

Sunday, March 23, 2025
Time of Issue: 1345 hours IST
(MID-DAY)

ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

Significant Weather Features:

Weather Systems, Forecast and Warnings:

- ❖ A **cyclonic circulation** lies over central Uttar Pradesh and another over northeast Assam & neighbourhood in lower tropospheric levels. A north-south trough runs from west Vidarbha to south Tamil Nadu in lower tropospheric levels. There is wind confluence over east & adjoining east peninsular India in association with the anticyclonic circulation over Bay of Bengal at lower tropospheric levels. Under the influence of these systems:
 - ✓ **Scattered to Fairly widespread** light/moderate rainfall accompanied with **thunderstorm, lightning & gusty winds (speed 40-50 kmph)** likely over West Bengal, Sikkim, Bihar, Assam & Meghalaya, Tamilnadu Puducherry & Karaikal, Rayalaseema on 23rd March and reduction in intensity thereafter.
 - ✓ **Heavy rainfall** likely at isolated places over south Tamil Nadu, Kerala & Mahe on 23rd March and over Arunachal Pradesh on 28th & 29th March.
 - ✓ **Isolated hailstorms also likely over** West Bengal & Sikkim, Assam & Meghalaya and Rayalaseema on 23rd March.
 - ✓ **Scattered to Fairly widespread** light/moderate rainfall accompanied with **thunderstorm, lightning & gusty winds (speed 30-40 kmph)** likely over East Uttar Pradesh, Chhattisgarh, Jharkhand, Odisha, North Interior Karnataka on 23rd March; over Coastal Andhra Pradesh & Yanam, Telangana on 23rd & 24th March; over Rayalaseema on 24th March and over South Interior Karnataka during 23rd-26th March.
- ❖ A **fresh Western Disturbance is likely to affect Western Himalayan Region from night of 24th March**. Under its influence:
 - ✓ **Isolated to Fairly widespread** light/moderate rainfall accompanied with **thunderstorm, lightning** likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad during 24th-28th; Himachal Pradesh during 24th-27th and over Uttarakhand on 26th & 27th March.
 - ✓ **Heavy rainfall** likely at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad on 26th March.

Temperature Forecast:

Forecast of temperature:

Maximum temperature:

- ❖ Gradual rise in maximum temperatures by 3-5°C likely over many places over Northwest India during next 4 days and no significant change thereafter.
- ❖ Gradual rise in maximum temperatures by 2-4°C likely over Central India and Interior Maharashtra during next 4-5 days.
- ❖ Gradual rise in maximum temperatures by 2-3°C likely over Gujarat during next 3 days and then fall by about 2-3°C thereafter.

Heat wave and Hot & Humid weather warning:

- ❖ **Hot & humid weather conditions** very likely to prevail in isolated pockets over coastal areas of Gujarat State during 23rd-25th March.

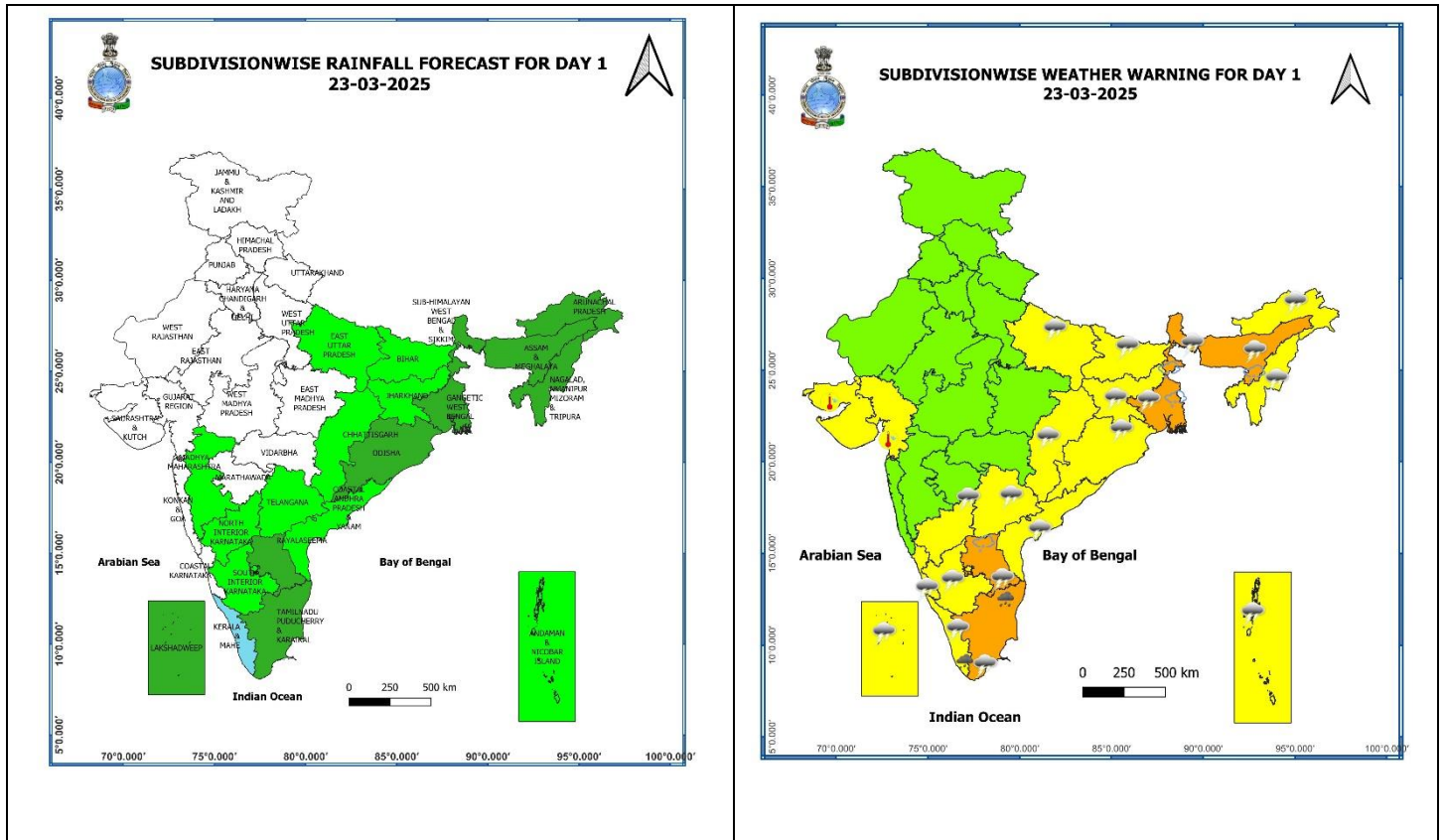
Main Weather Observations:

- ❖ **Rainfall distribution** (from 0830 hours IST of yesterday to 0830 hours IST of today): at most places over Gangetic West Bengal; at many places over Sub-Himalayan West Bengal & Sikkim, Odisha, Arunachal Pradesh, South Interior Karnataka, Kerala & Mahe; at a few places over Jharkhand, Assam & Meghalaya, Rayalaseema, Lakshadweep; at isolated places over Uttar Pradesh, East Madhya Pradesh, Chhattisgarh, Bihar, Nagaland, Manipur, Mizoram & Tripura, Coastal Andhra Pradesh & Yanam, Telangana, North Interior Karnataka and Tamilnadu Puducherry & Karaikal.
- ❖ **Significant amount of rainfall** (from 0830 hours IST of yesterday to 0830 hours IST of today) (in cm):
Odisha: Rangeilunda (Ganjam) 8, Chhatrapur (Ganjam) 7, Aska (Ganjam) 5, Kakatpur (Puri) 5, Buguda (Ganjam) 5, Gop (Puri) 5, Ganjam (Ganjam) 5, Sheragada (Ganjam) 4, Astaranga (Puri) 4, Khajuripada (Kandhamal) 4, Sohela (Bargarh) 4, Krishnaprasad (Puri) 4, Naktideul (Sambalpur) 4, Komna (Nawapara) 3, Odagaon (Nayagarh) 3, Derabis (Kendrapara) 3, Junagarh (Kalahandi) 3, Dharakote (Ganjam) 3, Bhuban (Dhenkanal) 3, Korei (Jajpur) 3, Rairangpur (Mayurbhanj) 3, Nayagarh (Nayagarh) 3, Cuttack (Cuttack) 3, Lanjigarh (Kalahandi) 3, Kodala (Ganjam) 3, Tihidi (Bhadrak) 3, Polsara (Ganjam) 3, Rairakhola (Sambalpur) 3, Bhandaripokhari (Bhadrak) 3, **Chhattisgarh:** Surajpur (dist Surajpur) 3, **Kerala & Mahe:** Cherthala (dist Alapuzha) 8, Udumbannoor (dist Idukki) 7, Thodupuzha (dist Idukki) 5, Chimoni (dist Thrissur) 5, Pampadumpara (dist Idukki) 4, Angadipuram (dist Malappuram) 4, Vellayani (dist Thiruvananthapuram) 4, Athirappalli (dist Thrissur) 4, Idukki (dist Idukki) 4, Kanjirappally (dist Kottayam) 3, Pattambi (dist Palakkad) 3, Thattathumala (dist Thiruvananthapuram) 3, Ambalavayal (dist Wynad) 3.
- ❖ **Heavy rainfall** reported at isolated places over Odisha and Kerala & Mahe.
- ❖ **Hailstorms reported** at isolated locations over Uttarakhand, Odisha, Jharkhand, Rayalaseema, Telangana, South Interior Karnataka.
- ❖ **Minimum Temperature Departures (as on 23-03-2025):** Minimum temperatures are **above normal (1.6°C to 3.0°C)** at isolated places over Nagaland, Manipur, Mizoram & Tripura, Coastal Andhra Pradesh & Yanam, Telangana, Rayalaseema and Tamil Nadu, Puducherry & Karaikal. These are **markedly below normal (-5.1°C or less)** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Bihar, East Uttar Pradesh and East Rajasthan; **appreciably below normal (-3.1°C to -5.0°C)** at a few places over Gangetic West Bengal; isolated places over Odisha, West Rajasthan, Haryana-Chandigarh-Delhi and Madhya Pradesh; **below normal (-3.0°C to -1.6°C)** at most places over Sub-Himalayan West Bengal & Sikkim; at many places over West Uttar Pradesh, and Andaman & Nicobar Islands; at isolated places over Uttarakhand and Assam & Meghalaya and near normal over rest parts of the country (**Fig. 4**). Today, the **lowest minimum temperature** of 12.1°C is reported at **Hissar (Haryana)** over the plains of the country.
- ❖ **Maximum Temperature Departures (as on 22-03-2025):** Maximum Temperatures were **markedly above normal (5.1°C or more)** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad; **appreciably above normal (3.1°C to 5.0°C)** at isolated places over Himachal Pradesh; **above normal (1.6°C to 3.0°C)** at many places over Punjab; at a few places over Saurashtra & Kutch; at isolated places over Haryana-Chandigarh-Delhi, Rajasthan. These were **markedly below normal (-5.1°C or less)** at many places over Gangetic West Bengal; at isolated places over Odisha, Jharkhand, Chhattisgarh **appreciably below normal (-3.1°C to -5.0°C)** at a few places over Sub-Himalayan West Bengal & Sikkim; at isolated places over Bihar, Assam & Meghalaya; **below normal (-3.0°C to -1.6°C)** at many places over Arunachal Pradesh and Nagaland, Manipur, Mizoram & Tripura; at a few places over East Madhya Pradesh, Telangana, Tamil Nadu, Puducherry & Karaikal; at isolated places over Madhya Pradesh, Madhya Maharashtra, Marathwada, Telangana, East Rajasthan, Nagaland, Manipur, Mizoram & Tripura and near normal over rest parts of the country. (**Fig. 2**). Yesterday, the highest **maximum temperature** of 40.4°C was reported at **Anantapur (Rayalaseema)** over the country.

Meteorological Analysis (Based on 0830 hours IST)

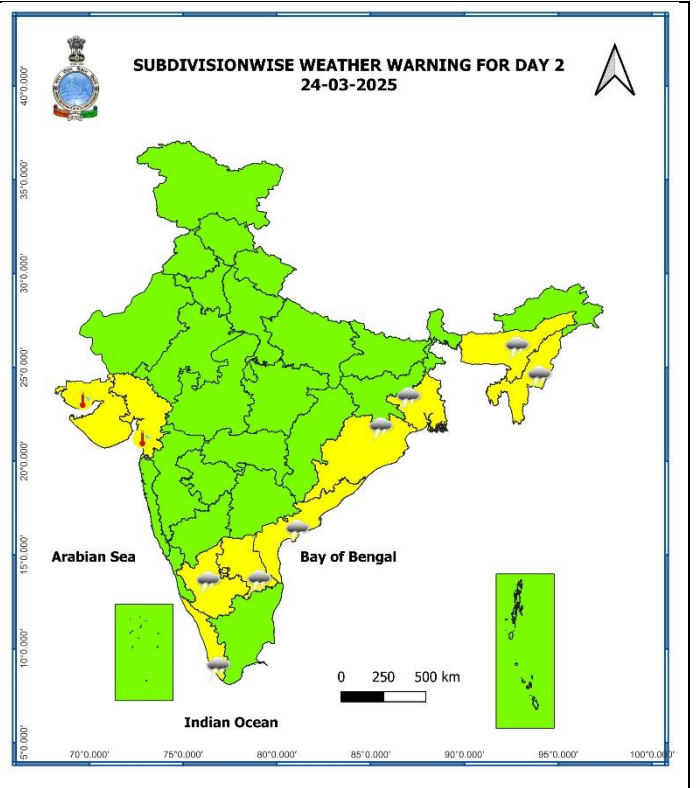
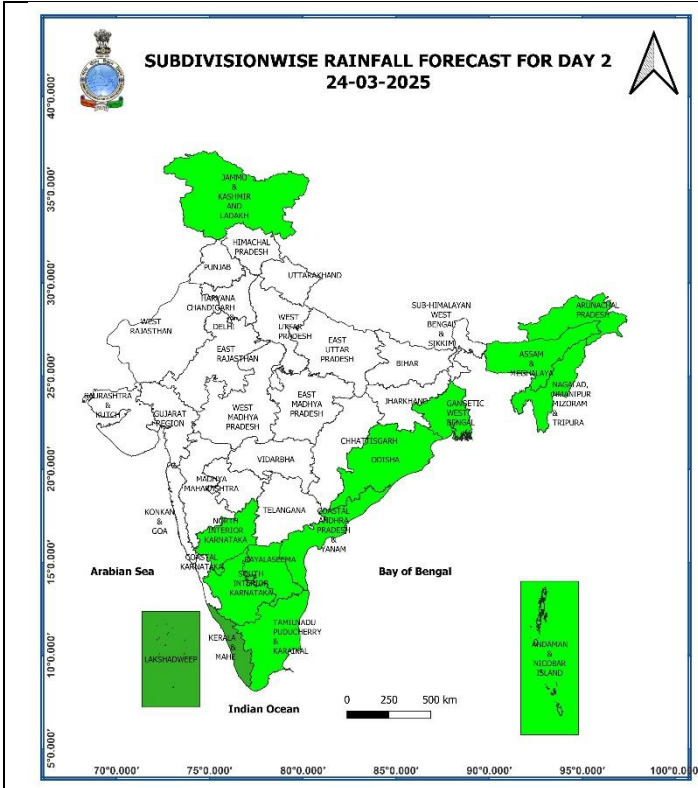
- ❖ The **trough** in westerlies in middle & upper tropospheric levels with its axis between 5.8 & 7.6 km above mean sea level roughly along Long. 84°E to the north of Lat. 20°N persists.
- ❖ The north-south **trough** from North interior Karnataka to south Tamil Nadu now runs from west Vidarbha to south Tamil Nadu at 1.5 km above mean sea level.
- ❖ The **Cyclonic Circulation** over northeast Assam & neighbourhood persists and now seen at 1.5 km above mean sea level.
- ❖ A fresh **Western Disturbance** is seen as a trough in lower to upper tropospheric level with its axis at 3.1 km above mean sea level roughly along Long. 45°E to the north of Lat. 25°N.
- ❖ A **Cyclonic Circulation** lies over central Uttar Pradesh at 1.5 km above mean sea level.
- ❖ A **Cyclonic Circulation** lies over Equatorial Indian Ocean and adjoining southeast Bay of Bengal and extends upto 1.5 km above mean sea level.
- ❖ The **cyclonic circulation** over central Chhattisgarh & neighbourhood persists and now seen at 0.9 km above mean sea level has become less marked.
- ❖ The **trough/wind discontinuity** from southeast Uttar Pradesh to south Madhya Maharashtra across Chhattisgarh and Marathwada extending upto 1.5 km above mean sea level has become less marked.

Weather Forecast & Warnings for next 7 days (Upto 0830 hours IST of 30th March, 2025)



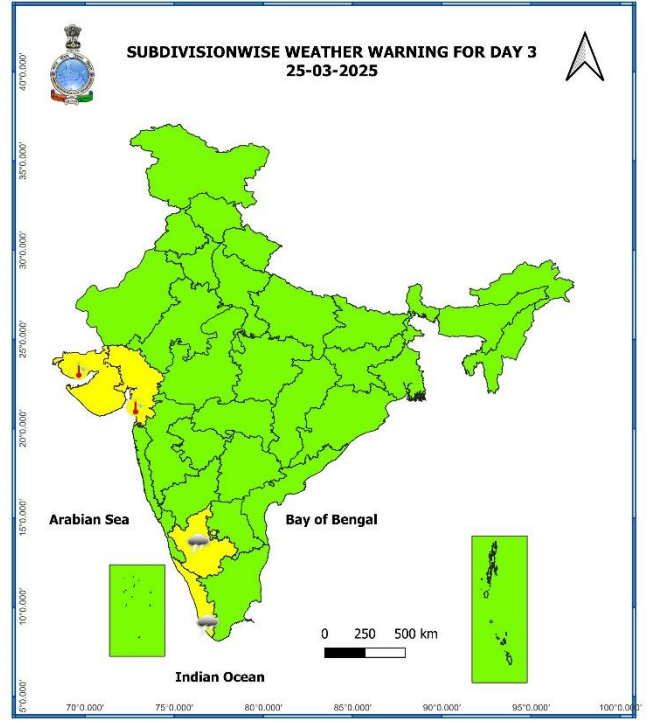
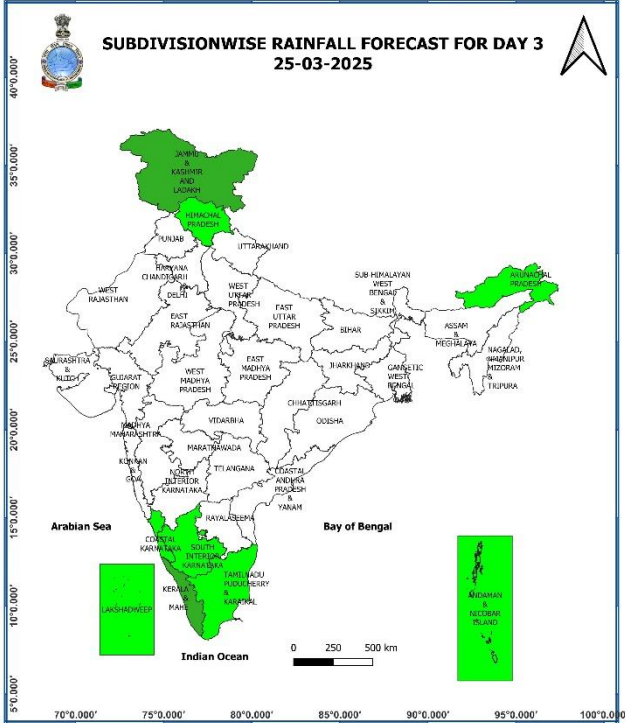
23rd March (Day 1):

- ❖ **Heavy rainfall** very likely at isolated places over Kerala & Mahe and Tamil Nadu, Puducherry & Karaikal.
- ❖ **Thunderstorm accompanied with gusty winds (speed reaching 40 - 50 kmph), Hailstorm & lightning** very likely at isolated places over West Bengal & Sikkim, Assam & Meghalaya and Rayalaseema; **with gusty winds (speed reaching 40 - 50 kmph) & lightning** at isolated places over Bihar and Tamil Nadu, Puducherry & Karaikal; **with gusty winds (speed reaching 30 - 40 kmph) & lightning** at isolated places over East Uttar Pradesh, Chhattisgarh, Jharkhand and Odisha, Kerala & Mahe, Coastal Andhra Pradesh & Yanam, Telangana, Interior Karnataka; with **lightning** likely at isolated places over Andaman & Nicobar Islands, Arunachal Pradesh, Lakshadweep and Nagaland, Manipur, Mizoram & Tripura.
- ❖ **Hot and Humid Conditions** very likely at isolated places over Gujarat state.



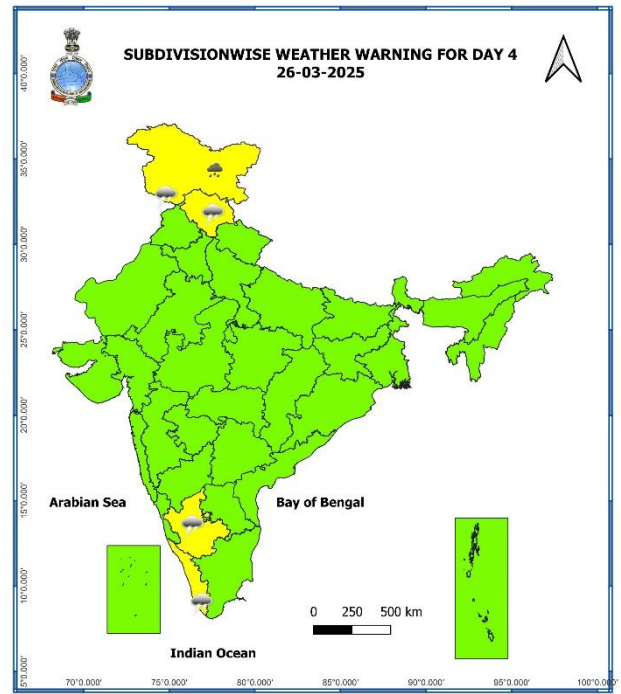
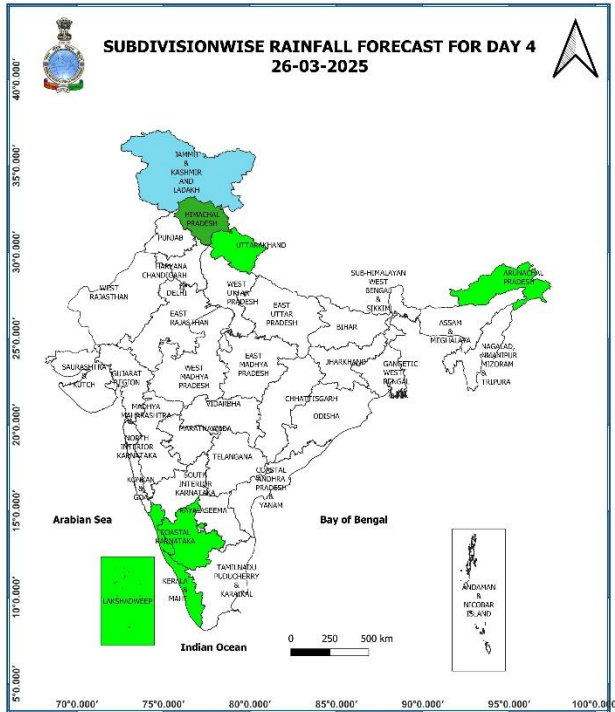
24th March (Day 2):

- ❖ **Thunderstorm accompanied with gusty winds (speed reaching 30 - 40 kmph) & lightning very likely** at isolated places over Kerala & Mahe, Coastal Andhra Pradesh & Yanam, Rayalaseema, South Interior Karnataka; with **lightning** likely at isolated places over Gangetic West Bengal, Odisha, Nagaland, Manipur, Mizoram & Tripura.
- ❖ **Hot and Humid Conditions** likely at isolated places over Gujarat state.



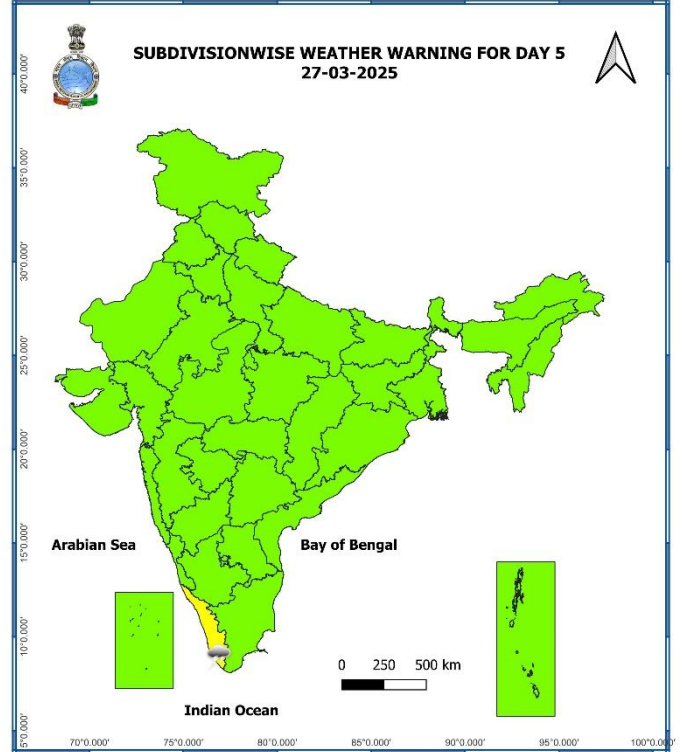
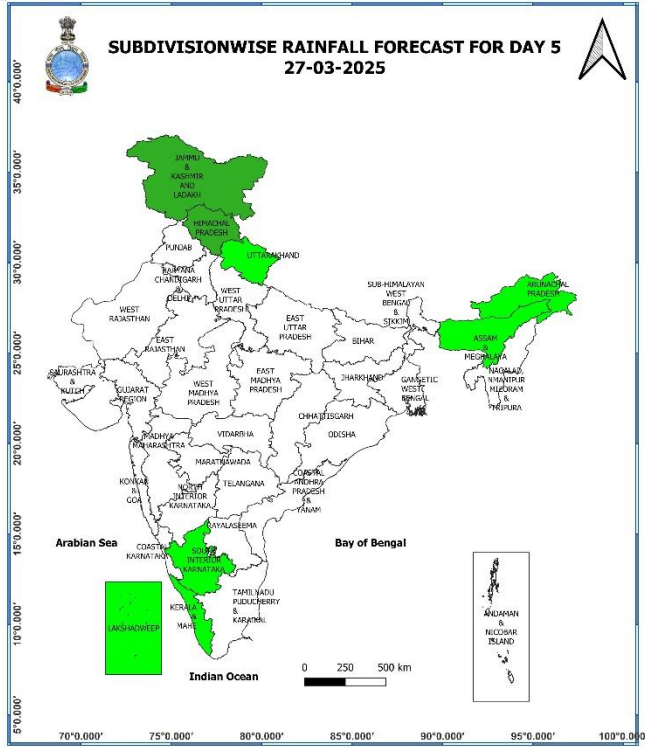
25th March (Day 3):

- ❖ **Thunderstorm accompanied with gusty winds (speed reaching 30 - 40 kmph) & lightning very likely** at isolated places over South Interior Karnataka; with **lightning likely** at isolated places over Kerala & Mahe.
- ❖ **Hot and Humid Conditions** likely at isolated places over Gujarat state.



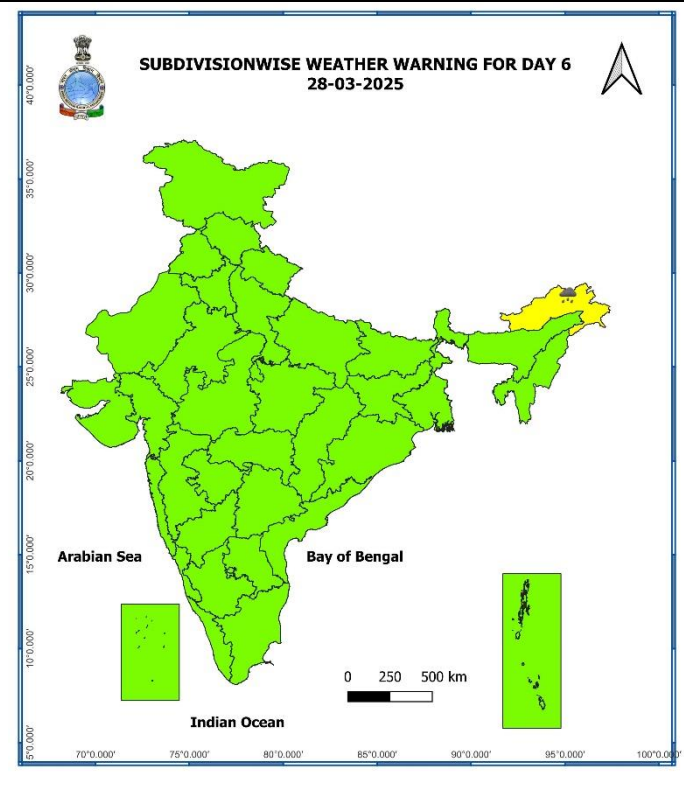
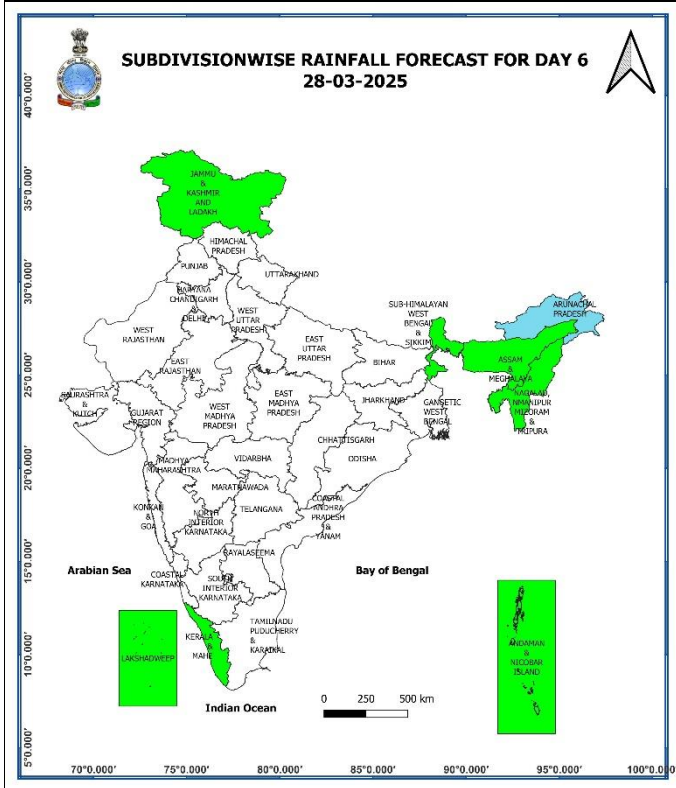
26th March (Day 4):

- ❖ **Heavy rainfall** very likely at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad.
- ❖ **Thunderstorm accompanied with gusty winds (speed reaching 30 - 40 kmph) & lightning** very likely at isolated places over South Interior Karnataka; with **lightning** likely at isolated places over Kerala & Mahe, Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad and Himachal Pradesh.



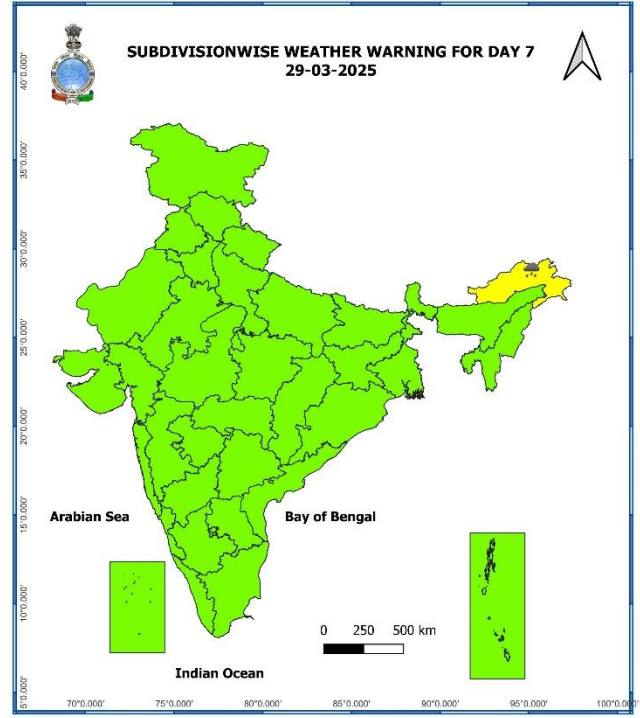
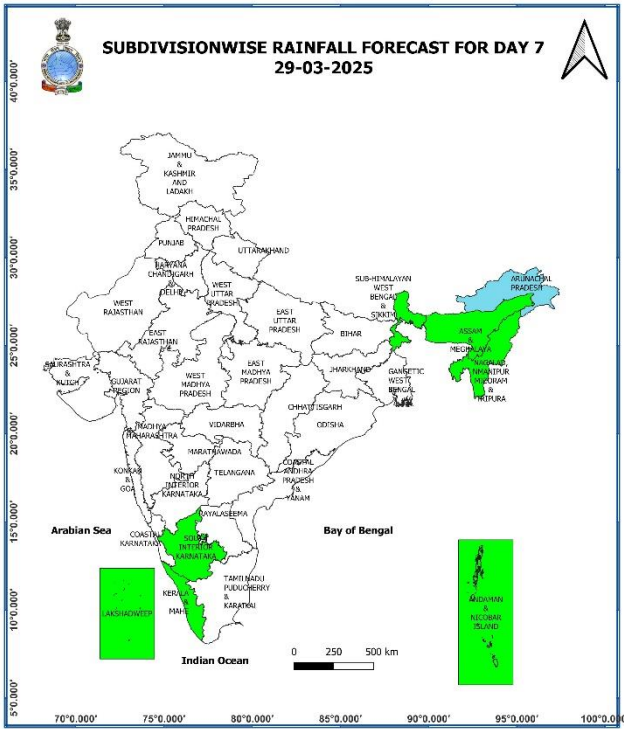
27th March (Day 5):

- ❖ **Thunderstorm accompanied with lightning** likely at isolated places over Kerala & Mahe.



28th March (Day 6):

❖ **Heavy rainfall** likely at isolated places over Arunachal Pradesh.



29th March (Day 7):

❖ **Heavy rainfall** very likely at isolated places over Arunachal Pradesh.

Weather Outlook for subsequent 3 days (During 30th March-01st April, 2025)

❖ **Isolated to scattered rainfall** likely over central India, Arunachal Pradesh, Andaman & Nicobar Islands, Maharashtra, Gujarat state, Odisha, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe, Coastal Karnataka and South Interior Karnataka.

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

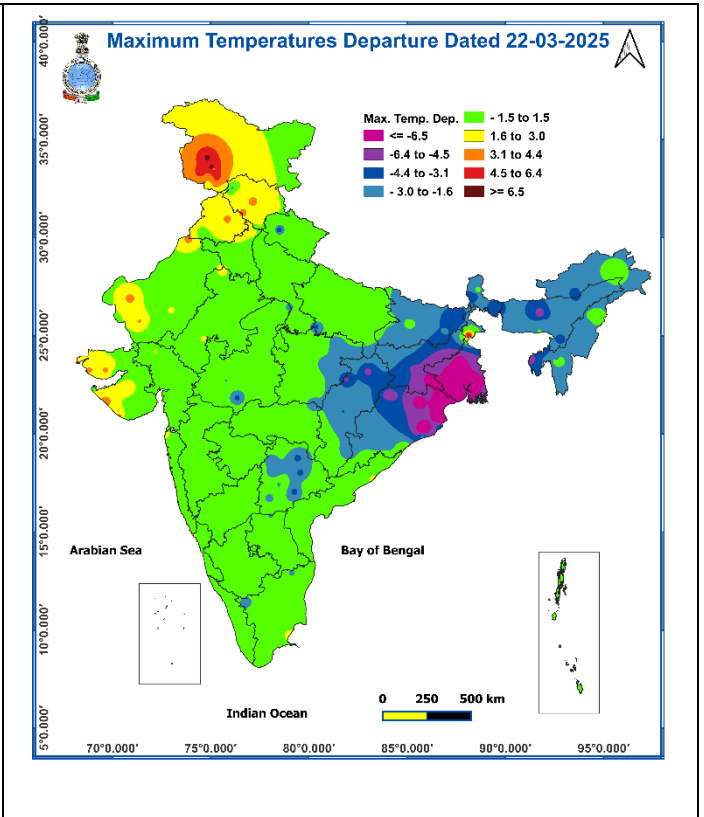
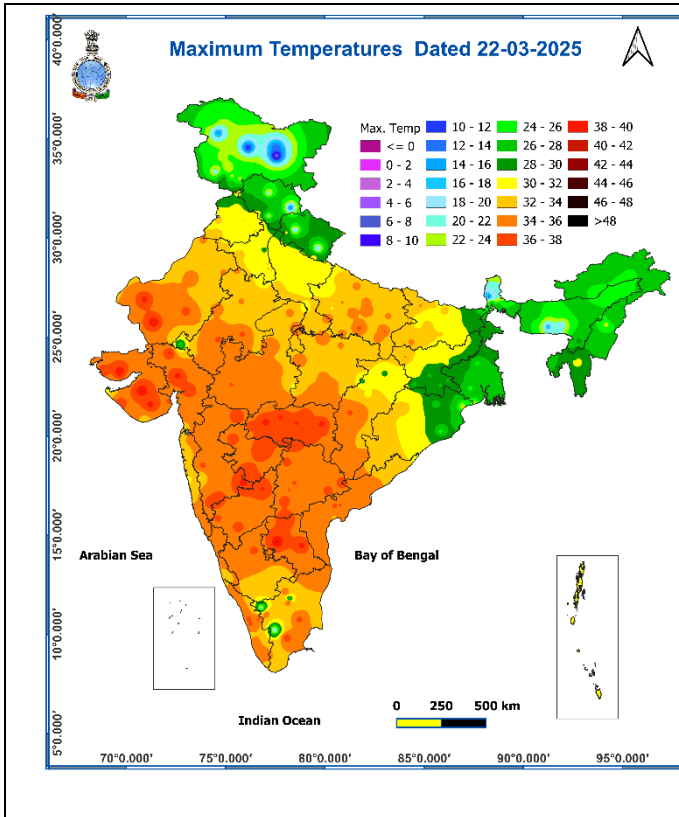
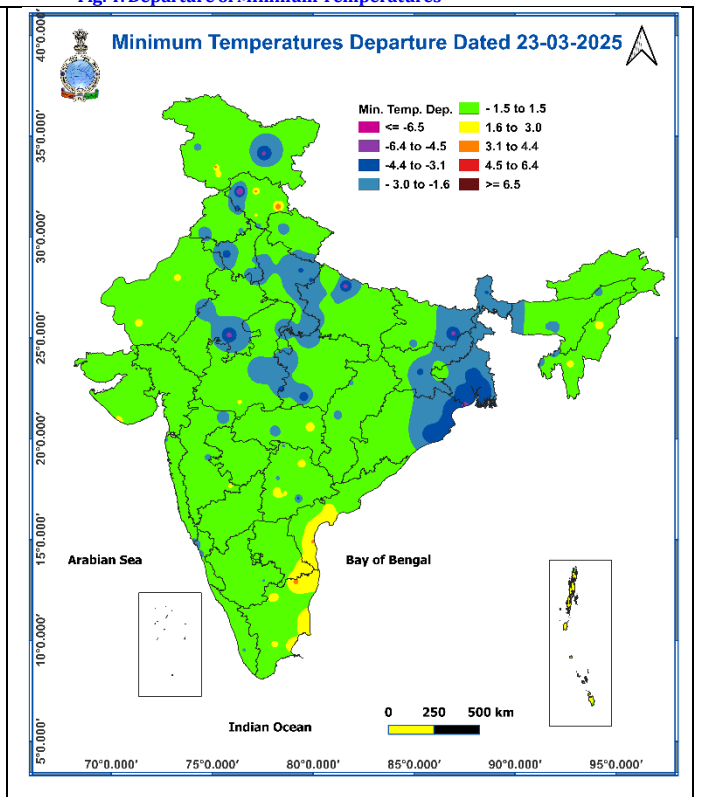
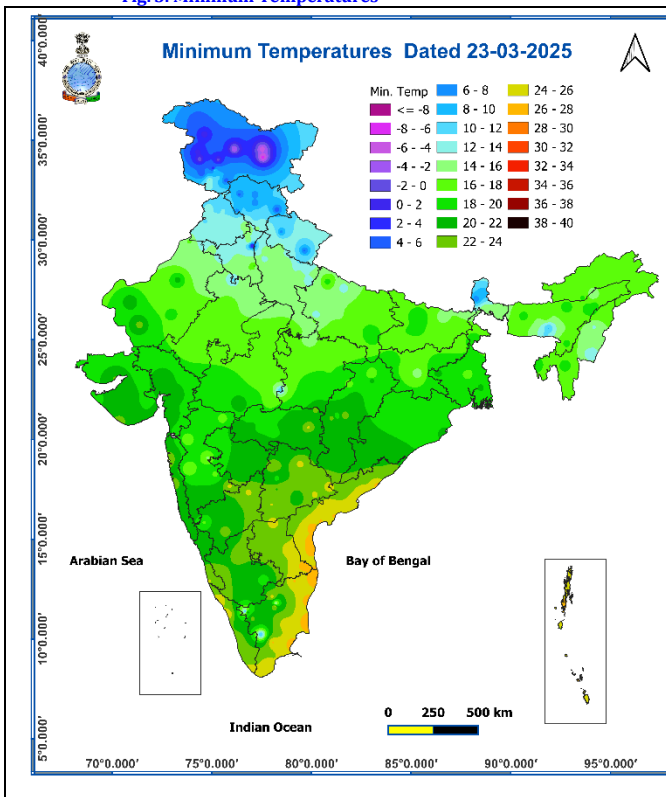


Fig. 3: Minimum Temperatures

Fig. 4: Departure of Minimum Temperatures



Impact expected and action suggested due to thunderstorm accompanied with lightning/gusty winds & hailstorm over east India, Rayalaseema, Assam & Meghalaya on 23rd March 2025.

❖ **Impact expected:**

- ❖ Strong wind may damage plantation, horticulture and standing crops.
- ❖ 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.

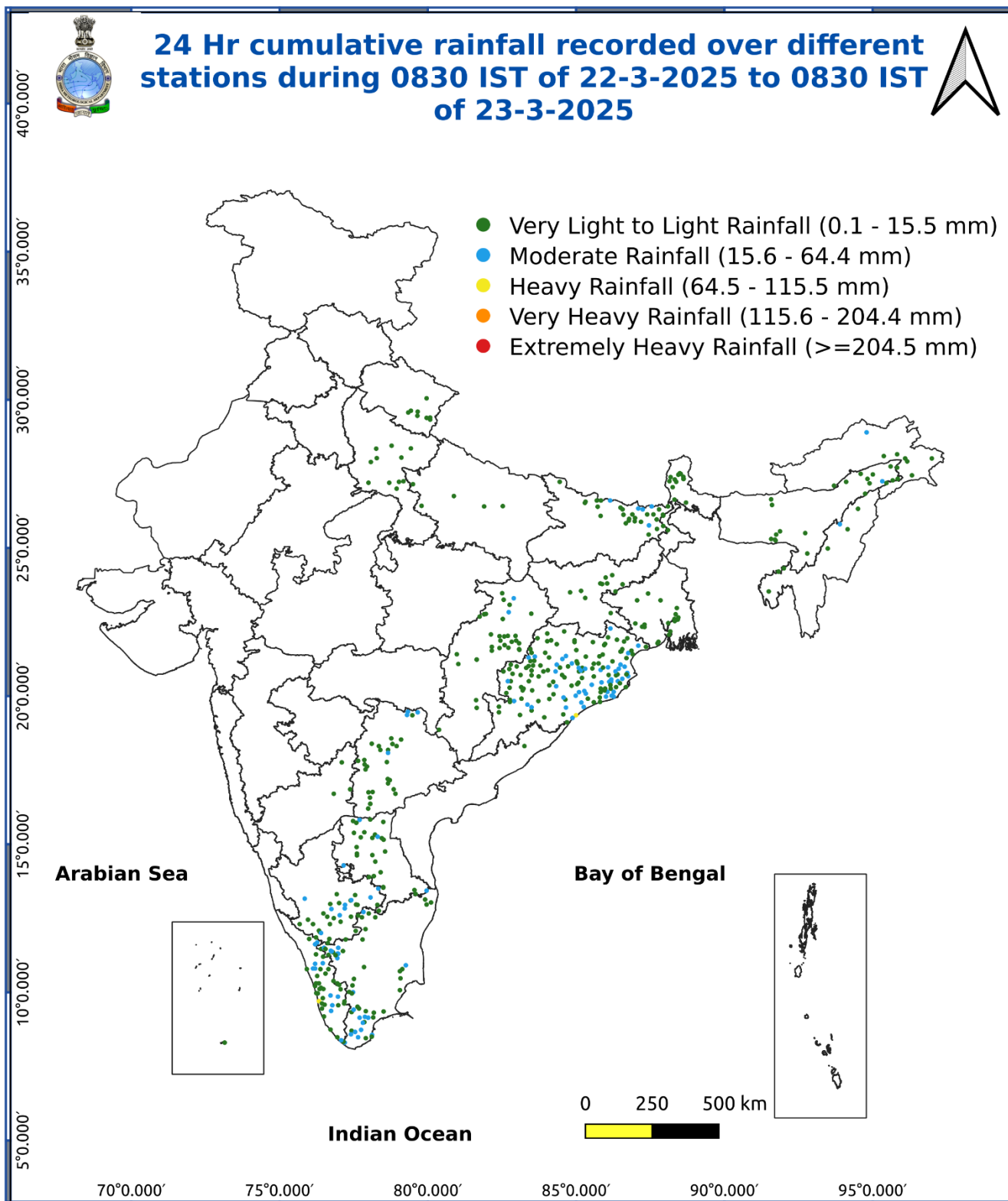
Agromet advisories for likely impact of Heavy Rainfall / Hailstorm

- In Assam & Meghalaya, Gangetic West Bengal and Rayalaseema, keep the harvested produce in safer places or cover the produce with tarpaulin sheets in the fields to avoid the adverse impact of likely hailstorm. Use hail net and hail caps to prevent mechanical damage in orchards due to hailstorms.
- In Odisha, Tamil Nadu and Kerala, drain out excess water from standing crop and vegetable fields.
- Provide mechanical support to horticultural crops and staking to vegetables to avoid lodging.

Livestock

- 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.

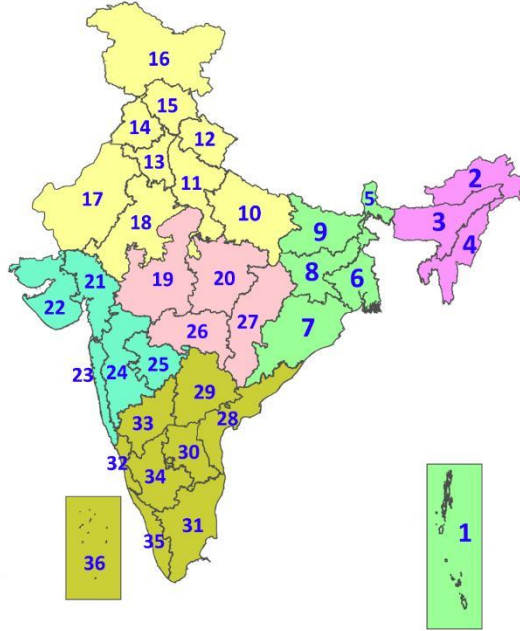
Fig. 5: Accumulated Rainfall (mm) during past 24 hours



* 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

COLOUR CODED WARNING

No Warning (No Action)

Watch (Be Aware)

Alert (Be Prepared To Take Action)

Warning (Take Action)



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

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 at least 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 Storm: Wind speed > 220 kmph (> 119 knots)