

Thursday, October 31, 2024
Time of Issue: 1330 hours IST
(MID-DAY)

ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

Significant Weather Features:

Weather Systems:

- ❖ A **cyclonic circulation** lies over Gulf of Mannar in lower tropospheric levels.
- ❖ An **upper air cyclonic circulation** lies over southwest Bay of Bengal off south Andhra Pradesh in lower & middle tropospheric levels.
- ❖ Another **upper air cyclonic circulation** lies over northeast Assam in lower tropospheric levels.

Forecast & Warnings (upto 7 days):

- ✓ Light to moderate rainfall at a few places accompanied with isolated thunderstorm and lightning very likely over Kerala & Mahe during 31st October-04th November, Tamil Nadu, Puducherry & Karaikal during 31st October-03rd November and Karnataka during 31st October-02nd November; Coastal Andhra Pradesh & Yanam, Rayalaseema and Telangana on 31st October & 01st November, Konkan & Goa, Madhya Maharashtra and Marathwada on 31st October & 01st November.
- ✓ **Isolated heavy to very heavy rainfall** also very likely over Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe on 01st November.
- ✓ **Isolated heavy rainfall** also very likely over Tamil Nadu, Puducherry & Karaikal during 31st October-02nd November; Kerala & Mahe during 31st October-03rd November and South Interior Karnataka on 31st October-02nd November.

ii. Temperature conditions and Forecast

Temperature Conditions during past 24 hours till 0830 hours IST of today

- ✓ Maximum & Minimum Temperatures were above normal by 3-7°C over Northwest India. Minimum Temperatures were above normal by 3-5°C over parts of Central, Western and Eastern India.

Forecast of temperature

- ✓ The above normal Temperature tendency over Northwest India and parts of Central India is likely to continue during next one week.

iii. Weather forecast over Delhi/NCR during 31st October to 03rd November 2024

Past Weather: Currently both Maximum and Minimum temperature over Delhi are in the range of 33-36°C and 18-22°C respectively. These are above normal by 4 - 6°C. Mainly clear sky condition with variable wind speed reaching 04 - 10 kmph prevailed during daytime and weak/calm wind speed during night.

Weather Forecast:

31.10.2024: Mainly clear sky. The predominant surface wind is likely to be from Northwest directions with wind speed 04 - 10 kmph during morning hours. Shallow fog/ mist in the morning. The wind will gradually increase becoming 08 - 15 kmph during afternoon. It will decrease thereafter becoming less than 08 kmph during evening and night. Smog/shallow fog/ mist is likely in the night.

01.11.2024: Mainly clear sky. The predominant surface wind is likely to be from Northwest directions with wind speed 04 - 10 kmph during morning hours. Shallow fog/ mist in the morning. The wind speed will gradually increase becoming 10 - 14 kmph during afternoon. It will decrease thereafter becoming less than 05 kmph during evening and night. Smog/shallow fog/ mist is likely in the night.

02.11.2024: Mainly clear sky. The predominant surface wind is likely to be upto 04 kmph during morning hours. Shallow fog/ mist in the morning. The predominant surface wind is likely to be from Northeast/East direction with wind speed upto 06 - 08 kmph during afternoon. It will be less than 10 kmph from East/Northeast directions during evening and night. Smog/shallow fog/ mist is likely in the night.

03.11.2024: Mainly clear sky. The predominant surface wind is likely to be from Southeast/East direction with wind speed upto 08 kmph during morning hours. Shallow fog/ mist in the morning. The wind speed will gradually decrease becoming upto 06 kmph during afternoon. It will be less than 05 kmph from East directions during evening and night. Smog/shallow fog/ mist is likely in the night.

No significant weather likely over rest parts of the country.

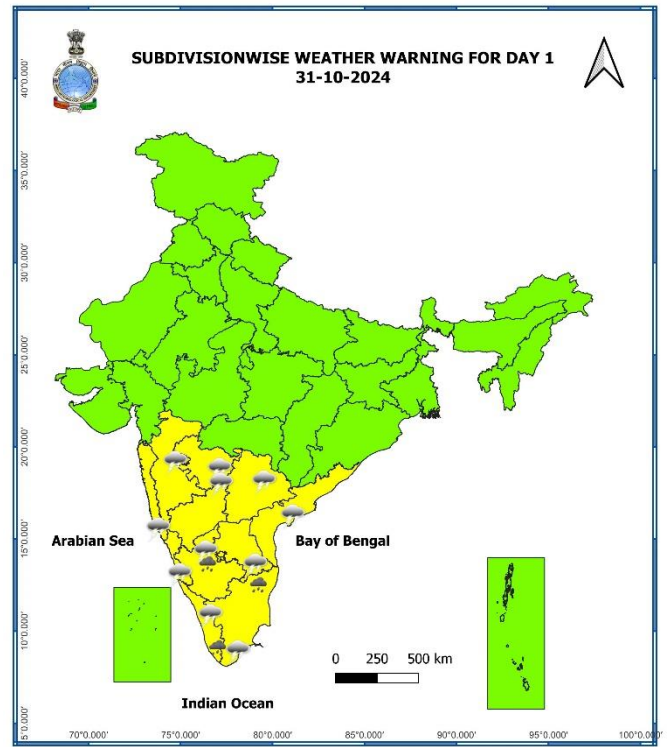
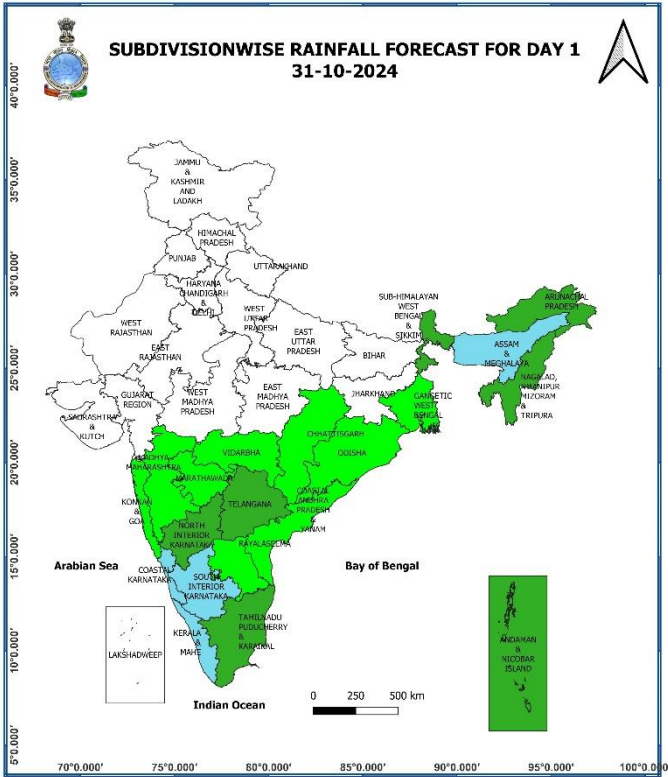
Main Weather Observations:

- ❖ **Rainfall distribution** (from 0830 hours IST of yesterday to 0830 hours IST of today): **at many places** over Arunachal Pradesh, Assam & Meghalaya; **at a few places** over Sub-Himalayan West Bengal & Sikkim, Coastal Andhra Pradesh & Yanam, Telangana; **at isolated places** over Nagaland, Manipur, Mizoram & Tripura, Konkan & Goa, Madhya Maharashtra, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe, Karnataka, Rayalaseema.
- ❖ **Heavy rainfall recorded** (from 0830 hours IST of yesterday to 0830 hours IST of today): **Heavy rainfall** at isolated places over Tamil Nadu and Sikkim.
- ❖ **Significant amount of rainfall** (from 0830 hours IST of yesterday to 0830 hours IST of today) (in cm): **Tamil Nadu:** Zone 08 Malar Colony (dist Chennai) 11; Good Will School Villivakkam ARG (dist Tiruvallur) 10; Ayanavaram Taluk Office (dist Chennai) 9; Zone 06 T.V.K Nagar (dist Chennai), Zone 06 D65 Kolathur (dist Chennai) 7 each; **Sub-Himalayan West Bengal & Sikkim:** Gangtok (dist Gangtok) 7, Neora (dist Jalpaiguri) 4; **Telangana:** Khanapur (dist Warangal) 6, Nalgonda (dist Nalgonda) 5, Vicarabad (dist Vikarabad) 4, Malyal (dist Mahabubabad) 4, Pochampalle (dist Y. Bhuvanagiri) 4, Narmetta (dist Jangaon) 3; **Assam & Meghalaya:** Srijangram Arg (dist Bongaigaon) 6, Amraghat (dist Cachar) 5, Majuli (dist Jorhat) 5; **Arunachal Pradesh:** Bameng Circle Aws (dist East Kameng) 5, Anini_aws (dist Dibang Valley) 3; **Chhattisgarh:** Bijapur (dist Bijapur) 5, Sukma (dist Sukma) 4, Jagargunda (dist Sukma) 3; **South Interior Karnataka:** Harapanahalli (dist Vijayanagara) 5; **Konkan & Goa:** Rajapur (dist Ratnagiri) 5, Kankavli (dist Sindhudurg) 3; **Gangetic West Bengal:** Rajnagar (dist Birbhum) 5; **North Interior Karnataka:** Haveri Pto (dist Haveri) 4, Dharwad (hos) (dist Dharwad) 3; **Coastal Andhra Pradesh:** Tiruvuru (dist Ntr District) 3; **Rayalaseema:** Raju Palem (dist Ysr District) 3; **Jharkhand:** Narayanpur (dist Jamtara) 3; **Nagaland, Manipur, Mizoram & Tripura:** Kolasib Agri (dist Kolasib) 3, Kolasib_aws (dist Kolasib) 3.
- ❖ **Minimum Temperature Departures (as on 31-10-2024):** Minimum temperatures are **markedly above normal (5.1°C or more)** at isolated places over Uttar Pradesh, Haryana-Chandigarh-Delhi, Rajasthan, East Madhya Pradesh, Odisha, Bihar, Madhya Maharashtra; **appreciably above normal (3.1°C to 5.0°C)** at many places over Punjab, Gangetic West Bengal, Vidarbha; at a few places over West Madhya Pradesh, Gujarat Region, Telangana, Chhattisgarh; at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Jharkhand, Marathwada, Sub-Himalayan West Bengal & Sikkim; **above normal (1.6°C to 3.0°C)** at many places over Tamil Nadu, Puducherry & Karaikal, Rayalaseema, Coastal Andhra Pradesh & Yanam; at a few places over Kerala & Mahe, Saurashtra & Kutch, at isolated places over Interior Karnataka, Konkan & Goa, Himachal Pradesh, Uttarakhand, Nagaland, Manipur, Mizoram & Tripura, Assam & Meghalaya, Andaman & Nicobar Islands. Today, **the lowest minimum temperature** of **16.4°C** is reported at **Delhi (Ridge)** over the plains of the country. **(Fig.4)**
- ❖ **Maximum Temperature Departures (as on 30-10-2024):** Maximum temperatures were **markedly above normal (5.1°C or more)** at isolated places over East Rajasthan, Chhattisgarh; **appreciably above normal (3.1°C to 5.0°C)** at a few places over Uttar Pradesh, Rayalaseema, East Madhya Pradesh; at isolated places over Punjab, Himachal Pradesh, Odisha, Tamil Nadu, Puducherry & Karaikal, West Bengal & Sikkim; **above normal (1.6°C to 3.0°C)** at a few places over Gujarat state, West Madhya Pradesh; at isolated places over Haryana-Chandigarh-Delhi, Jharkhand, Coastal Andhra Pradesh & Yanam, Marathwada, West Rajasthan, Tamil Nadu, Puducherry & Karaikal. Yesterday, **the highest maximum temperature** of **39.2°C** was reported at **Pokharan (West Rajasthan)** over the country. **(Fig. 2)**

Meteorological Analysis (Based on 0830 hours IST)

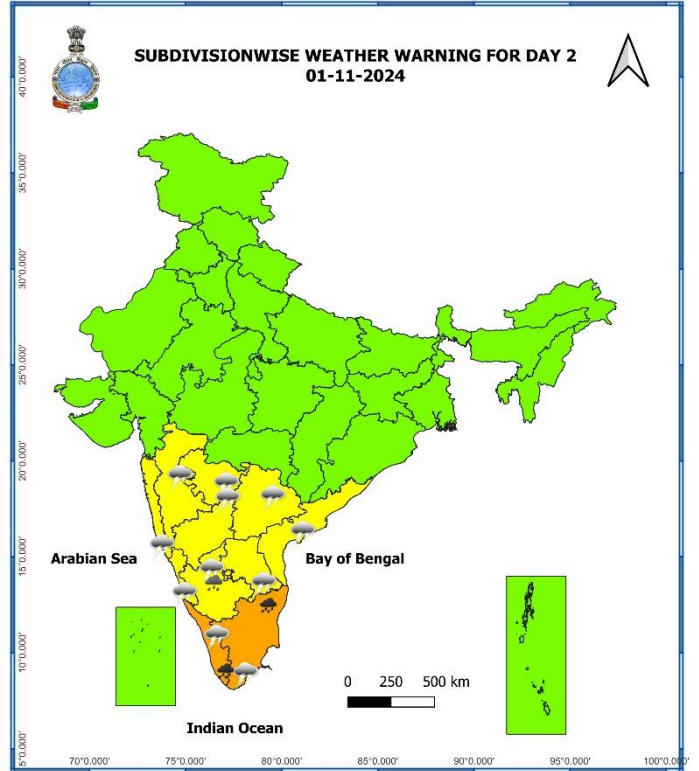
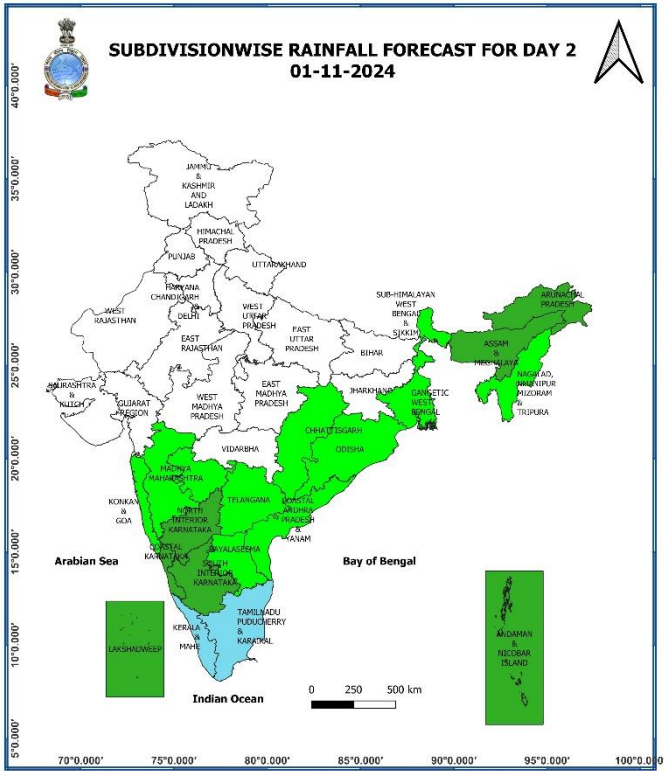
- ❖ The **upper air cyclonic circulation** over southwest Bay of Bengal off south Andhra Pradesh persists between 3.1 & 5.8 km above mean sea level.
- ❖ The **upper air cyclonic circulation** over Southwest Arabian Sea extending upto 1.5 km above mean sea level persists.
- ❖ The **upper air cyclonic circulation** over northeast Assam at 1.5 km above mean sea level persists.
- ❖ The **cyclonic circulation** over Gulf of Mannar & neighbourhood persists and seen at 0.9 km above mean sea level.
- ❖ The **Western Disturbance** as a trough in mid-tropospheric westerlies has moved away.

Weather Forecast & Warnings for next 7 days (Upto 0830 hours IST of 06th November, 2024)



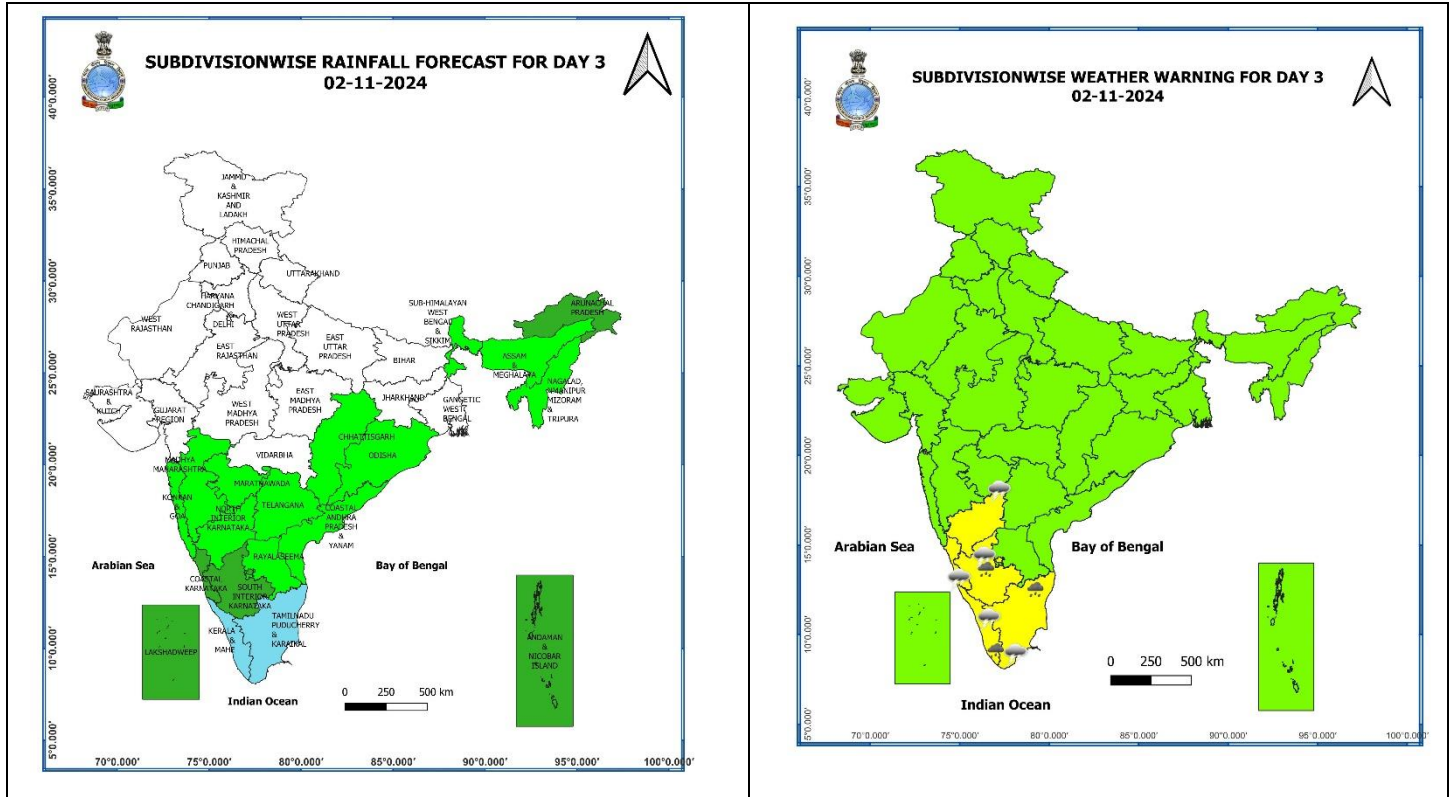
31 October (Day 1):

- ❖ **Heavy rainfall (≥ 7 cm) very likely** at isolated places over Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe, South Interior Karnataka.
- ❖ **Thunderstorm accompanied with lightning very likely** at isolated places over Konkan & Goa, Madhya Maharashtra, Marathwada, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe, Telangana, Coastal Andhra Pradesh & Yanam, Rayalaseema and Karnataka.



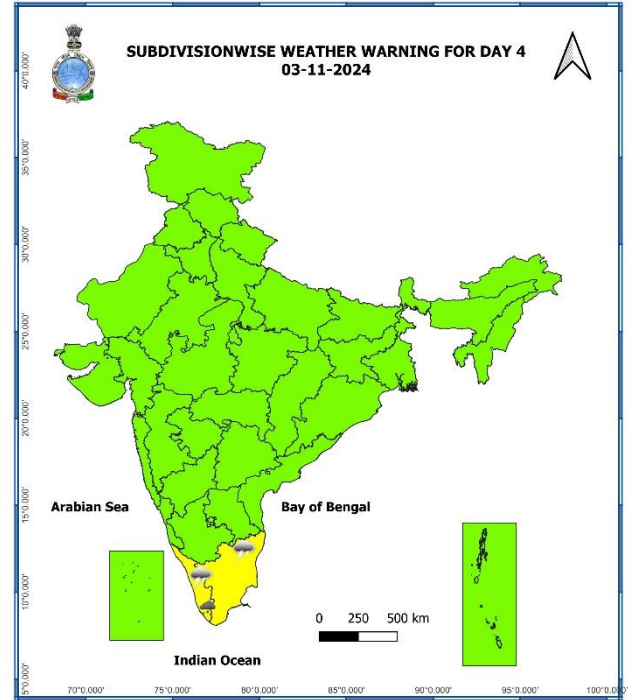
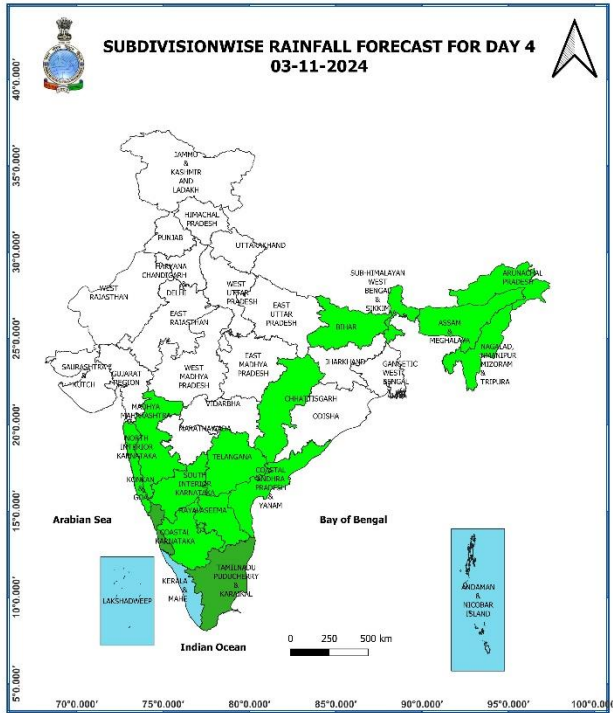
01 November (Day 2):

- ❖ **Heavy to very heavy rainfall (≥ 12 cm)** very likely at isolated places over Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe; **Heavy rainfall (≥ 7 cm)** likely at isolated places over South Interior Karnataka.
- ❖ **Thunderstorm accompanied gusty winds (speed reaching 30-40 kmph)** very likely at isolated places over Kerala & Mahe; with **lightning** likely at isolated places over Konkan & Goa, Madhya Maharashtra, Marathwada, Tamil Nadu, Puducherry & Karaikal, Karnataka, Coastal Andhra Pradesh & Yanam, Rayalaseema, Telangana.



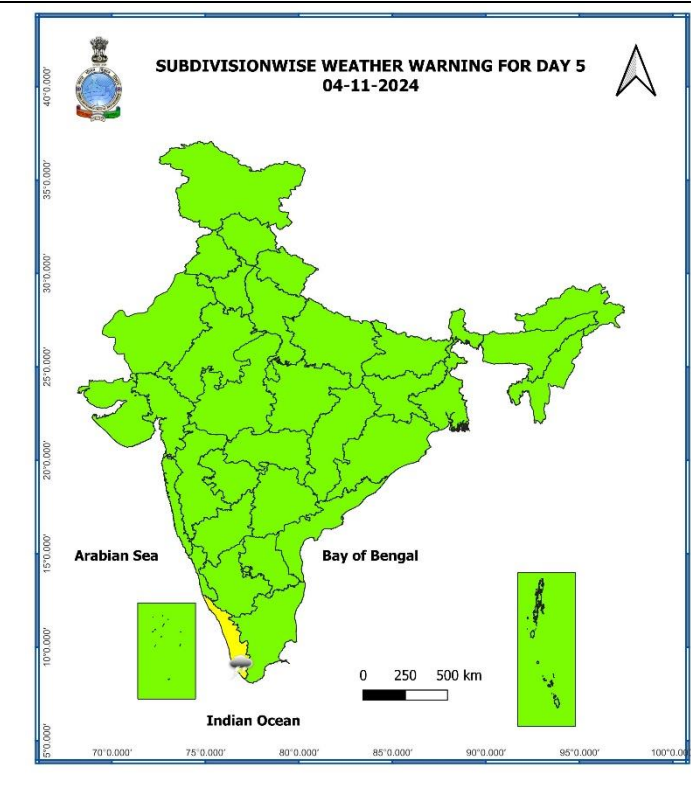
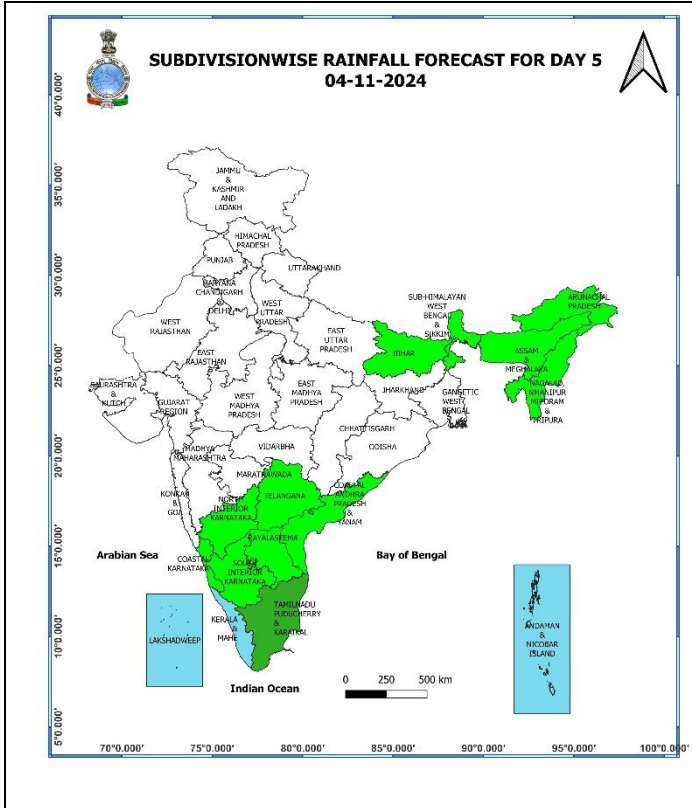
02 November (Day 3):

- ❖ **Heavy rainfall (≥ 7 cm)** very likely at isolated places over Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe, South Interior Karnataka.
- ❖ **Thunderstorm accompanied gusty winds (speed reaching 30-40 kmph)** very likely at isolated places over Kerala & Mahe; with lightning likely at isolated places over Tamil Nadu, Puducherry & Karaikal, Karnataka.



03 November (Day 4):

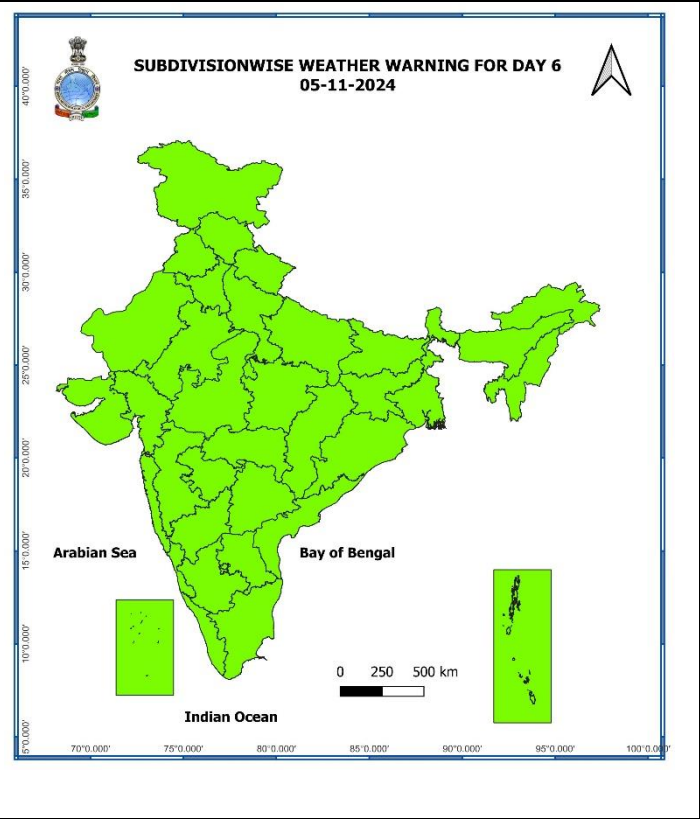
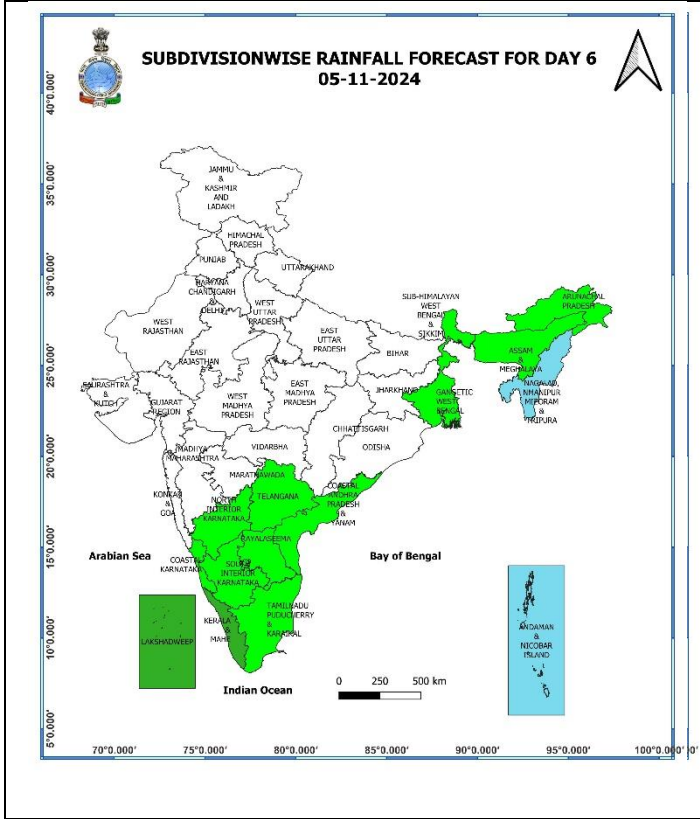
- ❖ Heavy rainfall (≥ 7 cm) likely at isolated places over Kerala & Mahe.
- ❖ Thunderstorm accompanied with lightning likely at isolated places over Kerala & Mahe



04 November (Day 5):

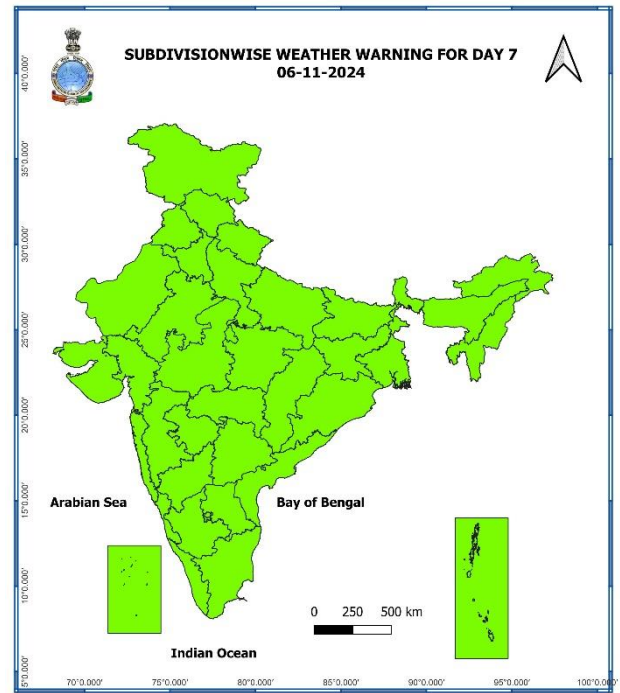
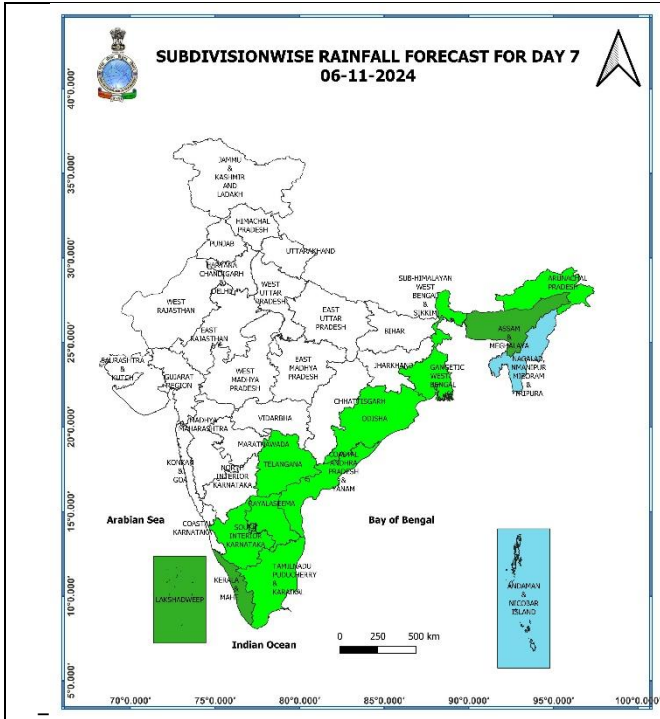
❖ **Thunderstorm accompanied with lightning** likely at isolated places over Kerala & Mahe.

* 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)



05 November (Day 6):

❖ **No weather warning.**



06 November (Day 7):

❖ **No weather warning.**

Weather Outlook for subsequent 3 days (During 07th November – 09th November, 2024)

- ❖ Isolated to Scattered light rainfall likely over some parts of Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe and Northeast India.
- ❖ Mainly dry weather will prevail over rest parts of country.

- 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.

* 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 due to

- ❖ **Isolated heavy to very heavy rainfall** very likely over Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe on 01st November, 2024.

Impact Expected

- ✓ Localized Flooding of roads, water logging in low lying areas and closure of underpasses mainly in urban areas of the above region.
- ✓ Occasional reduction in visibility due to heavy rainfall.
- ✓ Disruption of traffic in major cities and roadways due to water logging in roads leading to increased travel time.
- ✓ Minor damage to kutchha roads.
- ✓ Possibilities of damage to vulnerable structure.
- ✓ Localized Landslides/Mudslides/landslips/mud slips/land sinks/mud sinks.
- ✓ Damage to horticulture and standing crops in some areas due to inundation and wind.
- ✓ It may lead to riverine flooding in some river catchments (for riverine flooding please visit Web page of CWC)

Action Suggested

- ✓ Judicious regulation of surface transports including railways and roadways.
- ✓ Check for traffic congestion on your route before leaving for your destination.
- ✓ Follow any traffic advisories that are issued in this regard.
- ✓ Avoid going to areas that face the water logging problems often.
- ✓ Avoid staying in vulnerable structure.

Fig. 1: Maximum Temperatures

Fig. 2: Departure of Maximum Temperatures

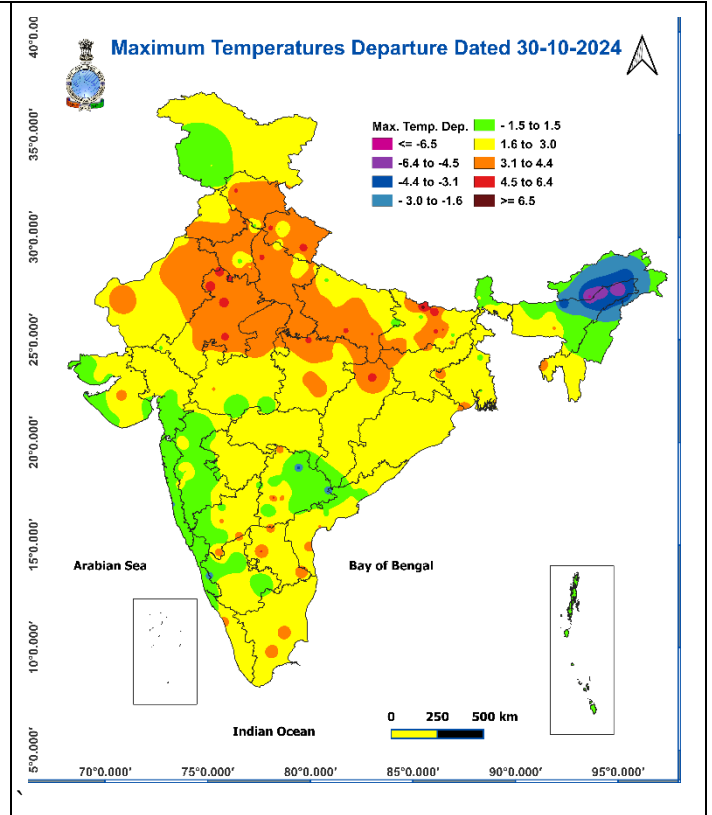
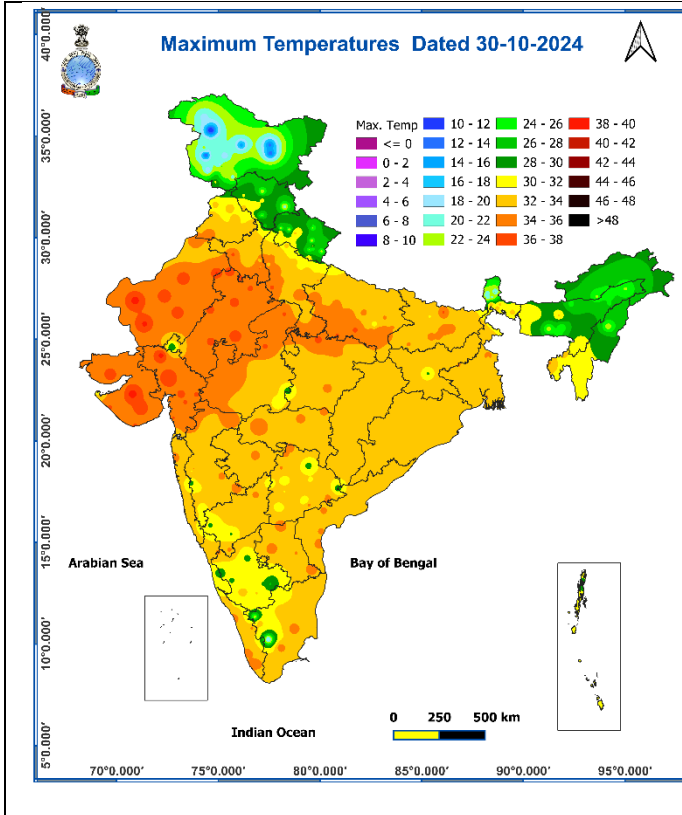


Fig. 3: Minimum Temperatures

Fig. 4: Departure of Minimum Temperatures

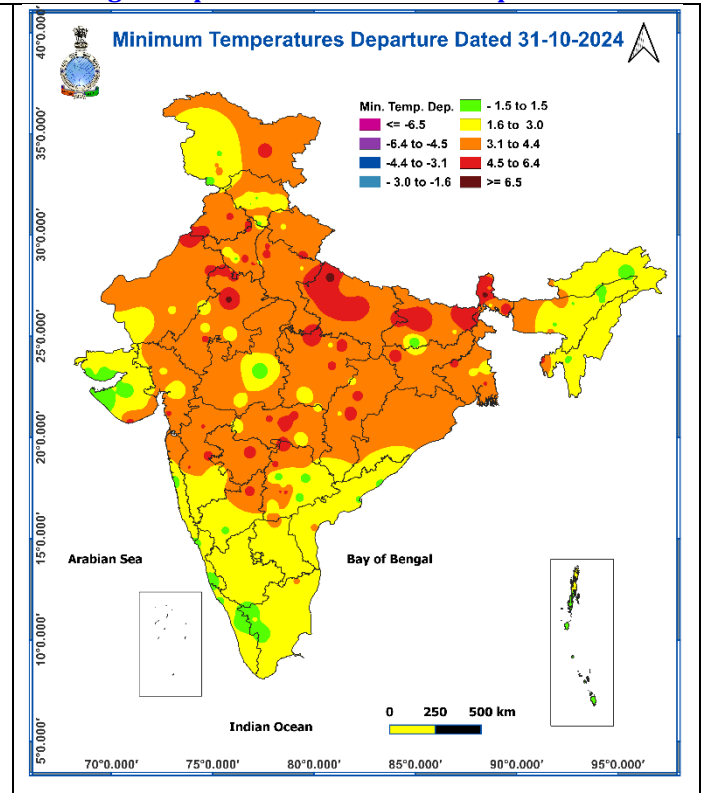
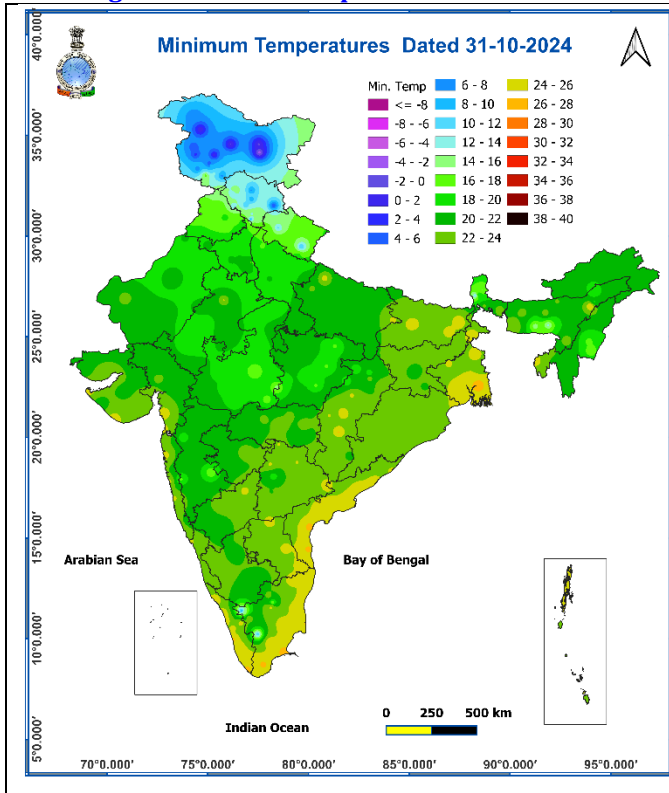
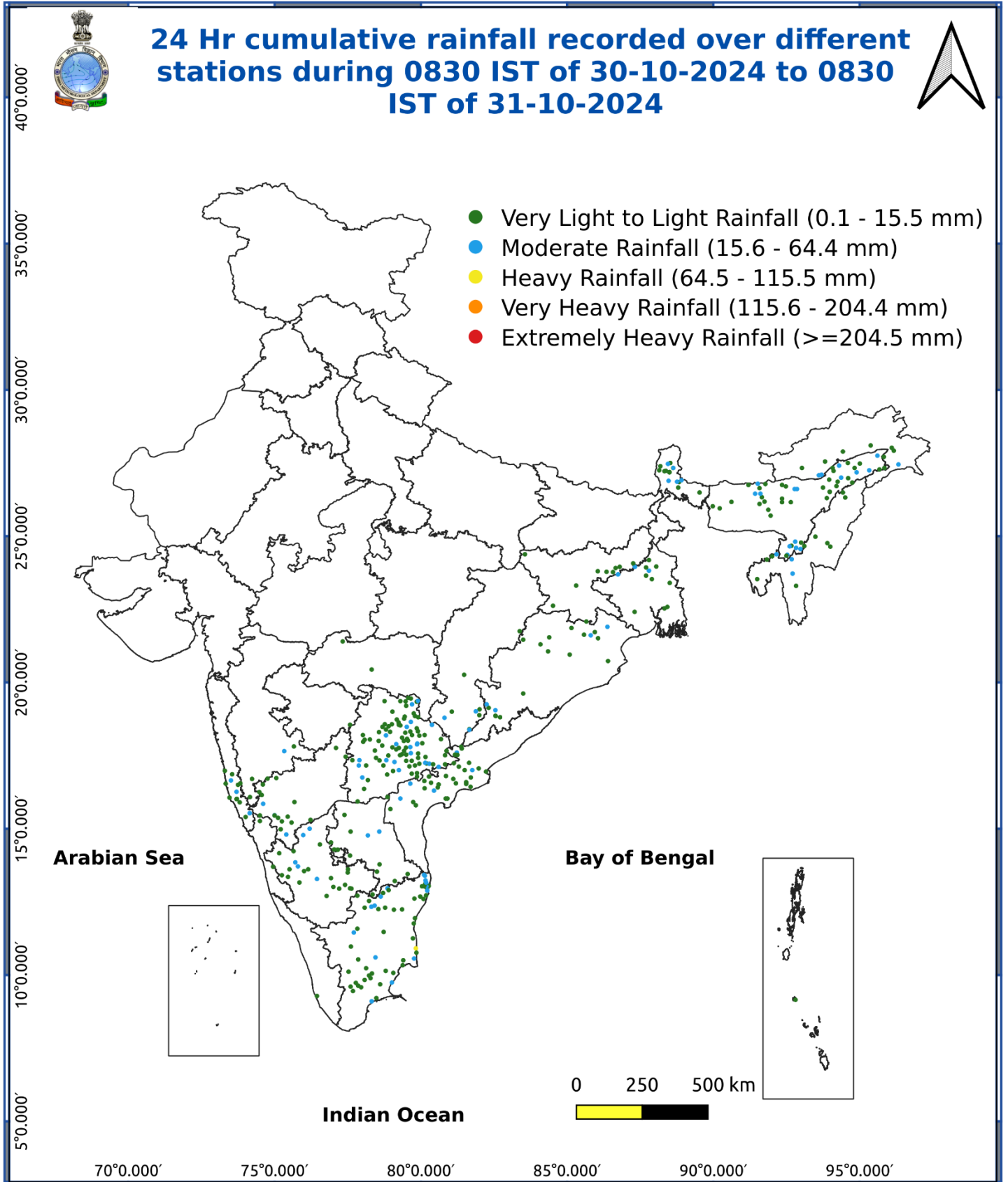


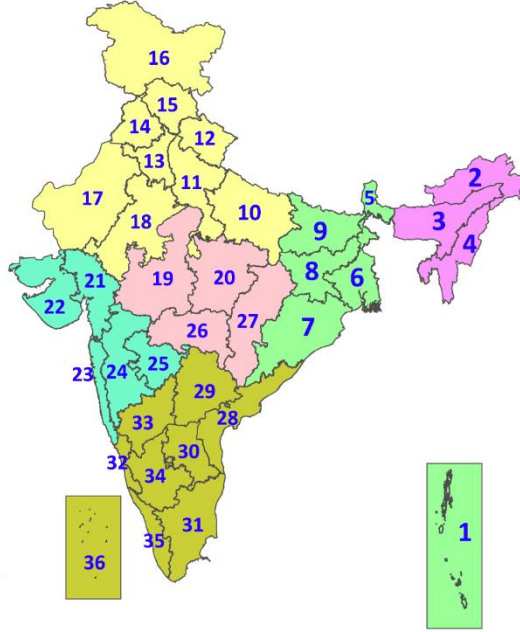
Fig. 5: Accumulated Rainfall (mm) during past 24 hours



* 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)