राष्ट्रीय मौसम पूर्वानुमान केन्द्र
भारत मौसम विज्ञान विभाग
पृथ्वी विज्ञान मंत्रालय

National Weather Forecasting Centre
India Meteorological Department
Ministry of Earth Sciences

Thursday, November 28, 2024
Time of Issue: 1330 hours IST
(MID-DAY)

ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

Significant Weather Features:

Weather Systems:

- The **Deep Depression** over Southwest Bay of Bengal moved north-northwestwards and lay centred at 0830 hours IST of today, the 28th November 2024 over the same region near latitude 9.1°N and longitude 82.1°E, about 110 km east-northeast of Trincomalee, 310 km southeast of Nagapattinam, 410 km southeast of Puducherry and 480 km south-southeast of Chennai. It is very likely to move nearly north-northwestwards skirting Sri Lanka coast during next 12 hours. Thereafter, it will continue to move north-northwestwards and cross north Tamil Nadu-Puducherry coasts between Karaikal and Mahabalipuram around morning of 30th November as a **deep depression** with a wind speed of 50-60 kmph gusting to 70 kmph. There is a possibility of marginal intensification of the deep depression into a Cyclonic Storm with wind speed 65-75 kmph gusting to 85 kmph over southwest Bay of Bengal during the evening of 28th November to morning of 29th November 2024.

- A Western disturbance seen as a trough in middle tropospheric westerlies runs roughly along Long. 50°E to the north of Lat. 30°N.

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

- ✓ Light to moderate rainfall at a few places accompanied with isolated thunderstorm & lightning very likely over Tamil Nadu & Puducherry, Andhra Pradesh & Yanam during 28th November- 02nd December, South Interior Karnataka during 29th–02nd December, Telangana, Kerala & Mahe & Rayalaseema during 30th November-02nd December, Coastal & North Interior Karnataka and Lakshadweep on 01st & 02nd December.
- ✓ Light to moderate rainfall at many places over Andaman & Nicobar Islands during the week.
- ✓ Isolated **heavy to very heavy rainfall** at a few places **with extremely heavy falls** at isolated places very likely over north Tamil Nadu on 29th & 30th; **heavy to very heavy rainfall with extremely heavy falls** at isolated places very likely over south Andhra Pradesh & Yanam and Rayalaseema on 29th November.
- ✓ **Heavy to very heavy rainfall** at isolated places very likely over Kerala & Mahe, South Interior Karnataka on 30th November & 01st December, Coastal Andhra Pradesh & Yanam & Rayalaseema on 30th November and Tamil Nadu, Puducherry & Karaikal on 01st December.
- ✓ **Heavy rainfall** at isolated places very likely over coastal Tamil Nadu on 28th, Kerala & Mahe and South Interior Karnataka on 29th November & 02nd December, Andaman & Nicobar Islands on 30th November, and Lakshadweep on 02nd & 03rd December.
- ✓ **Dense fog conditions** very likely to prevail during late night/early morning hours in isolated pockets of Himachal Pradesh, Punjab & Haryana-Chandigarh & Bihar till 30th November and Uttar Pradesh till 02nd December morning hours.

Weather forecast over Delhi/NCR during 28th Nov. to 01st Dec. 2024

Weather Forecast:

28.11.2024: Mainly clear sky. The predominant surface wind is likely to be variable direction with wind speed less than 06 kmph till evening. It would decrease thereafter becoming less than 04 kmph from north direction during night. Smog/shallow fog is likely in the evening/night.

29.11.2024: Mainly clear sky. The predominant surface wind is likely to be from variable direction with speed less than 04 kmph during morning hours. Smog/ moderate fog is likely in the morning. The wind speed will increase thereafter becoming less than 06 kmph from variable direction during afternoon. It will decrease thereafter becoming less than 04 kmph from variable direction during evening and night. Smog/ shallow fog is likely in the evening/night.

30.11.2024: Mainly clear sky. The predominant surface wind is likely to be from variable direction with speed less than 04 kmph during morning hours. Smog/ shallow to moderate fog is likely in the morning. The wind speed will gradually increase becoming 06-10 kmph from northwest direction during afternoon. It will decrease thereafter becoming less than 04 kmph from northwest direction during evening and night. Smog/ shallow fog is likely in the evening/night.

01.12.2024: Mainly clear sky. The predominant surface wind is likely to be from variable direction with wind speed less than 04 kmph during morning hours. Smog/shallow to moderate fog in the morning. The wind speed will increase thereafter becoming 06-10 kmph from northwest direction during afternoon. It will gradually decrease becoming less than 04 kmph from north direction during evening and night. Smog/ shallow fog is likely in the evening/night.

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, Tamil Nadu, Puducherry & Karaikal; **at isolated places** over Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh, Coastal Andhra Pradesh & Yanam, Rayalaseema, Kerala & Mahe.

- **Heavy rainfall observed** (from 0830 hours IST of yesterday to 0830 hours IST of today): **Nil**

- **Significant amount of rainfall** (from 0830 hours IST of yesterday to 0830 hours IST of today) (in cm): **Tamil Nadu, Puducherry & Karaikal:** Nagapattinam AWS (dist Nagapattinam) 6, Velankanni (dist Nagapattinam), Thiruthuraipoondi (dist Thiruvarur), Kodiayakarai (distNagapattinam), Tirupoondi (dist Nagapattinam), Thirukuvalai (dist Nagapattinam), Nagapattinam (dist Nagapattinam), Vedaranyam (dist Nagapattinam) 5 each; **Andaman & Nicobar Islands:** Nancowry (dist Nicobar) 3.

- **Fog conditions observed** (at 0530 & 0830 hours IST of today): **Very dense fog (visibility < 50 m)** reported in isolated pockets of Bihar; **dense fog (visibility 51-200 m)** reported in isolated pockets of East Uttar Pradesh.

- **Visibility reported** (in m): **Bihar:** Bhagalpur 0, Purnea 200; **East Uttar Pradesh:** Kushinagar 50.

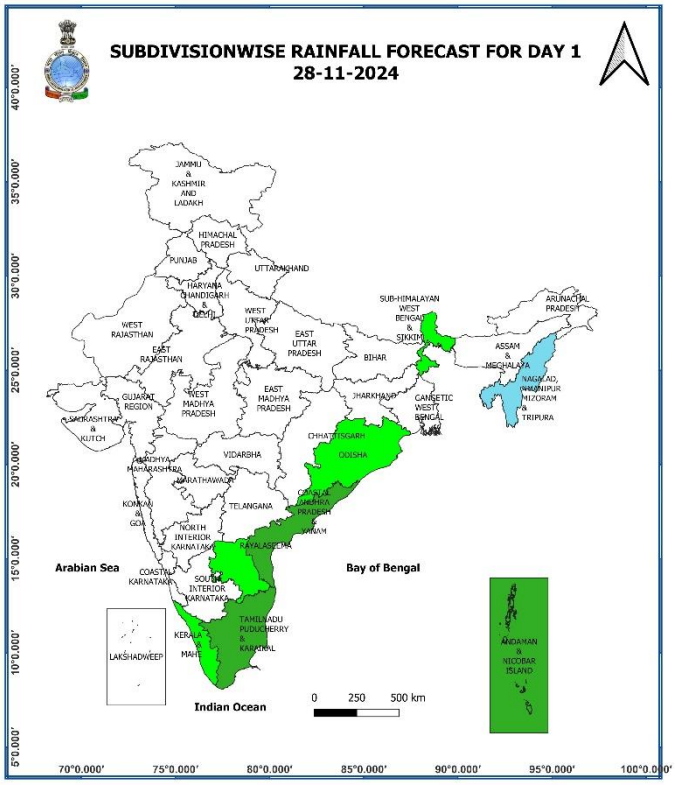
- **Minimum Temperature Departures (as on 28-11-2024):** Minimum temperatures are **appreciably above normal (3.1°C to 5.0°C)** at isolated places over Bihar, Saurashtra & Kutch; **above normal (1.6°C to 3.0°C)** at isolated places over Rajasthan, Gujarat state, Gangetic West Bengal. These are **appreciably below normal (-5.0°C to -3.1°C)** at an isolated places over East Madhya Pradesh, Odisha, Madhya Maharashtra, Marathwada, Vidarbha, East Madhya Pradesh; **below normal (-3.0°C to -1.6°C)** at few places over West Madhya Pradesh, Telangana; at isolated places over Konkan & Goa, North Interior Karnataka, Rayalaseema and near normal over rest parts of the country. Today, **the lowest minimum temperature** of **6.5°C** is reported at **Mandla (East Madhya Pradesh)** over the plains of the country. **(Fig.4)**

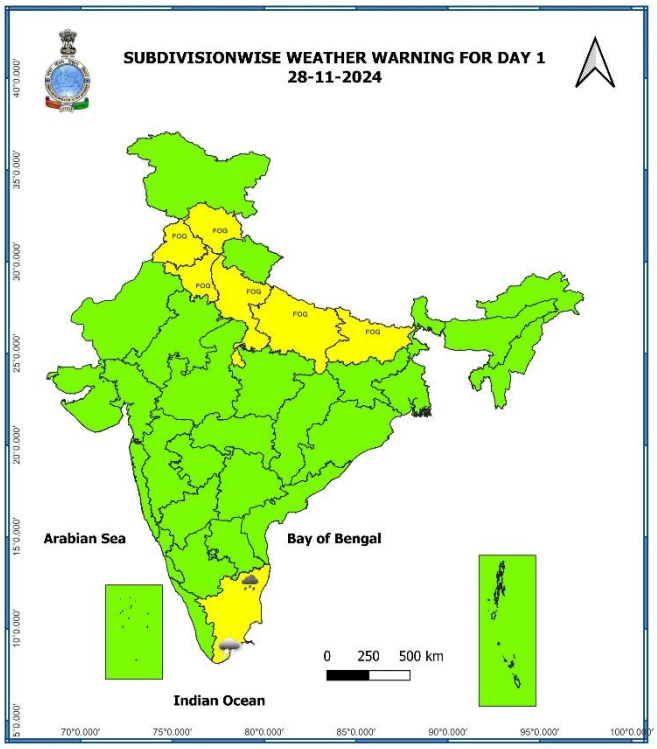
- **Maximum Temperature Departures (as on 27-11-2024):** Maximum temperatures were **appreciably above normal (3.1°C to 5.0°C)** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, West Rajasthan, Saurashtra & Kutch; **above normal (1.6°C to 3.0°C)** at isolated places over Himachal Pradesh, East Rajasthan, Assam & Meghalaya, Arunachal Pradesh. These were **appreciably below normal (-5.0°C to -3.1°C)** at a few places over Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe; **below normal (-1.6°C to -3.0°C)** at a few places over Madhya Maharashtra, Marathwada, South Interior Karnataka, Telangana; at isolated places over Rayalaseema, West Madhya Pradesh, Bihar, Sub-Himalayan West Bengal & Sikkim and near normal over rest parts of the country. Yesterday, **the highest maximum temperature** of **35.4°C** was reported at **Bhuj-Rudramata (Saurashtra & Kutch)** over the country. **(Fig. 2)**

Meteorological Analysis (Based on 0830 hours IST)

- The **Deep Depression** over Southwest Bay of Bengal remained practically stationary during past 06 hours and lay centred at 0830 hours IST of today, the 28th November 2024 over the same region near latitude 9.1°N and longitude 82.1°E, about 110 km east-northeast of Trincomalee, 310 km southeast of Nagappattinam, 410 km southeast of Puducherry and 480 km south-southeast of Chennai. It is very likely to move nearly north-northwestwards skirting Sri Lanka coast during next 12 hours. Thereafter, it will continue to move north-northwestwards and cross north Tamil Nadu-Puducherry coasts between Karaikal and Mahabalipuram around morning of 30th November as a **deep depression** with a wind speed of 50-60 kmph gusting to 70 kmph. There is a possibility of marginal intensification of the deep depression into a Cyclonic Storm with wind speed 65-75 kmph gusting to 85 kmph over southwest Bay of Bengal during the evening of 28th November to morning of 29th November 2024.
- The **Western disturbance** now seen as a trough in middle tropospheric westerlies with its axis at 5.8 km above mean sea level roughly along Long. 50°E to the north of Lat. 30°N.
- A **Cyclonic circulation** lies over southeast Bangladesh at 0.9 km above mean sea level.
- **Jet Stream** Winds of the order upto 150 knots at 12.6 km above mean sea level continue to prevail over Northeast India.

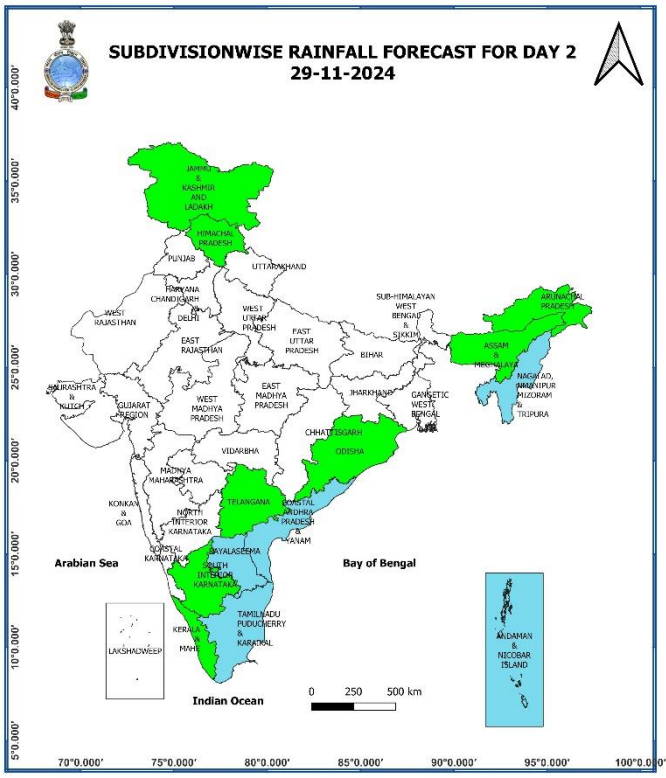
Weather Forecast & Warnings for next 7 days (Upto 0830 hours IST of 05th December, 2024)

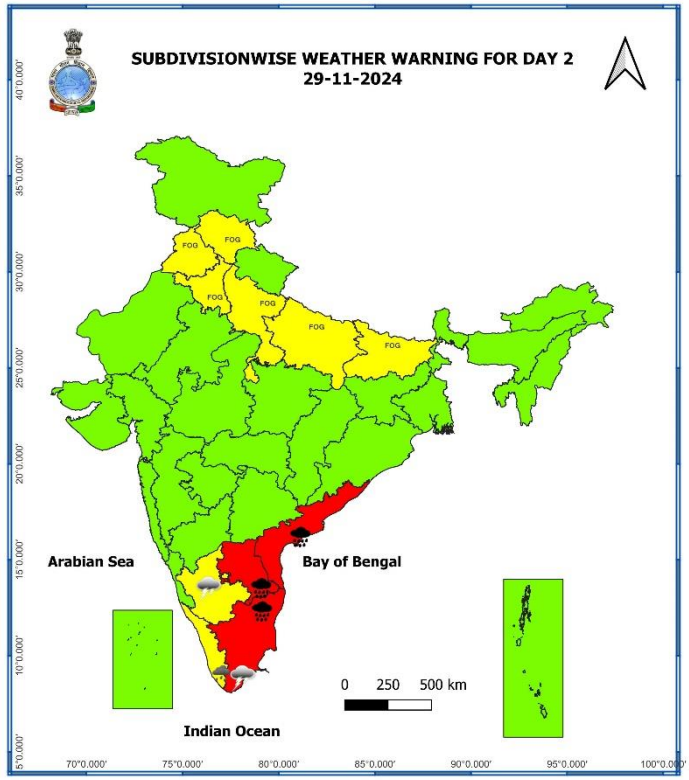




28 November (Day 1):

- **Heavy rainfall (≥ 7 cm)** very likely at isolated places over north coastal Tamil Nadu, Puducherry & Karaikal.
- **Dense fog** very likely in isolated pockets of Himachal Pradesh, Punjab, Haryana-Chandigarh-Delhi, Bihar and Uttar Pradesh; **Shallow to moderate fog** in isolated pockets of Odisha & Gangetic West Bengal in night/morning hours.
- **Thunderstorm accompanied with lightning** very likely at isolated places over Tamil Nadu, Puducherry & Karaikal.
- **Gale wind speed reaching 65-75 kmph gusting to 85 kmph** is very likely to prevail over southwest Bay of Bengal. **Squally wind speed reaching 40-50 kmph gusting to 60 kmph** is prevailing over adjoining areas of westcentral Bay of Bengal. Squally wind speed reaching 45-55 kmph gusting to 65 kmph is prevailing along & off North Tamil Nadu - Puducherry and adjoining South Andhra Pradesh coasts. Squally wind speed reaching 55-65 kmph gusting to 75 kmph is very likely to prevail Along & off East Sri Lanka coasts. Squally wind speed reaching 40-50 kmph gusting to 60 kmph is likely to prevail Along & off South Tamil Nadu coast and Gulf of Mannar. Fishermen are advised not to venture into these areas.





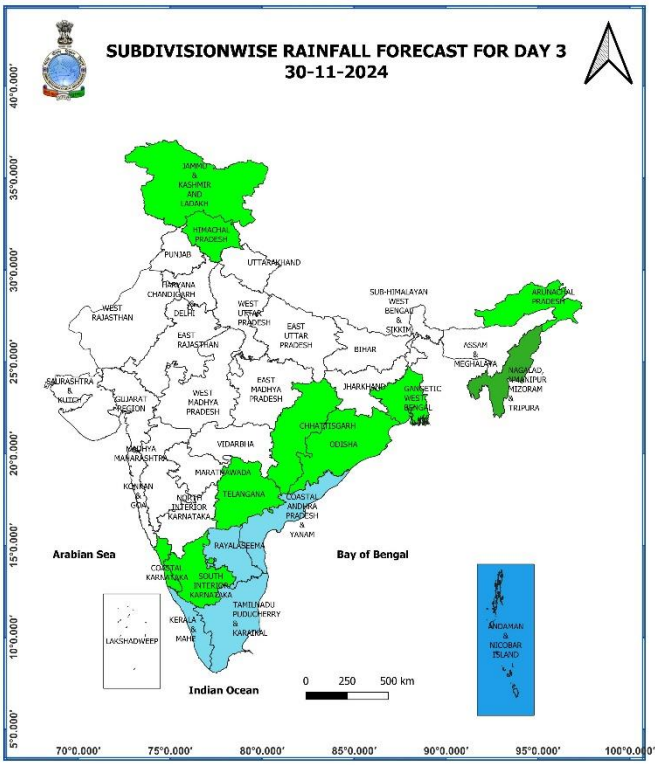
29 November (Day 2):

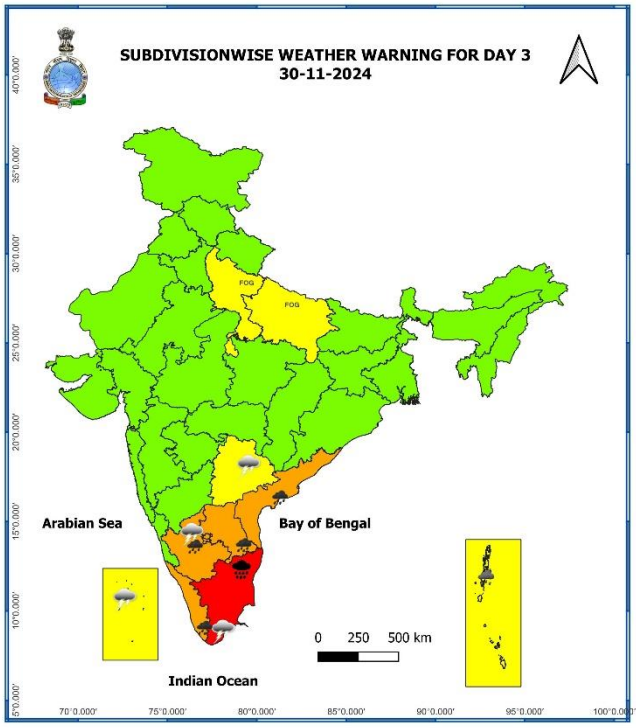
- **Heavy to very Heavy rainfall (≥ 12 cm)** very likely at a few places **with extremely heavy falls** at isolated places over north Tamil Nadu, Puducherry & Karaikal; **Heavy to very Heavy rainfall (≥ 12 cm) with extremely falls** very likely at isolated places over south Coastal Andhra Pradesh & Yanam, Rayalaseema; **Heavy rainfall (≥ 7 cm)** at isolated places over South Interior Karnataka, Kerala & Mahe.

- **Dense fog** very likely in isolated pockets of Himachal Pradesh, Punjab, Haryana-Chandigarh-Delhi, Bihar and Uttar Pradesh; **Shallow to moderate fog** in isolated pockets of Odisha & Gangetic West Bengal in night/morning hours.

- **Thunderstorm accompanied with lightning** very likely at isolated places over Tamil Nadu, Puducherry & Karaikal, South Interior Karnataka**.**

- **Gale wind speed reaching 65-75 kmph gusting to 85 kmph** is very likely to prevail over southwest Bay of Bengal. **Squally wind speed reaching** 50-60 kmph gusting to 70 kmph is prevailing over adjoining areas of westcentral Bay of Bengal. Squally wind speed reaching 50-60 kmph gusting to 70 kmph is prevailing along & off North Tamil Nadu - Puducherry and adjoining South Andhra Pradesh coasts. Squally wind speed reaching 55-65 kmph gusting to 75 kmph is very likely to prevail Along & off East Sri Lanka coasts. Squally wind speed reaching 40-50 kmph gusting to 60 kmph is likely to prevail Along & off South Tamil Nadu coast and Gulf of Mannar. Fishermen are advised not to venture into these areas. Fishermen are advised not to venture into these areas.





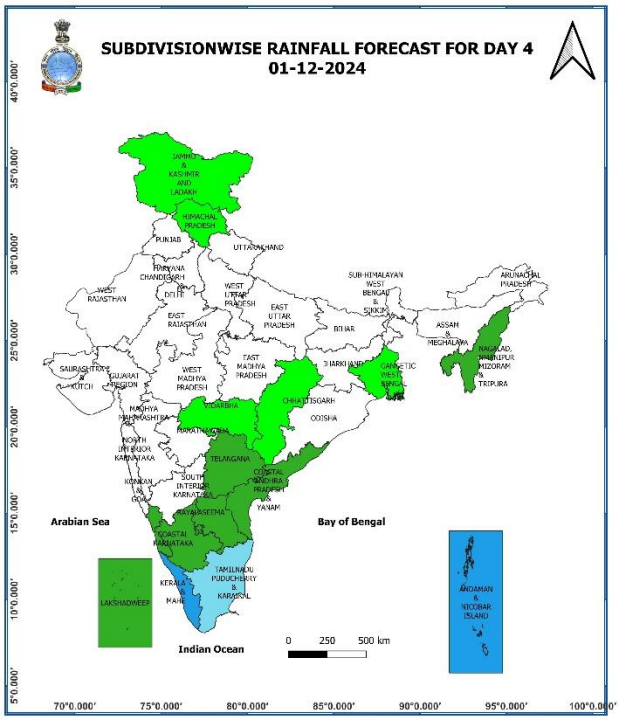
30 November (Day 3):

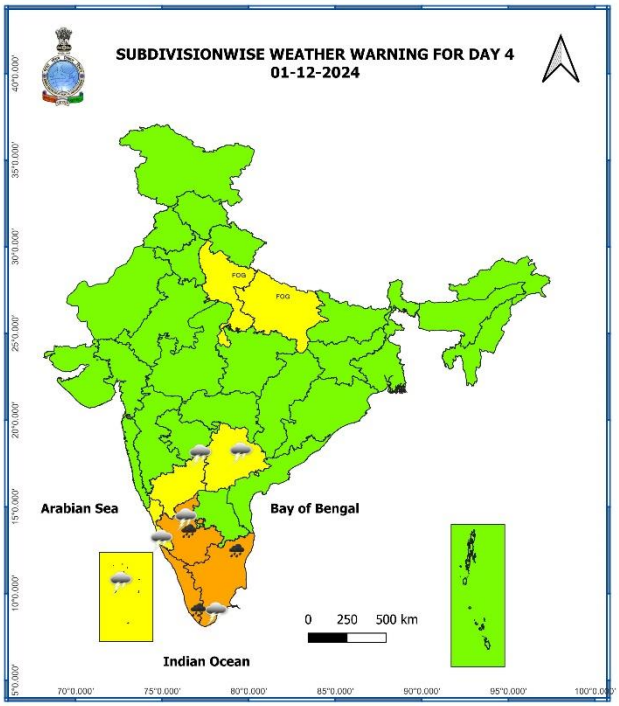
- **Heavy to very Heavy rainfall (≥ 12 cm) with extremely falls** very likely at isolated places over north Tamil Nadu, Puducherry & Karaikal; **Heavy to very Heavy rainfall (≥ 12 cm)** very likely at isolated places over Kerala & Mahe, South Interior Karnataka, south Coastal Andhra Pradesh & Yanam, Rayalaseema; **Heavy rainfall (≥ 7 cm)** at isolated places over Andaman & Nicobar Islands.

- **Dense fog** very likely in isolated pockets of Uttar Pradesh; **Shallow to moderate fog** in isolated pockets of Odisha & Gangetic West Bengal in night/morning hours.

- **Thunderstorm accompanied with lightning** very likely at isolated places over Tamil Nadu, Puducherry & Karaikal, Rayalaseema, Telangana, South Interior Karnataka, Kerala & Mahe**.**

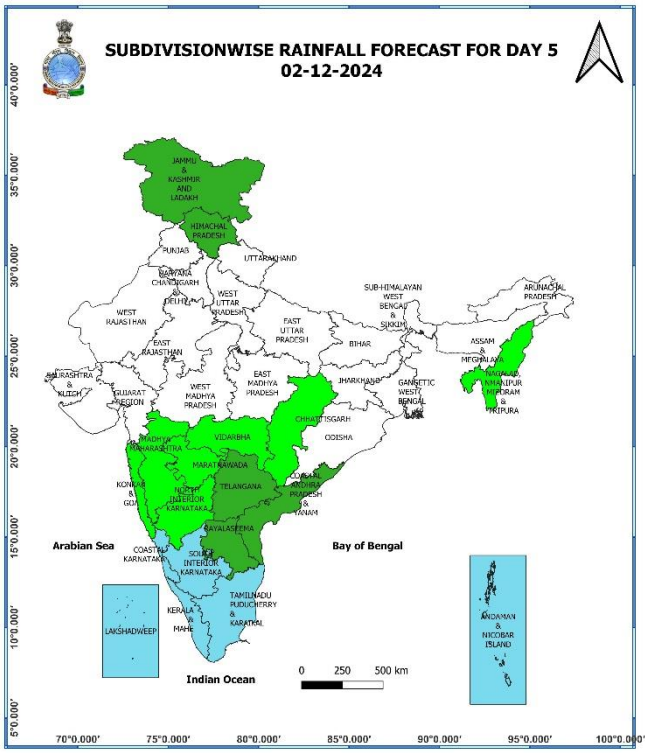
- **Gale wind speed reaching 65-75 kmph gusting to 85 kmph** is very likely to prevail over southwest Bay of Bengal. Squally wind speed reaching 50-60 kmph gusting to 70 kmph is prevailing over adjoining areas of westcentral Bay of Bengal. Squally wind speed reaching 50-60 kmph gusting to 70 kmph is prevailing along & off North Tamil Nadu - Puducherry and adjoining South Andhra Pradesh coasts. Squally wind speed reaching 55-65 kmph gusting to 75 kmph is very likely to prevail Along & off East Sri Lanka coasts. Squally wind speed reaching 45-55 kmph gusting to 65 kmph is likely to prevail Along & off South Tamil Nadu coast and Gulf of Mannar. Fishermen are advised not to venture into these areas. Fishermen are advised not to venture into these areas.

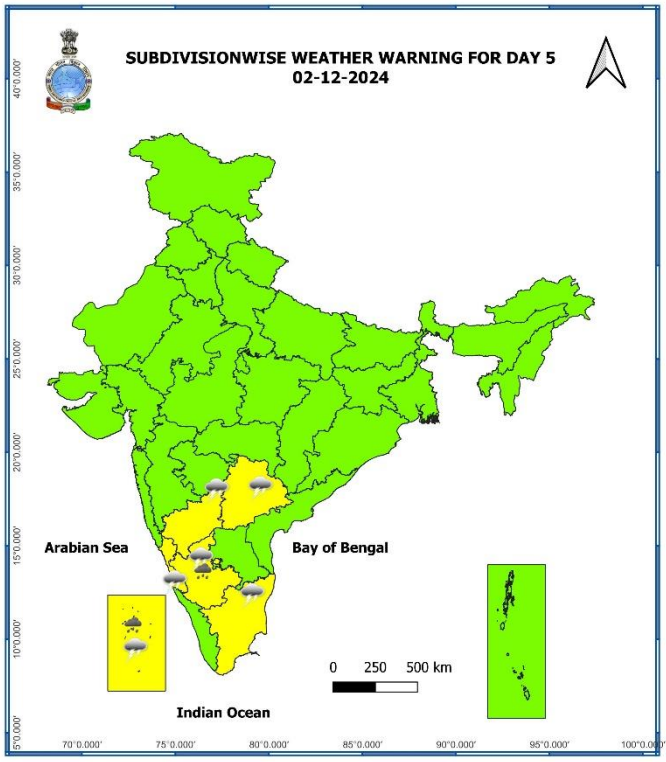




01 December (Day 4):

- **Heavy to very Heavy rainfall (≥ 12 cm)** likely at isolated places over Tamil Nadu, Puducherry & Karaikal, South Interior Karnataka, Kerala & Mahe.
- **Dense fog** likely in isolated pockets of Uttar Pradesh in night/morning hours.
- **Thunderstorm accompanied with lightning** likely at isolated places over Tamil Nadu, Puducherry & Karaikal, Rayalaseema, Telangana, Karnataka, Lakshadweep, Kerala & Mahe.

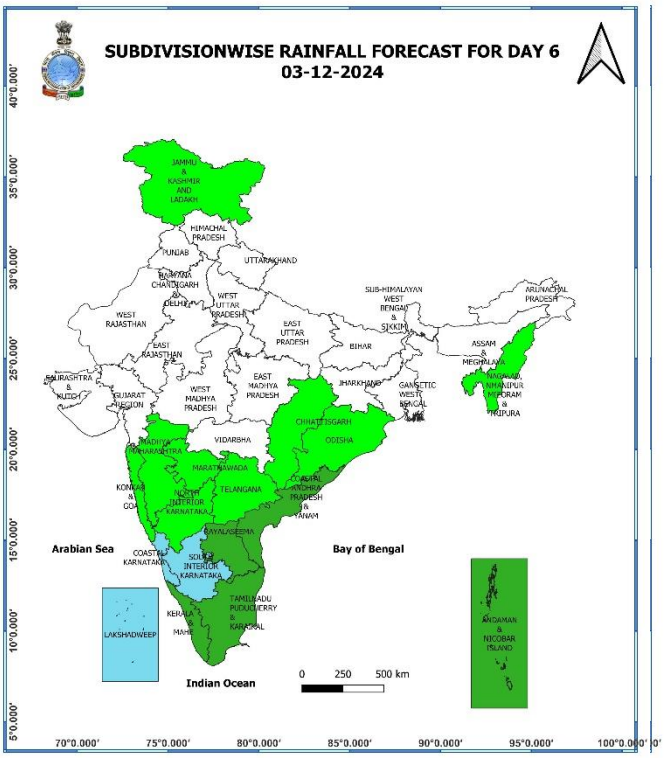


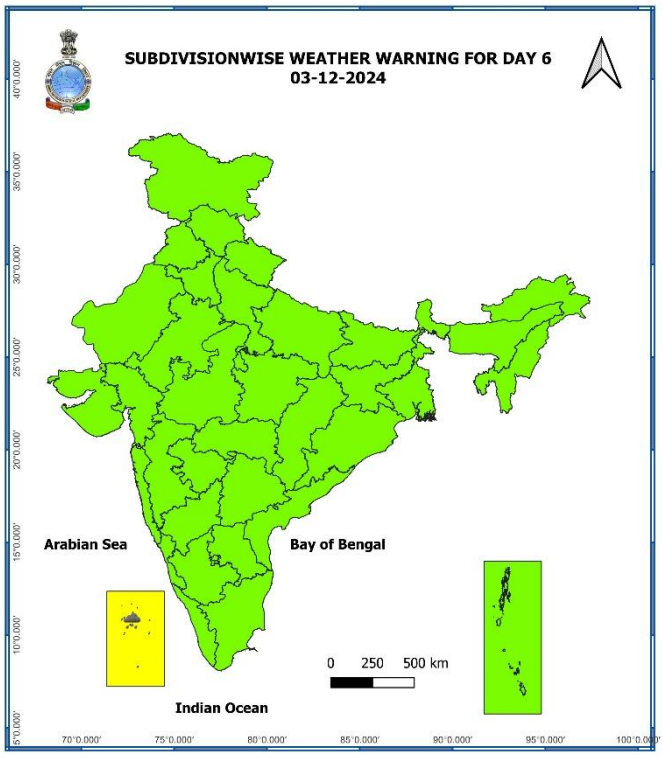


02 December (Day 5):

- **Heavy rainfall (≥ 7 cm)** likely at isolated places over Lakshadweep, South Interior Karnataka, Kerala & Mahe.

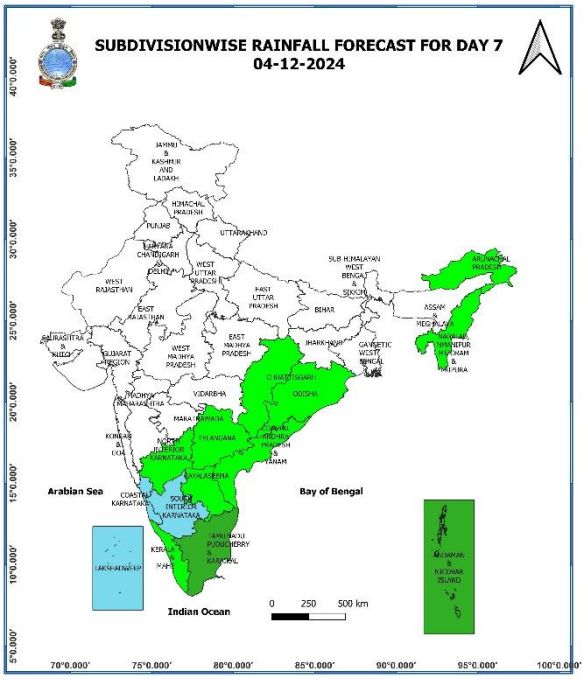
- **Thunderstorm accompanied with lightning** likely at isolated places over Tamil Nadu, Puducherry & Karaikal, Rayalaseema, Telangana, South Interior Karnataka, Lakshadweep, Kerala & Mahe.

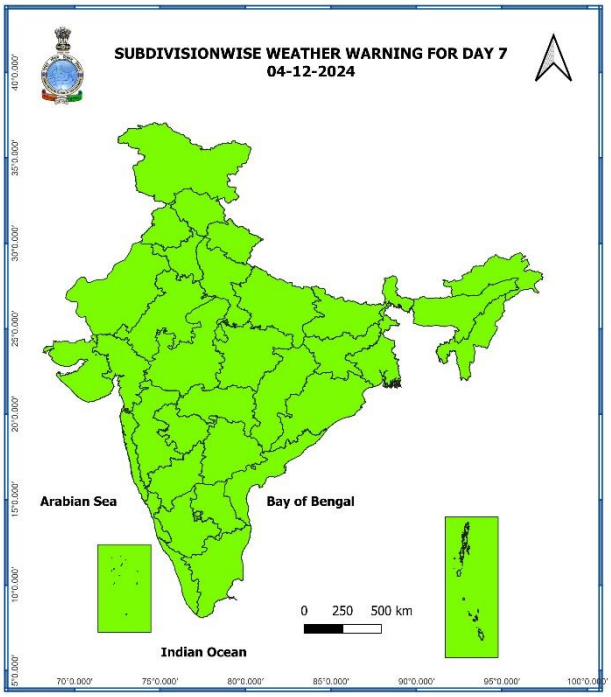




03 December (Day 6):

- **Heavy rainfall (≥ 7 cm)** likely at isolated places over Lakshadweep.





04 December (Day 7):

❖ **No Warning**.

Weather Outlook for subsequent 3 days (During 05th December – 07th December, 2024)

❖ Isolated to Scattered to light to moderate rainfall likely over some parts of south peninsular India and light rainfall over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad.

❖ 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.**

Impact & Action Suggested due to

- ✓ **Heavy to very Heavy rainfall with extremely falls** very likely at isolated places over Tamil Nadu, Puducherry & Karaikal on 29th & 30th; Coastal Andhra Pradesh & Yanam & Rayalaseema on 29th November.
- ✓ **Isolated heavy to very heavy rainfall** over Tamil Nadu, Puducherry & Karaikal on 01st December; South Interior Karnataka, Kerala & Mahe on 30th November & 01st December; Coastal Andhra Pradesh & Yanam, Rayalaseema on 30th November.
- ✓ **Low to Moderate flash flood risk** likely over Tamil Nadu, Puducherry & Karaikal, Coastal Andhra Pradesh & Yanam & Rayalaseema on 28th & 29th November. **(ANNEXURE I)**

A. 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 due to water logging in roads leading to increased travel time.
❖ Minor damage to kutcha roads.
❖ Possibilities of damage to vulnerable structure.
❖ Localized Landslides/Mudslides
❖ Damage to horticulture and standing crops in some areas due to inundation.
❖ It may lead to riverine flooding in some river catchments (for riverine flooding please visit Web page of CWC).

B. Action Suggested

❖ 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.

Impact expected due to dense/ very dense fog in the late night /morning hours

❖ Transport and Aviation:
- May affect some airports, highways and railway routes in the areas of met- sub-division.
- Difficult driving conditions with slower journey times.
- Unless taken precautionary measures, it may lead to some road traffic collisions.

❖ Power Sector:
- Chances of Tripping of Power lines in the very dense fog routes.

❖ Human Health:
- Lung related health impacts: Dense fog contains particulate matter and other pollutants and in case exposed it gets lodged in the lungs, clogging them and decreasing their functional capacity which increases episodes of wheezing, coughing and shortness of breath.
- Impact on people having asthma bronchitis: Long time exposure to dense fog may cause respiratory problem for people having asthma bronchitis and other lung related health problems.
- Eye Irritation: Dense fog contains pollutions of various types and these Pollutants in the air if exposed may tend to irritate the membranes of the eye causing various infections leading to redness or swelling of the eye.

Action suggested:

❖ Transport and Aviation:
- Be careful while driving or outing through any transport.
- Use fog lights during driving.
- Be in touch with airlines, railways and state transport for schedule of your journey.

❖ Power Sector:
- To keep ready Maintenance Team
- Human Health: To avoid outing until unless emergency and to cover the face.

Agromet advisories for Heavy Rainfall likely over Tamil Nadu, Kerala and Coastal Andhra Pradesh:

- In **Tamil Nadu**, drain out excess water from rice, sugarcane, cotton, turmeric, vegetables and other standing crop fields; coconut and banana orchards. Undertake propping in sugarcane. Provide mechanical support to banana plants to prevent lodging.
- Undertake picking of matured cotton bolls and harvesting of matured rice, maize, groundnut, finger millet, pigeon pea, arecanut, fruits and vegetables in **South Interior Karnataka** and harvesting of matured rice in **Andhra Pradesh** immediately. Keep the harvested produce in safer places or cover the produce with tarpaulin sheets in the fields.
- Provide adequate drainage facilities for removal of excess water from standing crop fields and fruit orchards in Andhra Pradesh and South Interior Karnataka.
- Provide mechanical support to horticultural crops and staking to vegetables.

Livestock and Fishery

- Keep the animals inside the shed during heavy rainfall and provide balanced feed.
- Store the feed and fodder at safer place to avoid spoilage from rainfall.
- Hang gunny bags all around poultry sheds.
- Construct an outlet with proper netting around the pond to drain out excess rain water, thereby preventing fishes/fingerlings from escaping in case of overflowing.
- Check and repair dykes around the ponds to avoid entry of runoff water from catchment area.

Flash Flood Guidance:

ANNEXURE I

24 hours Outlook for the Flash Flood Risk (FFR) till 1130 IST of 29-11-2024 :

Low to Moderate flash flood risk likely over few watersheds & neighbourhoods of following Meteorological Sub-divisions during next 24 hours.

Rayalaseema - Chittoor district.
Coastal Andhra Pradesh – Nellore district
Tamil Nadu - Puducherry & Karaikal - Chennai, Kanchipuram and Tiruvallur districts.

Surface runoff/ Inundation may occur at some fully saturated soils & low-lying areas over Area of Concern as shown in map due to expected rainfall occurrence in next 24 hours.

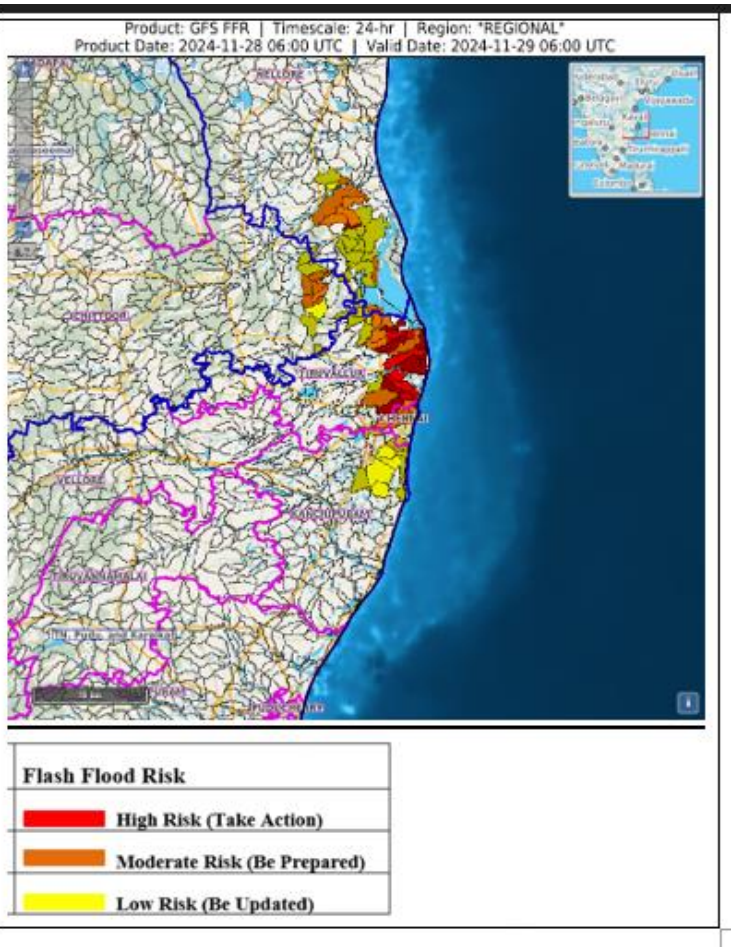


Fig. 1: Maximum Temperatures

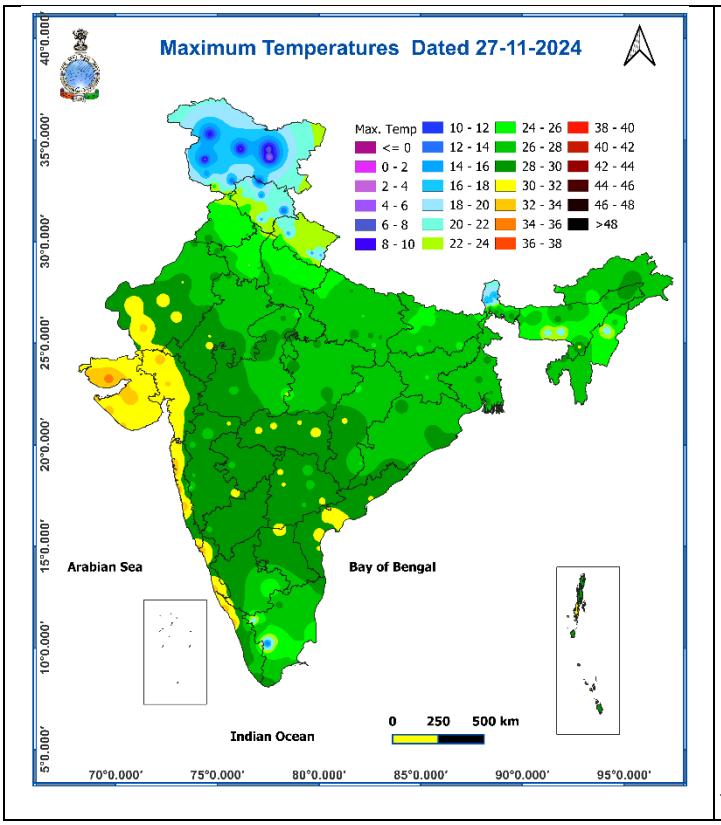


Fig. 2: Departure of Maximum Temperatures

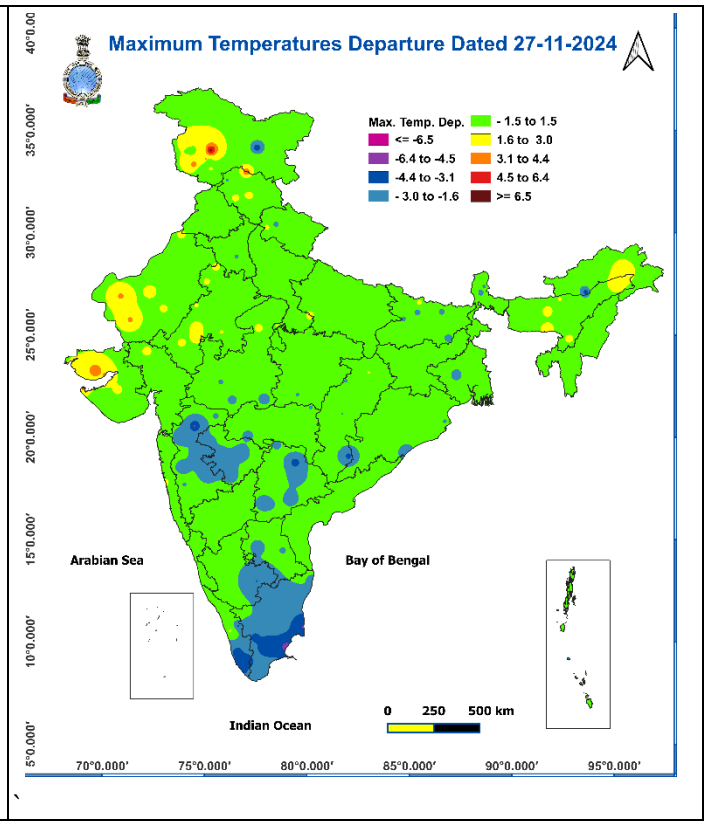


Fig. 3: Minimum Temperatures

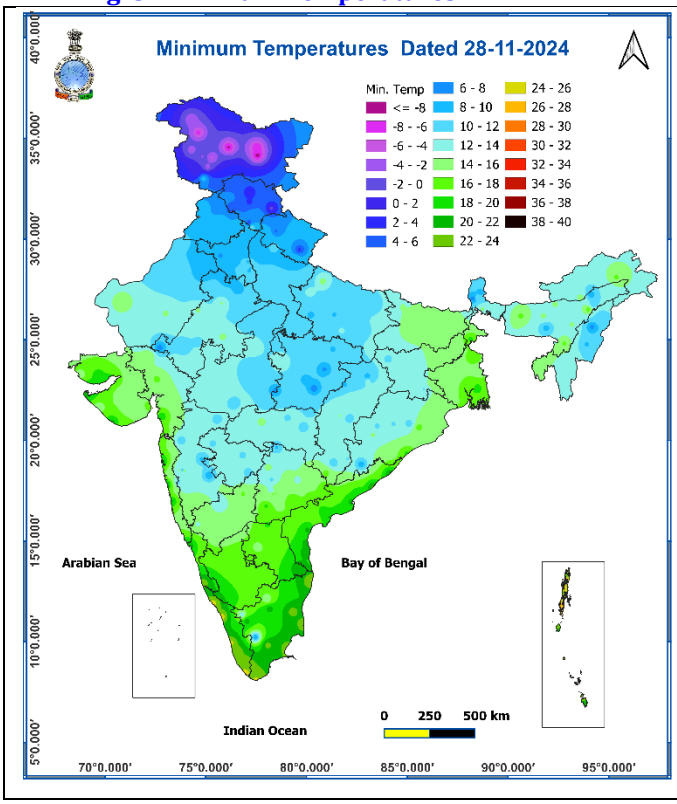
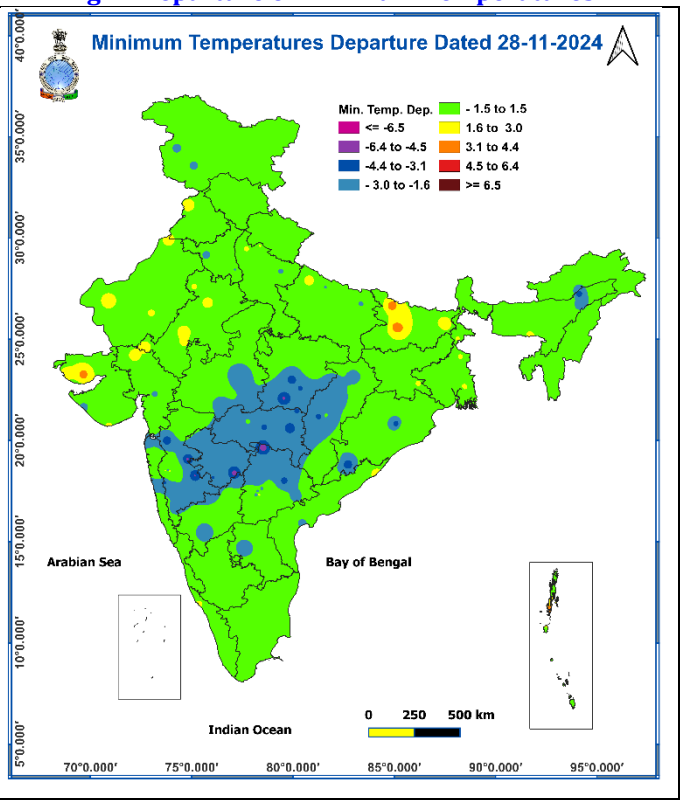


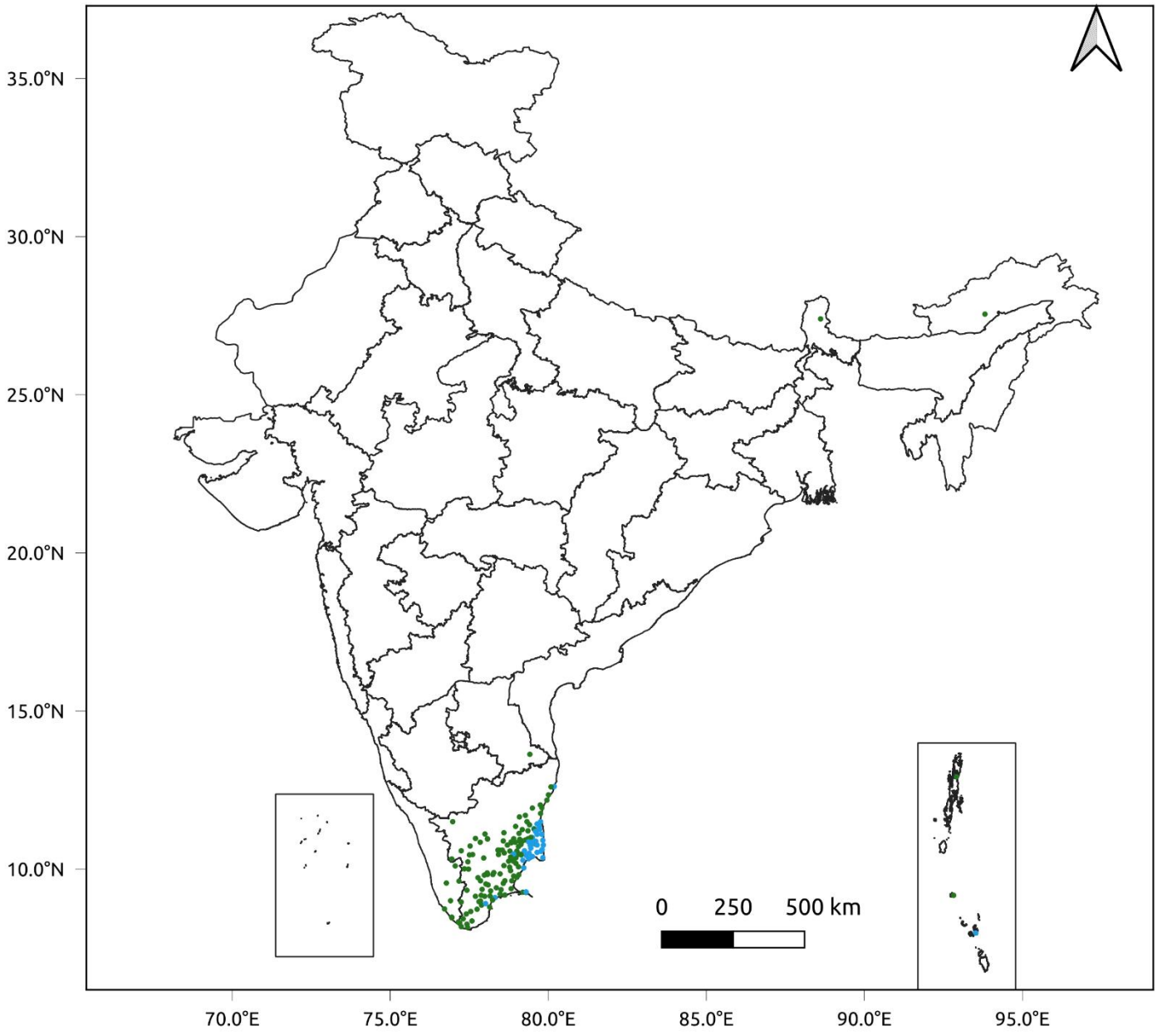
Fig. 4: Departure of Minimum Temperatures



* 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)

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

24 Hr cumulative rainfall recorded over different stations during 0830 IST of 27-11-2024 to 0830 IST of 28-11-2024

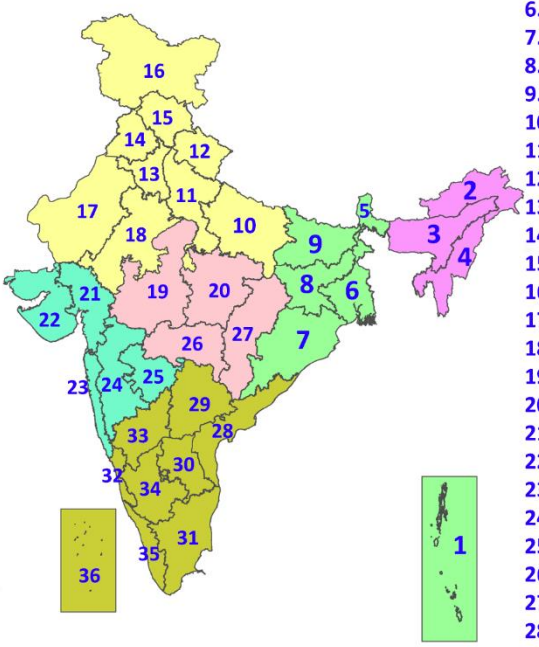


Legends

- Very Light to Light Rainfall (0.1 - 15.5 mm)
- Moderate Rainfall (15.6 - 64.4 mm)
- Heavy Rainfall (64.5 - 115.5 mm)
- Very Heavy Rainfall (115.6 - 204.4 mm)
- Extremely Heavy Rainfall (>=204.5 mm)

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 Rain
Very Heavy Rain
Extremely Heavy Rain
Thunder & Lightning
Hailstorm
Dust Raising Winds
Heavy Snow
Dust Storm
Heat Wave
Warm Night
Hot Day
Hot & Humid
Strong Surface Winds
Cold Wave
Cold Day
Ground Frost

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

* 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)

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 ≥40° C for plains and ≥30° 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 ≥6.5° C **(b). Based on Actual maximum temperature** **Heat Wave:** When actual maximum temperature ≥45°C. **Severe Heat Wave:** When actual maximum temperature ≥47°C **(c). Criteria for heat wave for coastal stations** When maximum temperature departure is >4.5°C from normal. Heat Wave may be described provided maximum temperature ≥37°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 °C.
Cold Wave	**When minimum temperature of a station ≤10°C for plains and ≤0°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 ≤ -6.5 °C **(b) Based on actual Minimum Temperature (for Plains only)** **Cold Wave :** When Minimum Temperature is ≤ 4.0 °C **Severe Cold Wave:** When Minimum Temperature is ≤ 2.0 °C **(c) For Coastal Stations** When Minimum Temperature departure is ≤-4.5 °C & actual Minimum Temperature is ≤ 15 °C
Cold Day	**When minimum temperature of a station ≤10°C for plains and ≤0°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 ≤ -6.5 °C
Fog	**Phenomenon of small droplets suspended in air and the horizontal visibility < 1km** **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 ≤4°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)

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