

Friday, November 8, 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 southwest Bay of Bengal in lower tropospheric levels.
- ❖ A **trough** runs from Gulf of Mannar to eastcentral Bay of Bengal across above cyclonic circulation over southwest Bay of Bengal 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 Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe during 08th -11th November.
- ✓ **Isolated heavy rainfall** very likely over Tamil Nadu, Puducherry & Karaikal during 08th - 13th; Kerala & Mahe on 08th, 12th & 13th November.

Temperature conditions and Forecast:

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

- ✓ Minimum temperatures has fallen by 2-3°C over most places in West Rajasthan and there is no significant change in remaining parts of the country. Minimum temperatures continue to be above normal by 4-5°C over most places of Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Punjab, Haryana, Rajasthan, Gujarat State, Uttarakhand, Uttar Pradesh, Bihar and by 2-4°C over Madhya Pradesh, Jharkhand, West Bengal, Odisha. There is no significant change in Maximum temperatures over the entire country during last 24 hours. Maximum temperatures are above normal by 2-4°C over most places of Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Rajasthan and Gujarat State.

Forecast of temperature

- ✓ No significant change in Minimum & Maximum temperatures likely over most parts of the country during next one week.

Weather forecast over Delhi/NCR during 08th November to 10th November 2024

Past Weather:

There has been slight fall in maximum temperature over Delhi/NCR during past 24hr. The Maximum and Minimum temperature over Delhi is in the range of 30-32°C and 15-19°C respectively. The maximum temperature was above normal by 1 - 2°C and minimum temperature was above normal by 4 -5°C over some places in the region. Mainly smog condition with predominant surface wind from variable directions with wind speed reaching 04-06 kmph prevailed during daytime and calm winds during night. The mainly smog condition with wind speed upto 04 -06 kmph from variable directions over the region prevailed in the forenoon today.

Weather Forecast:

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

09th November: Mainly clear sky. The predominant surface wind is likely to be from variable directions with wind speed less than 04 kmph during morning hours. Smog/Shallow fog/mist in the morning. The wind speed will gradually increase becoming 06- 08 kmph from variable directions during afternoon. It will decrease thereafter becoming less than 06 kmph from variable directions during evening and night. Smog/ mist is likely in the night.

10th November: Mainly clear sky. The predominant surface wind is likely to be from variable directions with wind speed less than 04 kmph during morning hours. Smog/Shallow fog/mist in the morning. The wind speed will increase thereafter becoming 06 - 10 kmph from variable directions during afternoon. It will gradually decrease becoming 04 - 06 kmph from variable directions during evening and night. Smog/ mist is likely in the night.

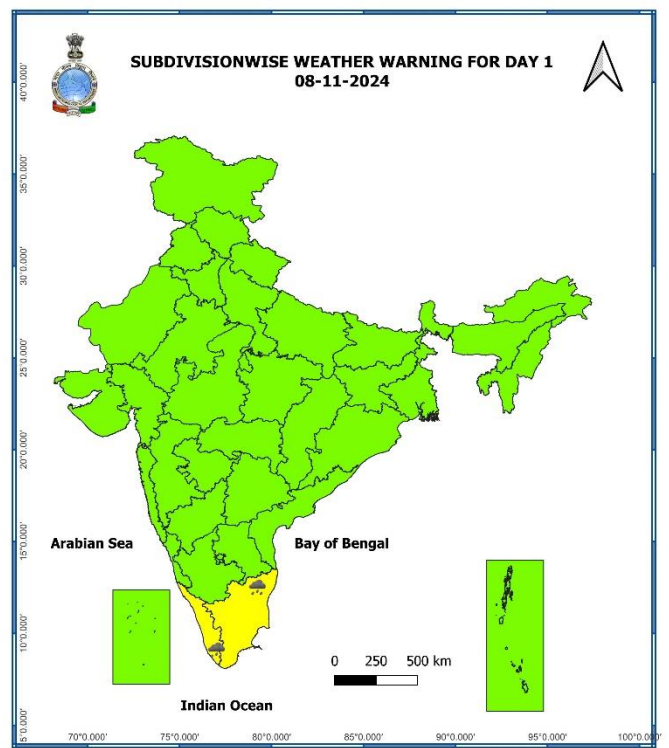
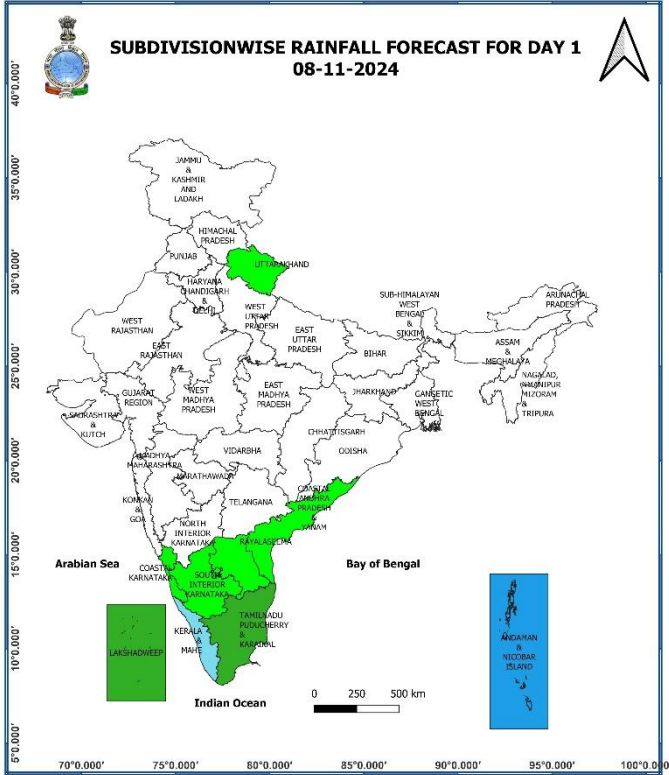
Main Weather Observations:

- ❖ **Rainfall distribution** (from 0830 hours IST to 1730 hours IST of yesterday): **at many places** over Andaman & Nicobar Islands; **at a few places** over Tamil Nadu, Puducherry & Karaikal; **at isolated places** over Rayalaseema, Lakshadweep.
- ❖ **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): **Rayalaseema:** Tirupati 4; **Tamil Nadu, Puducherry & Karaikal:** Karaikal 3, Erode 2; **Andaman & Nicobar Islands:** Nancowry 2.
- ❖ **Minimum Temperature Departures (as on 07-11-2024):** Minimum temperatures were **markedly above normal (5.1°C or more)** at a few places over Bihar; at isolated places East Uttar Pradesh, Punjab, Himachal Pradesh, West Rajasthan, Uttar Pradesh, Haryana-Chandigarh-Delhi; **appreciably above normal (3.1°C to 5.0°C)** at many places over Uttarakhand and Jharkhand; at a few places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Sub-Himalayan West Bengal & Sikkim; at isolated places over East Rajasthan, Gujarat state, Madhya Pradesh, Gangetic West Bengal and Assam & Meghalaya; **above normal (1.6°C to 3.0°C)** at many places over Nagaland, Manipur, Mizoram & Tripura, Coastal Andhra Pradesh & Yanam, Coastal Andhra Pradesh & Yanam and Odisha; at isolated places over Madhya Maharashtra, Vidarbha, Interior Karnataka, Rayalaseema, Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe. Yesterday, **the lowest minimum temperature of 14.8°C** was reported at **Ridge (Delhi)** over the plains of the country. **(Fig.4)**
- ❖ **Maximum Temperature Departures (as on 07-11-2024):** Maximum temperatures were **markedly above normal (5.1°C or more)** at a few places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad; at isolated places Himachal Pradesh; **appreciably above normal (3.1°C to 5.0°C)** at a few places over West Rajasthan; at isolated places over East Rajasthan, Gujarat state, Coastal Andhra Pradesh & Yanam, Tamil Nadu, Puducherry & Karaikal; **above normal (1.6°C to 3.0°C)** at most places over Punjab, East Uttar Pradesh, Kerala & Mahe; at many places over Uttarakhand, Sub-Himalayan West Bengal & Sikkim, Telangana; at a few places over West Uttar Pradesh, Haryana-Chandigarh-Delhi, Chhattisgarh, Rayalaseema; at a isolated places over Madhya Pradesh, Bihar, Gangetic West Bengal, Odisha, Vidarbha, Konkan & Goa, Coastal Karnataka, South Interior Karnataka. These were **appreciably below normal (-5.0°C to -3.1°C)** at isolated places over Assam & Meghalaya; **below normal (-1.6°C to -3.0°C)** at isolated places over Arunachal Pradesh. Yesterday, **the highest maximum temperature of 38.6°C** was reported at **Deesa (Gujarat Region)** over the country. **(Fig. 2)**

Meteorological Analysis (Based on 0530 hours IST)

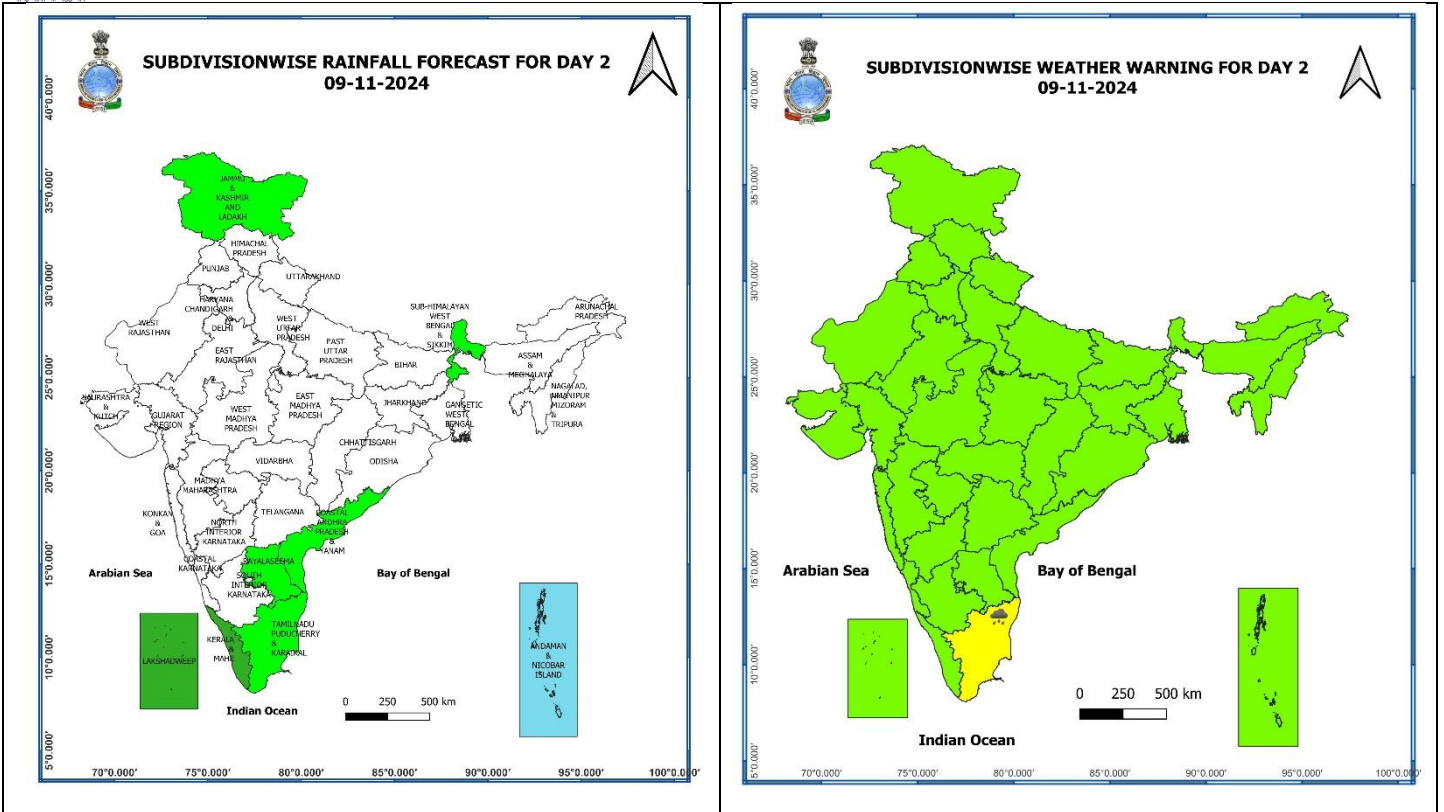
- ❖ The **cyclonic circulation** over Manipur & neighbourhood at 0.9 km above mean sea level persists.
- ❖ The **north-south trough** in middle and upper tropospheric westerlies with its axis at 7.6 km above mean sea level roughly along Long. 92°E to the north of Lat. 23°N persists.
- ❖ The **cyclonic circulation** over southwest Bay of Bengal extending upto 3.1 km above mean sea level persists.
- ❖ The **trough** from Gulf of Mannar to eastcentral Bay of Bengal across above cyclonic circulation over southwest Bay of Bengal extending upto 3.1 km above mean sea level persists.

Weather Forecast & Warnings for next 7 days (Upto 0830 hours IST of 15th November, 2024)



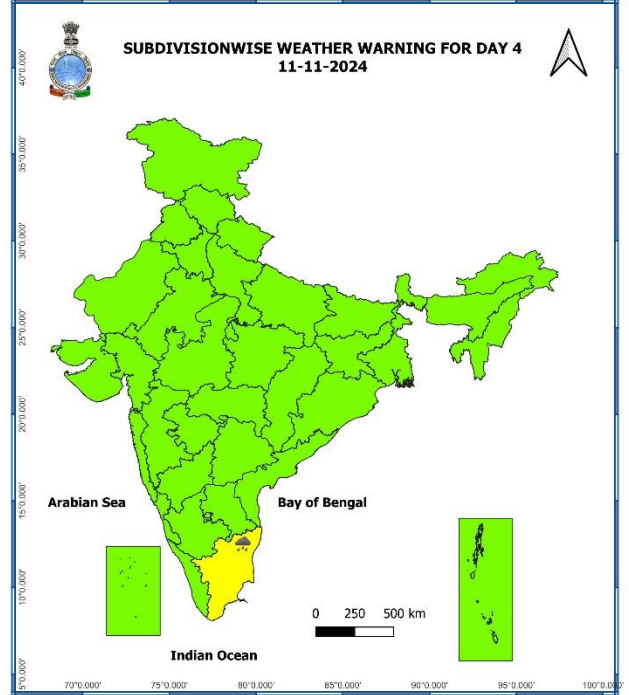
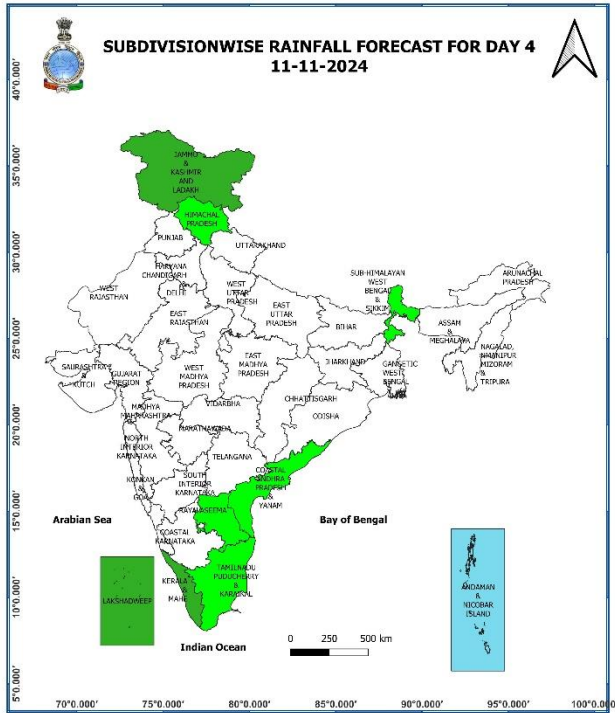
08 November (Day 1):

- ❖ **Heavy rainfall (≥ 7 cm)** very likely at isolated places over Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe.
- ❖ **Thunderstorm accompanied with lightning** very likely at isolated places over Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe.
- ❖ **Squally weather with wind speed 35-45 kmph gusting to 55 kmph** very likely over along & off south Andhra Pradesh & adjoining north Tamil Nadu coasts and adjoining sea area. Fishermen are advised not to venture into these areas.



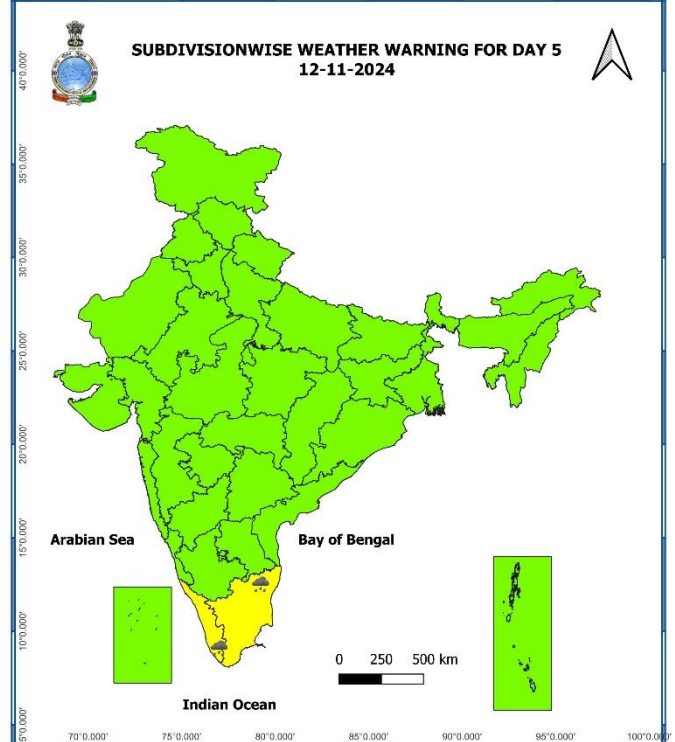
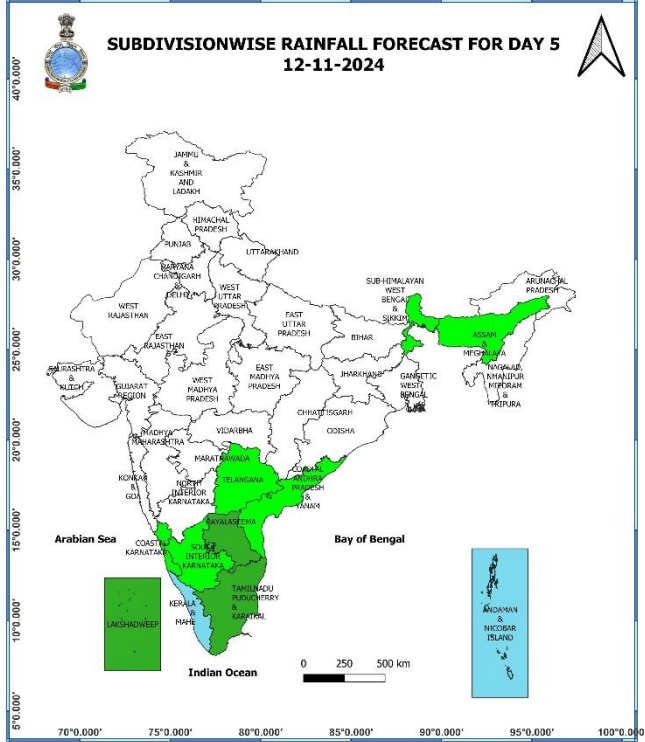
09 November (Day 2):

- ❖ **Heavy rainfall (≥ 7 cm)** very likely at isolated places over Tamil Nadu, Puducherry & Karaikal.
- ❖ **Thunderstorm accompanied with lightning** very likely at isolated places over Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe.



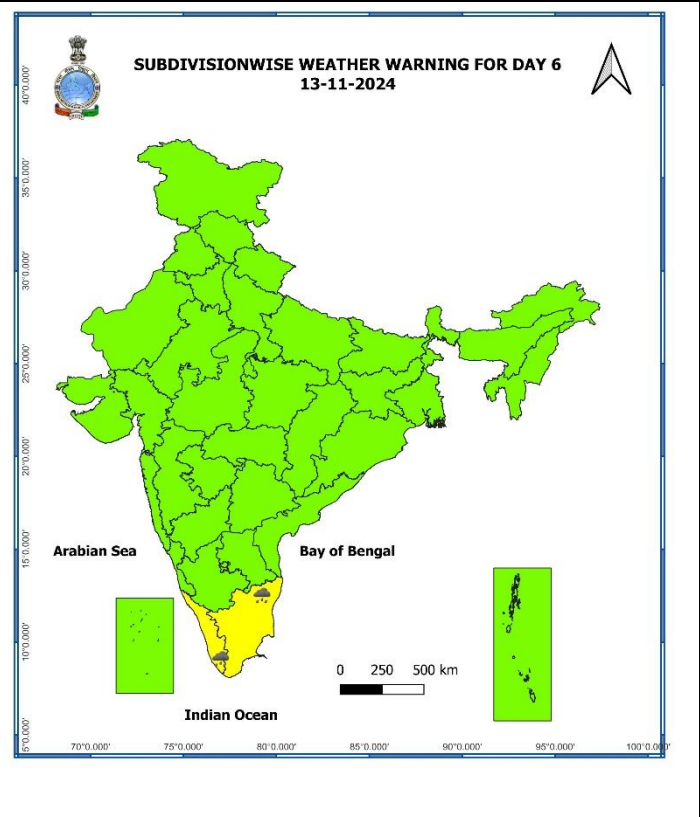
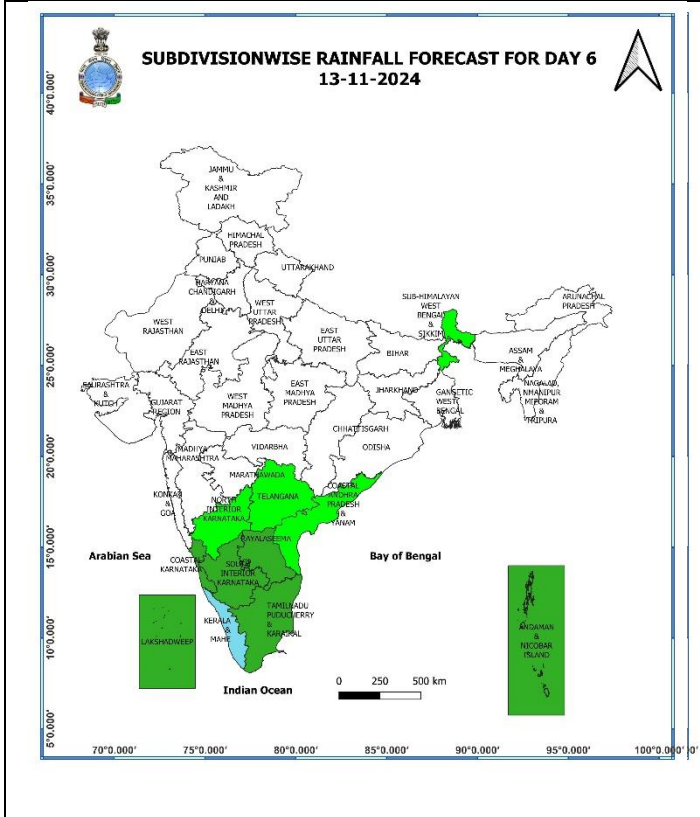
11 November (Day 4):

- ❖ **Heavy rainfall (≥ 7 cm)** likely at isolated places over Tamil Nadu, Puducherry & Karaikal.
- ❖ **Thunderstorm accompanied with lightning** likely at isolated places over Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe.



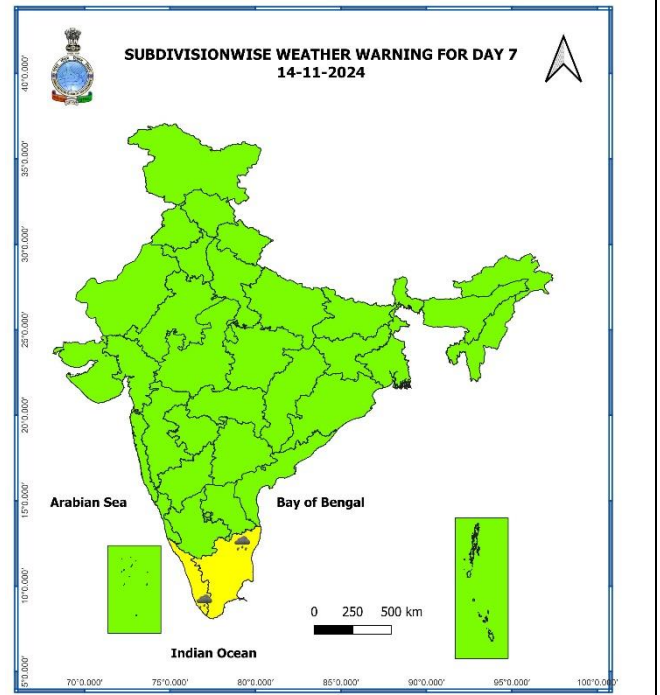
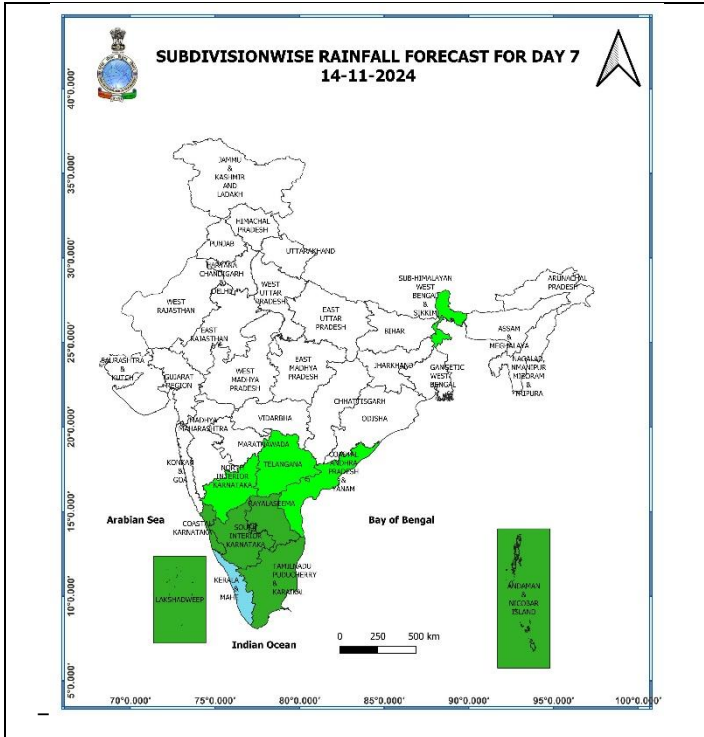
12 November (Day 5):

- ❖ **Heavy rainfall (≥ 7 cm)** likely at isolated places over Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe.



13 November (Day 6):

- ❖ **Heavy rainfall (≥ 7 cm)** likely at isolated places over Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe.



14 November (Day 7):

- ❖ **Heavy rainfall (≥ 7 cm)** likely at isolated places over Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe.

Weather Outlook for subsequent 3 days (During 15th November – 17th 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.

Agromet advisories for Heavy Rainfall likely over Tamil Nadu, Kerala and Andaman & Nicobar Islands

- ✓ Drain out excess water from the standing crops in Tamilnadu, Kerala and Andaman & Nicobar Islands.
- ✓ 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

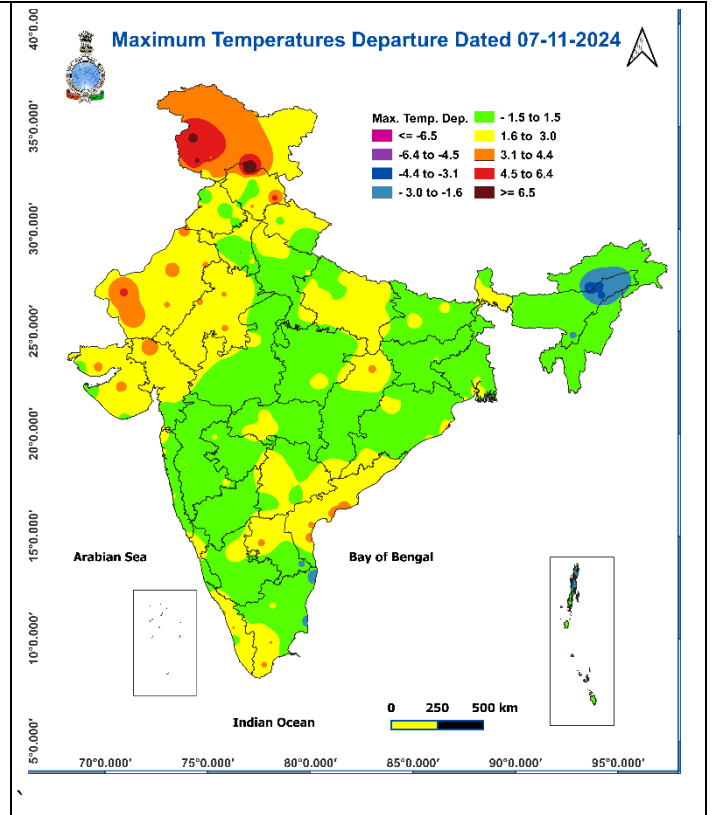
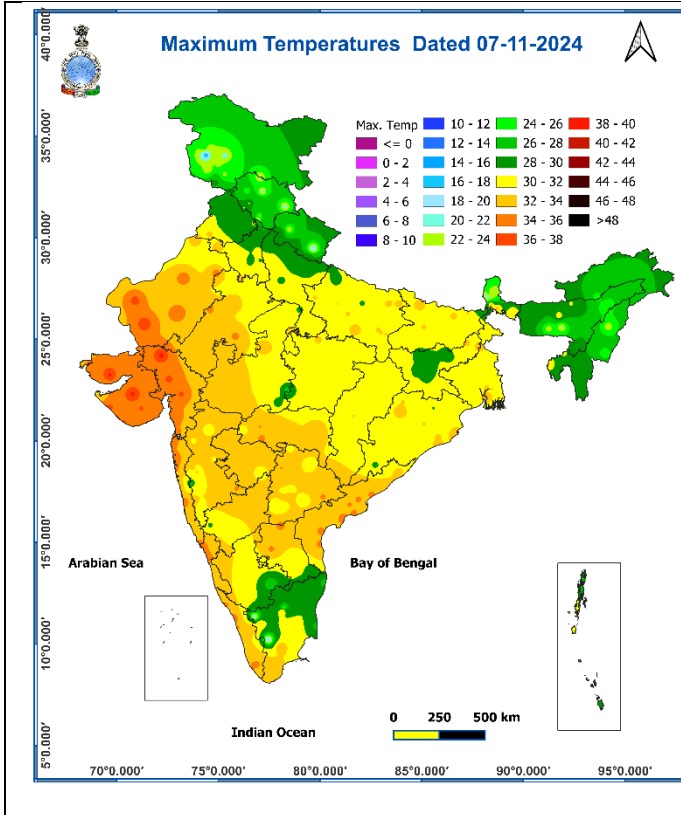


Fig. 3: Minimum Temperatures

Fig. 4: Departure of Minimum Temperatures

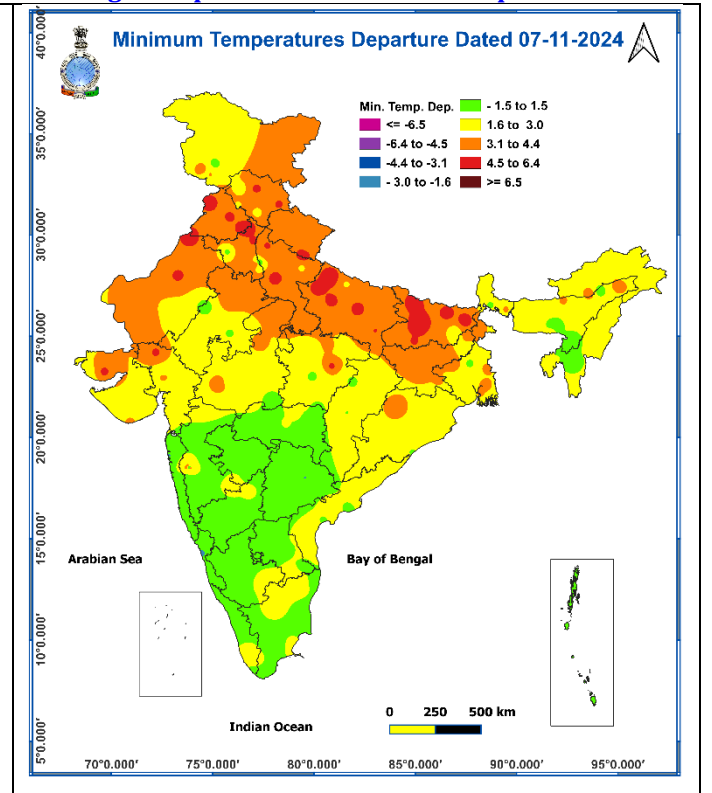
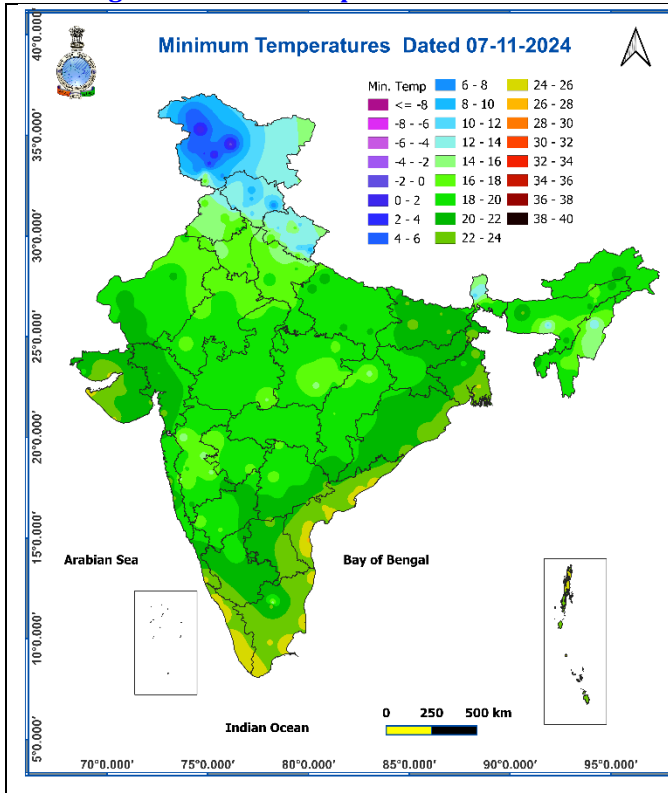
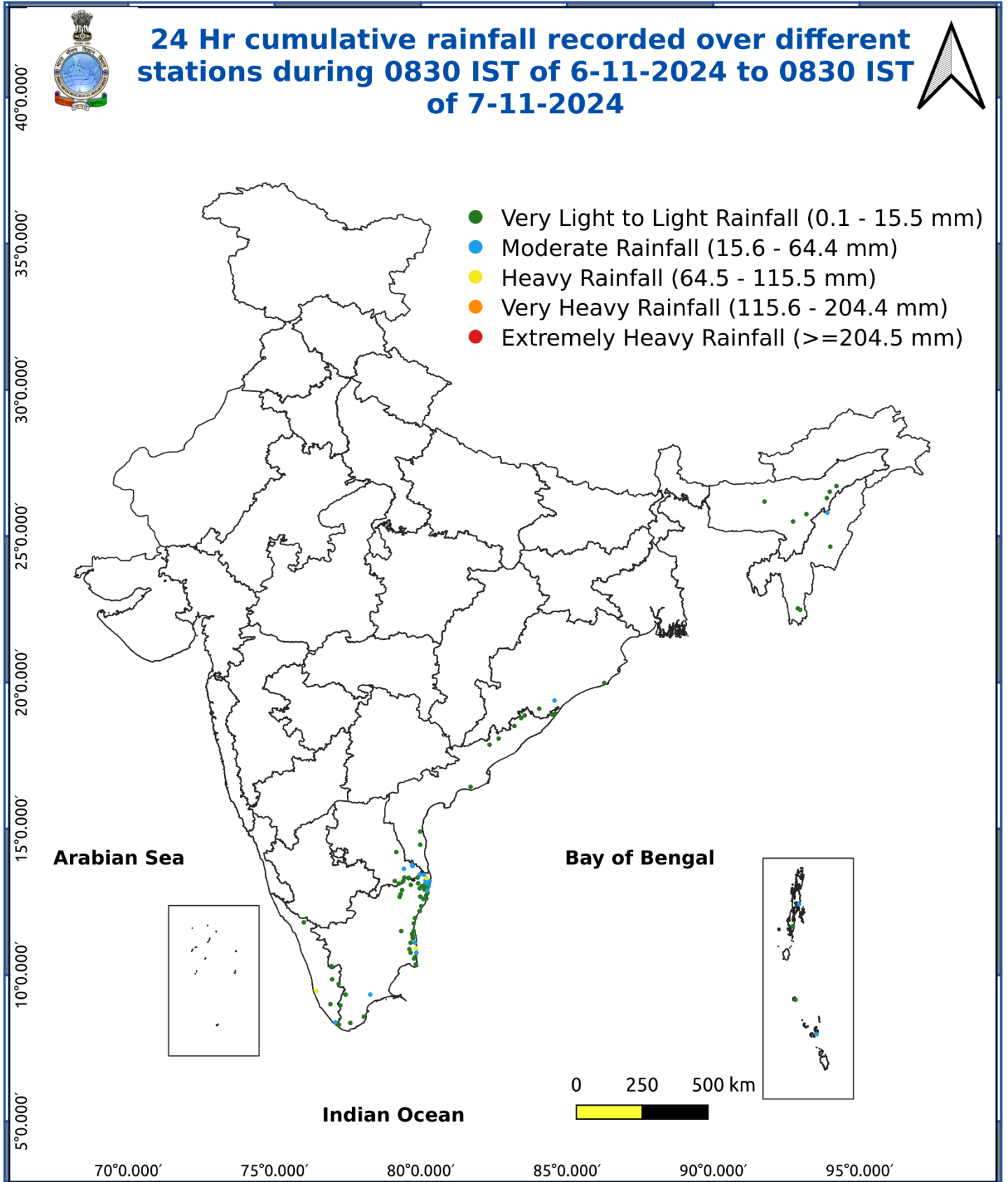


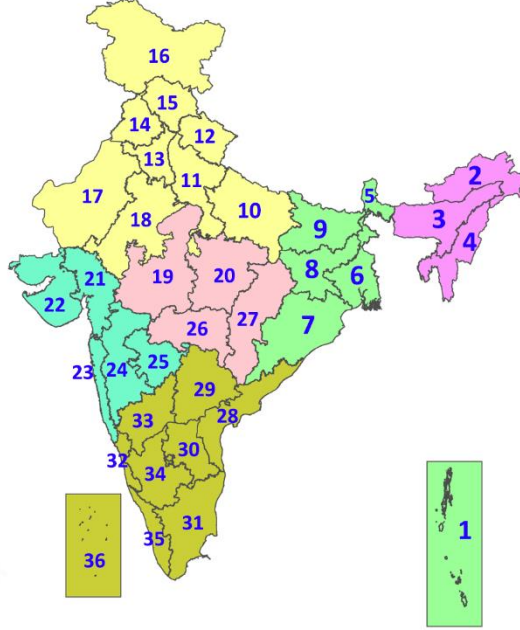
Fig. 5: Accumulated Rainfall (mm) during past 24 hours



* 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
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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)