

Saturday, March 29, 2025
Time of Issue: 1345 hours IST
(MID-DAY)

ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

Significant Weather Features:

Weather Systems, Forecast and Warnings

- ❖ **Strong Surface winds (20-30 kmph gusting to 40 kmph)** very likely at isolated places Northwest India on 29th March.
- ❖ A Upper air cyclonic circulation lies over northeast Assam in lower tropospheric levels and jet core lies over the same region in upper tropospheric level. Under its influence:
 - ✓ **Scattered to fairly widespread** light/moderate rainfall accompanied with **thunderstorm, lightning** likely over Arunachal Pradesh on 29th March.
 - ✓ **Heavy rainfall** very likely at isolated places over Arunachal Pradesh.
- ❖ 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 Madhya Pradesh, Vidarbha, Chhattisgarh, Gujarat State, Rayalaseema on 01st & 2nd April; over Maharashtra state, Tamilnadu Puducherry & Karaikal, Kerala & Mahe, Karnataka, Coastal Andhra Pradesh & Yanam during 31st March to 02nd April.
 - ✓ **Isolated to scattered** light/moderate rainfall accompanied with **hailstorm** likely over West Madhya Pradesh, Vidarbha, Madhya Maharashtra, Marathawada, North Interior Karnataka on 01st & 2nd; East Madhya Pradesh, Coastal Karnataka on 02nd April.

Temperature Forecast:

- ❖ No significant change in maximum temperatures over central India during next 3 days and fall by 2-3°C subsequent days.
- ❖ Gradual fall in maximum temperatures by 2-4°C likely over Uttar Pradesh during next 24 hours and rise by 4-6°C subsequent 2-5 days.
- ❖ No significant change in maximum temperatures over east India during next 5 days.
- ❖ No significant change in maximum temperatures over Maharashtra region during next 2 days and fall by 2-3°C subsequent days.
- ❖ Rise in maximum temperature by 2-3°C likely over Gujarat State during next 5 days.
- ❖ No significant change in maximum temperatures over peninsular India during next 5 days

Heat wave and Hot & Humid weather warning:

- ❖ **Heat wave conditions very likely at isolated pockets of interior Odisha on 29th & 30th and Gangetic West Bengal on 29th March.**
- ❖ **Hot & humid weather conditions very likely to prevail at isolated pockets of Odisha on 29th & 30th March; Assam, Tripura during 29th-31st March; coastal areas of Gujarat during 29th March to 02nd April.**

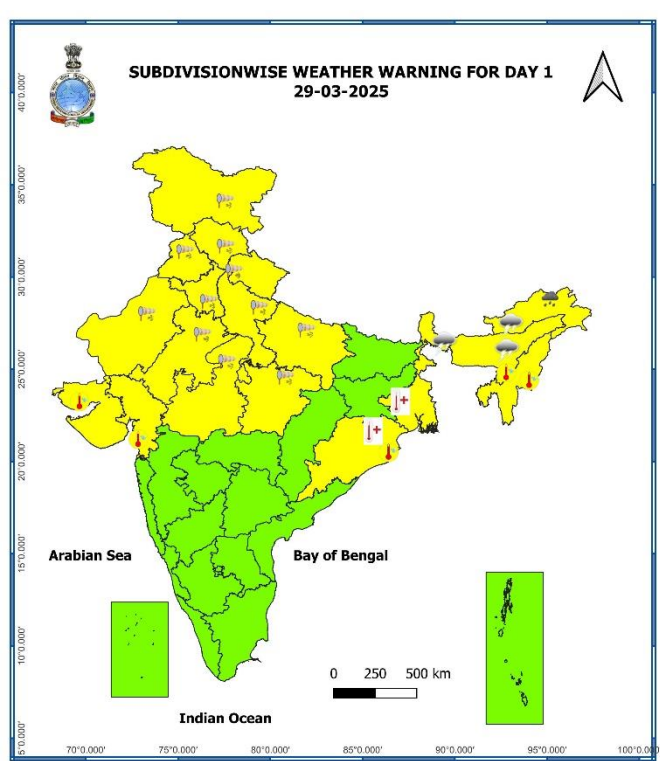
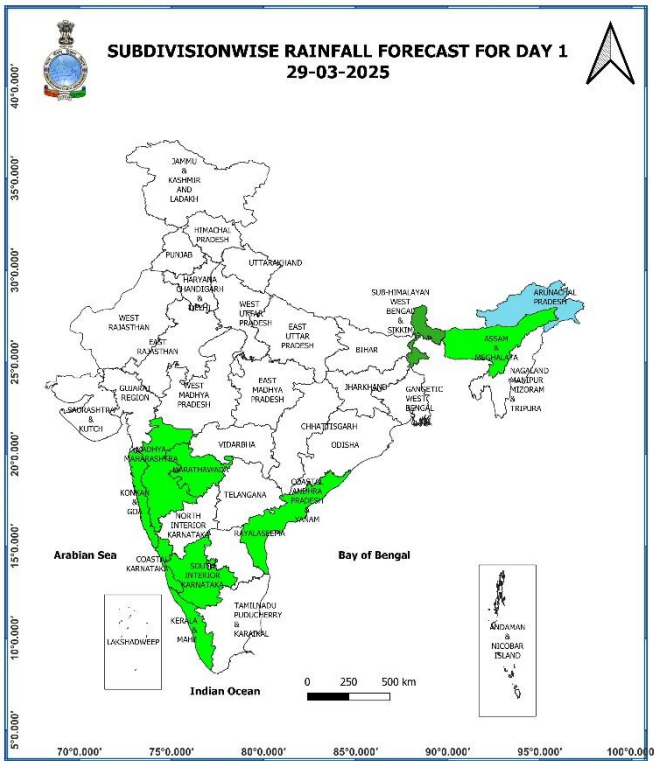
Main Weather Observations:

- ❖ **Rainfall distribution** (from 0830 hours IST of yesterday to 0830 hours IST of today): at many places over Arunachal Pradesh; at a few places over Sub-Himalayan West Bengal & Sikkim; at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Assam & Meghalaya, Coastal Karnataka, South Interior Karnataka, Kerala & Mahe, Tamilnadu Puducherry & Karaikal, Coastal Andhra Pradesh & Yanam.
- ❖ **Significant amount of rainfall** (from 0830 hours IST of yesterday to 0830 hours IST of today): (in cm): **Arunachal Pradesh:** Hayuliang_Circle AWS (dist Anjaw) 6, Anini_aws (dist Dibang Valley) 3, **Assam & Meghalaya:** Majuli (dist Jorhat) 2, Dholla Bazar (dist Tinsukia) 1; **Kerala & Mahe:** Ulanad Aws (dist Pathanamthitta) 2, Panathur Aws (dist Kasargod) 1.
- ❖ **Squally/Gusty winds** prevailed at isolated locations over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, East Uttar Pradesh.
- ❖ **Minimum Temperature Departures (as on 29-03-2025):** Minimum temperatures are **appreciably above normal (3.1°C to 5.0°C)** at isolated places Madhya Maharashtra, Sub-Himalayan West Bengal & Sikkim, Assam & Meghalaya; **above normal (1.6°C to 3.0°C)** at isolated places over Bihar, East Uttar Pradesh, Gangetic West Bengal, Odisha, Chhattisgarh, Madhya Pradesh, Marathwada, Telangana, North Interior Karnataka, Coastal Andhra Pradesh & Yanam, Kerala & Mahe. These are **markedly below normal (-5.1°C or less)** at isolated places over Rajasthan, Haryana-Chandigarh-Delhi, Punjab; **appreciably below normal (-3.1°C to -5.0°C)** at many places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad; at a few places over Gujarat state, West Uttar Pradesh; at isolated places over Himachal Pradesh, Tamil Nadu, Puducherry & Karaikal; **below normal (-3.0°C to -1.6°C)** at isolated places over Uttarakhand and near normal over rest parts of the country (**Fig. 4**). Today, the **lowest minimum temperature of 8.0°C** is reported at **Amritsar (Punjab)** over the plains of the country.
- ❖ **Maximum Temperature Departures (as on 28-03-2025):** Maximum Temperatures were **appreciably above normal (3.1°C to 5.0°C)**) at many places over East Uttar Pradesh and Gangetic West Bengal; at a few places over Bihar and Assam & Meghalaya; at isolated places over Himachal Pradesh, Sub-Himalayan West Bengal & Sikkim and Nagaland, Manipur, Mizoram & Tripura; **above normal (1.6°C to 3.0°C)** at many places over East Madhya Pradesh, Vidarbha, Coastal Andhra Pradesh & Yanam and Telangana; at a few places over Chhattisgarh and Lakshadweep; at isolated places over Tamil Nadu, Puducherry & Karaikal and West Uttar Pradesh. These were **appreciably below normal (-3.1°C to -5.0°C)** at a few places over East Rajasthan; at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad and Punjab; **below normal (-3.0°C to -1.6°C)** at a few places over Gujarat state; at isolated places over West Madhya Pradesh and near normal over rest parts of the country (**Fig. 2**). Yesterday, the highest **maximum temperature of 43.0°C** was reported at **Rajnandgaon (Chhattisgarh) & Jharsuguda (Odisha)** over the country.

Meteorological Analysis (Based on 0830 hours IST)

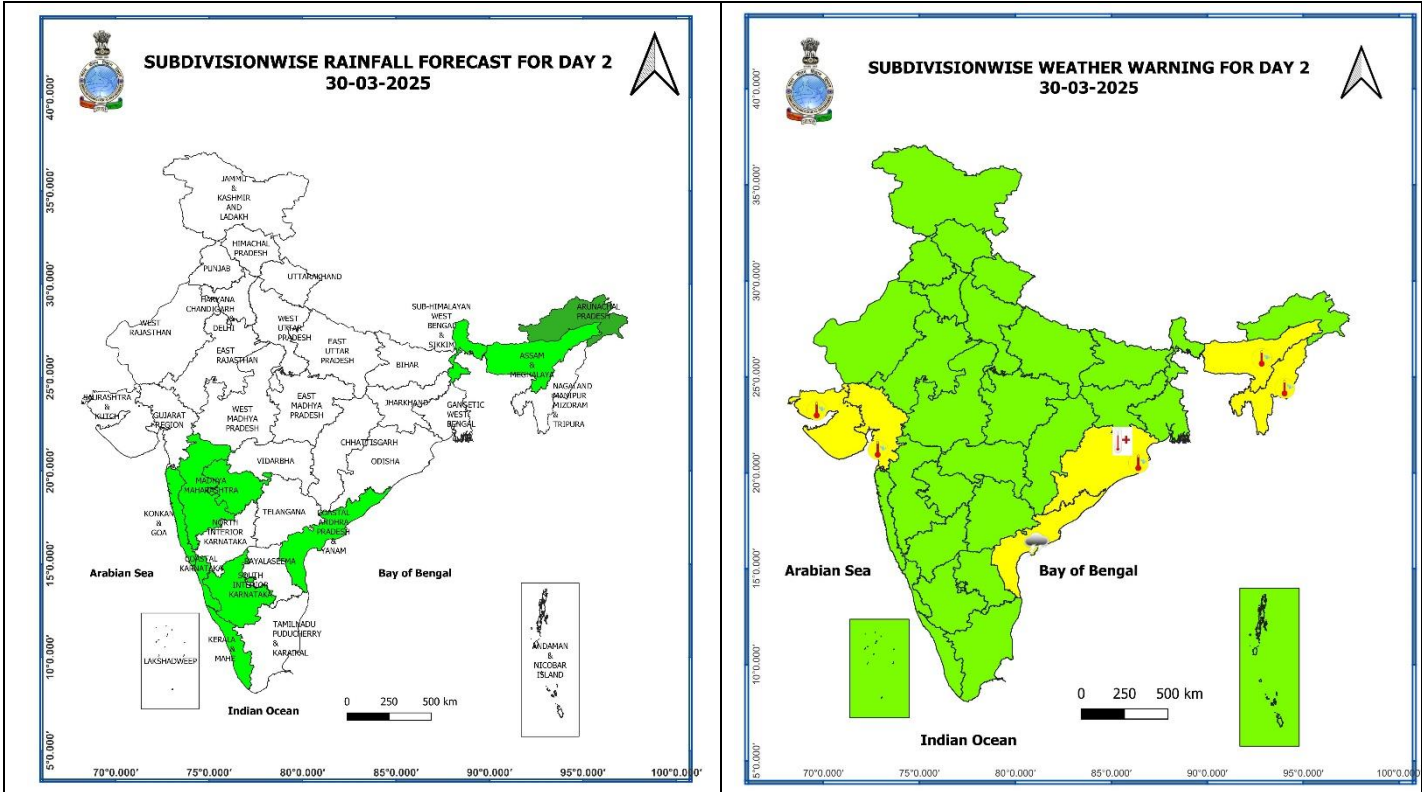
- ❖ A trough runs from interior Odisha to Comorin area across central Chhattisgarh, interior Maharashtra, interior Karnataka, interior Tamil Nadu at 0.9 km above mean sea level.
- ❖ An upper air cyclonic circulation lies over central Chhattisgarh & neighbourhood at 1.5 km above mean sea level.
- ❖ An upper air cyclonic circulation lies over Andaman sea & neighbourhood between 1.5 to 5.8 km above mean sea level.
- ❖ An upper air cyclonic circulation lies over northeast Assam & neighbourhood at 1.5 km above mean sea level.
- ❖ The **Western Disturbance** as a trough in middle & upper tropospheric levels with its axis at 5.8 km above mean sea level roughly along Long. 73°E to the north of Lat. 33°N has moved away east-northeastwards.
- ❖ The **trough** from Bihar to northeast Assam across Sub-Himalayan West Bengal & Sikkim at 0.9 km above mean sea level has become less marked.
- ❖ The **trough** from south interior Karnataka to south Tamil Nadu at 0.9 km above mean sea level has become less marked.

Weather Forecast & Warnings for next 7 days (Upto 0830 hours IST of 05th April, 2025)



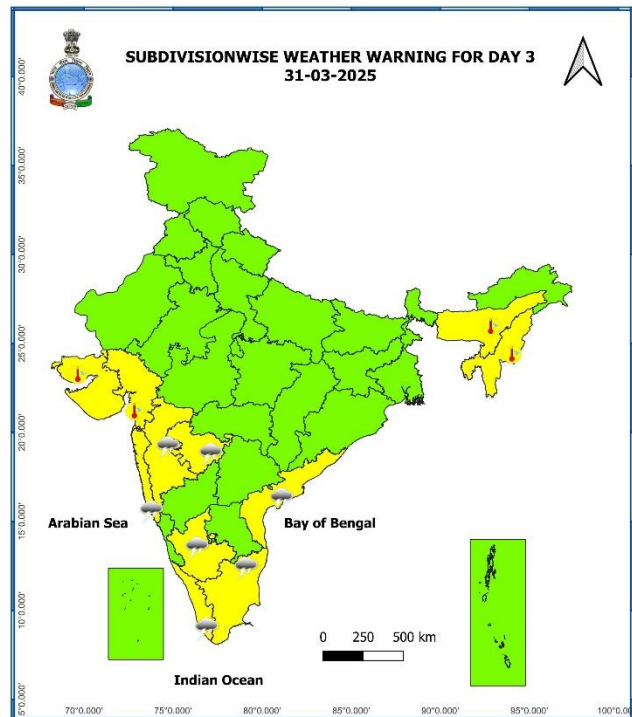
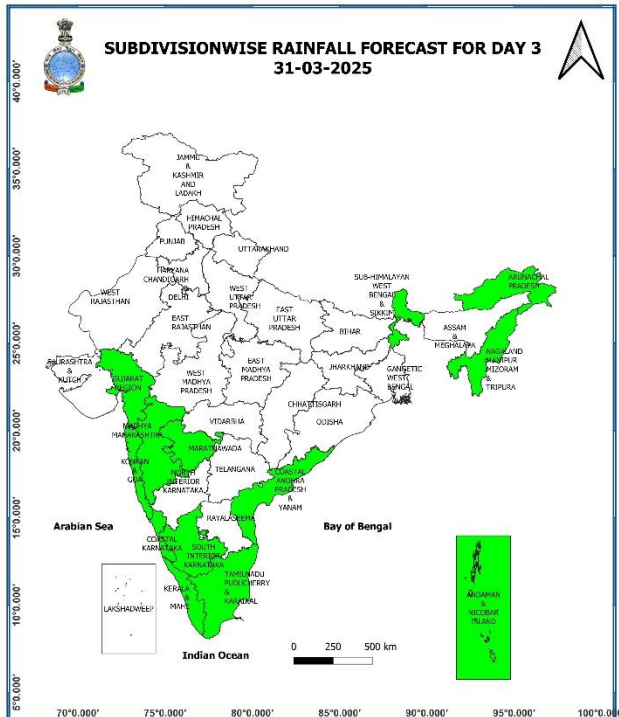
29th March (Day 1):

- ❖ **Thunderstorm accompanied with lightning** very likely at isolated places over Arunachal Pradesh, Assam & Meghalaya and Sub-Himalayan West Bengal & Sikkim.
- ❖ **Heat wave conditions** very likely at isolated places over Odisha and Gangetic West Bengal.
- ❖ **Hot and Humid Conditions** very likely at isolated places over Odisha, Assam & Meghalaya, Tripura and coastal areas of Gujarat state.
- ❖ **Strong Surface winds (speed reaching 20 - 30 kmph gusting to 40 kmph)** very likely at isolated places over Northwest India and adjoining Madhya Pradesh.
- ❖ **Dust raising winds (30-40 kmph)** very likely at isolated places over Uttar Pradesh.



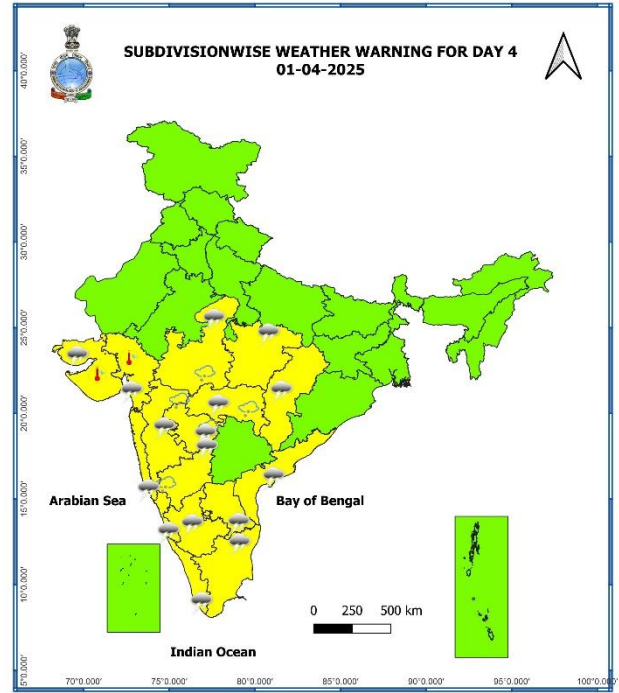
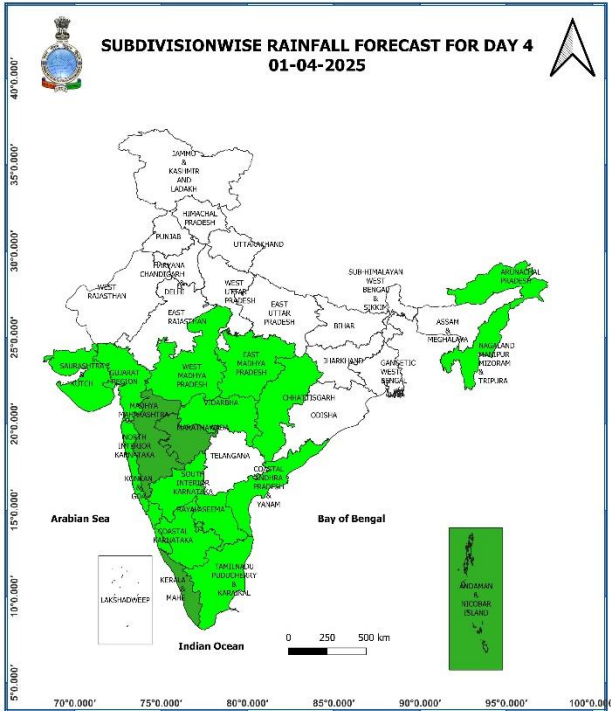
30th March (Day 2):

- ❖ **Thunderstorm accompanied with lightning** very likely at isolated places over Coastal Andhra Pradesh & Yanam.
- ❖ **Heat wave conditions** very likely at isolated places over Odisha.
- ❖ **Hot and Humid Conditions** very likely at isolated places over Odisha, Assam & Meghalaya, Tripura and coastal areas of Gujarat state.



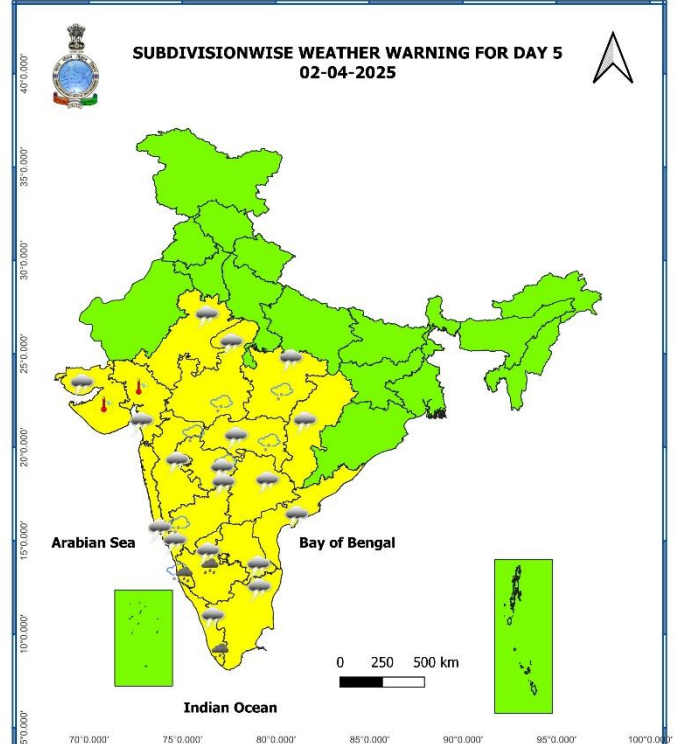
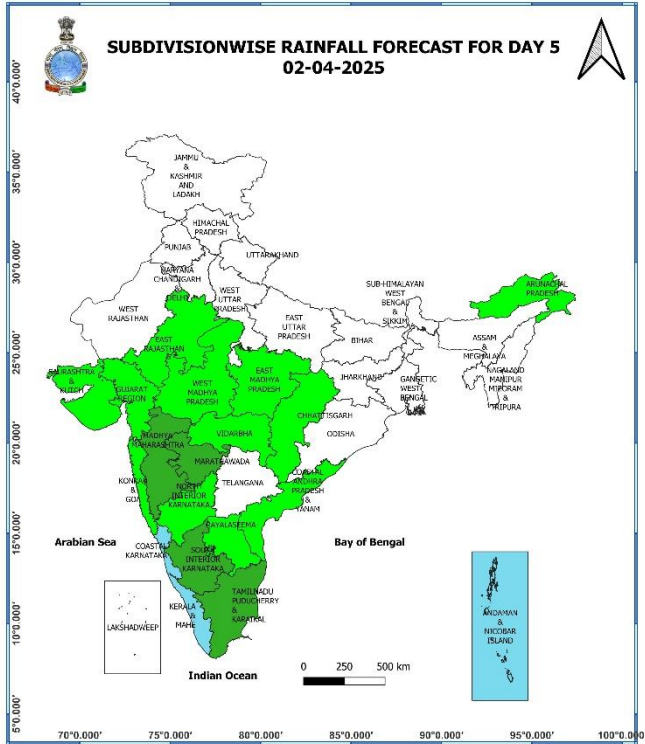
31st March (Day 3):

- ❖ **Thunderstorm accompanied with gusty winds (speed reaching 40 - 50 kmph) & lightning** very likely at isolated places over Madhya Maharashtra, Marathwada; **with gusty winds (speed reaching 30 - 40 kmph)** at isolated places over Coastal Andhra Pradesh & Yanam; **with lightning** at isolated places over Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe, Konkan & Goa and South Interior Karnataka.
- ❖ **Hot and Humid Conditions** likely at isolated places over Assam & Meghalaya, Tripura and coastal areas of Gujarat state.



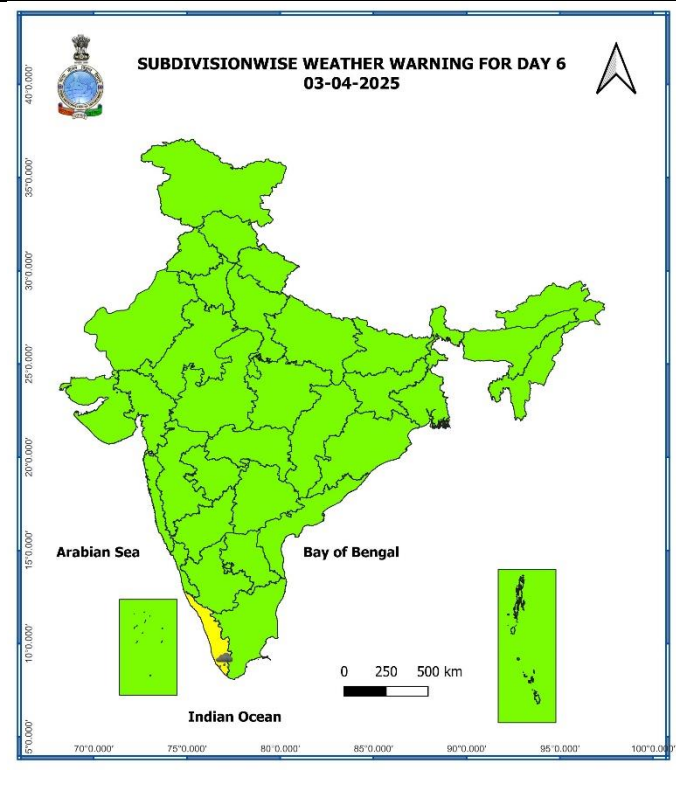
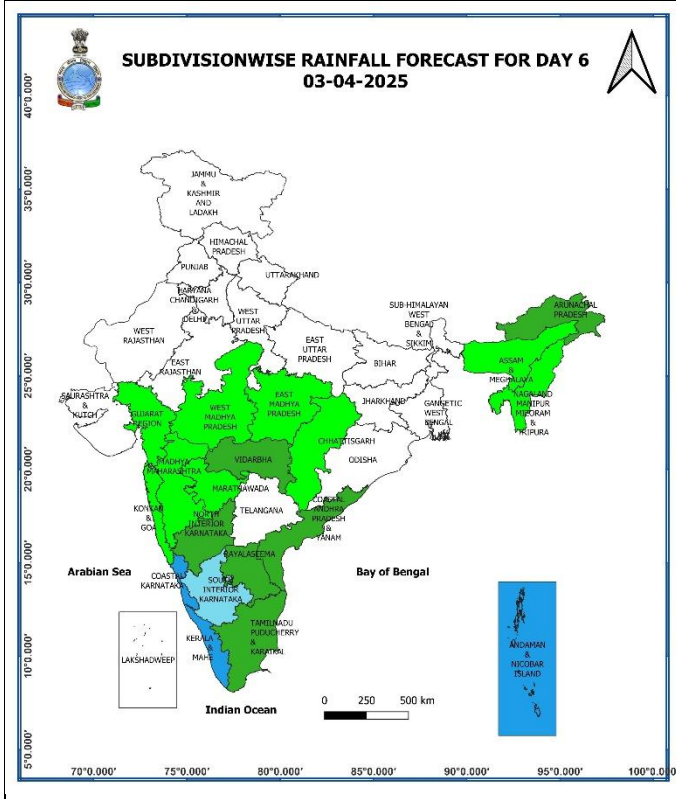
01st April (Day 4):

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



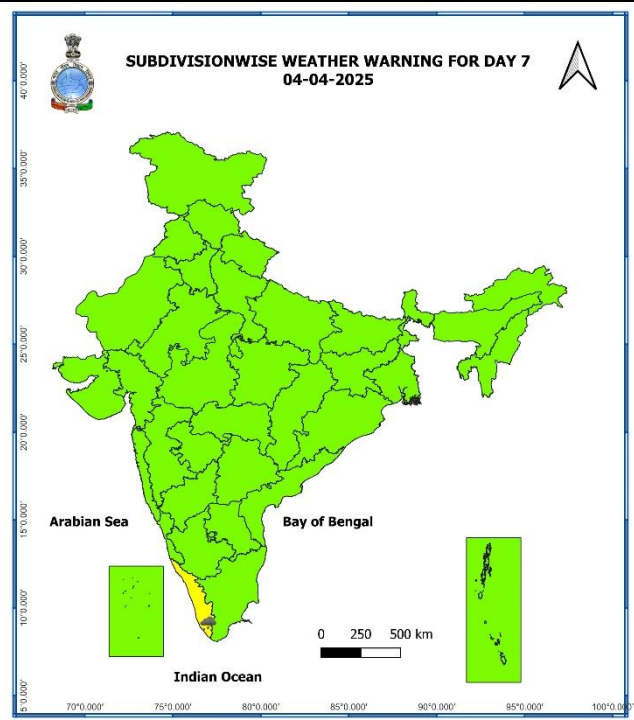
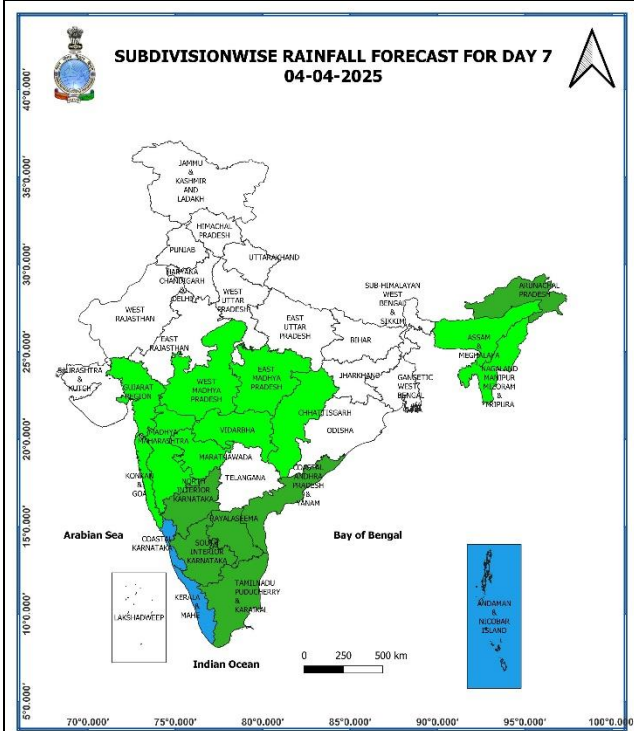
02nd April (Day 5):

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



03rd April (Day 6):

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



04th April (Day 7):

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

Weather Outlook for subsequent 3 days (During 05th April- 07th 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

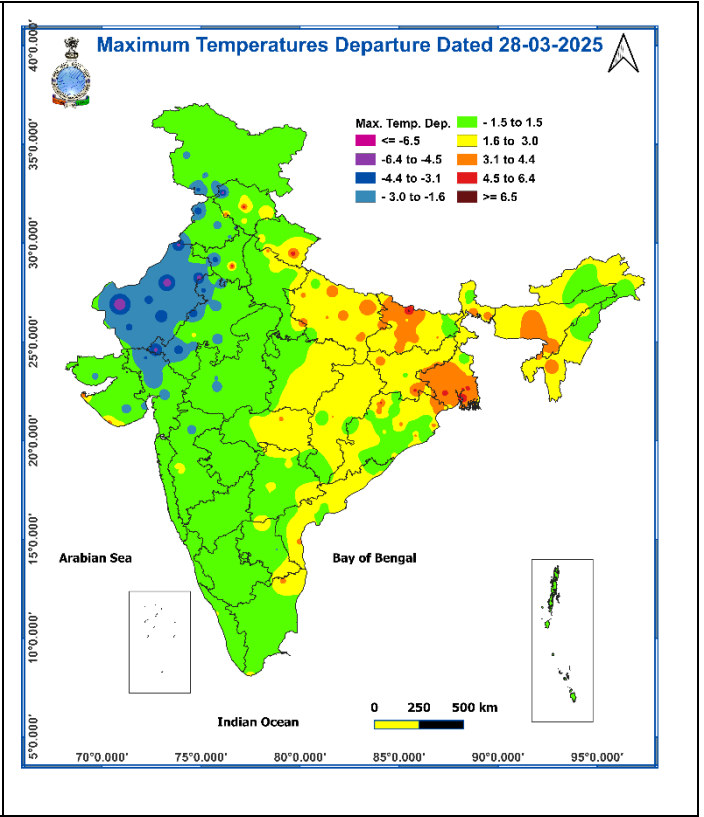
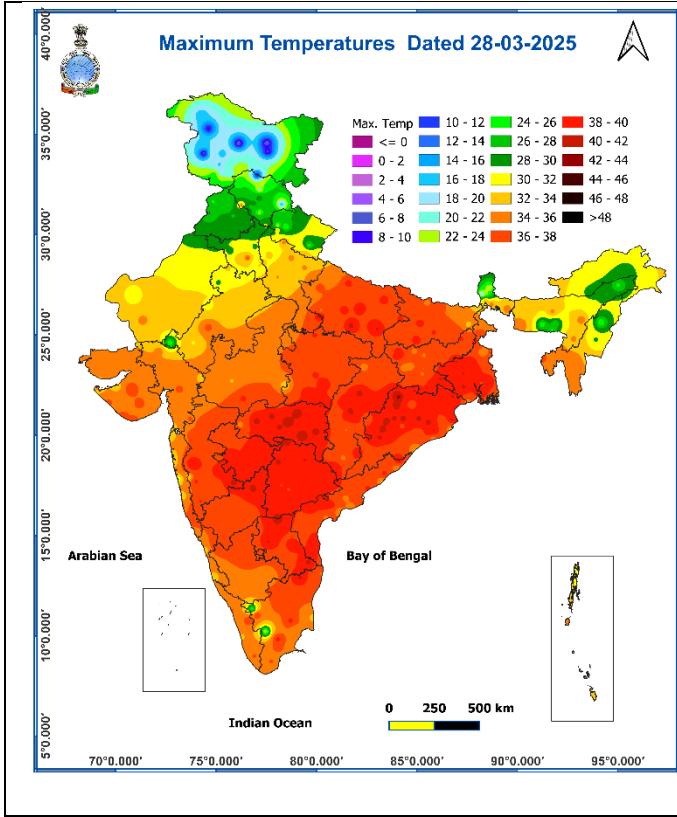
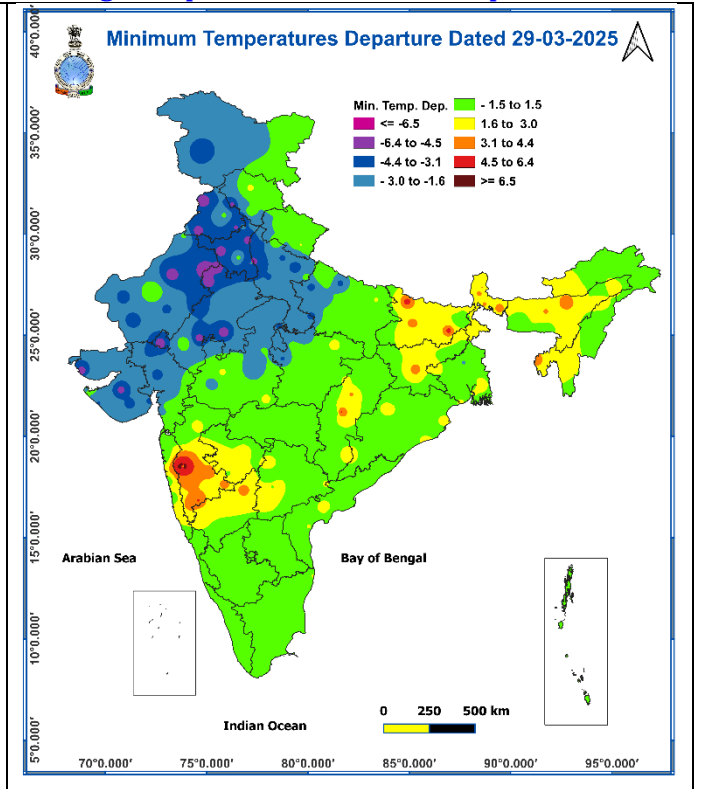
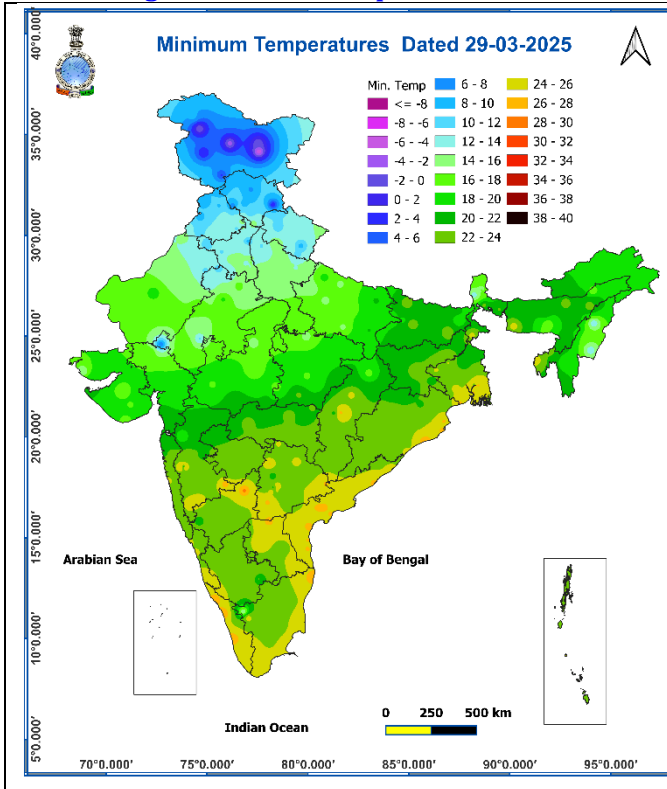


Fig. 3: Minimum Temperatures

Fig. 4: Departure of Minimum Temperatures



*** 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)

Impact expected and action suggested due Heat Wave conditions over Odisha, Gangetic West Bengal on 29th & 30th 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.

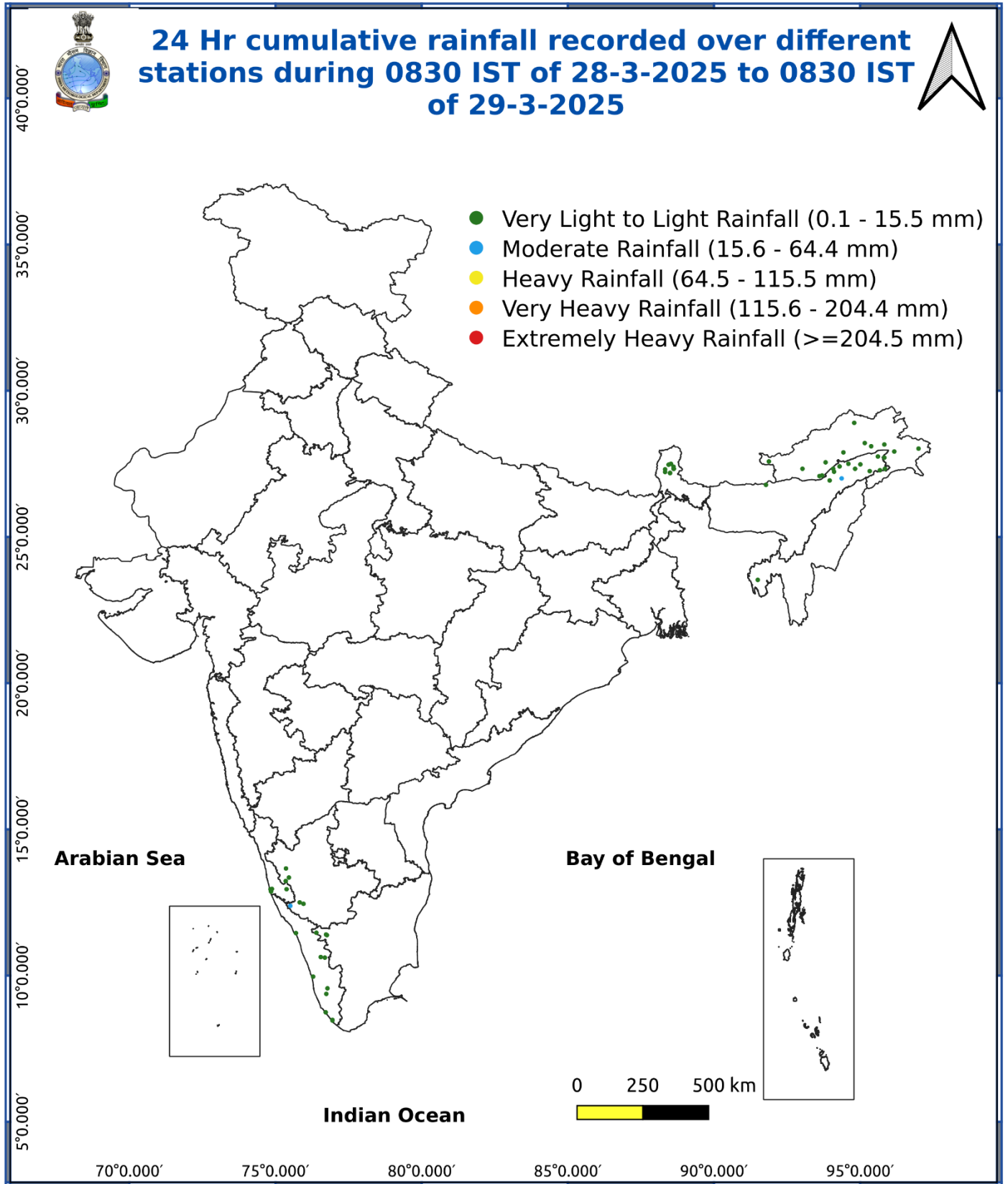
Impact expected:

- 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.

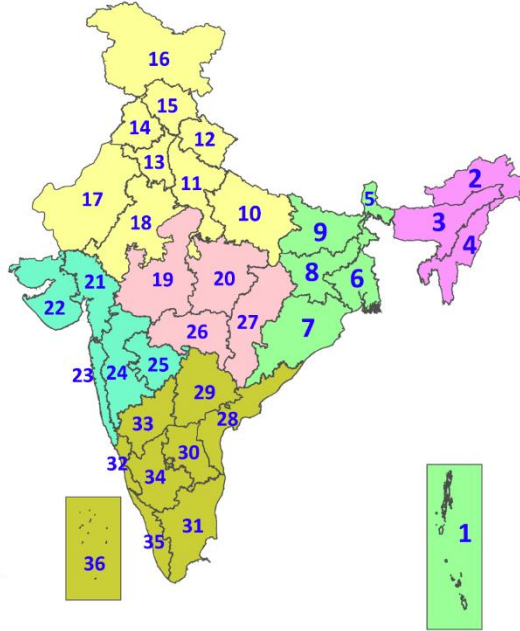
Fig. 5: Accumulated Rainfall (mm) during past 24 hours



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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.