

Monday, March 31, 2025
Time of Issue: 0800 hours IST
(MORNING)

ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

Significant Weather Features:

Temperature:

- ❖ Yesterday, **Maximum Temperatures** had fallen by **1-3°C** over many parts of Gangetic West Bengal; isolated places over Odisha, Coastal Andhra Pradesh & Yanam, Telangana, Tamil Nadu, Puducherry & Karaikal, Konkan & Goa; risen by **2-4°C** many places over Rajasthan and isolated places over West Madhya Pradesh, Punjab, Haryana-Chandigarh-Delhi, West Uttar Pradesh, Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Interior Karnataka; by **1-2°C** many places over East Uttar Pradesh; a few places over Himachal Pradesh, East Madhya Pradesh; isolated places over Vidarbha, Madhya Maharashtra, Marathwada and no significant change over rest parts of the country.
- ❖ Yesterday, **Maximum Temperatures** were in the range of **38-42°C** at many places over Marathwada, Odisha; at a few places over Gujarat state, Tamil Nadu, Puducherry & Karaikal; isolated places over Telangana, Andhra Pradesh, North Interior Karnataka, Kerala & Mahe and **36-37°C** at most places over East Rajasthan, Madhya Pradesh, Gangetic West Bengal, Bihar, many places over Uttar Pradesh; isolated places over Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura.

Weather Systems, Forecast and Warnings:

- ❖ Under the influence of trough and wind confluence over Central and adjoining parts of Maharashtra in lower tropospheric levels:
 - ✓ **Isolated to scattered** light/moderate rainfall accompanied with **thunderstorm, lightning & gusty winds (speed 30-60 kmph)** likely over West Madhya Pradesh, Chhattisgarh during 01st-03rd April; Vidarbha on 01st April; East Madhya Pradesh on 2nd & 03rd April; Maharashtra state during 31st March to 03rd April; Gujarat State during 31st March to 03rd April; Kerala & Mahe, Coastal Andhra Pradesh & Yanam, Rayalaseema, Telangana, Karnataka during 01st-03rd April.
 - ✓ **Isolated to scattered** light/moderate rainfall accompanied with **hailstorm** likely over Madhya Maharashtra, Marathwada on 01st & 2nd; Coastal Karnataka on 2nd and 3rd; North Interior Karnataka on 02nd & 03rd; South Interior Karnataka on 03rd April.
 - ✓ **Heavy rainfall** very likely at isolated places over Tamilnadu Puducherry & Karaikal, Coastal Karnataka, South Interior Karnataka on 02nd & 03rd; Kerala & Mahe during 02nd-05th; North Interior Karnataka on 03rd April.
- ❖ An upper air cyclonic circulation lies over Nagaland & neighbourhood in lower tropospheric levels. Under its influence:
 - ✓ **Scattered to fairly widespread** light/moderate rainfall accompanied with **thunderstorm, lightning & gusty winds (speed 40-50 kmph)** likely over Arunachal Pradesh & Tripura on 31st March.

Temperature Forecast:

- ❖ No significant change in maximum temperatures over Western Himalayan region, central, east & northeast India, south peninsular and Maharashtra during 31st March-03rd April.
- ❖ Gradual rise in maximum temperatures by 5-7°C likely over northwest India during 31st March-03rd April.
- ❖ Gradual rise in maximum temperatures by 2-3°C likely over Gujarat on 31st March & 01st April.
- ❖ Gradual rise in maximum temperatures by 2-3°C likely over Bihar on 31st March & 01st April and no significant change thereafter till 3rd April.

Heat wave and Hot & Humid weather warning:

- ❖ Heat wave conditions very likely at isolated pockets of Saurashtra & Kutch on 31st March.
- ❖ Hot & humid weather conditions very likely to prevail at isolated pockets of Assam on 31st March & 01st April; Tripura during 31st March- 03rd April; Tamilnadu Puducherry & Karaikal, Coastal Andhra Pradesh & Yanam, Kerala & Mahe on 31st March.

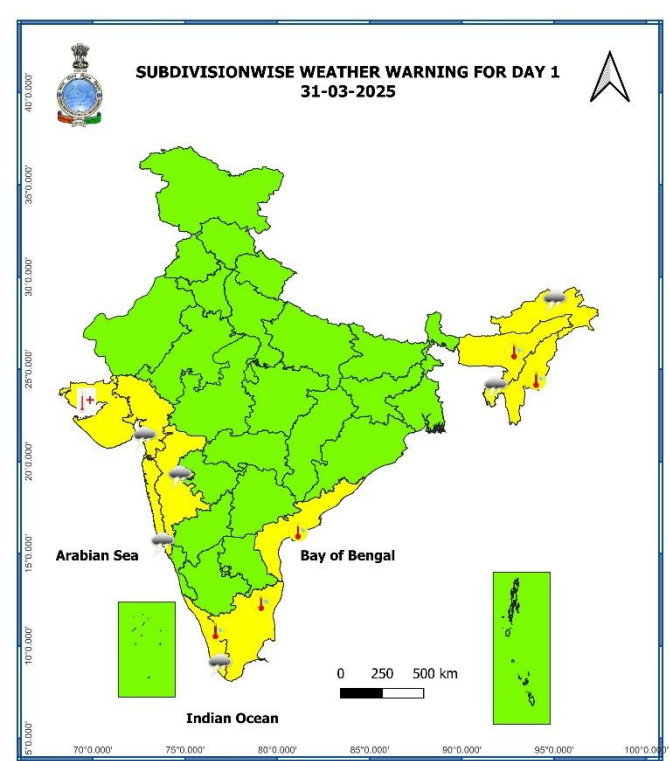
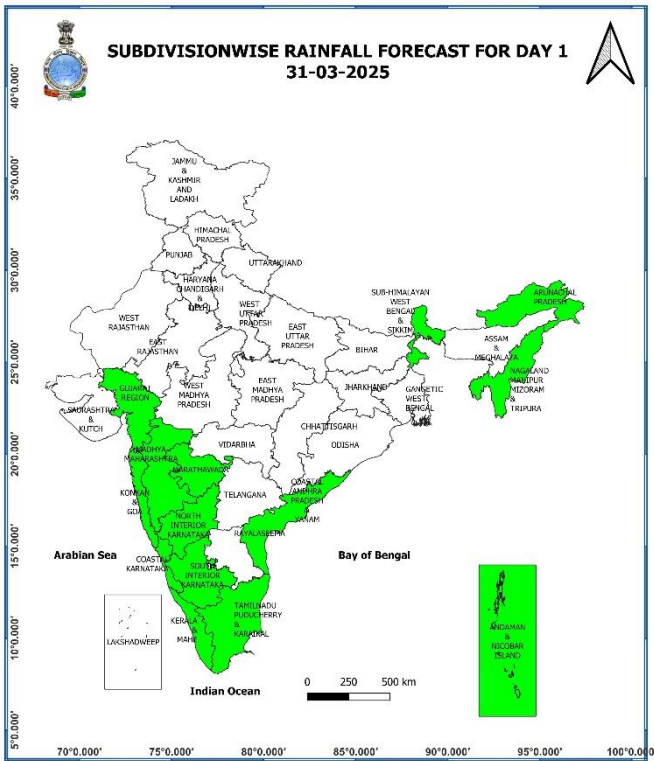
Main Weather Observations:

- ❖ **Rainfall distribution** (from 0830 hours IST to 1730 hours IST of yesterday): Nil.
- ❖ **Significant amount of rainfall** (from 0830 hours IST to 1730 hours IST of yesterday): (in cm): Nil
- ❖ **Yesterday, Squally/Gusty winds** prevailed at isolated locations over Punjab, Haryana, Uttar Pradesh, Assam.
- ❖ **Yesterday, Heat wave conditions** observed at isolated places over Gangetic West Bengal.
- ❖ **Minimum Temperature Departures (as on 30-03-2025):** Minimum temperatures were **appreciably above normal (3.1°C to 5.0°C)** at isolated places Madhya Maharashtra, Assam & Meghalaya, Gangetic West Bengal, Odisha; **above normal (1.6°C to 3.0°C)** at isolated places over Marathwada, Telangana, Chhattisgarh, Himachal Pradesh, Uttarakhand, Kerala & Mahe, Coastal Andhra Pradesh & Yanam. These were **markedly below normal (-5.1°C or less)** at isolated places over west Rajasthan, Haryana-Chandigarh-Delhi, Madhya Pradesh; **appreciably below normal (-3.1°C to -5.0°C)** at a few places over Punjab; at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Uttar Pradesh, Saurashtra & Kutch; **below normal (-3.0°C to -1.6°C)** at isolated places over East Rajasthan, Gujarat Region, Bihar, Tamil Nadu, Puducherry & Karaikal and near normal over rest parts of the country (**Fig. 4**). Yesterday, the **lowest minimum temperature of 10.0°C** was reported at **Amritsar (Punjab)** over the plains of the country.
- ❖ **Maximum Temperature Departures (as on 30-03-2025):** Maximum Temperatures were **appreciably above normal (3.1°C to 5.0°C)**) at isolated places over Himachal Pradesh, Uttarakhand, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Saurashtra & Kutch, Odisha, Sub-Himalayan West Bengal & Sikkim; **above normal (1.6°C to 3.0°C)** at a few places over Vidarbha; at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Chhattisgarh, Telangana, Jharkhand, Gangetic West Bengal, Bihar, Madhya Maharashtra. These were **below normal (-3.0°C to -1.6°C)** at isolated places over Arunachal Pradesh and near normal over rest parts of the country (**Fig. 2**). Yesterday, the highest **maximum temperature of 42.3°C** was reported at **Akola (Vidarbha)** over the country.

Meteorological Analysis (Based on 0530 hours IST)

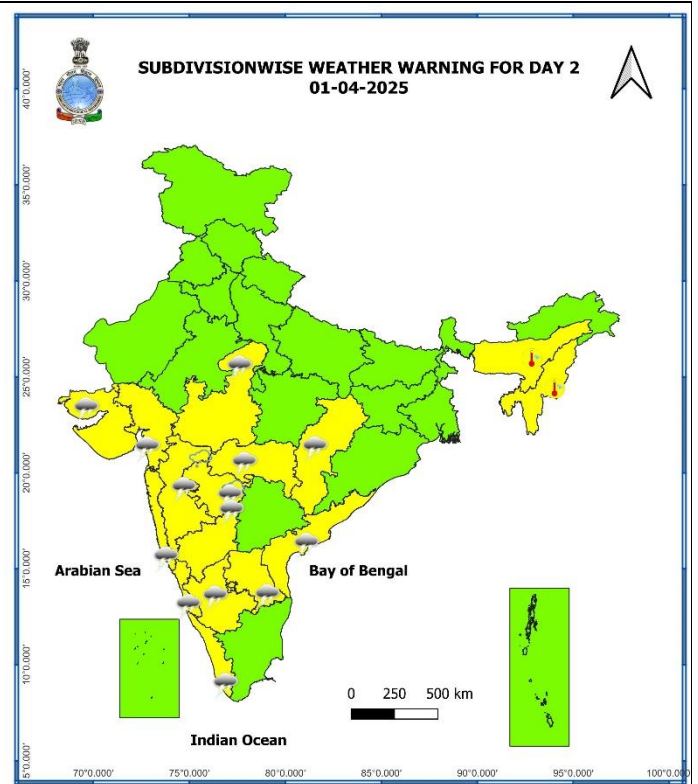
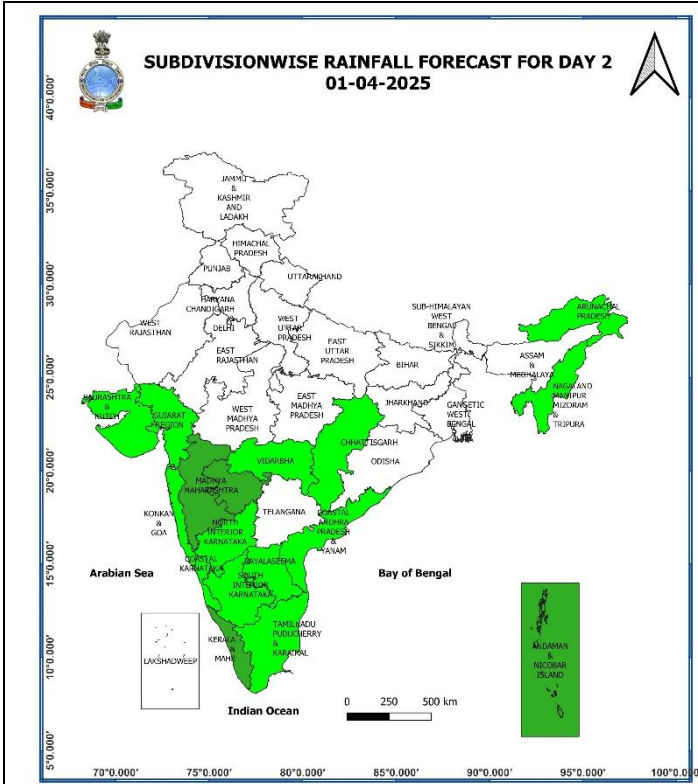
- ❖ The **cyclonic circulation** over south Tamil Nadu & neighbourhood at 0.9 km above mean sea level persists.
- ❖ The **trough** from south Chhattisgarh to above cyclonic circulation over south Tamil Nadu & neighbourhood across interior Maharashtra & interior Karnataka at 0.9 km above mean sea level persists.
- ❖ The upper air **cyclonic circulation** over southeast Bay of Bengal at 3.1 km above mean sea level persists.
- ❖ The upper air **cyclonic circulation** over Nagaland & neighbourhood at 1.5 km above mean sea level persists.

Weather Forecast & Warnings for next 7 days (Upto 0830 hours IST of 07th April, 2025)



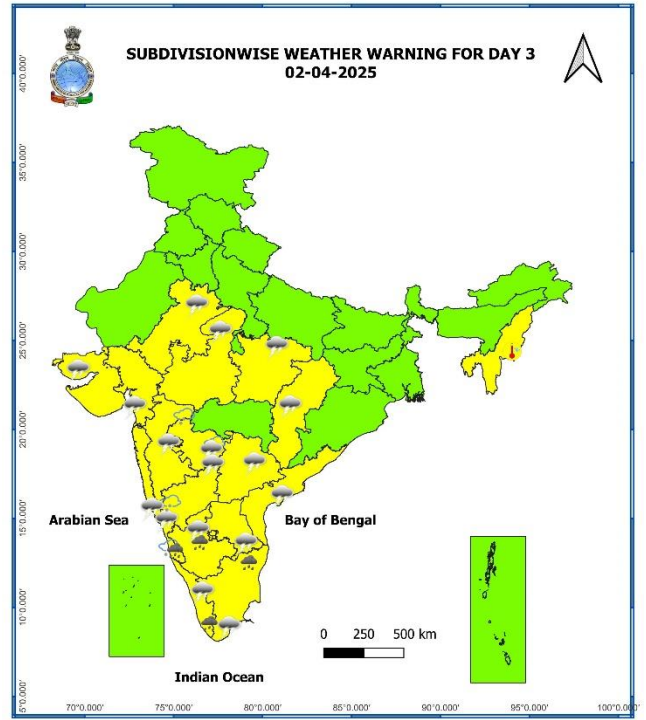
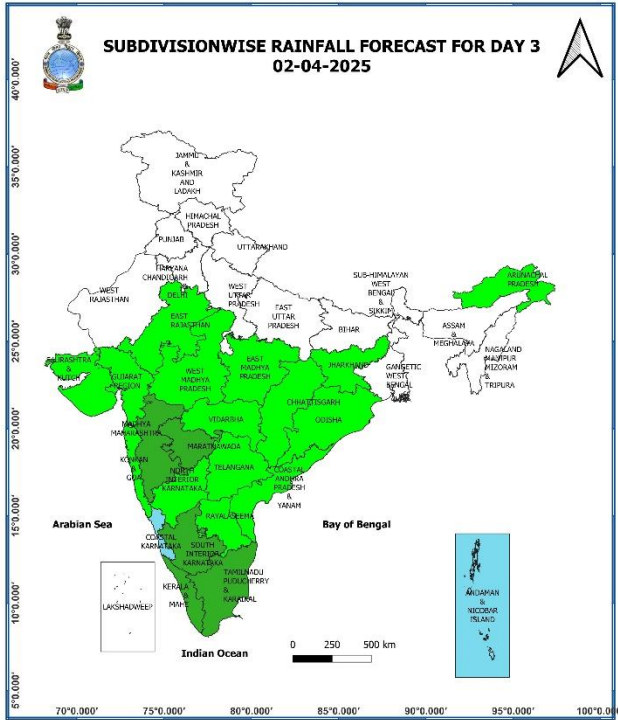
31st March (Day 1):

- ❖ **Thunderstorm accompanied with gusty winds (speed reaching 40 - 50 kmph) & lightning** very likely at isolated places over Arunachal Pradesh; **with gusty winds (speed reaching 30 - 40 kmph)** at isolated places over Konkan & Goa, Madhya Maharashtra, Gujarat Region, Tripura; **with lightning** at isolated places over Kerala & Mahe.
- ❖ **Heat wave conditions** very likely at isolated places over Saurashtra & Kutch.
- ❖ **Hot and Humid Conditions** very likely at isolated places over Assam, Tripura, Tamil Nadu, Puducherry & Karaikal, Coastal Andhra Pradesh & Yanam, Kerala & Mahe.



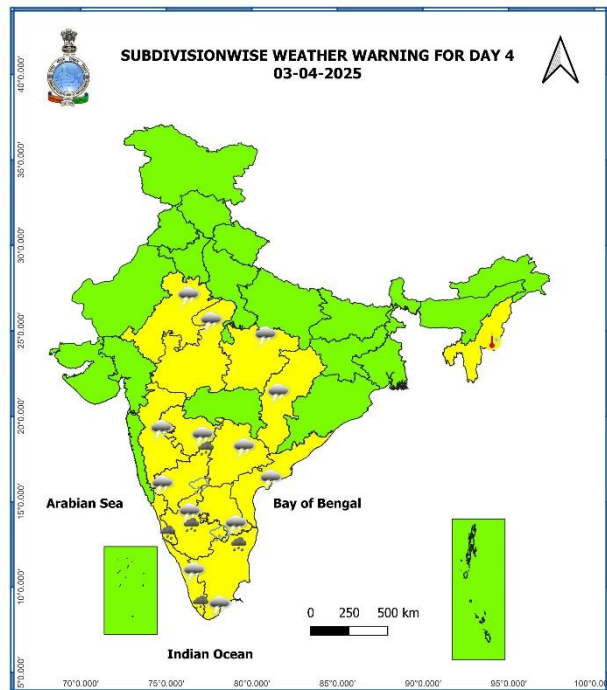
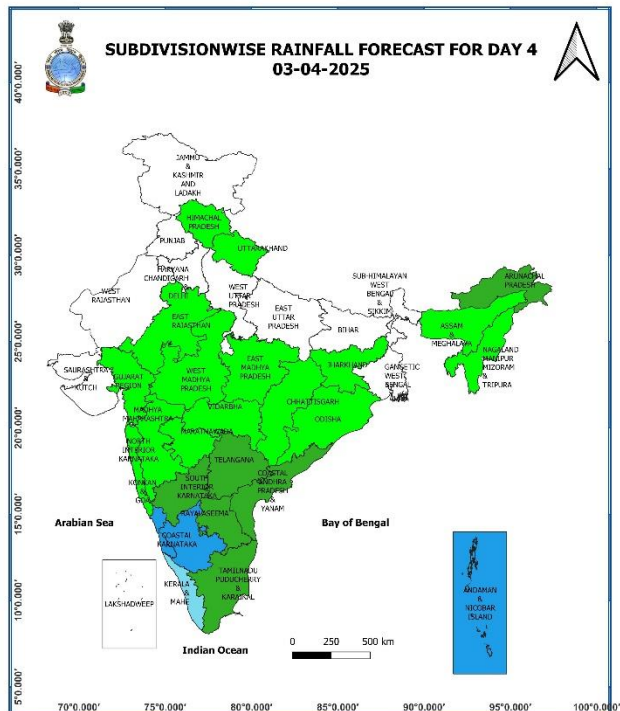
01st April (Day 2):

- ❖ **Thundersquall (wind speed reaching 50 - 60 kmph) accompanied with lightning & hail** very likely at isolated places over Madhya Maharashtra, Marathwada; **with gusty winds (speed reaching 40 - 50 kmph) & lightning** at isolated places over West Madhya Pradesh, Chhattisgarh, Karnataka State; **with gusty winds (speed reaching 30 - 40 kmph)** at isolated places over Vidarbha, Konkan & Goa, Gujarat state, Kerala & Mahe, Coastal Andhra Pradesh & Yanam, Rayalaseema.
- ❖ **Hot and Humid Conditions** very likely at isolated places over Assam and Tripura.



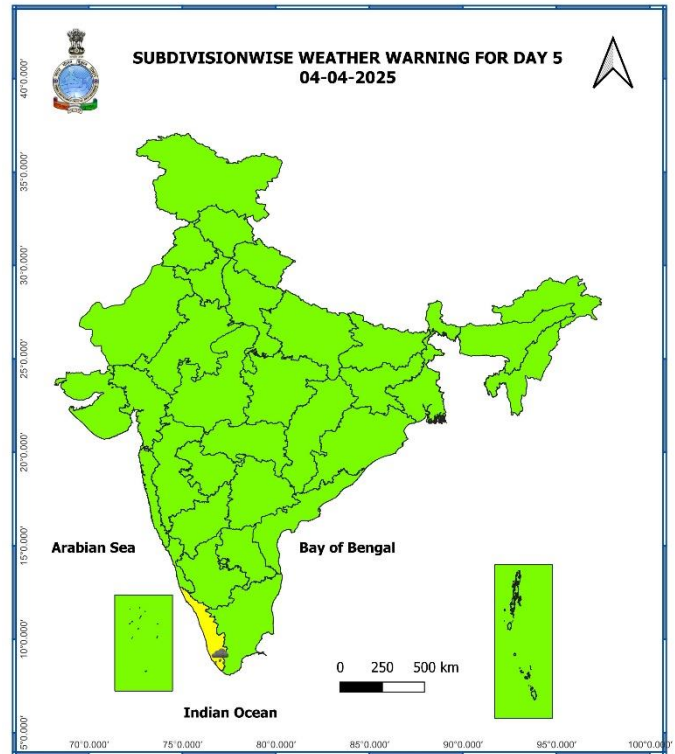
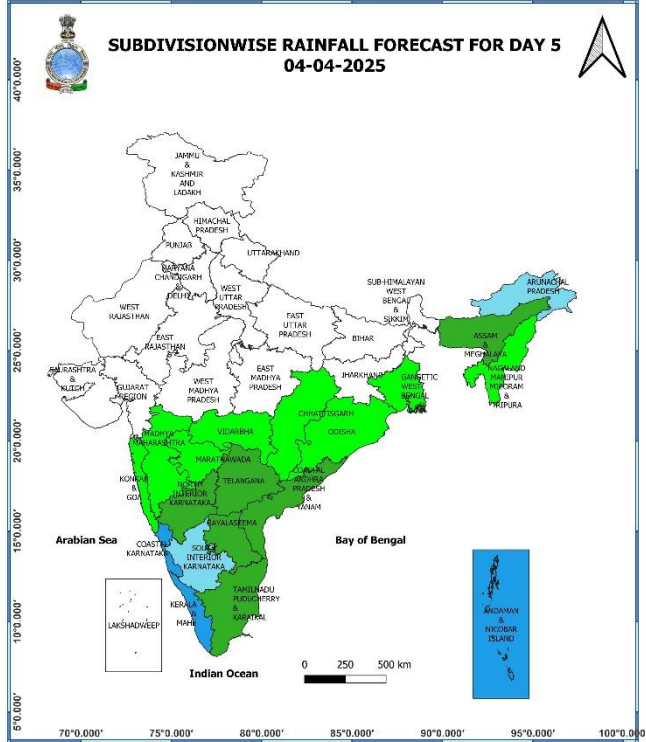
02nd April (Day 3):

- ❖ **Heavy rainfall** likely at isolated places over Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe, Coastal Karnataka, South Interior Karnataka.
- ❖ **Thundersquall (wind speed reaching 50 - 60 kmph) accompanied with lightning & hail** likely at isolated places over Madhya Maharashtra, Marathwada; **with gusty winds (speed reaching 40 - 50 kmph), Hail & lightning** at isolated places over Coastal Karnataka, North Interior Karnataka; **with gusty winds (speed reaching 40 - 50 kmph) & lightning** at isolated places over Madhya Pradesh, Chhattisgarh, South Interior Karnataka, Kerala & Mahe; **with gusty winds (speed reaching 30 - 40 kmph)** at isolated places over Vidarbha, Konkan & Goa, Gujarat state, Kerala & Mahe, Coastal Andhra Pradesh & Yanam, Rayalaseema, Telangana; **with lightning** Tamil Nadu, Puducherry & Karaikal, East Rajasthan.
- ❖ **Hot and Humid Conditions** likely at isolated places over Tripura.



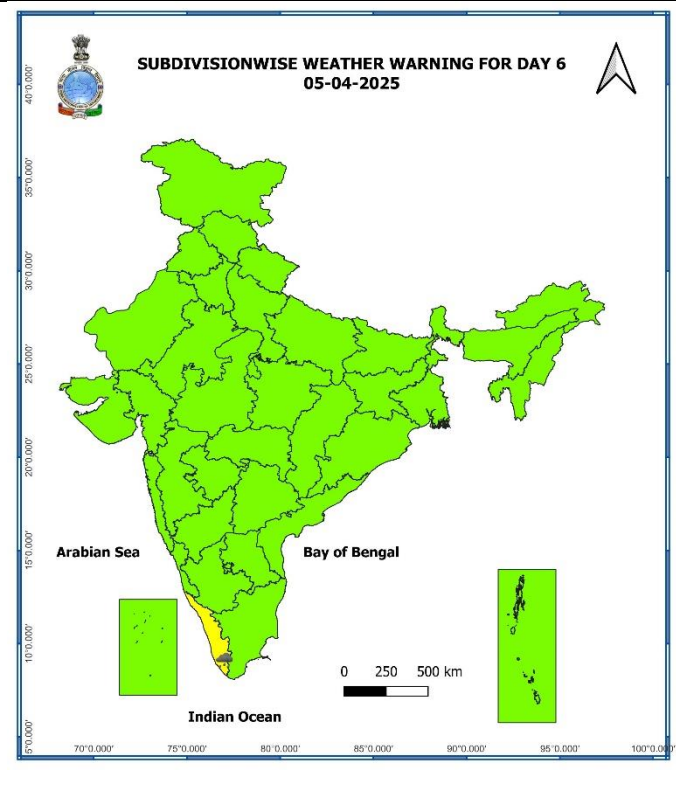
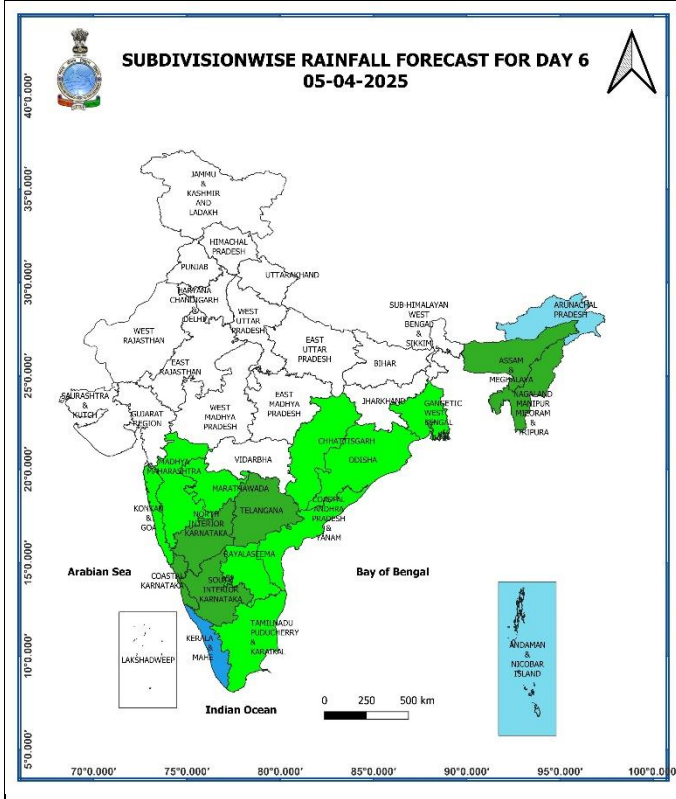
03rd April (Day 4):

- ❖ **Heavy rainfall** likely at isolated places over Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe, Karnataka state.
- ❖ **Thunderstorm accompanied with gusty winds (speed reaching 40 - 50 kmph), Hail & lightning** at isolated places over Interior Karnataka; **with gusty winds (speed reaching 40 - 50 kmph) & lightning** at isolated places over Kerala & Mahe, Madhya Pradesh, Chhattisgarh; **with gusty winds (speed reaching 30 - 40 kmph)** at isolated places over Madhya Maharashtra, Marathwada, Coastal Andhra Pradesh & Yanam, Rayalaseema, Telangana; **with lightning** Tamil Nadu, Puducherry & Karaikal, East Rajasthan.
- ❖ **Hot and Humid Conditions** likely at isolated places over Tripura.



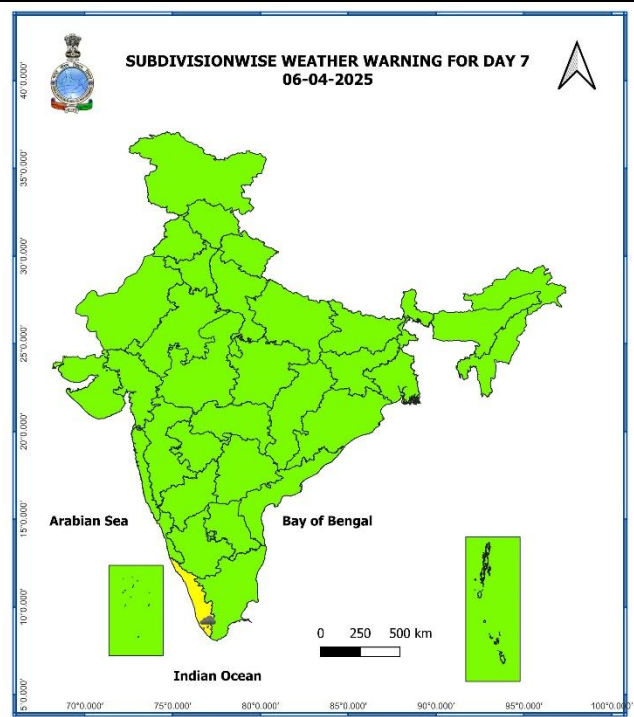
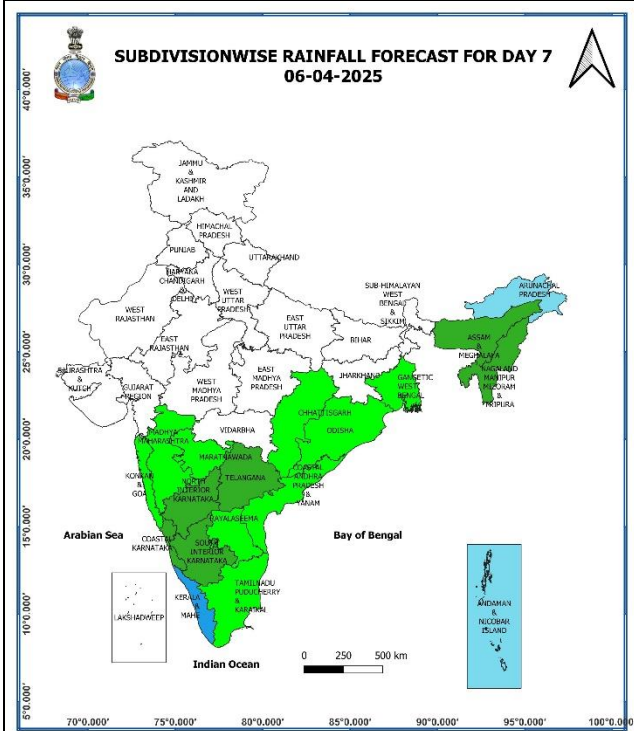
04th April (Day 5):

❖ **Heavy rainfall** likely at isolated places over Kerala & Mahe.



05th April (Day 6):

❖ **Heavy rainfall** likely at isolated places over Kerala & Mahe.



06th April (Day 7):

- ❖ Heavy rainfall likely at isolated places over Kerala & Mahe.

Weather Outlook for subsequent 3 days (During 07th April- 09th 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

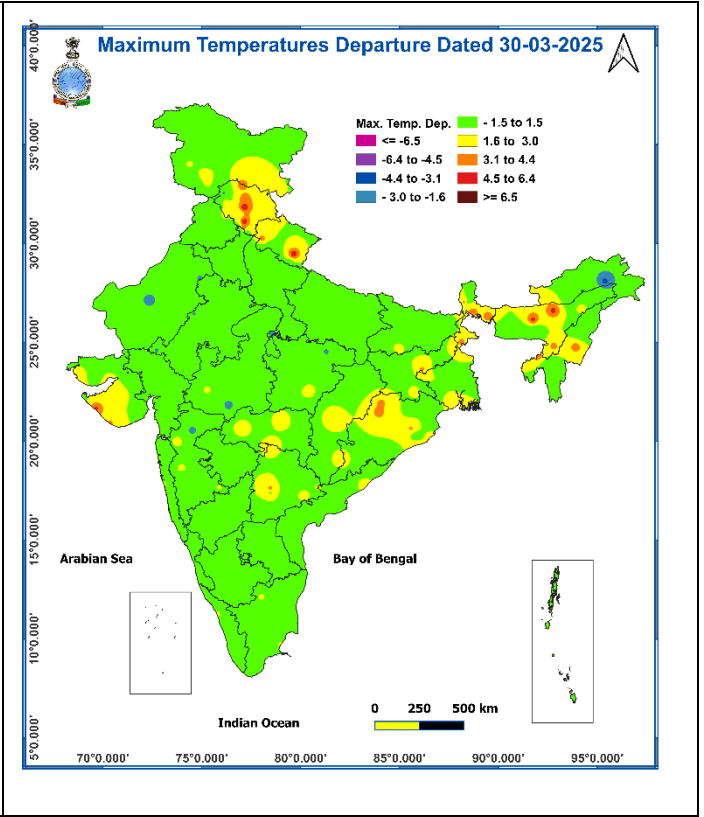
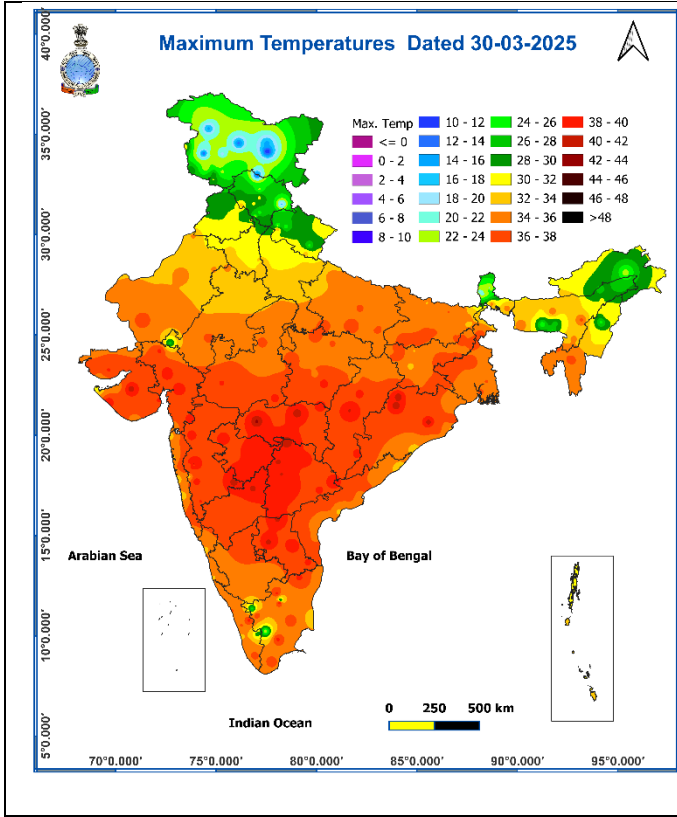
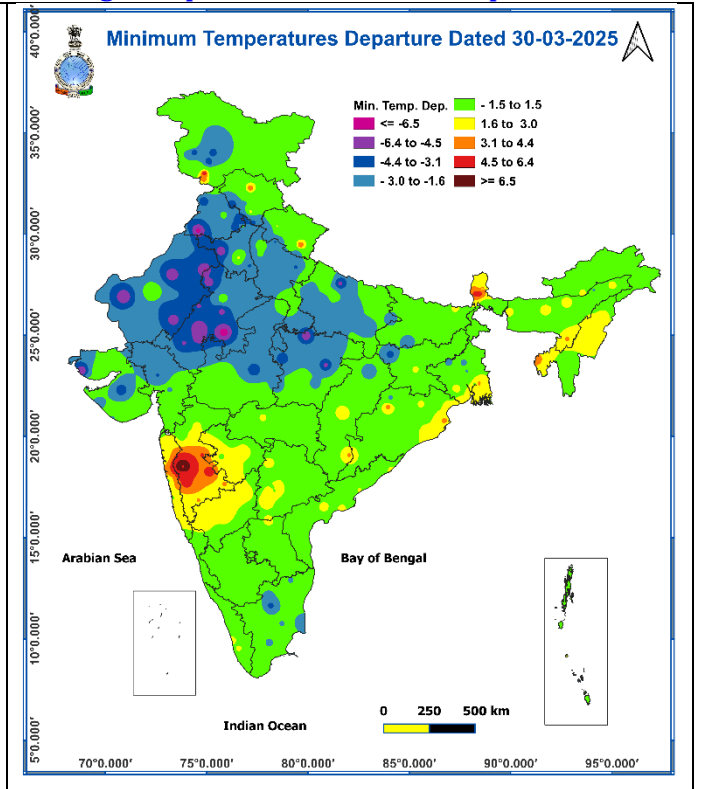
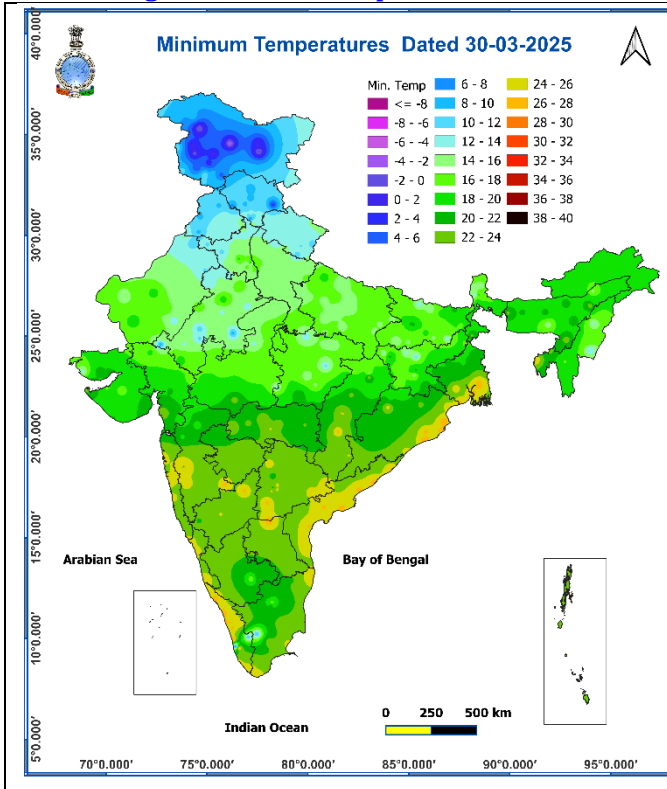


Fig. 3: Minimum Temperatures

Fig. 4: Departure of Minimum Temperatures



Impact expected and action suggested due Heat Wave conditions over Saurashtra & Kutch on 31st March.

Orange alert Areas

- High temperature & increased likelihood of heat illness symptoms in people who are either exposed to sun for a prolonged period or doing heavy work.
- High health concern for vulnerable people e.g. infants, elderly, people with chronic diseases.
- Avoid heat exposure– keep cool. Avoid dehydration.
- Drink sufficient water- even if not thirsty.
- Use ORS, homemade drinks like lassi, torani (rice water), lemon water, buttermilk, etc. to keep yourself hydrated.

Yellow alert Areas

- Moderate temperature & heat is tolerable for general public but moderate health concern likely for vulnerable people e.g. infants, elderly, people with chronic diseases.
- Avoid heat exposure.
- Wear lightweight, light colour, loose, cotton clothes.
- Cover your head, use a cloth, hat or umbrella.

Impact expected and action suggested due to isolated thunderstorm with lightning/gusty winds & Hailstorm over central & south Peninsular India during 31st March-02nd April.

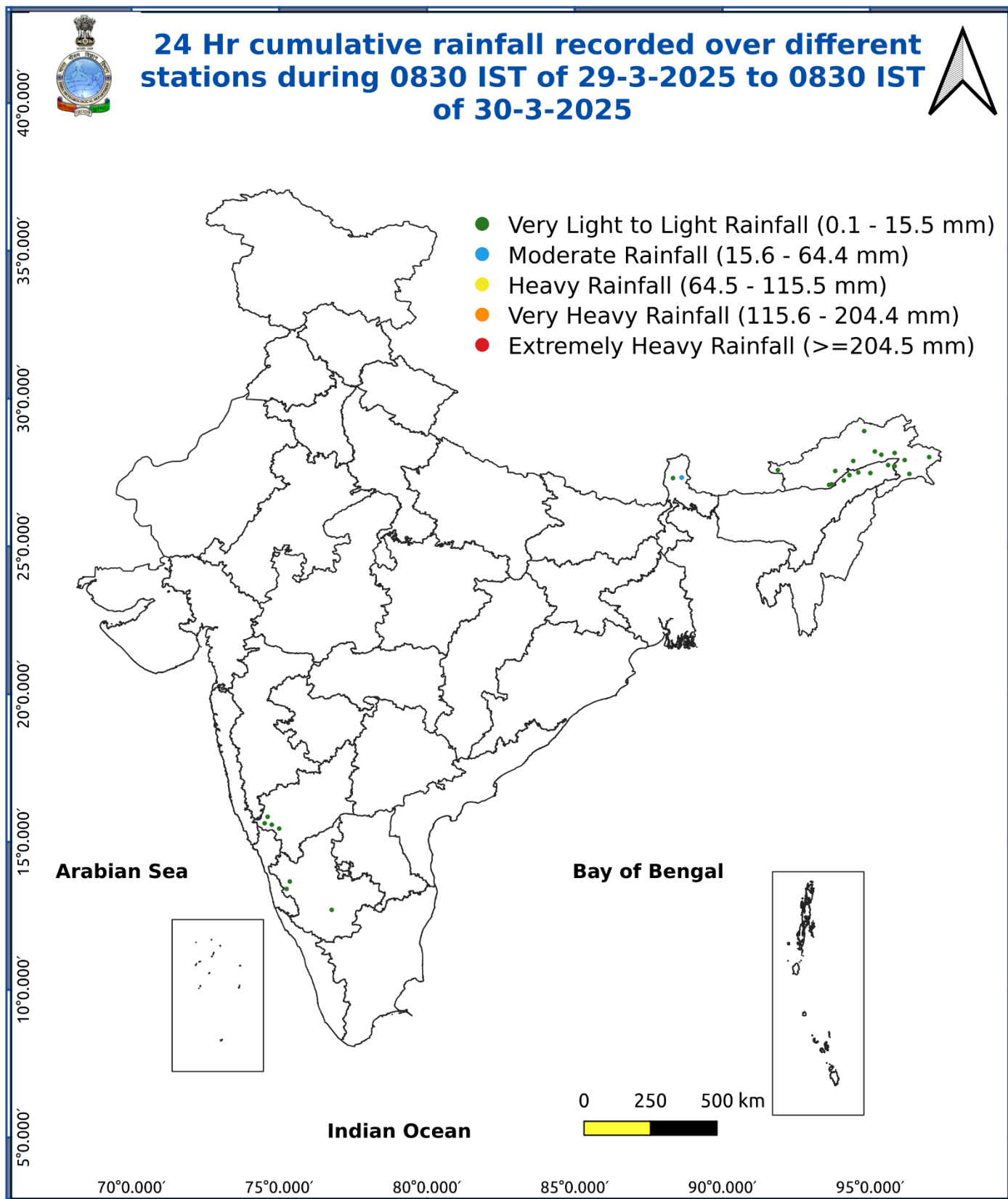
Impact expected:

- Strong wind/hail may damage plantation, horticulture and standing crops.
- Hail may injure people and cattle at open places.
- Partial damage to vulnerable structures due to strong winds.
- Minor damage to kutcha houses/walls and huts.
- Loose objects may fly.

Action suggested:

- Stay indoors, close windows & doors and avoid travel if possible.
- Take safe shelters; do not take shelter under trees.
- Do not lie on concrete floors and do not lean against concrete walls.
- Unplug electrical/ electronic appliances.
- Immediately get out of water bodies.
- Keep away from all the objects that conduct electricity.

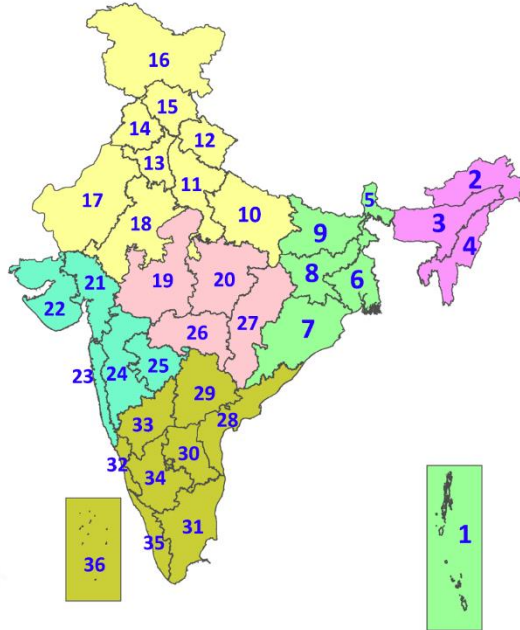
Fig. 5: Accumulated Rainfall (mm) during past 24 hours



* 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)

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