

Monday, November 4, 2024
Time of Issue: 0745 hours IST
(MORNING)

ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

Significant Weather Features:

Weather Systems:

- ❖ A **cyclonic circulation** lies over southeast Arabian Sea off south Kerala coast in lower tropospheric levels.

i. Forecast & Warnings (upto 7 days):

- ✓ Light to moderate rainfall at a few places accompanied with isolated thunderstorm and lightning very likely over Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe, South Interior Karnataka on 04th November, Assam & Meghalaya & Nagaland, Manipur, Mizoram & Tripura on 05th & 06th November, Kerala & Mahe on 05th November and Tamil Nadu, Puducherry & Karaikal, Coastal Andhra Pradesh & Yanam, Rayalaseema on 07th November.
- ✓ **Isolated heavy rainfall** very likely over Andaman & Nicobar Islands on 05th & 06th November.
- ✓ **Moderate to dense fog conditions** very likely in isolated pockets of northeast Uttar Pradesh on 05th November during morning hours.

ii. Temperature conditions and Forecast

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

There is a fall in both Maximum & Minimum Temperatures over Indo Gangetic plains by about 1-2°C during past 24 hours and no significant change over remaining parts of Northwest, Central and East India. Maximum Temperatures are above normal by 2-4°C over plains of Northwest, Central and East India. Minimum Temperature are above normal by 1-2°C over Haryana, Delhi, Odisha; by about 2-4°C over Rajasthan, Madhya Pradesh, Chhattisgarh, Uttar Pradesh, Vidarbha, Gangetic West Bengal and by 2-6°C over Bihar.

Forecast of temperature

- ✓ No significant change in Maximum & Minimum temperatures over North & Central India during next 3-4 days.

iii. Weather forecast over Delhi/NCR during 04th November to 06th November 2024

Past Weather:

There has been slight fall in minimum temperature over Delhi/NCR during past 24hr. The Maximum and Minimum temperature over Delhi are in the range of 32-34°C and 13-18°C respectively. The maximum temperature was above normal by 2 - 3°C and minimum temperature was above normal by 1 -3°C over some places in the region. Mainly clear sky condition with predominant surface wind from variable directions with wind speed reaching 04 - 08 kmph prevailed during daytime and calm winds during night. Currently smog condition with calm wind prevailing over the region.

Weather Forecast:

04.11.2024: Mainly clear sky. The predominant surface wind is likely to be from variable directions with wind speed upto 05 kmph during morning hours. Smog/ shallow fog/ mist in the morning. The wind speed will gradually increase becoming upto 08 kmph from variable directions during afternoon. It will decrease thereafter becoming less than 05 kmph from variable directions during evening and night. Smog/ mist is likely in the night.

05.11.2024: Mainly clear sky. The predominant surface wind is likely to be from Southeast directions with wind speed less than 08 kmph during morning hours. Smog/mist in the morning. The wind speed will gradually increase becoming 06- 12 kmph from Southeast directions during afternoon. It will decrease thereafter becoming less than 05 kmph from East directions during evening and night. Smog/ mist is likely in the night.

06.11.2024: Mainly clear sky. The predominant surface wind is likely to be from Southeast direction with wind speed upto 04 - 08 kmph during morning hours. Smog/shallow fog/mist in the morning. The wind speed will increase thereafter becoming 10 - 15 kmph from South directions during afternoon. It will gradually decrease becoming 04 - 08 kmph from variable directions during evening and night. Smog/ mist is likely in the night.

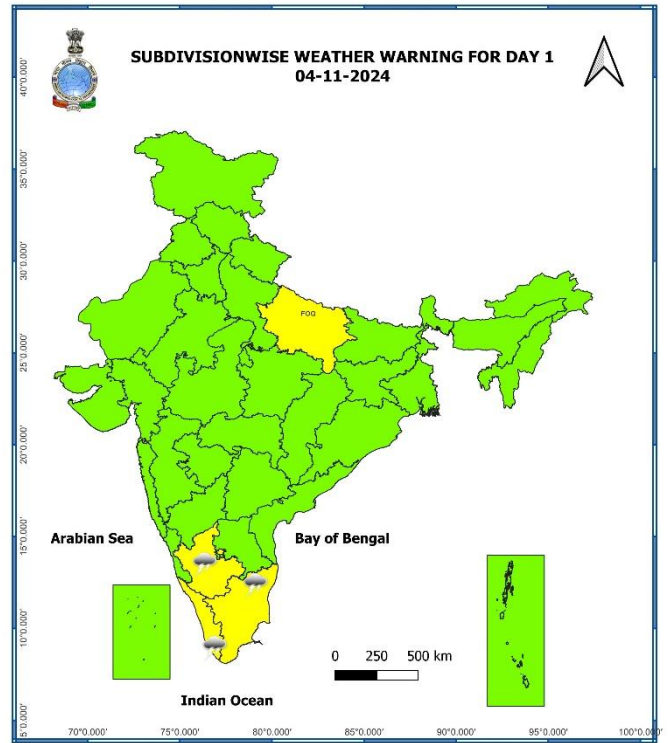
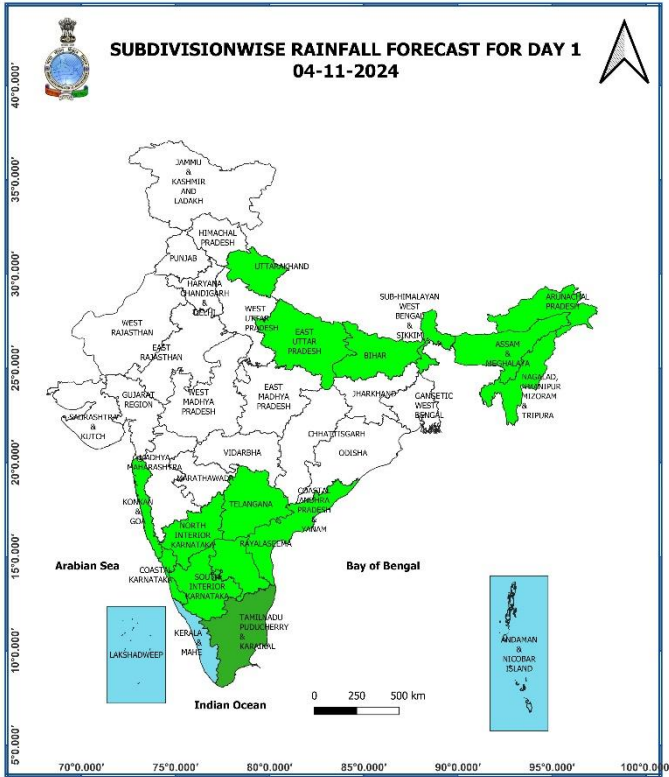
Main Weather Observations:

- ❖ **Rainfall distribution** (from 0830 hours IST to 1730 hours IST of yesterday): **at many places** over Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe; **at isolated places** over Andaman & Nicobar Islands, West Bengal & Sikkim, Coastal Andhra Pradesh & Yanam, Rayalaseema.
- ❖ **Heavy rainfall recorded** (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): **Kerala:** Cochin-3, Kottayam-1, **Tamil Nadu, Puducherry & Karaikal:** Karaikal-2.
- ❖ **Fog conditions observed (at 0530 hours IST of today):** Dense fog observed in isolated pockets of East Uttar Pradesh (Varanasi & Gorakhpur), Gangetic West Bengal (Barrackpore).
- ❖ **Minimum Temperature Departures (as on 03-11-2024):** Minimum temperatures were **markedly above normal (5.1°C or more)** at isolated places over Uttarakhand, Bihar, Madhya Maharashtra; **appreciably above normal (3.1°C to 5.0°C)** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Rayalaseema, West Madhya Pradesh, Marathwada, Vidarbha, Gangetic West Bengal, Jharkhand, North Interior Karnataka, East Uttar Pradesh; **above normal (1.6°C to 3.0°C)** at most places over Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Andaman & Nicobar Islands, Gangetic West Bengal, Odisha, Coastal Andhra Pradesh & Yanam, Konkan & Goa, Gujarat Region, Telangana, East Madhya Pradesh; at many places over Rayalaseema, West Uttar Pradesh; at a few places over Saurashtra & Kutch, Andaman & Nicobar Islands, Punjab; at isolated places over Tamil Nadu, Puducherry & Karaikal, Haryana-Chandigarh-Delhi, South Interior Karnataka, Coastal Karnataka. Yesterday, **the lowest minimum temperature** of 13.3°C was reported at **Delhi (Ridge)** over the plains of the country. (Fig.4)
- ❖ **Maximum Temperature Departures (as on 03-11-2024):** Maximum temperatures were **markedly above normal (5.1°C or more)** at isolated places over Chhattisgarh, Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad and Himachal Pradesh; **appreciably above normal (3.1°C to 5.0°C)** at isolated places over Rajasthan, Coastal Andhra Pradesh & Yanam, Tamil Nadu, Puducherry & Karaikal; **above normal (1.6°C to 3.0°C)** at many places over Punjab, Gujarat Region, Vidarbha, Jharkhand, Odisha, Rayalaseema; at a few places over East Uttar Pradesh, Haryana-Chandigarh, South Interior Karnataka, Saurashtra & Kutch, Kerala & Mahe; at isolated places over West Uttar Pradesh, Madhya Maharashtra, Marathwada, Telangana, Assam & Meghalaya, Arunachal Pradesh, Nagaland, Manipur, Mizoram & Tripura. Yesterday, **the highest maximum temperature** of 38.3°C was reported at **Rajkot (Gujarat)** over the country. (Fig. 2)

Meteorological Analysis (Based on 0530 hours IST)

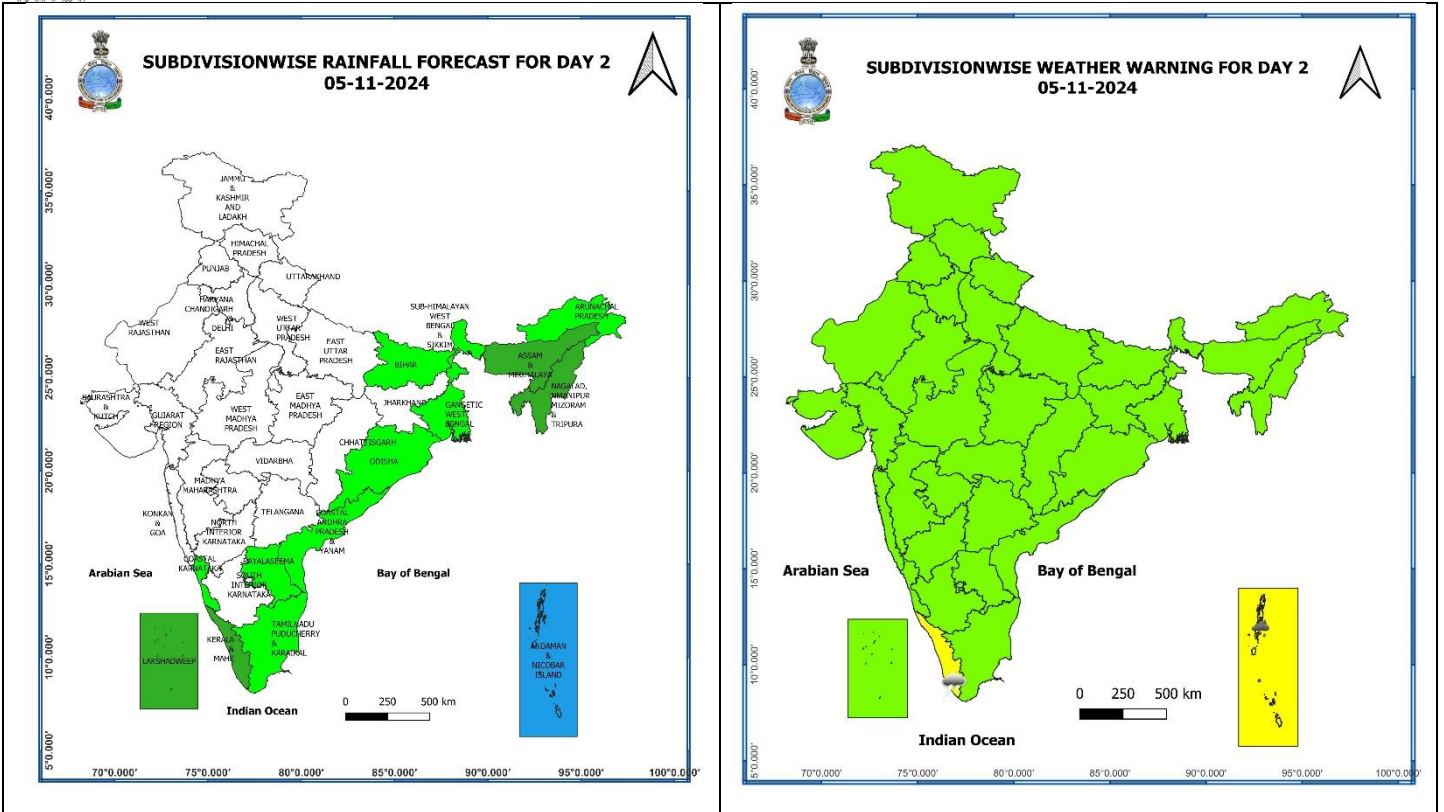
- ❖ The **cyclonic circulation** over southeast Arabian Sea off south Kerala coast extending upto 0.9 km above mean sea level persists.
- ❖ A **cyclonic circulation** is likely to form over southeast Bay of Bengal in lower tropospheric levels around 05th November.

Weather Forecast & Warnings for next 7 days (Upto 0830 hours IST of 11th November, 2024)



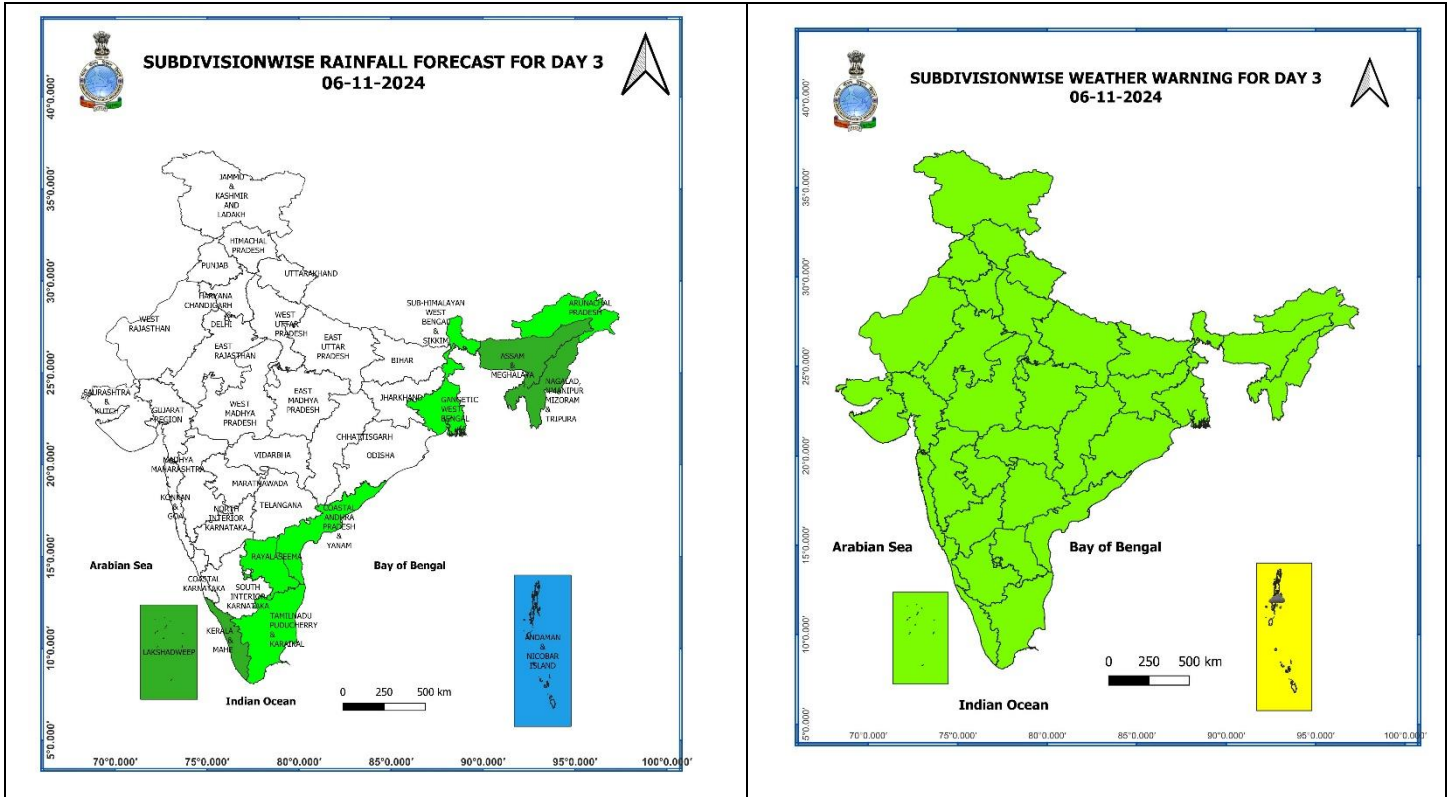
04 November (Day 1):

- ❖ **Thunderstorm accompanied with lightning** very likely at isolated places over Kerala & Mahe, Tamil Nadu, Puducherry & Karaikal, South Interior Karnataka.
- ❖ **Moderate to dense fog conditions** very likely in isolated pockets of northeast Uttar Pradesh.



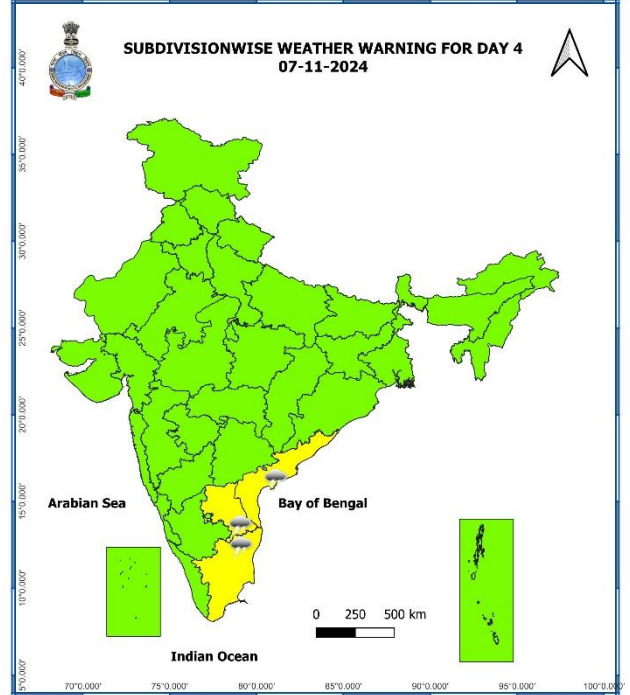
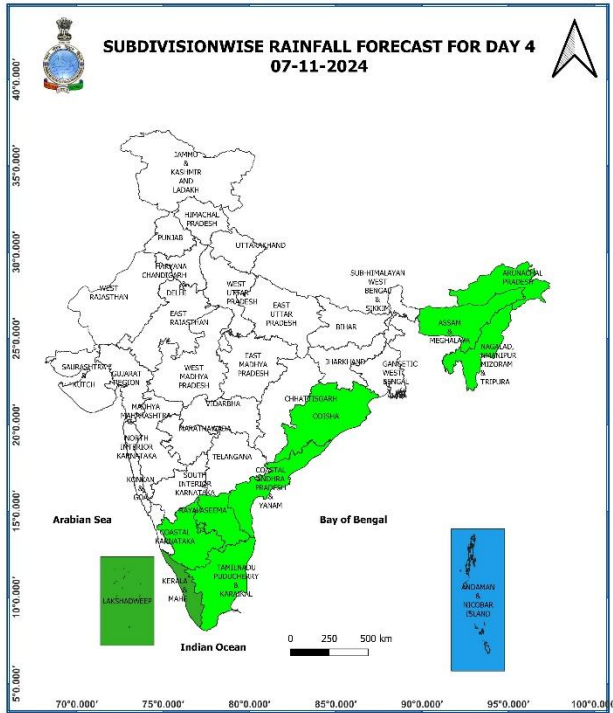
05 November (Day 2):

- ❖ **Heavy rainfall (≥ 7 cm)** likely at isolated places over Andaman & Nicobar Islands.
- ❖ **Thunderstorm accompanied with lightning** likely at isolated places over Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Kerala & Mahe.
- ❖ **Squally weather with wind speed 35-45 kmph gusting to 55 kmph** over southeast Bay of Bengal. Fishermen are advised not to venture into these areas.



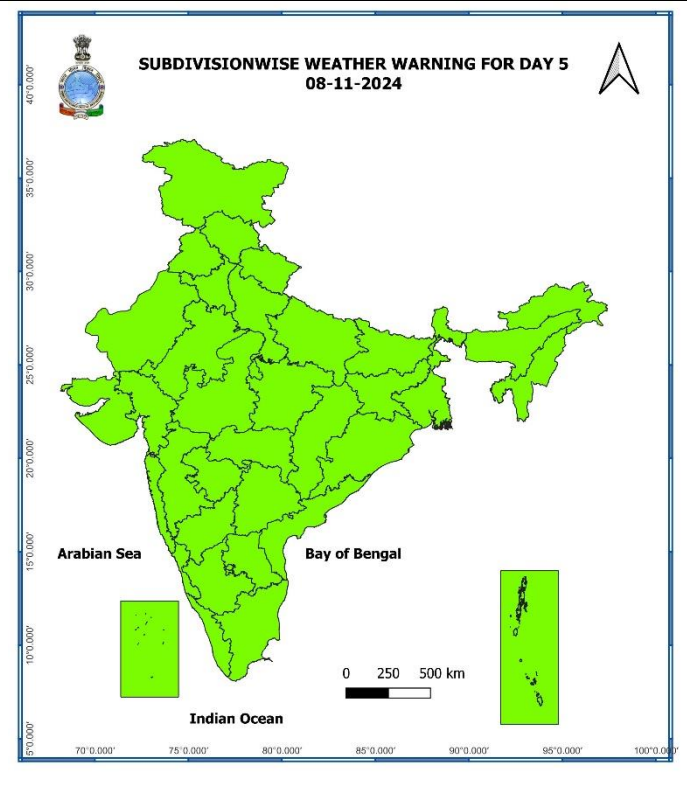
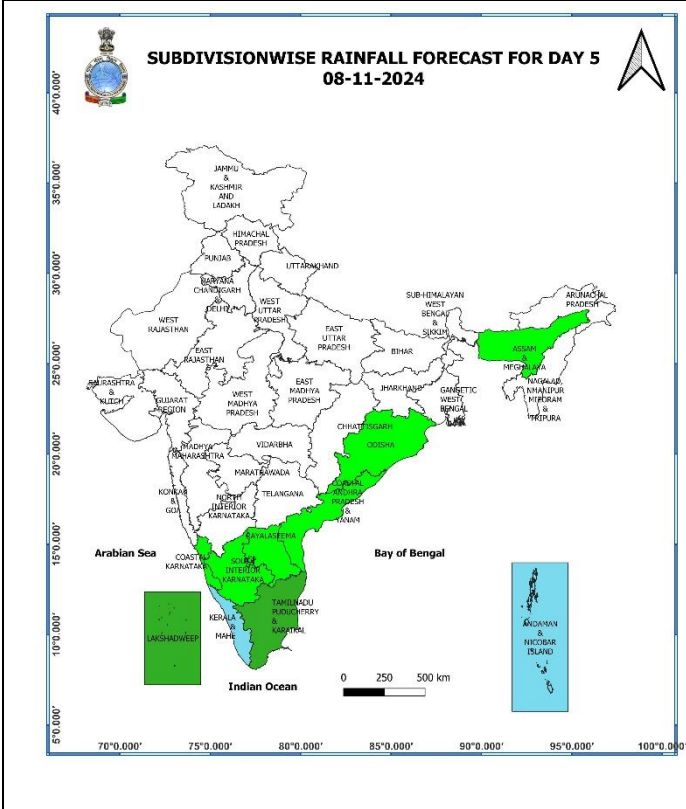
06 November (Day 3):

- ❖ **Heavy rainfall (≥ 7 cm)** likely at isolated places over Andaman & Nicobar Islands.
- ❖ **Thunderstorm accompanied with lightning** likely at isolated places over Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura.
- ❖ **Squally weather with wind speed 35-45 kmph gusting to 55 kmph** over southwest and adjoining westcentral Bay of Bengal. Fishermen are advised not to venture into these areas.



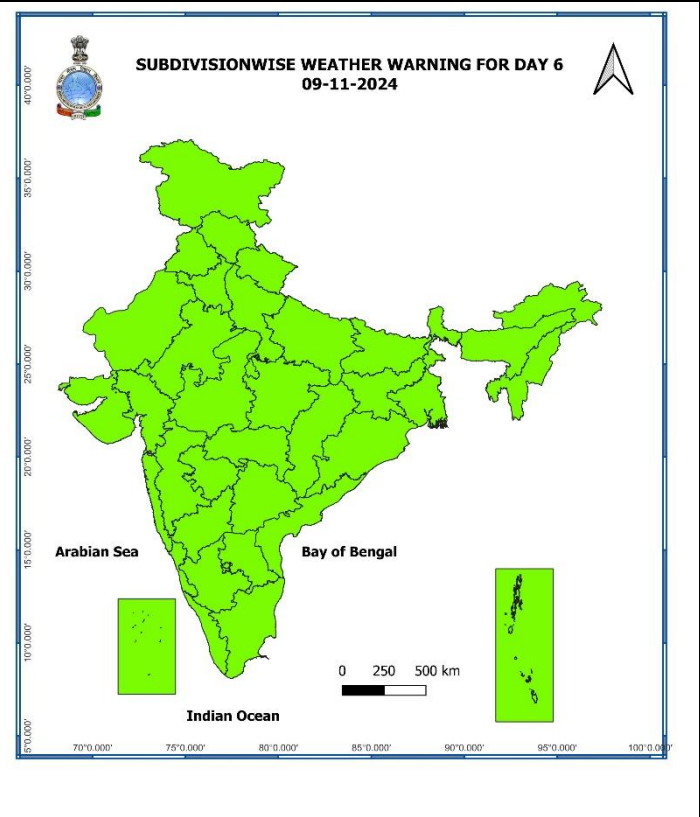
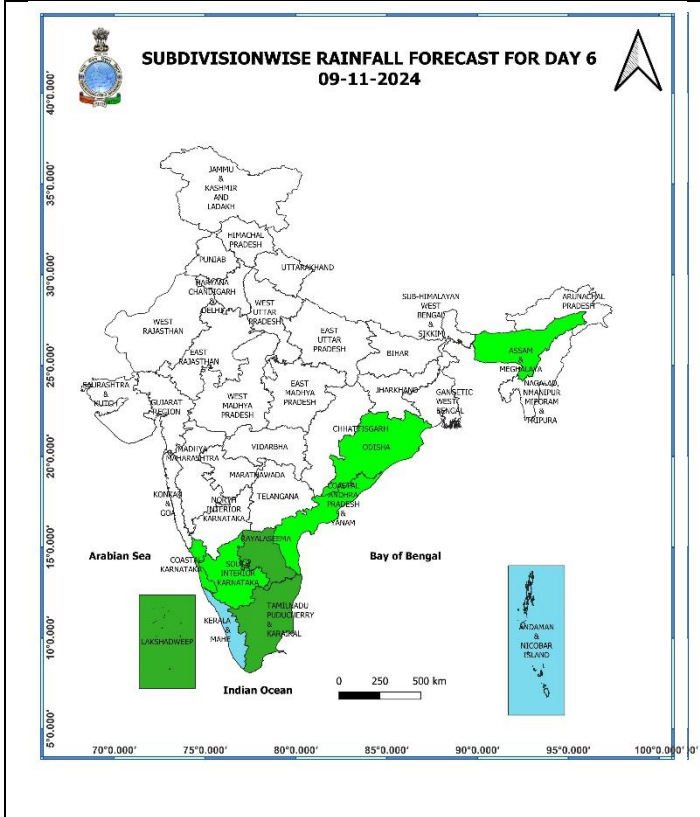
07 November (Day 4):

- ❖ **Thunderstorm accompanied with lightning** likely at isolated places over Tamil Nadu, Puducherry & Karaikal, Coastal Andhra Pradesh & Yanam, Rayalaseema.
- ❖ **Squally weather with wind speed 35-45 kmph gusting to 55 kmph** over southwest & adjoining westcentral Bay of Bengal and along & off Tamil Nadu-south Andhra Pradesh coasts. Fishermen are advised not to venture into these areas.



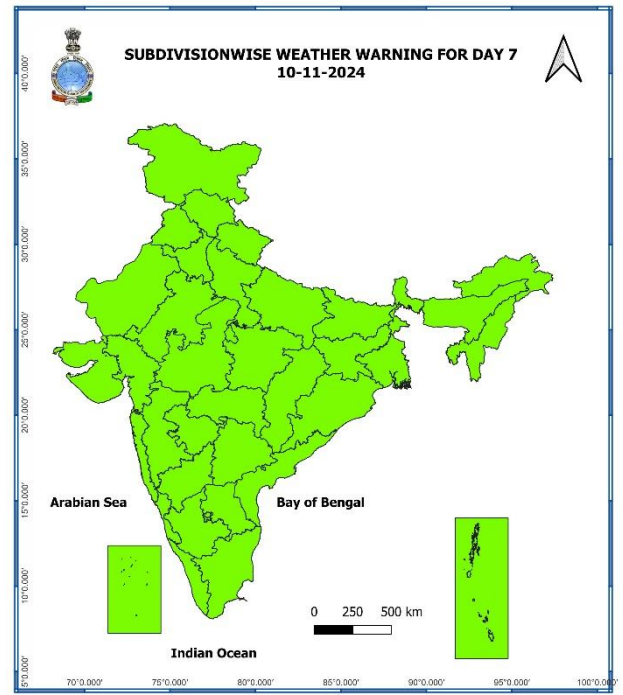
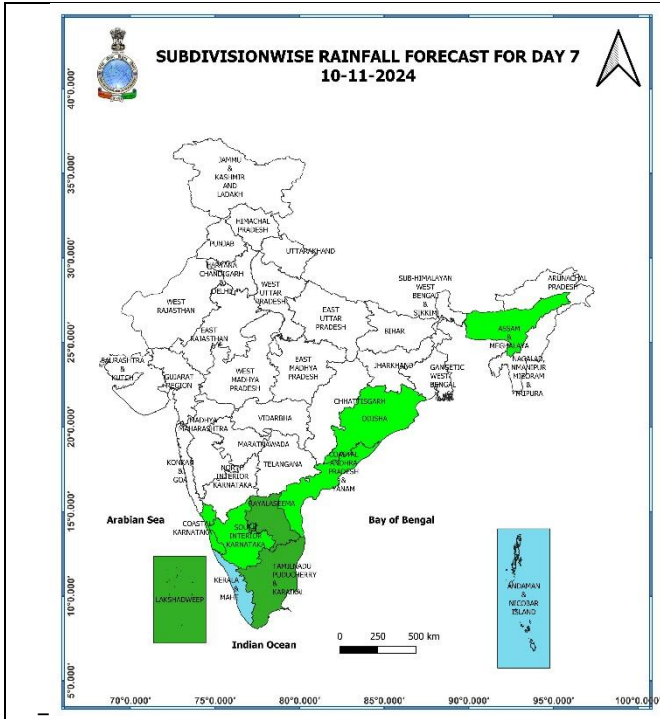
08 November (Day 5):

❖ **No weather warning.**



09 November (Day 6):

❖ **No weather warning.**



10 November (Day 7):

❖ **No weather warning.**

Weather Outlook for subsequent 3 days (During 11th November – 13th 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)

Agromet advisories for Heavy Rainfall likely over various parts of the country

- ✓ In **Tamil Nadu**, drain out excess water from paddy and other field crops, vegetables and orchards. Undertake propping in sugarcane and provide support to banana plantations to avoid lodging.
- ✓ Drain out excess water from the standing crops in **Kerala**. Provide support to banana plants and strengthen the vegetable pandals.
- ✓ Keep the harvested produce at safer places.
- ✓ Provide mechanical support to horticultural crops and staking to vegetables.

Fig. 1: Maximum Temperatures

Fig. 2: Departure of Maximum Temperatures

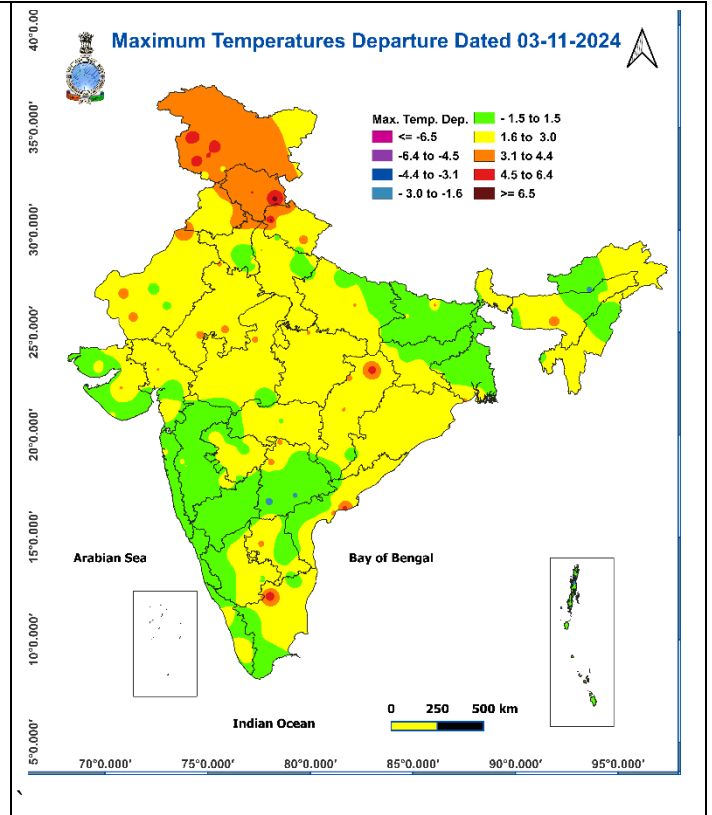
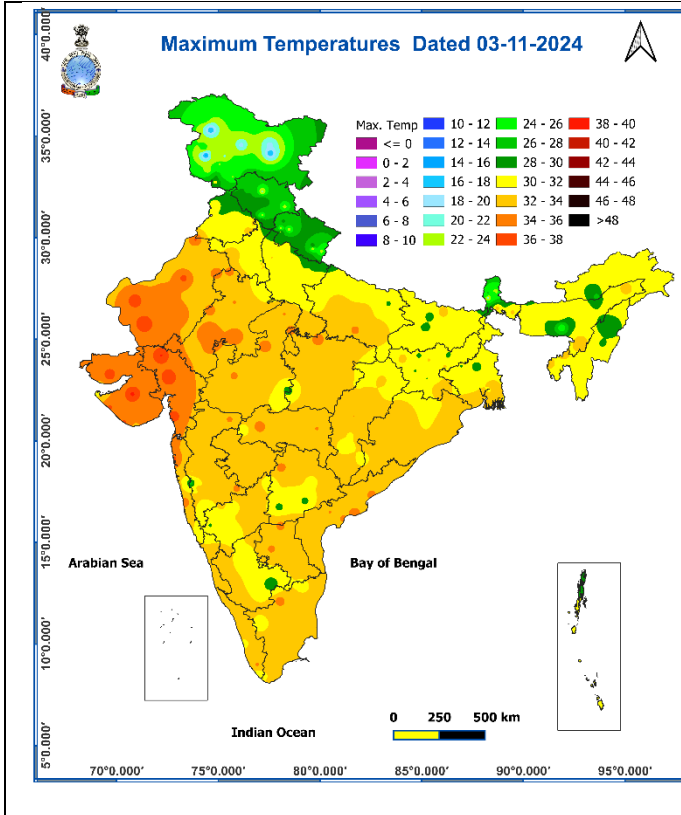


Fig. 3: Minimum Temperatures

Fig. 4: Departure of Minimum Temperatures

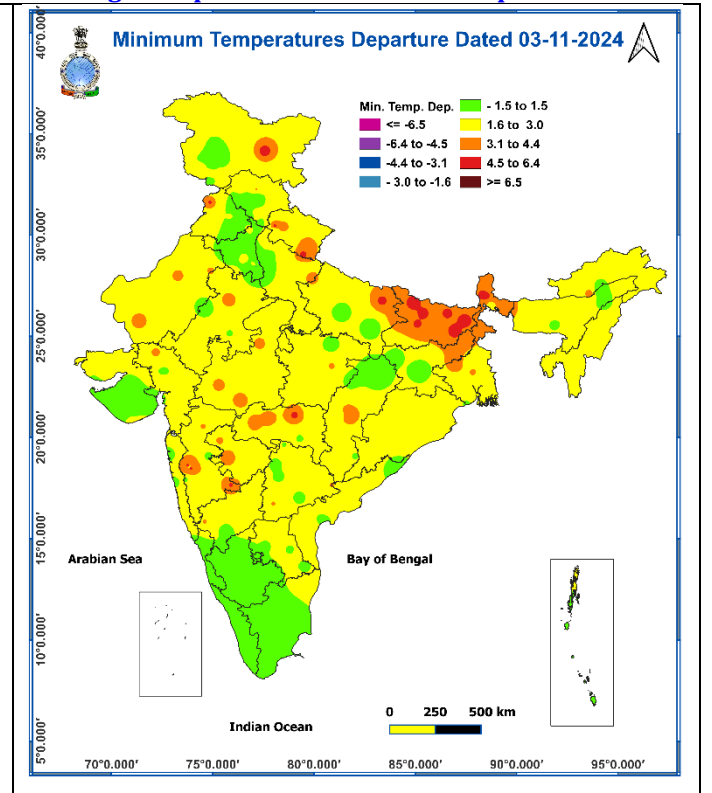
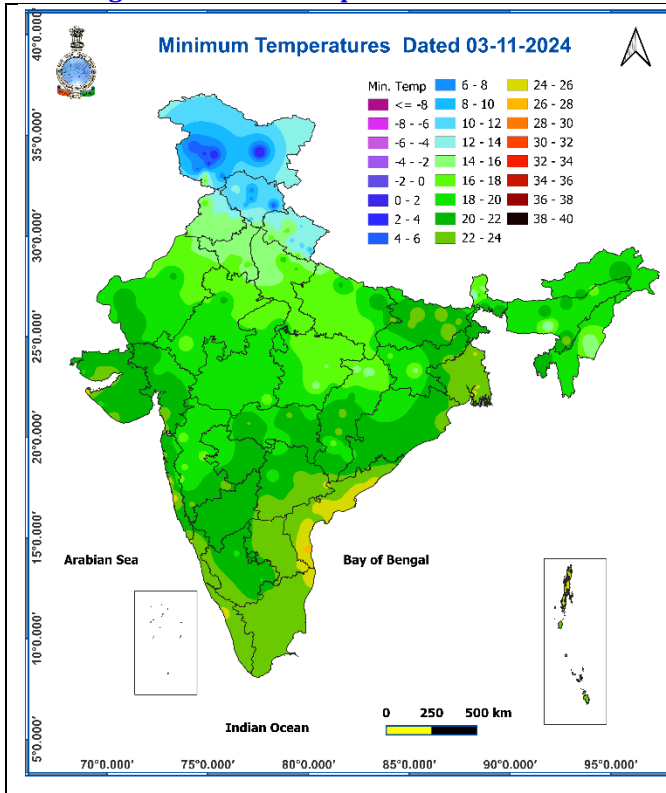
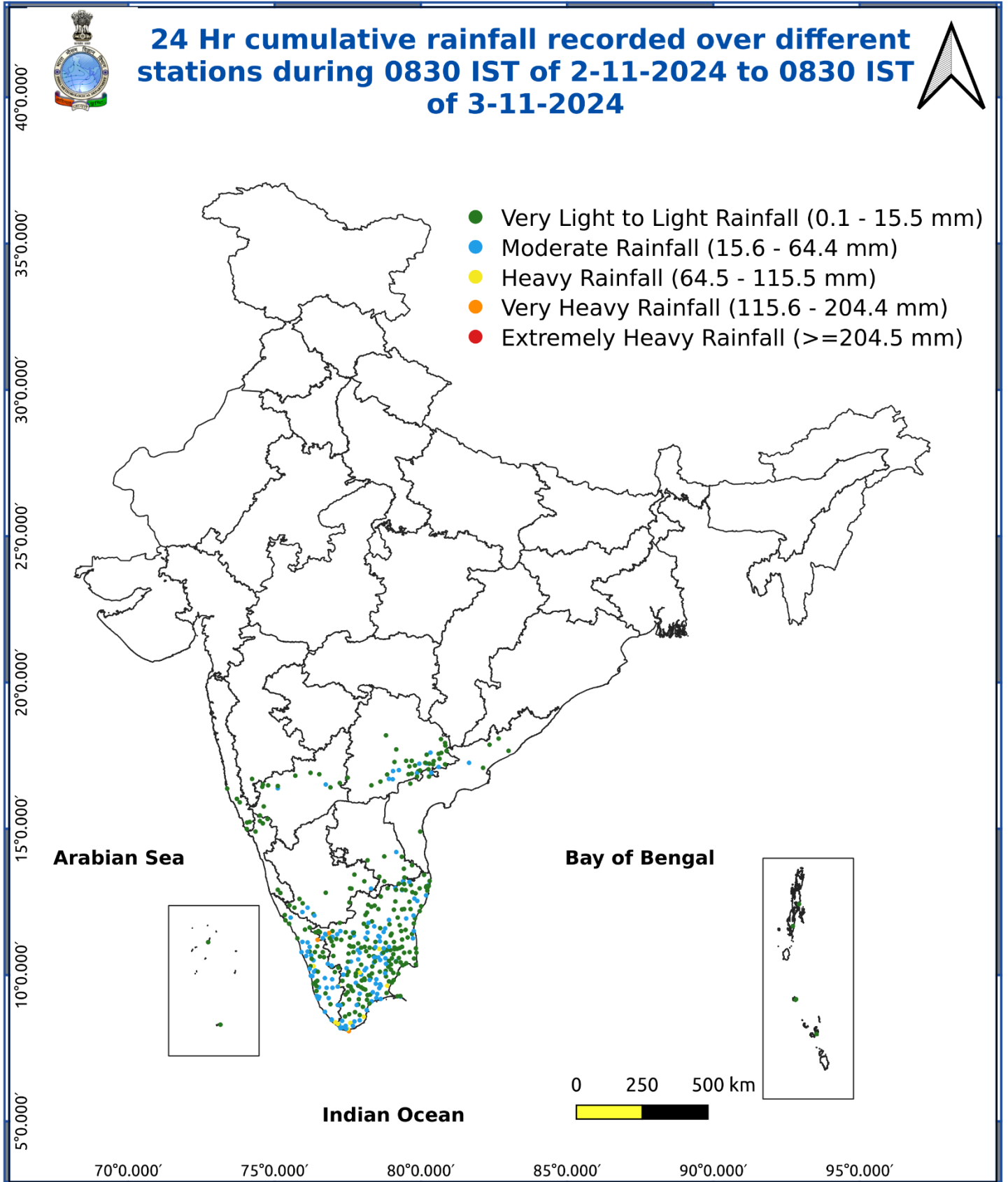


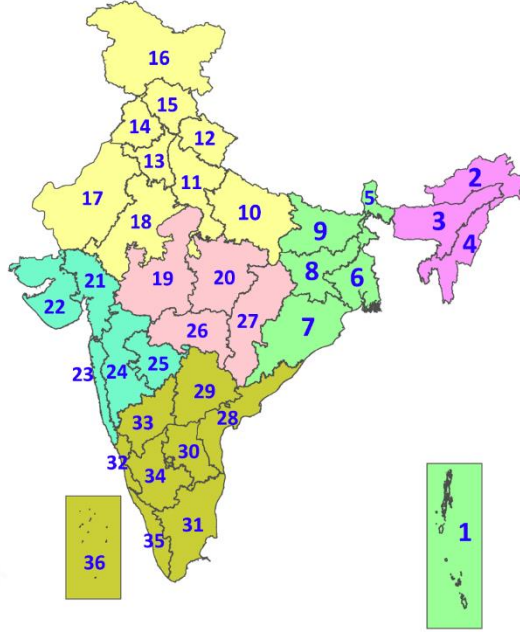
Fig. 5: Accumulated Rainfall (mm) during past 24 hours



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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)