherry & Karaikal and Andaman & 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

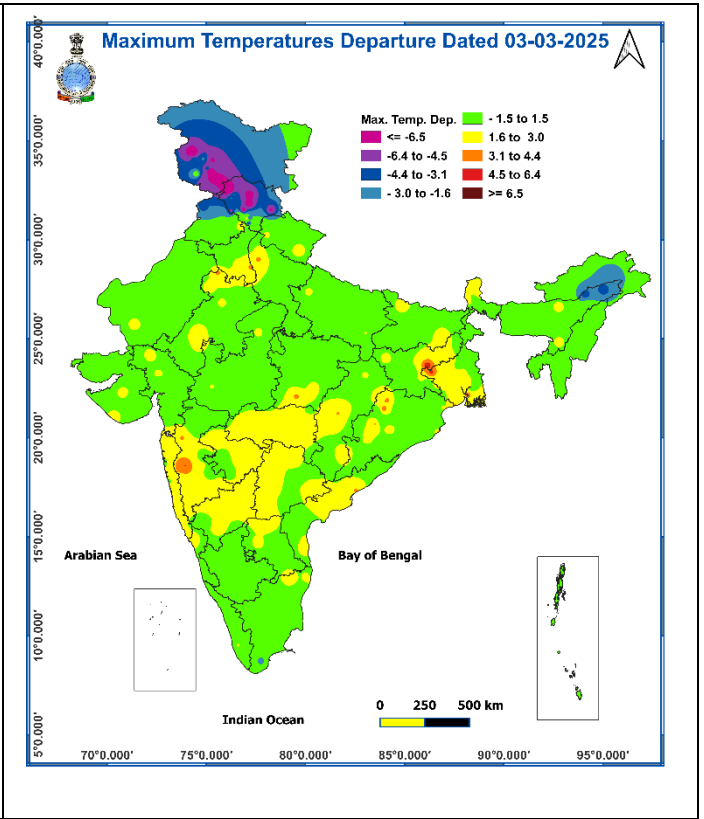
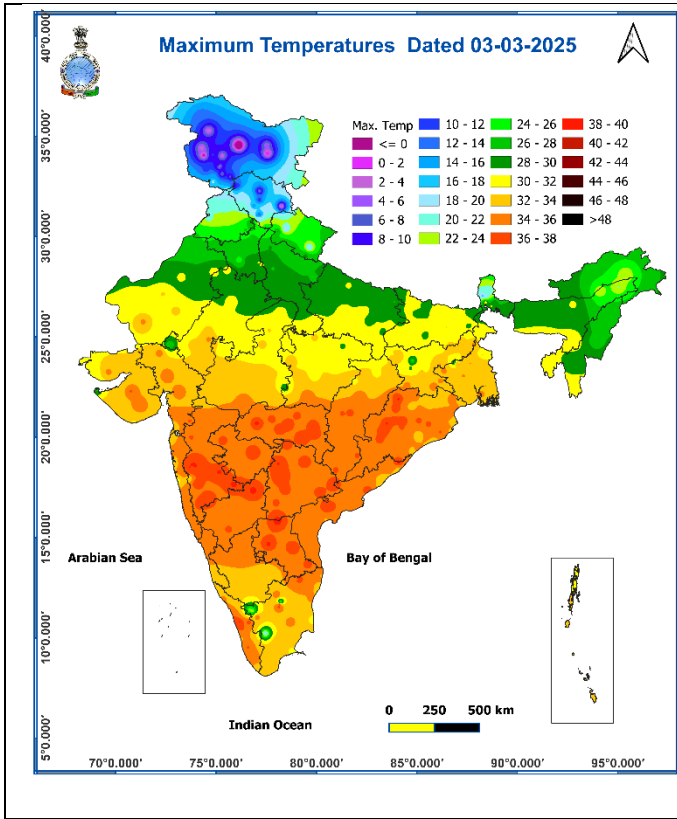
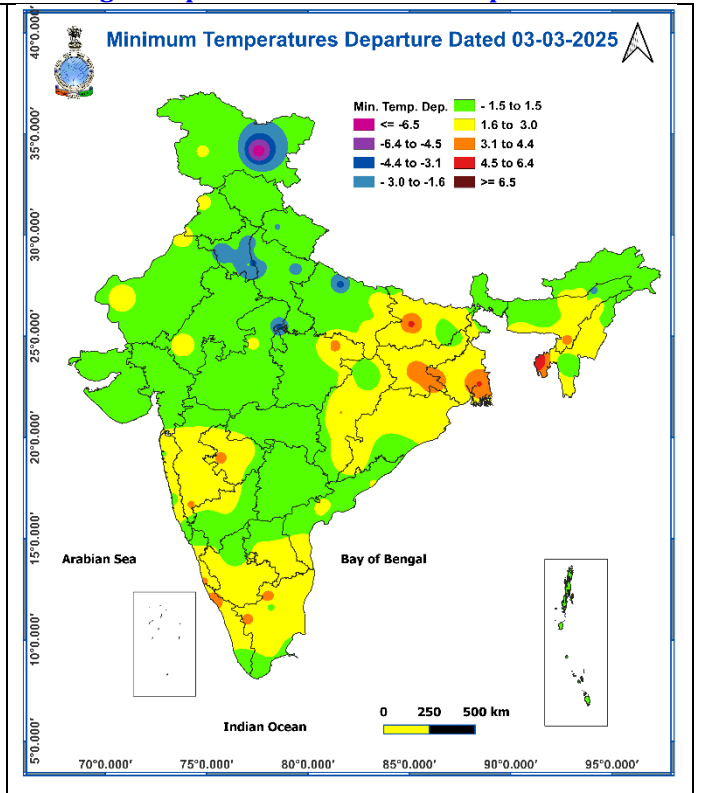
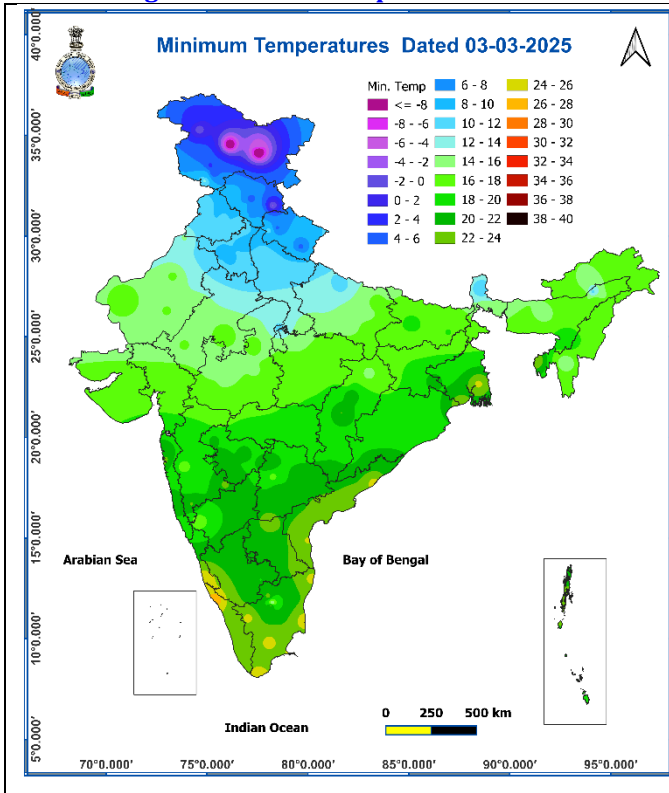


Fig. 3: Minimum Temperatures

Fig. 4: Departure of Minimum Temperatures



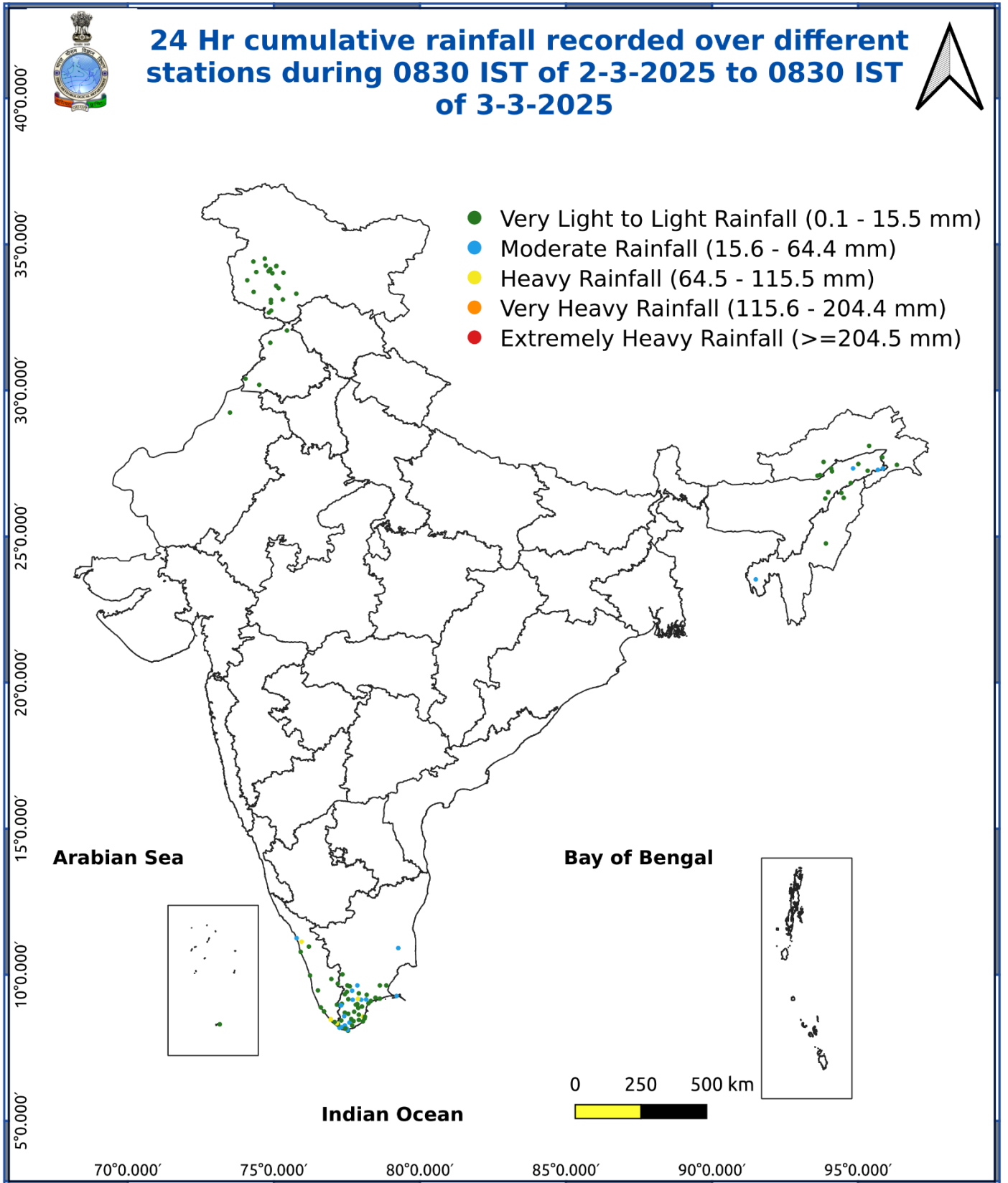
Agromet advisories for likely impact of Heavy Rainfall / Snowfall / Hailstorm / Heat Wave

- Use hail nets or hail caps in fruit orchards and vegetable plants to protect them from mechanical damage in **Himachal Pradesh** and **Punjab**.
- Drain out excess water from the standing crop fields in **Jammu and Kashmir, Himachal Pradesh, Tamil Nadu** and **Kerala**. In the regions of heavy snowfall, shake the fruit bearing trees to remove snow immediately from the branches.
- In **Coastal Karnataka**, apply light and frequent irrigation to standing crops in the evening to protect them from heat waves.
- Keep the harvested produce in safer places or cover the produce with tarpaulin sheets in the fields.
- Provide mechanical support to horticultural crops and staking to vegetables to avoid lodging.

Livestock, Poultry and Fishery

- Keep the animals inside the shed during heavy rainfall/ hailstorm and provide them balanced feed.
- Store feed and fodder in a safe place to prevent spoilage.
- Check and disinfect poultry houses to avoid disease outbreaks due to dampness.
- Construct an outlet with proper netting around the ponds to drain out excess water, thereby preventing fish from escaping in case of overflow.

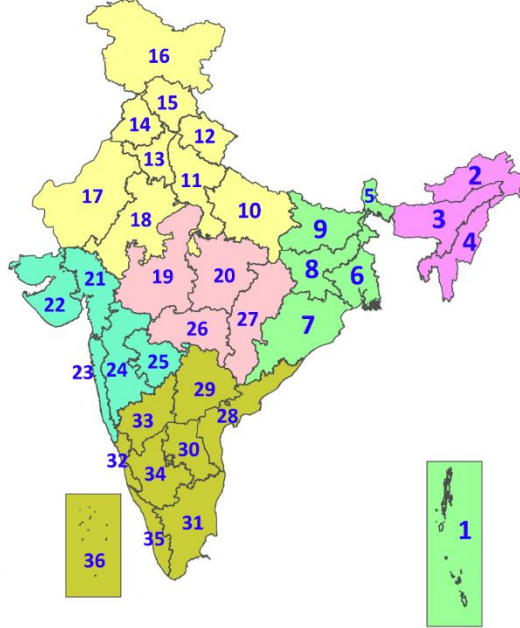
Fig. 5: Accumulated Rainfall (mm) during past 24 hours



* 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 *

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)