

Wednesday, November 13, 2024
Time of Issue: 1400 hours IST
(MID-DAY)

ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

Significant Weather Features:

Weather Systems:

- ❖ Yesterday's low pressure area over southwest & adjoining westcentral Bay of Bengal off north Tamil Nadu & adjoining south Andhra Pradesh coasts has become less marked. However, the associated upper air cyclonic circulation lies over southwest Bay of Bengal off north Tamil Nadu in lower tropospheric levels.
- ❖ An upper air cyclonic circulation lies over southeast Arabian Sea off Kerala coast in lower tropospheric levels.
- ❖ A fresh Western Disturbance seen as a trough in middle tropospheric westerlies runs roughly along Long. 58°E to the north of Lat. 33°N.

Forecast & Warnings (upto 7 days) (Annexure II & III):

- ✓ Light to moderate rainfall at a few places accompanied with isolated thunderstorm and lightning very likely over Tamil Nadu, Puducherry & Karaikal, Coastal Andhra Pradesh & Yanam and Rayalaseema during 13th-16th November, 2024.
- ✓ **Isolated heavy rainfall** very likely over Rayalaseema on 13th; Tamil Nadu, Puducherry & Karaikal during 13th - 16th; Kerala & Mahe during 13th-17th; Coastal Andhra Pradesh & Yanam on 13th & 14th; South Interior Karnataka on 14th & 15th November, 2024.
- ✓ **Dense to very dense fog** conditions very likely to prevail in night/early morning hours in isolated pockets of Punjab till 15th morning hours and dense fog for subsequent 1 day; **Dense fog conditions** very likely to prevail in night/early morning hours in isolated pockets over Himachal Pradesh till 18th morning; Haryana, Sub-Himalayan West Bengal & Sikkim, Bihar, Jharkhand till 16th morning hours; Uttar Pradesh & north Rajasthan till 15th November, 2024.

ii. Temperature conditions and Forecast:

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

No significant change in minimum temperature observed over most parts of the country during past 24 hours. Minimum temperatures are reported **markedly above normal by 5.0°C or more** at many places over Punjab; at isolated places over West Rajasthan, Haryana-Chandigarh-Delhi, Bihar and East Uttar Pradesh; **appreciably above normal by 3.0°C- 4.0°C** at a few places over West Uttar Pradesh, Rayalaseema and Coastal Andhra Pradesh & Yanam; at isolated places over East Rajasthan, East Madhya Pradesh, Jharkhand, Gangetic West Bengal, Telangana and Tamil Nadu, Puducherry & Karaikal; **above normal by 2.0°C- 3.0°C** at most places over Coastal Karnataka; at many places over Gujarat Region; at a few places over Saurashtra & Kutch, West Madhya Pradesh, Assam & Meghalaya, Odisha and Kerala & Mahe; at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand, Konkan & Goa, Sub-Himalayan West Bengal & Sikkim, Interior Karnataka and Nagaland, Manipur, Mizoram & Tripura. These are **below normal by 2.0°C-3.0°C** at isolated places over Vidarbha. Today, **the lowest minimum temperature of 11.4°C** is reported at **Sidhi (East Madhya Pradesh)** over the plains of the country.

Forecast of temperature:

- ❖ Gradual fall in minimum temperatures by 2-3°C very likely over northwest India during next 5 days.
- ❖ No significant change in minimum temperatures over central India during next 5 days.
- ❖ Gradual fall in minimum temperatures by 3-4°C very likely over East India during next 5 days.
- ❖ Rise by 2-3°C in Minimum Temperatures over West India during next 3 days and Gradual fall in minimum temperatures by 2-3°C thereafter.

iii. Weather forecast over Delhi/NCR during 13th Nov. to 16th Nov. 2024

Past Weather:

There has been slight fall in minimum temperature over Delhi/NCR during past 24hr. The Maximum and Minimum temperature over Delhi is in the range of 30-33°C and 14 -18°C respectively. The maximum temperature was above normal by 2 - 5°C over the region and minimum temperature was above normal by 3 -4°C over most places in the region. Mainly clear sky condition with predominant surface wind from northwest direction with wind speed reaching 04-12 kmph prevailed during past 24hr. Palam airport reported very dense fog with zero visibility during 0800 to 0930 hours IST which improved thereafter becoming 200m at 1000 hours IST. Safdarjung airport recorded lowest visibility 200m at 0700 hours IST which improve thereafter becoming 400m at 0930 hours IST. The mainly smog condition with wind speed less than 10 kmph from west/ northwest direction prevailed over the region in the forenoon today.

Weather Forecast:

13.11.2024: Mainly clear sky. The predominant surface wind is likely to be northwest with wind speed upto 08 - 10 kmph till evening. It would decrease thereafter becoming less than 08 kmph from northwest direction during night. Smog/moderate fog is likely in the evening/night.

14.11.2024: Mainly clear sky. The predominant surface wind is likely to be from northwest direction with speed less than 06 kmph during morning hours. Smog /dense to very dense fog in the morning. The wind speed will increase thereafter becoming less than 10 kmph from northwest direction during afternoon. It will decrease thereafter becoming less than 08 kmph from northwest direction during evening and night. Smog/ mist/ moderate fog is likely in the evening/night.

15.11.2024: Mainly clear sky. The predominant surface wind is likely to be from northwest direction with speed less than 08 kmph during morning hours. Smog/moderate to dense fog at few places in the morning. The wind speed will gradually increase becoming 10-15 kmph from northwest direction during afternoon. It will decrease thereafter becoming less than 08 kmph from northwest direction during evening and night. Smog/ mist is likely in the evening/night.

16.11.2024: Mainly clear sky. The predominant surface wind is likely to be from northwest direction with wind speed less than 08 kmph during morning hours. Smog/ shallow to moderate fog at few places in the morning. The wind speed will increase thereafter becoming 10 - 15 kmph from northwest direction during afternoon. It will gradually decrease becoming less than 10 kmph from northwest directions during evening and night. Smog/ mist is likely in the evening/night.

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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

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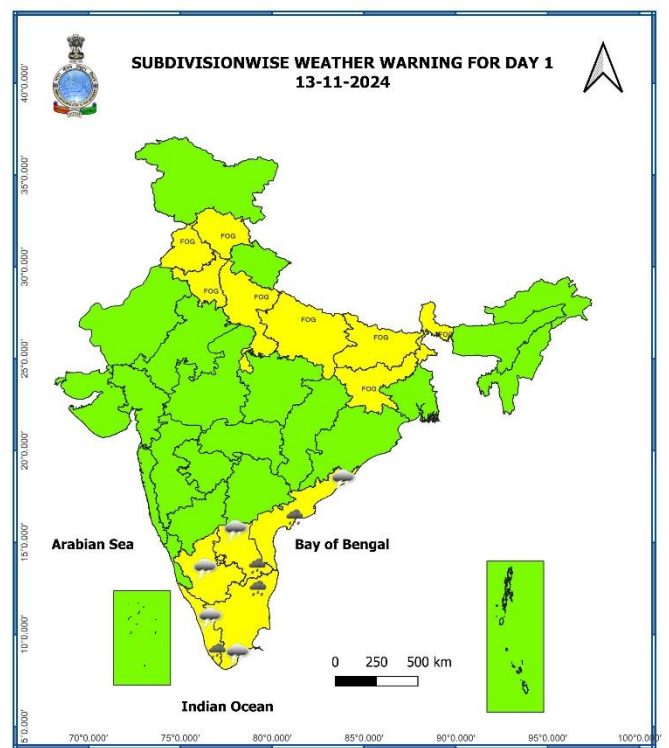
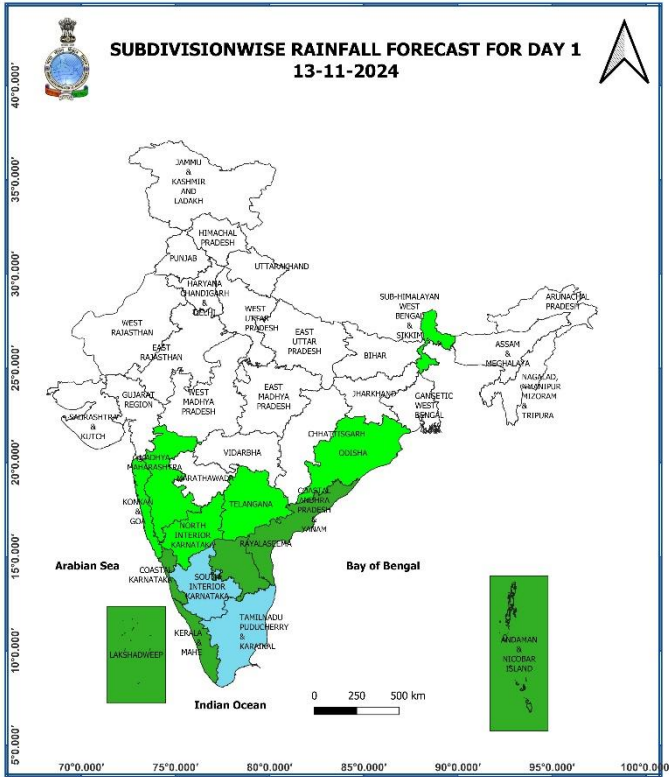
Main Weather Observations:

- ❖ **Rainfall distribution** (from 0830 hours IST of yesterday to 0830 hours IST of today): **at a few places** over Andaman & Nicobar Islands, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Tamil Nadu, Puducherry & Karaikal, Lakshadweep, Coastal Andhra Pradesh & Yanam, Rayalaseema and South Interior Karnataka; **at isolated places** over Sub-Himalayan West Bengal & Sikkim, Odisha, Arunachal Pradesh and Kerala & Mahe.
- ❖ **Significant amount of rainfall** (from 0830 hours IST of yesterday to 0830 hours IST of today) (in cm): **Tamil Nadu, Puducherry & Karaikal:** Sirkali (dist Mayiladuthurai), Kollidam (dist Mayiladuthurai) 14 each, Puducherry AWS (dist Puducherry), Puducherry (dist Puducherry) 12 each, Kollidam ARG (dist Mayiladuthurai), Manalmedu ARG (dist Mayiladuthurai) 11 each, Puducherry Town (dist Puducherry), Jayamkondam (dist Ariyalur) 8 each, Lalpet (dist Cuddalore), Patthukannu (dist Puducherry), Bahour (dist Puducherry), Manalmedu (dist Mayiladuthurai), Sendurai (dist Ariyalur), Gummidipoondi (dist Tiruvallur) 7 each; **Rayalaseema:** Gudur (dist Tirupati) 7, Pullampeta (dist Annamayya District) 5, Tada (dist Tirupati) 5, Satyavedu (dist Tirupati) 3, Kodur (dist Ysr District) 3, Venkatagiri (dist Tirupati) 3, Tirupati Aero (dist Tirupati) 3, Sullurpeta (dist Tirupati) 3, Rajampet (dist Annamayya District) 3, Penagaluru (dist Annamayya District) 3; **Coastal Andhra Pradesh & Yanam:** Kavali (dist Spsr Nellore) 6, Nellore (dist Spsr Nellore) 6, Rapur (dist Spsr Nellore) 6, Kandukur (dist Spsr Nellore) 4, Vinjamur (dist Spsr Nellore) 4, Chintapalle (dist Alluri Sitharamaraju) 4, Chimakurthi (dist Prakasam) 3.
- ❖ **Heavy rainfall recorded** (from 0830 hours IST of yesterday to 0830 hours IST of today): **Heavy to very heavy rainfall** at isolated places over Tamil Nadu and **Heavy rainfall** at isolated places over Rayalaseema.
- ❖ **Fog conditions observed** (at 0530 & 0830 hours IST of today): **Dense to very Dense fog** reported in isolated pockets of Punjab, Delhi, West Rajasthan and West Uttar Pradesh; **Dense fog** reported in isolated pockets of Haryana; Following stations reported visibility (≤ 200 metres): **Punjab:** Amritsar-0, Adampur-0, Halwara-100; **Delhi:** Delhi-IGI-0; **West Rajasthan:** Suratgarh-0; **West Uttar Pradesh:** Hindon Airport-0, Bareilly-0, Meerut-200; **Haryana:** Hissar, Bhiwani-50 each, Karnal, Nahan-200 each; **Chandigarh-200; Himachal Pradesh:** Una, Sundernagar-200.
- ❖ **Minimum Temperature Departures (as on 13-11-2024):** Minimum temperatures are **markedly above normal (5.1°C or more)** at many places over Punjab; at isolated places over West Rajasthan, Haryana-Chandigarh-Delhi, Bihar and East Uttar Pradesh; **appreciably above normal (3.1°C to 5.0°C)** at a few places over West Uttar Pradesh, Rayalaseema and Coastal Andhra Pradesh & Yanam; at isolated places over East Rajasthan, East Madhya Pradesh, Jharkhand, Gangetic West Bengal, Telangana and Tamil Nadu, Puducherry & Karaikal; **above normal (1.6°C to 3.0°C)** at most places over Coastal Karnataka; at many places over Gujarat Region; at a few places over Saurashtra & Kutch, West Madhya Pradesh, Assam & Meghalaya, Odisha and Kerala & Mahe; at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand, Konkan & Goa, Sub-Himalayan West Bengal & Sikkim, Interior Karnataka and Nagaland, Manipur, Mizoram & Tripura. These are **below normal (-1.6°C to -3.0°C)** at isolated places over Vidarbha. Today, **the lowest minimum temperature of 11.4°C** is reported at **Sidhi (East Madhya Pradesh)** over the plains of the country. (Fig.4)
- ❖ **Maximum Temperature Departures (as on 12-11-2024):** Maximum temperatures were **appreciably above normal (3.1°C to 5.0°C)** at a few places over Rajasthan and Delhi; at isolated places over West Uttar Pradesh, Gujarat state and Assam & Meghalaya; **above normal (1.6°C to 3.0°C)** at many places over East Madhya Pradesh; at a few places over East Uttar Pradesh, Odisha and Kerala & Mahe; at isolated places over Vidarbha, Chhattisgarh, Nagaland, Manipur, Mizoram & Tripura, Coastal Andhra Pradesh & Yanam, Coastal Karnataka and Tamil Nadu, Puducherry & Karaikal. Yesterday, **the highest maximum temperature of 37.0°C** was reported at **Rajkot (Saurashtra & Kutch)** over the country. (Fig. 2)

Meteorological Analysis (Based on 0830 hours IST)

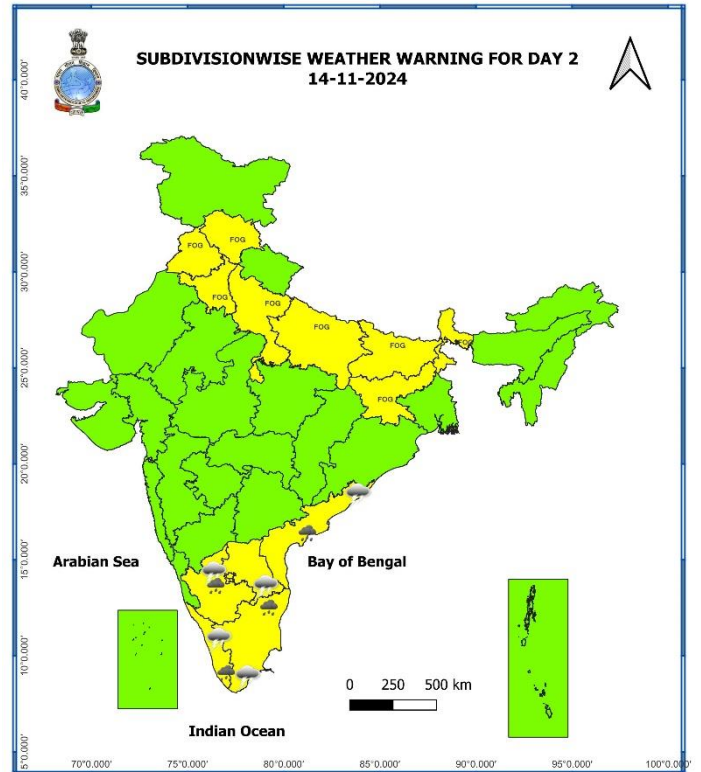
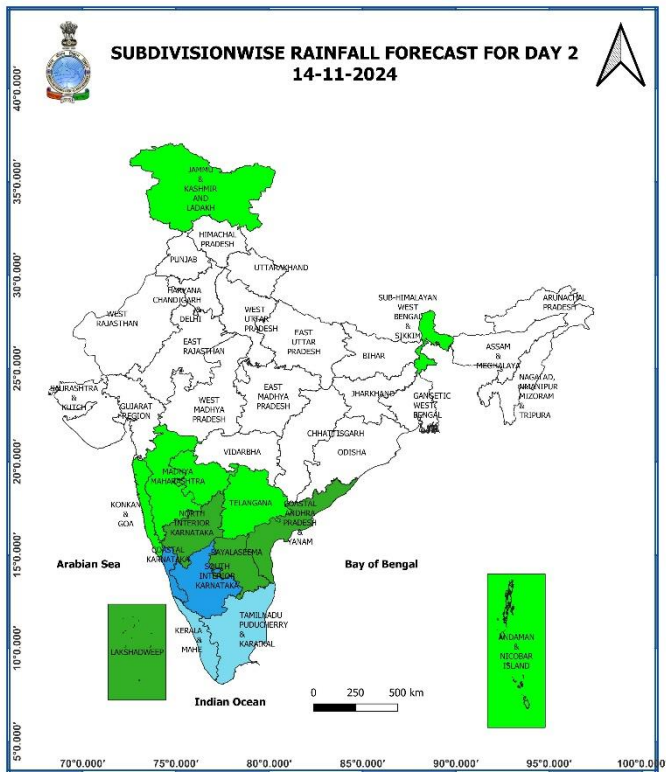
- ❖ The **low pressure area** over southwest & adjoining westcentral Bay of Bengal off north Tamil Nadu & adjoining south Andhra Pradesh coasts **has become less marked**. However, the associated **upper air cyclonic circulation** now lies over southwest Bay of Bengal off north Tamil Nadu and extends upto 0.9 km above mean sea level.
- ❖ The **upper air cyclonic circulation** over southeast Arabian sea and adjoining Kerala coast now lies over southeast Arabian Sea off Kerala coast between 1.5 & 3.1 km above mean sea level.
- ❖ An **upper air cyclonic circulation** lies over east Bangladesh and extends upto 1.5 km above mean sea level.
- ❖ A **fresh Western Disturbance** as a trough in middle tropospheric westerlies with its axis at 5.8 km above mean sea level runs roughly along Long. 58°E to the north of Lat. 33°N.
- ❖ **Jet Stream Winds** of the order upto 110 knots at 12.6 km above mean sea level are prevailing over North India.

Weather Forecast & Warnings for next 7 days (Upto 0830 hours IST of 20th November, 2024)



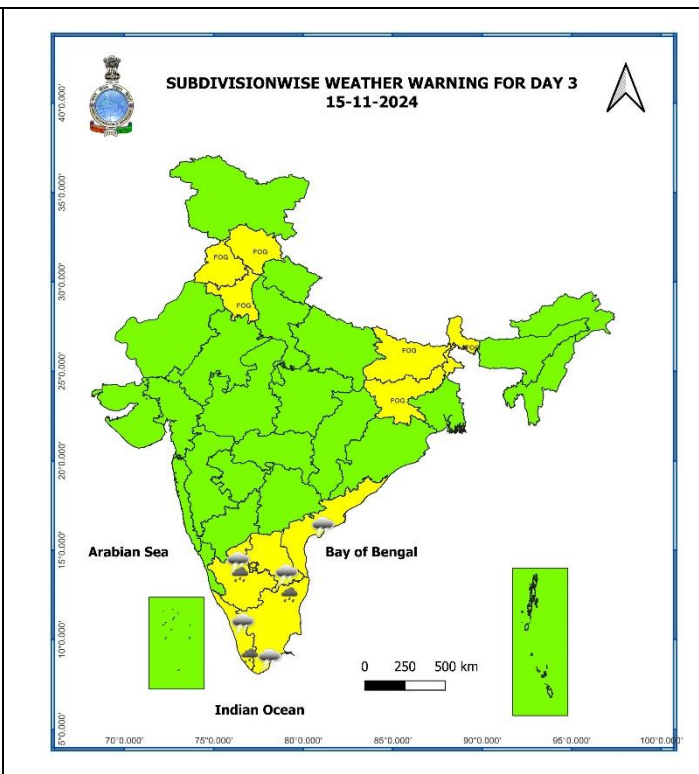
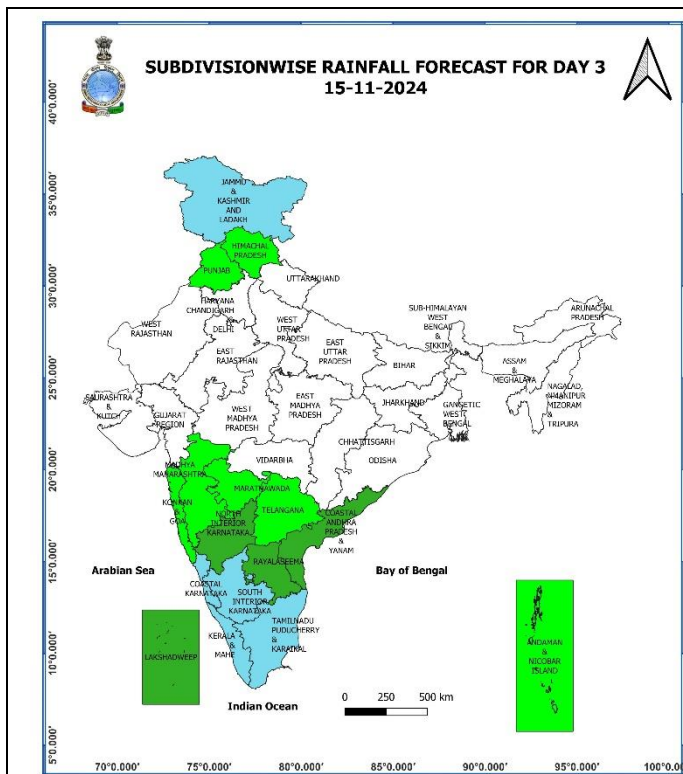
13 November (Day 1):

- ❖ **Heavy rainfall (≥ 7 cm)** very likely at isolated places over Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe, Coastal Andhra Pradesh & Yanam and Rayalaseema.
- ❖ **Very dense fog conditions** very likely in some parts of Punjab; **Dense fog conditions** in some parts of Haryana-Chandigarh-Delhi; in isolated pockets of Himachal Pradesh, Uttar Pradesh, Rajasthan, Sub-Himalayan West Bengal & Sikkim, Bihar and Jharkhand; **Shallow to Moderate fog conditions** in isolated pockets of Arunachal Pradesh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura in the morning hours.
- ❖ **Thunderstorm accompanied with lightning** very likely at isolated places over Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe, Coastal Andhra Pradesh & Yanam, Rayalaseema and South Interior Karnataka.
- ❖ **Squally Weather with Wind Speed 35-45 kmph gusting to 55 kmph** over parts of southwest Bay of Bengal along and off Sri Lanka Coast along and off Tamilnadu, south Andhra Pradesh coast, Gulf of Mannar and adjoining Comorin Area. Fishermen are advised not to venture into these areas.



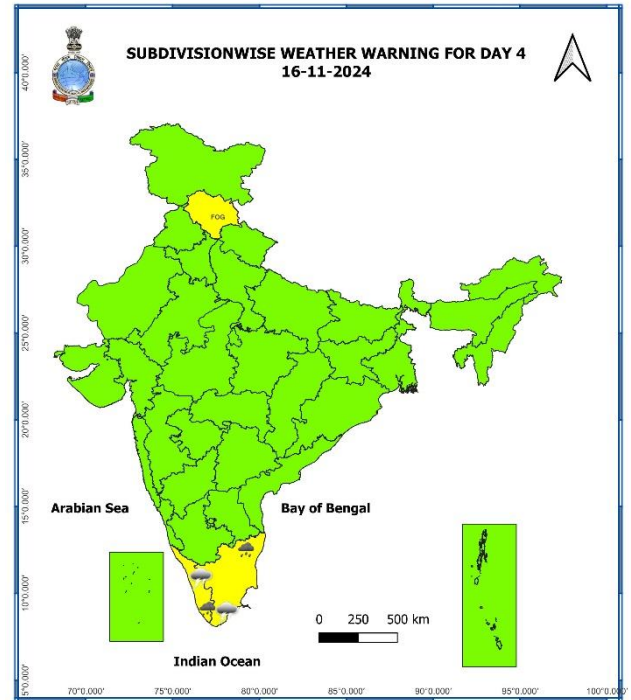
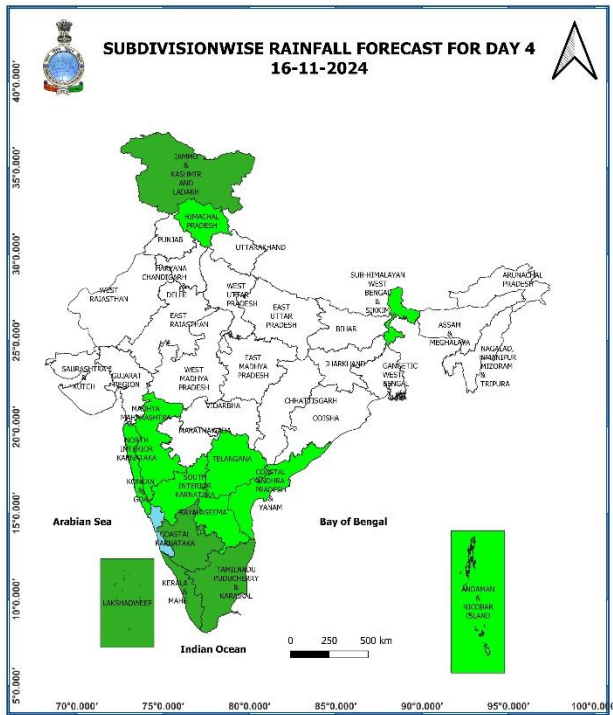
14 November (Day 2):

- ❖ **Heavy rainfall (≥ 7 cm)** very likely at isolated places over Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe, Coastal Andhra Pradesh & Yanam and South Interior Karnataka.
- ❖ **Very dense fog conditions** very likely in isolated pockets of Punjab; **Dense fog conditions** in isolated pockets of Haryana-Chandigarh-Delhi, Himachal Pradesh, Uttar Pradesh, Rajasthan, Sub-Himalayan West Bengal & Sikkim, Bihar and Jharkhand; **Shallow to Moderate fog conditions** in isolated pockets of Arunachal Pradesh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura in the morning hours.
- ❖ **Thunderstorm accompanied with lightning** very likely at isolated places over Konkan & Goa, Madhya Maharashtra, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe, Coastal Andhra Pradesh & Yanam, Rayalaseema and South Interior Karnataka.
- ❖ **Squally Weather with Wind Speed 35-45 kmph gusting to 55 kmph** over parts of southwest Bay of Bengal along and off Sri Lanka Coast along and off Tamilnadu, south Andhra Pradesh coast, Gulf of Mannar and adjoining Comorin Area. Fishermen are advised not to venture into these areas.



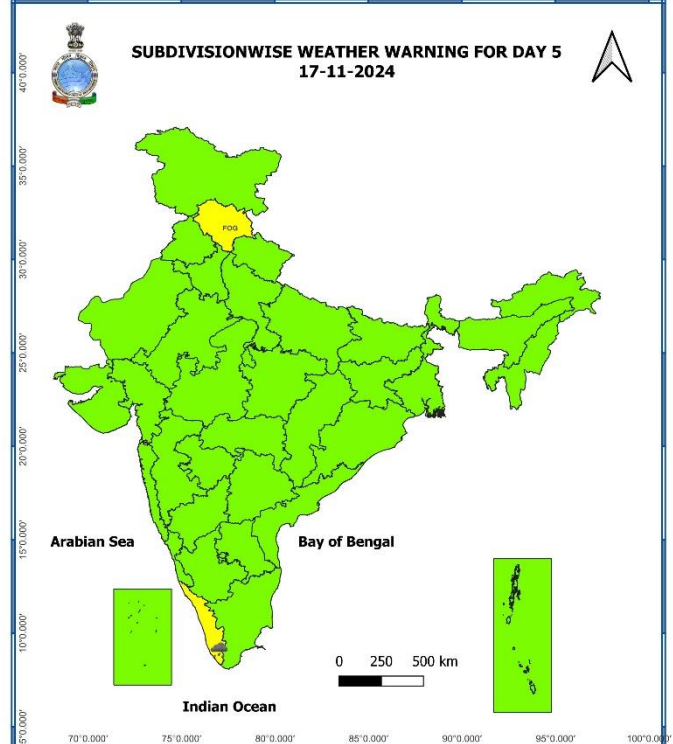
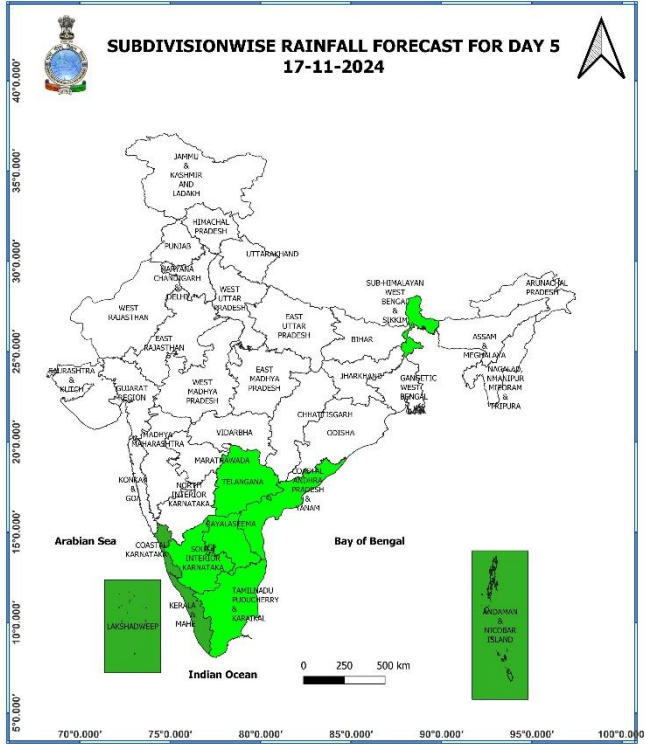
15 November (Day 3):

- ❖ **Heavy rainfall (≥ 7 cm)** very likely at isolated places over Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe and South Interior Karnataka.
- ❖ **Dense fog conditions** very likely in isolated pockets of Himachal Pradesh, Punjab, Haryana-Chandigarh-Delhi, Sub-Himalayan West Bengal & Sikkim, Bihar and Jharkhand; **Shallow to Moderate fog conditions** in isolated pockets of Arunachal Pradesh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura in the morning hours.
- ❖ **Thunderstorm accompanied with lightning** very likely at isolated places over Madhya Maharashtra, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe, Coastal Andhra Pradesh & Yanam, Rayalaseema and South Interior Karnataka.



16 November (Day 4):

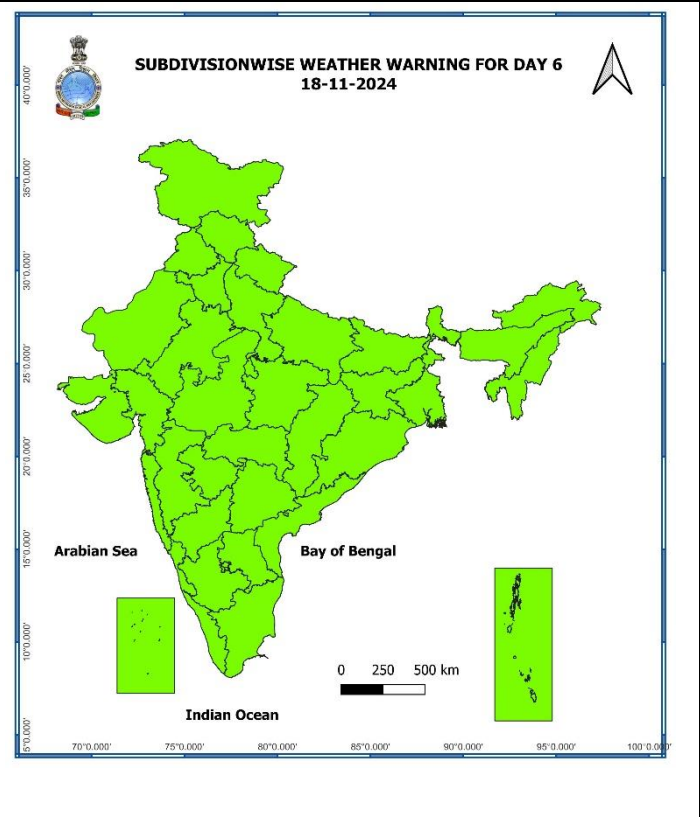
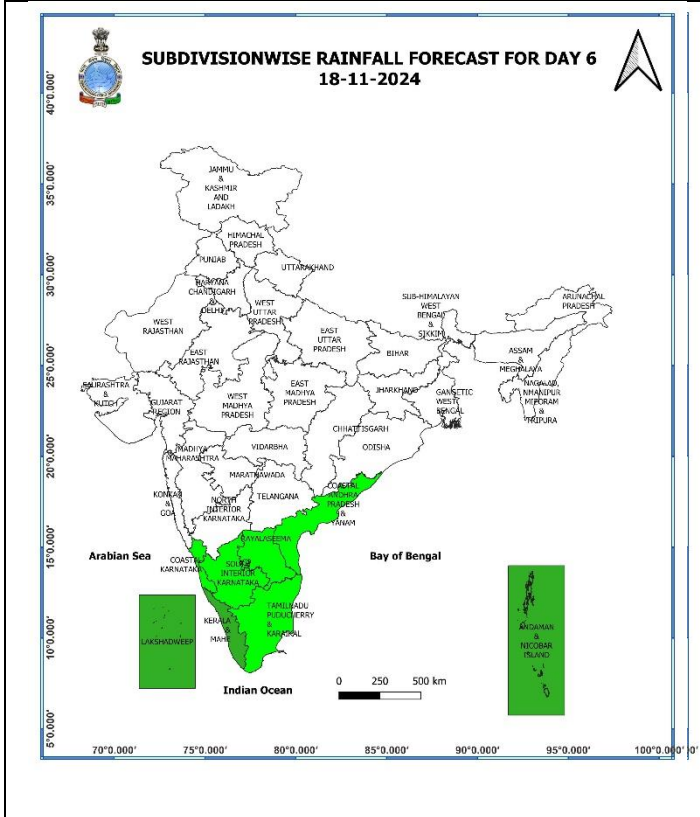
- ❖ **Heavy rainfall (≥ 7 cm)** likely at isolated places over Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe.
- ❖ **Dense fog conditions** likely in isolated pockets of Himachal Pradesh; **Shallow to Moderate fog conditions** in isolated pockets of Arunachal Pradesh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura in the morning hours.
- ❖ **Thunderstorm accompanied with lightning** likely at isolated places over Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe.



17 November (Day 5):

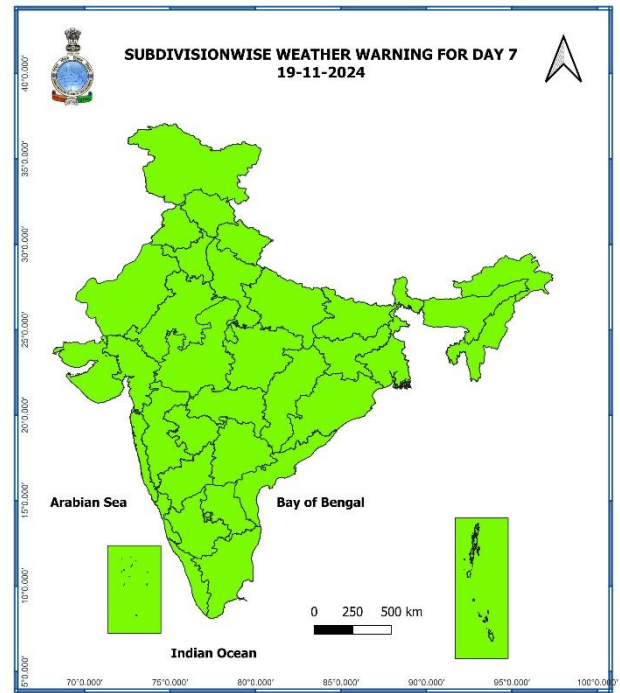
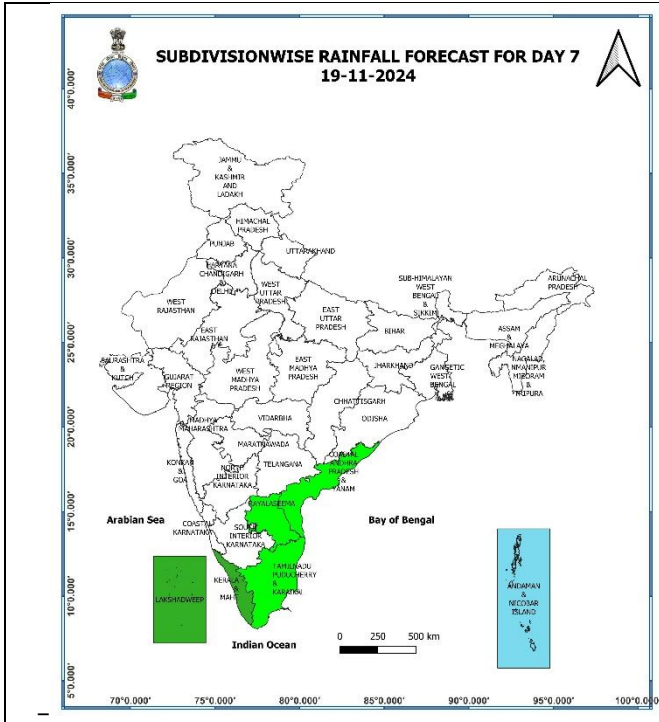
- ❖ **Heavy rainfall (≥ 7 cm)** likely at isolated places over Kerala & Mahe.
- ❖ **Dense fog conditions** likely in isolated pockets of Himachal Pradesh; **Shallow to Moderate fog conditions** in isolated pockets of Arunachal Pradesh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura in the morning hours.

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18 November (Day 6):

❖ **No Warning**



19 November (Day 7):

❖ No Warning

Weather Outlook for subsequent 3 days (During 20th November – 22nd November, 2024)

- ❖ Isolated to Scattered light rainfall likely over some parts of western Himalayan region and south peninsular 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.

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राष्ट्रीय मौसम पूर्वानुमान केन्द्र
भारत मौसम विज्ञान विभाग
पृथ्वी विज्ञान मंत्रालय



National Weather Forecasting Centre
India Meteorological Department
Ministry of Earth Sciences

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

- ✓ Make arrangements to drain out excess water from the standing crop fields in Tamilnadu, Kerala, South Interior Karnataka and Andhra Pradesh.
- ✓ 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

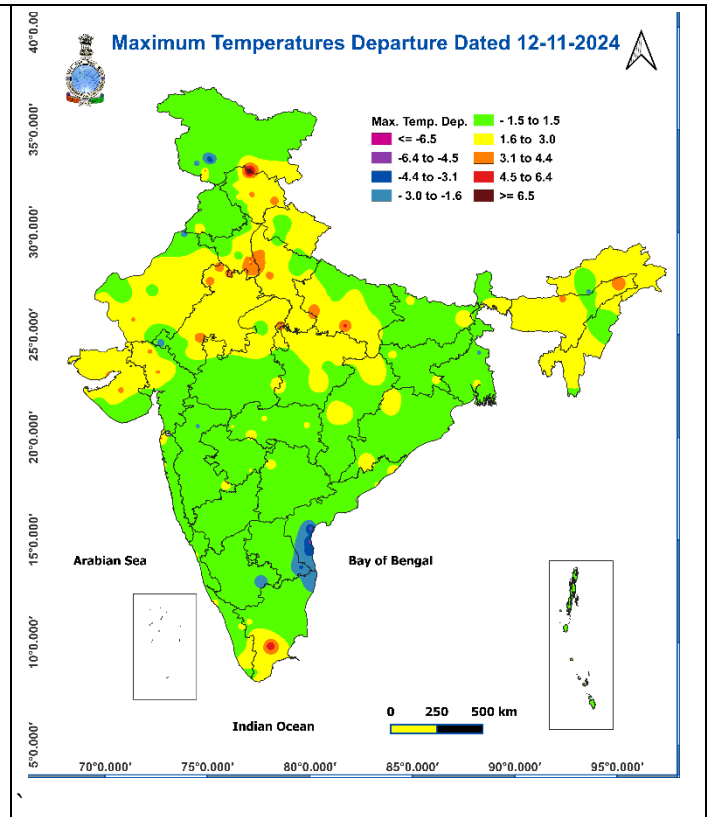
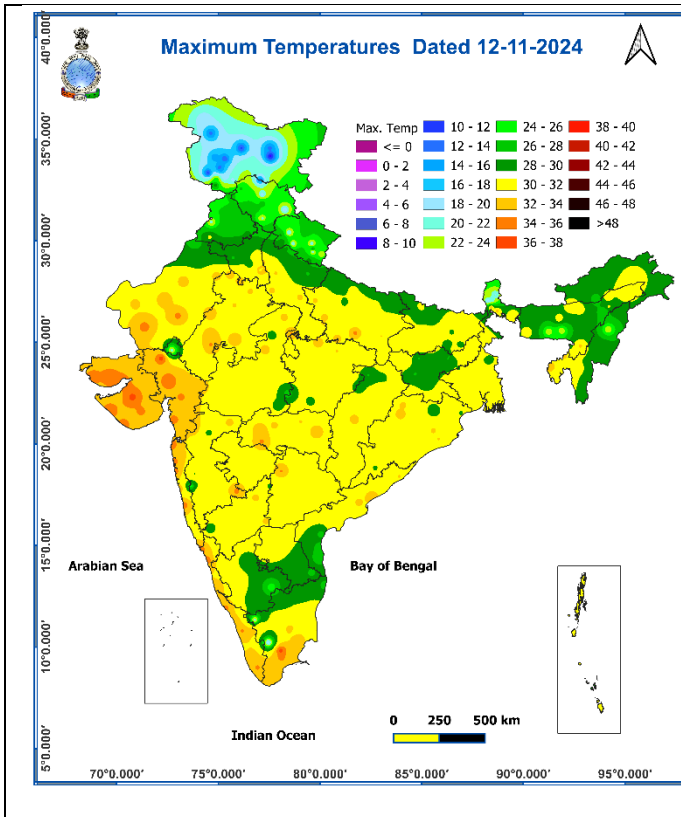


Fig. 3: Minimum Temperatures

Fig. 4: Departure of Minimum Temperatures

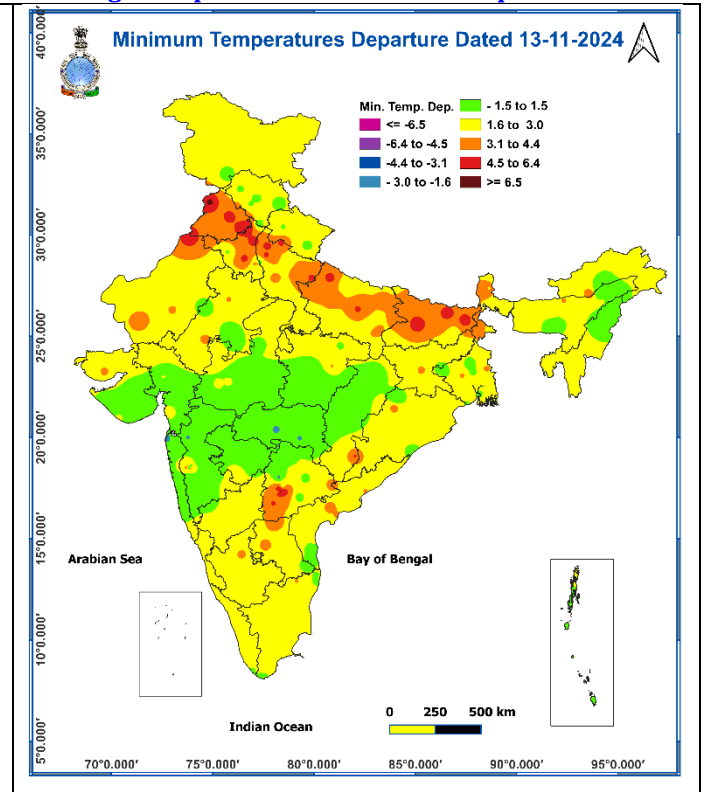
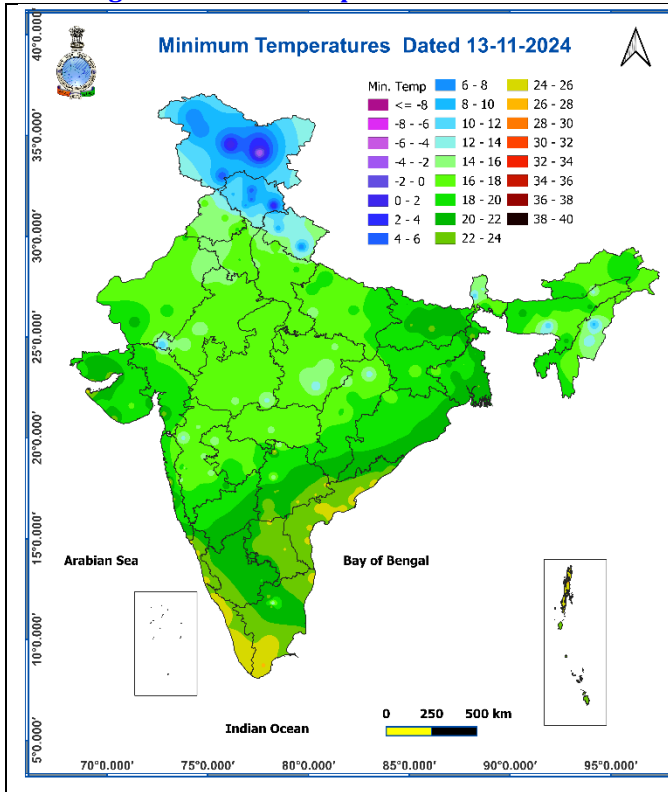
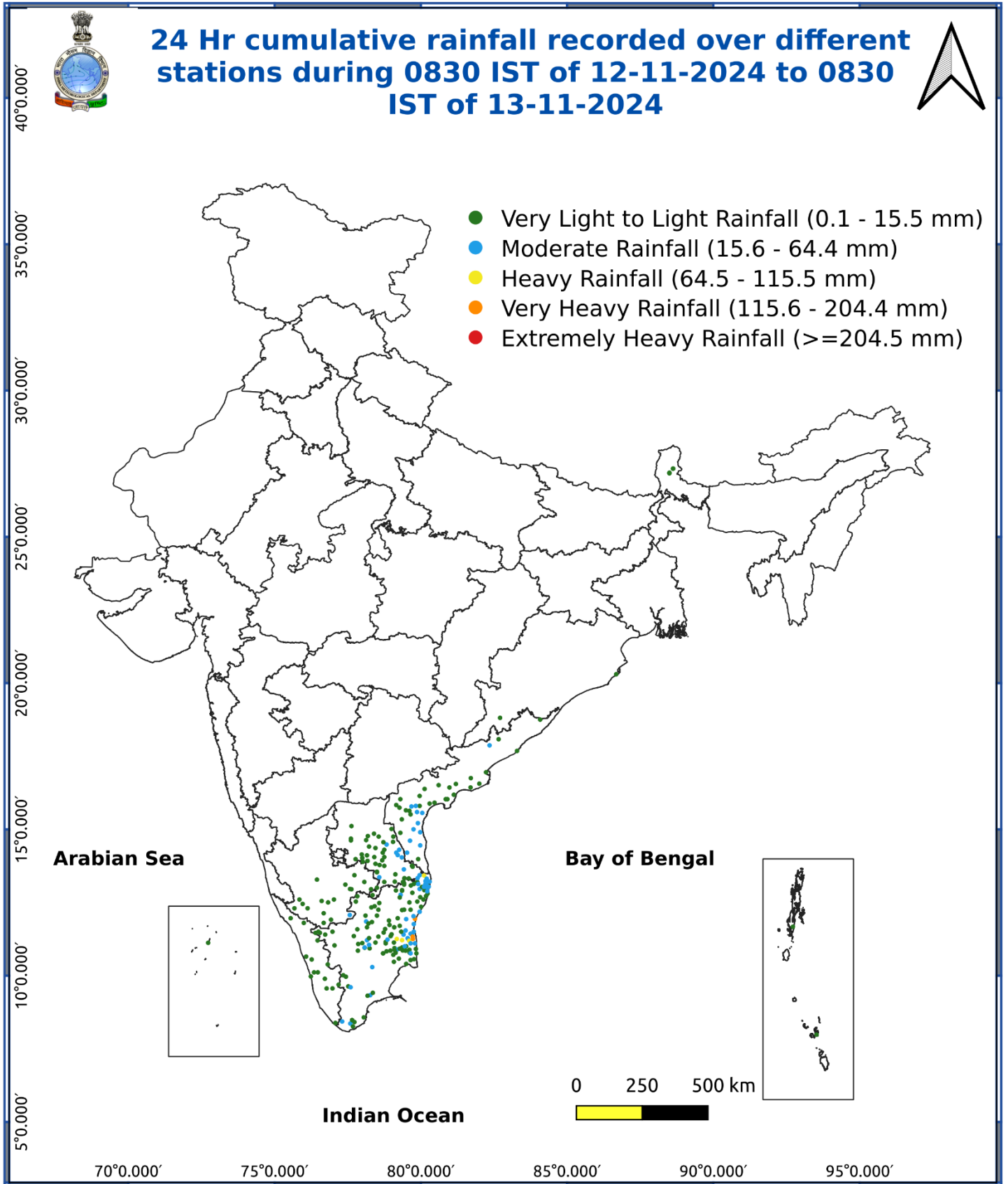


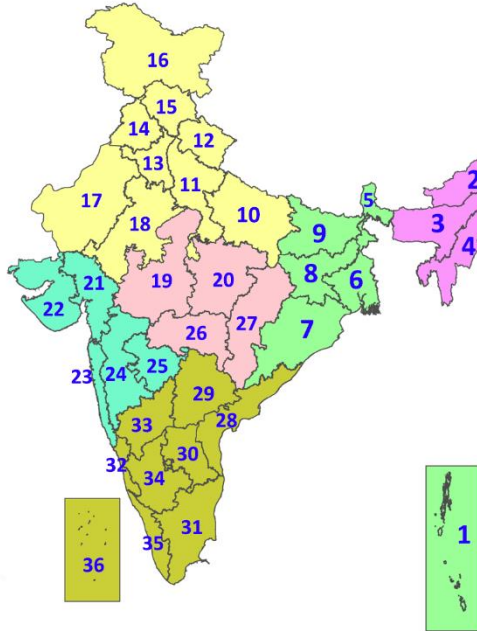
Fig. 5: Accumulated Rainfall (mm) during past 24 hours



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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 *	<p>Heavy: 64.5 to 115.5 mm/cm *</p> <p>Very Heavy: 115.6 to 204.4 mm/cm*</p> <p>Extremely Heavy: > 204.4 mm/cm *</p>
Heat Wave	<p>When maximum temperature of a station reaches $\geq 40^{\circ}\text{C}$ for plains and $\geq 30^{\circ}\text{C}$ for hilly regions</p> <p>(a) Based on Departure from normal</p> <p>Heat Wave: Maximum Temperature Departure from normal 4.5°C to 6.4°C.</p> <p>Severe Heat Wave: Maximum Temperature Departure from normal $\geq 6.5^{\circ}\text{C}$</p> <p>(b). Based on Actual maximum temperature</p> <p>Heat Wave: When actual maximum temperature $\geq 45^{\circ}\text{C}$.</p> <p>Severe Heat Wave: When actual maximum temperature $\geq 47^{\circ}\text{C}$</p> <p>(c). Criteria for heat wave for coastal stations</p> <p>When maximum temperature departure is $>4.5^{\circ}\text{C}$ from normal. Heat Wave may be described provided maximum temperature $\geq 37^{\circ}\text{C}$</p>
Warm Night	<p>When maximum temperature remains 40°C</p> <p>Warm Night: When minimum temperature departure 4.5°C to 6.4°C.</p> <p>Severe Warm Night: When minimum temperature departure $>6.4^{\circ}\text{C}$.</p>
Cold Wave	<p>When minimum temperature of a station $\leq 10^{\circ}\text{C}$ for plains and $\leq 0^{\circ}\text{C}$ for hilly regions.</p> <p>(a). Based on departure</p> <p>Cold Wave: Minimum Temperature Departure from normal -4.5°C to -6.4°C.</p> <p>Severe Cold Wave: Minimum Temperature Departure from normal $\leq -6.5^{\circ}\text{C}$</p> <p>(b) Based on actual Minimum Temperature (for Plains only)</p> <p>Cold Wave : When Minimum Temperature is $\leq 4.0^{\circ}\text{C}$</p> <p>Severe Cold Wave: When Minimum Temperature is $\leq 2.0^{\circ}\text{C}$</p> <p>(c) For Coastal Stations</p> <p>When Minimum Temperature departure is $\leq -4.5^{\circ}\text{C}$ & actual Minimum Temperature is $\leq 15^{\circ}\text{C}$</p>
Cold Day	<p>When minimum temperature of a station $\leq 10^{\circ}\text{C}$ for plains and $\leq 0^{\circ}\text{C}$ for hilly regions</p> <p>Based on departure</p> <p>Cold Day: Maximum Temperature Departure from normal -4.5°C to -6.4°C.</p> <p>Severe Cold Day: Maximum Temperature Departure from normal $\leq -6.5^{\circ}\text{C}$</p>
Fog	<p>Phenomenon of small droplets suspended in air and the horizontal visibility $< 1\text{km}$</p> <p>Moderate Fog: When the visibility between 500-200 metres</p> <p>Dense Fog: when the visibility between 50- 200 metres</p> <p>Very Dense Fog: when the visibility < 50 metres</p>
Thunderstorm	<p>Sudden electrical discharges manifested by a flash of light (Lightning) and a sharp rumbling sound (thunder)</p>
Dust/Sand Storm	<p>An ensemble of particles of dust or sand energetically lifted to great heights by a strong and turbulent wind.</p>
Frost	<p>Ice deposits on ground</p> <p>Air temperature $\leq 4^{\circ}\text{C}$ (over Plains)</p>
Squall	<p>A strong wind that rises suddenly, lasts for atleast 1 minute.</p> <p>Moderate: Wind speed 52-61 kmph</p> <p>Severe: Wind speed 62-87 kmph</p> <p>Very Severe: Wind speed >87 kmph</p>
Sea State	<p>Effect of various waves in the sea over specific area</p> <p>Rough to very rough: Wind speed 41-62 kmph (22-33 knots) & Wave height 2.5-6 metre</p> <p>High to very high: Wind speed 63-117 kmph (34-63 knots) & Wave height 6-14 metre</p> <p>Phenomenal: Wind speed >117 kmph (>63 knots) & Wave height >14 metre</p>
Cyclone	<p>Cyclonic Storm: Wind speed 62-87 kmph (34-47 knots)</p> <p>Severe Cyclonic Storm: Wind speed 88-117 kmph (48-63 knots)</p> <p>Very Severe Cyclonic Storm: Wind speed 118-165 kmph (64 - 89 knots)</p> <p>Extremely Severe Cyclonic Storm: Wind speed 166-220 kmph (90 -119 knots)</p> <p>Super Cyclone Strom: Wind speed >220 kmph (>119 knots)</p>