

Thursday, December 26, 2024
Time of Issue: 0800 hours IST
(MORNING)

ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

Significant Weather Features:

Weather Systems, Forecast and warning

- ❖ The **well marked low pressure** area over Southwest & adjoining Westcentral Bay of Bengal off South Andhra Pradesh-North Tamil Nadu coasts moved westwards and weaken into a **low pressure** area over the same region at 0530 hrs IST of today, the 26th December, 2024. The associated cyclonic circulation now extends upto 3.1 km above mean sea level.
- ❖ Under the influence of these systems:
 - ✓ Light to moderate rainfall accompanied with thunderstorm, lightning very likely at a few places with **heavy rainfall** at isolated places over Coastal Andhra Pradesh on 26th December.
 - ✓ Light to moderate rainfall at isolated places accompanied with thunderstorm, lightning over Tamil Nadu, Puducherry & Karaikal on 26th December.
- ❖ A fresh Western disturbance seen as a trough in lower & middle tropospheric westerlies with its axis at 5.8 km above mean sea level runs roughly along Long. 57°E to the north of Lat. 30°N. It is very likely to interact with lower levels easterly winds over central parts of the country leading to high moisture feeding from Arabian Sea as well as Bay of Bengal mainly during 27th & 28th December. Under the influence of these systems:
 - ✓ Scattered to Fairly widespread Rainfall/Snowfall is likely over Western Himalayan Region on 27th & 28th December.
 - ✓ Isolated to Scattered rainfall accompanied with thunderstorm and lightning also likely over Rajasthan, Gujarat State, Punjab, Haryana, Chandigarh, West Uttar Pradesh on 26th & 27th December; Madhya Pradesh, Vidarbha & Chhattisgarh on 27th & 28th; Madhya Maharashtra & Marathwada during 26th-28th December.
 - ✓ **Thunderstorm accompanied with hailstorms also likely over Himachal Pradesh, Punjab, Haryana, Chandigarh, West Uttar Pradesh, Rajasthan, East Madhya Pradesh, Vidarbha, Chhattisgarh, Madhya Maharashtra, Marathwada & Gujarat on 27th and West Madhya Pradesh on 27th & 28th December.**

ii. Temperature, Cold Wave and Fog Forecast:

Temperature Conditions during past 24 hours till 0830 hours IST of today (Annexure IV):

- ❖ Minimum temperatures were **below 0°C** over many parts of Jammu, Kashmir & Ladakh; **2-5°C** over plains of Himachal Pradesh; **5-12°C** over Northwest India and Bihar; **12-18°C** over many parts of Central, West & East India. Today, **the lowest minimum temperature of 4.0°C** is reported at **Adampur IAF (Punjab)** over the plains of the country.
- ❖ There has been a rise by 1-3°C in minimum temperature over some parts of the Uttar Pradesh, East & Central India and fall by 1-3°C over some parts of Northwest India during past 24 hours.
- ❖ Minimum temperatures are **below normal (-1°C to -3°C)** at a few places over Saurashtra Kutch; at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Assam & Meghalaya and **above normal by 4-6°C** at many places over Central & East India, Maharashtra and Telangana.

Forecast of temperature:

- ❖ Fall in minimum temperatures by about 2°C likely over Northwest India during next 2 days and gradual rise by 2-3°C thereafter.
- ❖ No significant change in minimum temperatures likely over Central India during next 4 days and fall by 2-4°C thereafter.
- ❖ No significant change in minimum temperatures likely over West (except Gujarat State) and East India during next 5 days.
- ❖ Rise in minimum temperatures by 2-4°C likely over Gujarat State during next 3 days and gradual fall by 2-3°C thereafter.

Cold Wave Warnings:

Cold wave conditions very likely in isolated pockets over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Punjab and Himachal Pradesh on 26th December.

Cold Day Warnings:

Cold Day conditions very likely in isolated pockets of Rajasthan, Uttar Pradesh, Madhya Pradesh, Punjab, Haryana-Chandigarh-Delhi on 27th & 28th December.

Dense Fog Warnings:

Dense fog conditions very likely to prevail during late night/early morning hours in isolated pockets of Himachal Pradesh on 26th & 29th; Punjab, Haryana, Chandigarh, Delhi, Uttar Pradesh, Bihar, Odisha, Assam & Meghalaya on 26th & during 28th-31st; Rajasthan during 28th-31st December.

Ground Frost Warnings:

Ground Frost conditions very likely in isolated pockets of Himachal Pradesh on 26th December.

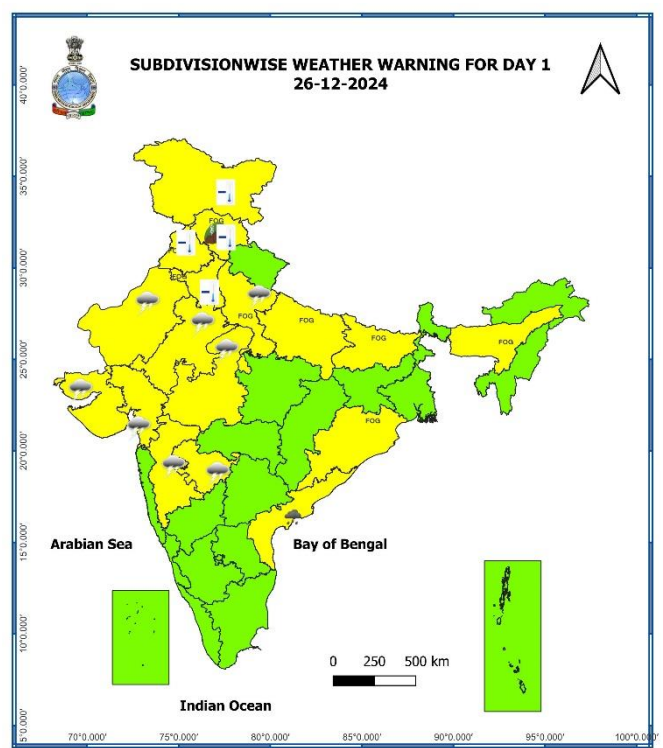
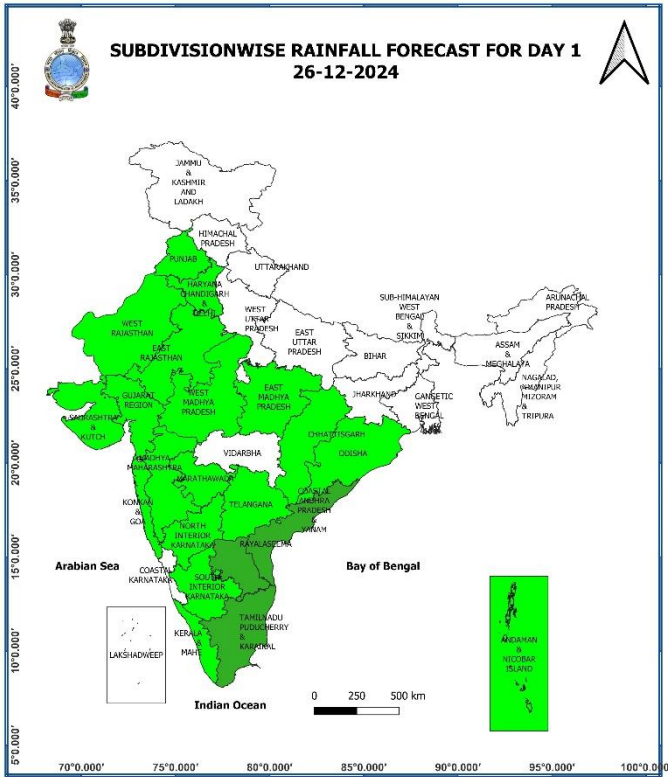
Main Weather Observations:

- ❖ **Rainfall distribution** (from 0830 hours IST to 1730 hours IST of yesterday): **at many places** over Odisha; **at isolated places** over Telangana, Coastal Andhra Pradesh & Yanam, Chhattisgarh, Tamil Nadu, Puducherry & Karaikal.
- ❖ **Heavy rainfall observed** (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): **Odisha:** Bhawanipatna 6, Khordha, Nayagarh, Bhubaneswar, Cuttack 2 each.
- ❖ **Fog reported** (at 1730 hours IST of yesterday): **Shallow to Moderate fog** in isolated pocket of Himachal Pradesh, East Rajasthan, Sub-Himalayan West Bengal & Sikkim, Assam.
- ❖ **Visibility reported** (at 1730 hours IST of yesterday): (≤ 500 m) (in meter): **Himachal Pradesh:** Mandi 500; **East Rajasthan:** Udaipur Dabok 500; **Sub-Himalayan West Bengal & Sikkim:** Darjeeling 500; **Assam:** Haflong 500.
- ❖ **Cold day conditions** in isolated pockets of Himachal Pradesh, Rajasthan.
- ❖ **Minimum Temperatures Departures (as on 25-12-2024):** Minimum temperatures were **markedly above normal (5.1°C or more)** at isolated places over Telangana & North Interior Karnataka; **appreciably above normal (3.1°C to 5.0°C)** at a few places over East Uttar Pradesh, Madhya Maharashtra, Vidarbha; at isolated places over Rayalaseema; **above normal (1.6°C to 3.0°C)** at most places over Odisha Chhattisgarh, East Madhya Pradesh, Konkan & Goa, Marathwada; at many places over South Interior Karnataka, Coastal Andhra Pradesh & Yanam, West Madhya Pradesh, Jharkhand; at a few places over Bihar, Tamil Nadu, Puducherry & Karaikal, Coastal Karnataka, Andaman & Nicobar Islands; at isolated places over Rajasthan, Gujarat Region, West Uttar Pradesh, Punjab, Haryana-Chandigarh-Delhi. These were **appreciably below normal (-3.1°C to -5.0°C)** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Arunachal Pradesh, Assam & Meghalaya; **below normal (-1.6°C to -3.0°C)** at isolated places over Nagaland, Manipur, Mizoram & Tripura and near normal over rest parts of the country. Yesterday, **the lowest minimum temperature of 4.0°C** was reported at **Adampur_IAF (Punjab)** over the plains of the country. (Fig. 4)
- ❖ **Maximum Temperature Departures (as on 25-12-2024):** Maximum temperatures were **markedly above normal (5.1°C or more)** at isolated places over Chhattisgarh; **appreciably above normal (3.1°C to 5.0°C)** at isolated places over East Uttar Pradesh, Jharkhand, Tamil Nadu, Puducherry & Karaikal; **above normal (1.6°C to 3.0°C)** at a few places over Punjab, Bihar, East Madhya Pradesh; at isolated places over Himachal Pradesh, Haryana-Chandigarh-Delhi, West Uttar Pradesh, Arunachal Pradesh, Assam & Meghalaya, West Bengal & Sikkim, Vidarbha. These were **markedly below normal (-5.1°C or less)** at many places over Odisha; at a few places over Coastal Andhra Pradesh & Yanam; at isolated places over Rajasthan, Saurashtra & Kutch, Telangana, Rayalaseema; **below normal (-1.6°C to -3.0°C)** at most places over Gujarat region; few places over West Madhya Pradesh; at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Uttarakhand, Saurashtra & Kutch, Madhya Maharashtra, Nagaland, Manipur, Mizoram & Tripura. Yesterday, **the highest maximum temperature of 34.2°C** was reported at **Karwar (Coastal Karnataka), Punalur (Kerala) & Madhurai (Tamil Nadu)** over the plains of the country. (Fig. 2)

Meteorological Analysis (Based on 0530 hours IST)

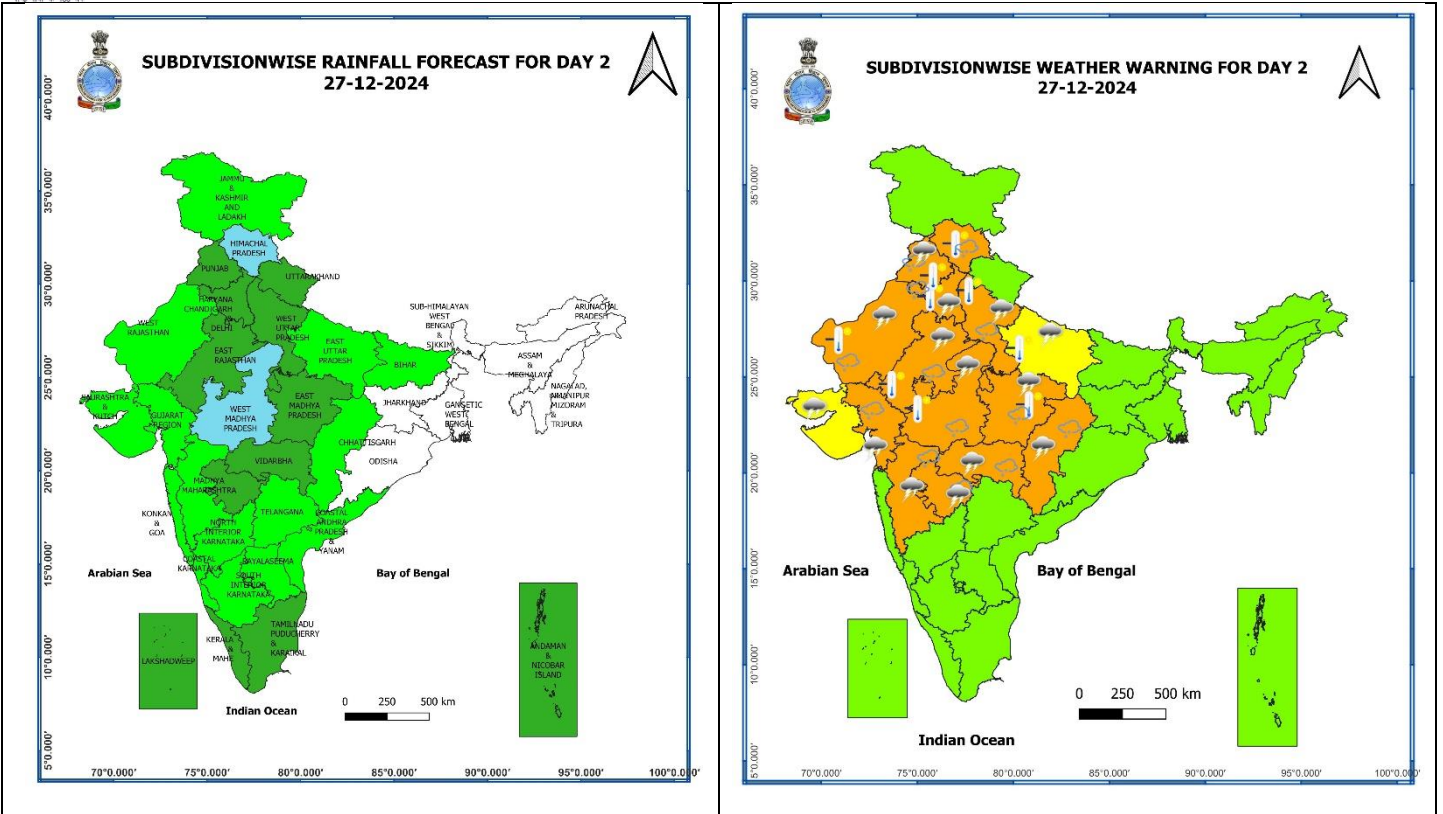
- ❖ The **well marked low pressure** area over Southwest & adjoining Westcentral Bay of Bengal off South Andhra Pradesh-North Tamil Nadu coasts moved westwards and weakened into a **low pressure** area over the same region at 0530 hrs IST of today, the 26th December, 2024. The associated cyclonic circulation now extends upto 3.1 km above mean sea level.
- ❖ The **cyclonic circulation** over east Bangladesh at 1.5 km above mean sea level persists.
- ❖ The **Western disturbance** as a trough in lower & middle tropospheric westerlies with its axis at 5.8 km above mean sea level now runs roughly along Long. 57°E to the north of Lat. 30°N.
- ❖ **Subtropical westerly Jet Stream** with core winds of the order upto 110 knots at 12.6 km above mean sea level continues to prevail over Northwest India.
- ❖ The **Western disturbance** as a cyclonic circulation over Haryana & neighbourhood at 3.1 km above mean sea level has moved away east-northeastwards.
- ❖ The induced **cyclonic circulation** over Northwest Madhya Pradesh & neighbourhood at 1.5 km above mean sea level has become less marked.

Weather Forecast & Warnings for next 7 days (Upto 0830 hours IST of 02nd January, 2025)



26 December (Day 1):

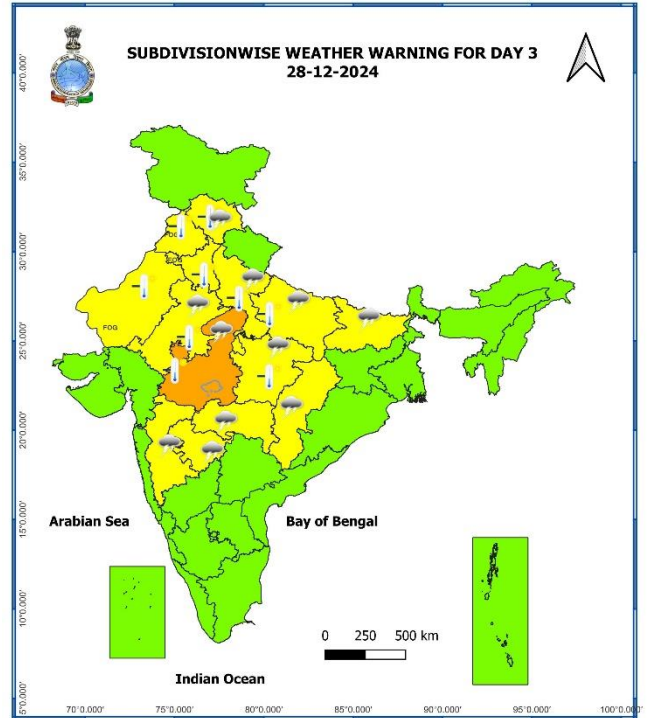
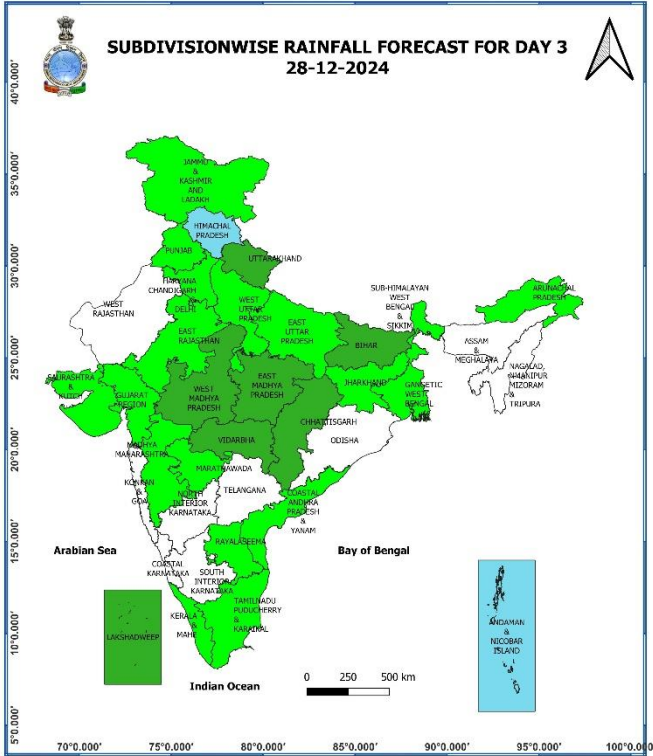
- ❖ **Heavy rainfall (≥ 7 cm)** very likely at isolated places over Coastal Andhra Pradesh & Yanam.
- ❖ **Thunderstorm accompanied with lightning** very likely at isolated places over West Uttar Pradesh, Rajasthan, West Madhya Pradesh, Madhya Maharashtra, Marathwada, Gujarat state.
- ❖ **Dense fog** very likely in isolated pockets of Himachal Pradesh, Punjab, Haryana-Chandigarh-Delhi, Uttar Pradesh, Bihar, Odisha Assam & Meghalaya in night/morning hours.
- ❖ **Cold wave Conditions** in some parts of Himachal Pradesh, Punjab.
- ❖ **Ground Frost conditions** very likely at isolated places over Himachal Pradesh.



27 December (Day 2):

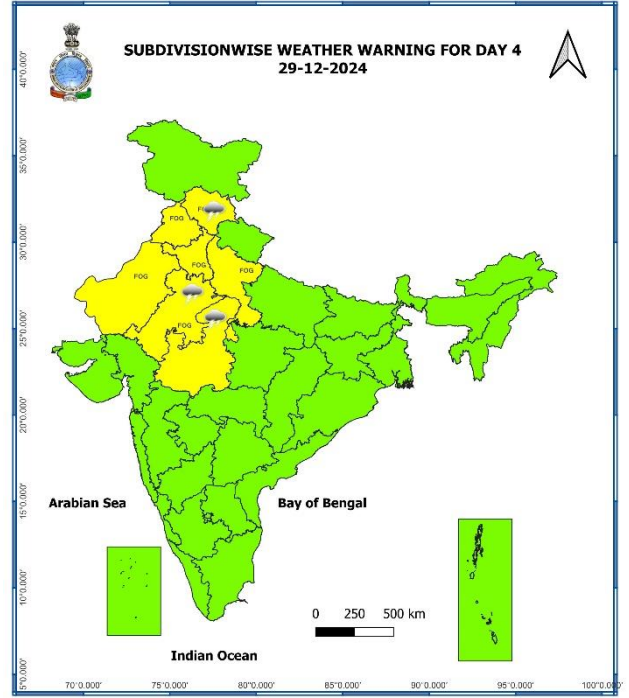
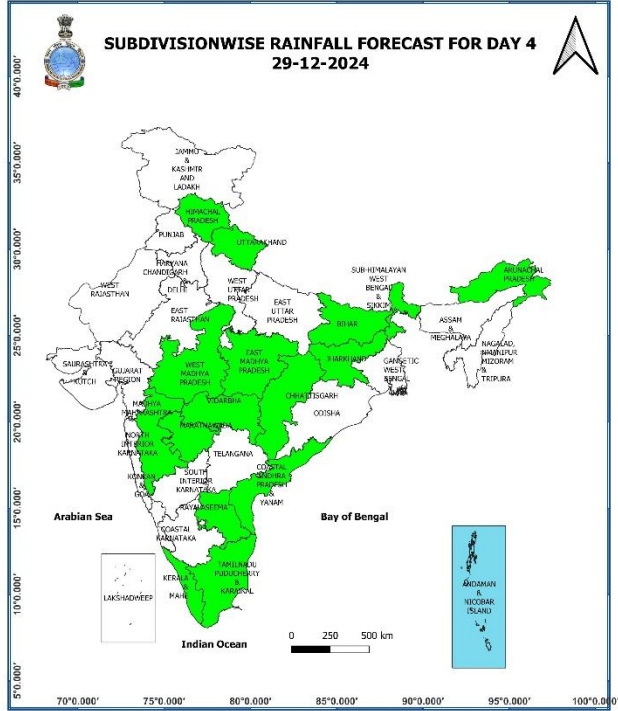
- ❖ **Thunderstorm accompanied with hailstorm & lightning** likely at isolated places over Himachal Pradesh, Punjab, Haryana-Chandigarh-Delhi, West Uttar Pradesh, Rajasthan, Madhya Pradesh, Vidarbha, Chhattisgarh, Madhya Maharashtra, Marathwada, Gujarat Region; **with lightning** at isolated places over East Uttar Pradesh, Saurashtra & Kutch.
- ❖ **Cold Day condition** very likely at isolated places over Uttar Pradesh, Punjab, Haryana-Chandigarh-Delhi, Rajasthan, Madhya Pradesh.

* Red colour warning does not mean "Red Alert", Red colour warning means "Take Action".
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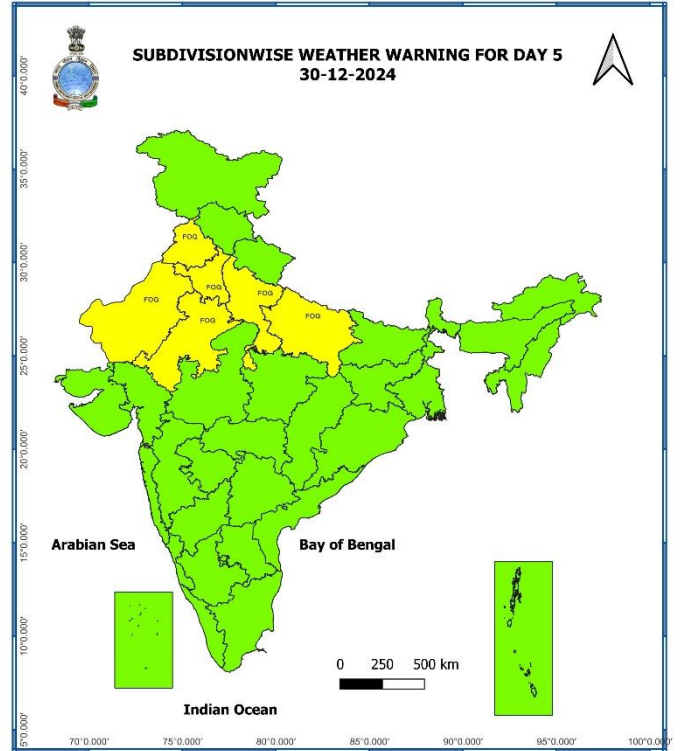
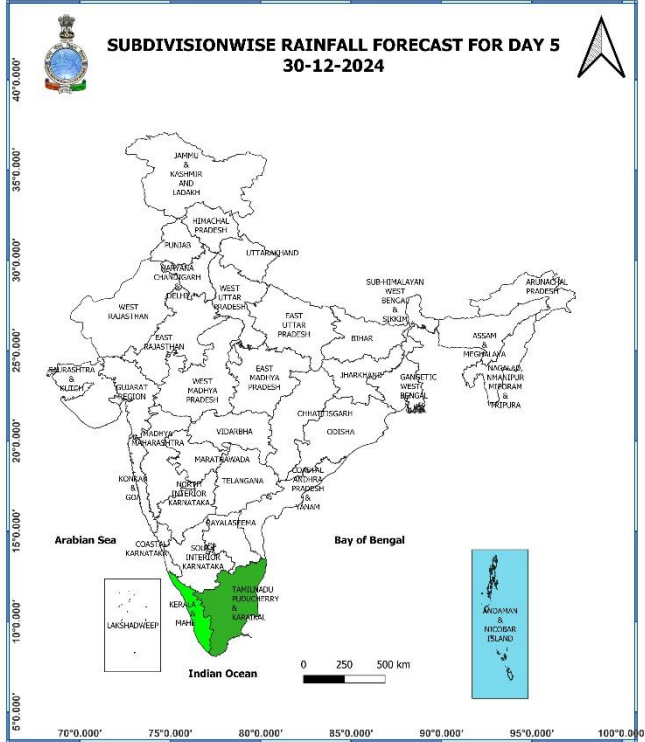
28 December (Day 3):

- ❖ **Thunderstorm accompanied with hailstorm & lightning** likely at isolated places over West Madhya Pradesh; **with lightning** at isolated places over Himachal Pradesh, Uttar Pradesh, East Rajasthan, East Madhya Pradesh, Vidarbha, Chhattisgarh, Bihar, Madhya Maharashtra, Marathwada.
- ❖ **Dense fog** very likely in isolated pockets of Punjab, Haryana-Chandigarh-Delhi, West Rajasthan in night/morning hours.
- ❖ **Cold Day condition** very likely at isolated places over Uttar Pradesh, Punjab, Haryana-Chandigarh-Delhi, Rajasthan, Madhya Pradesh.



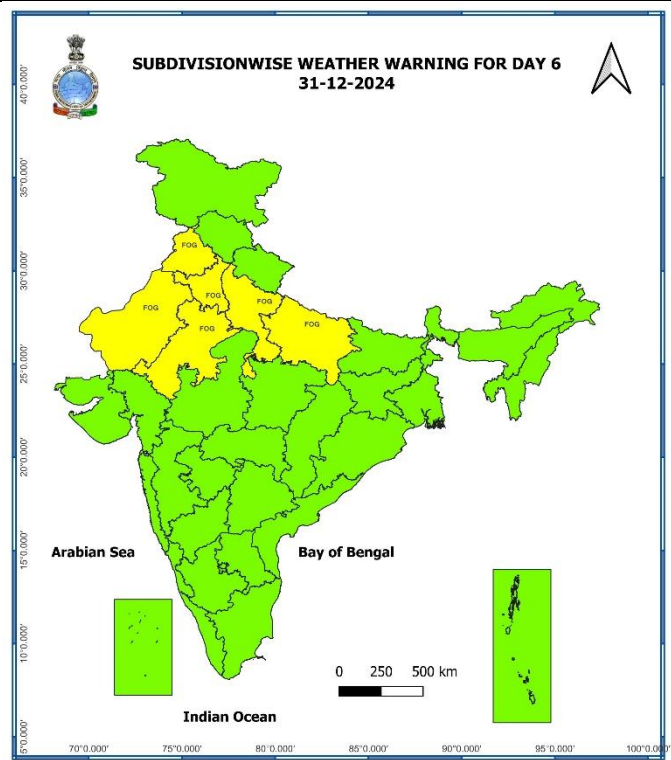
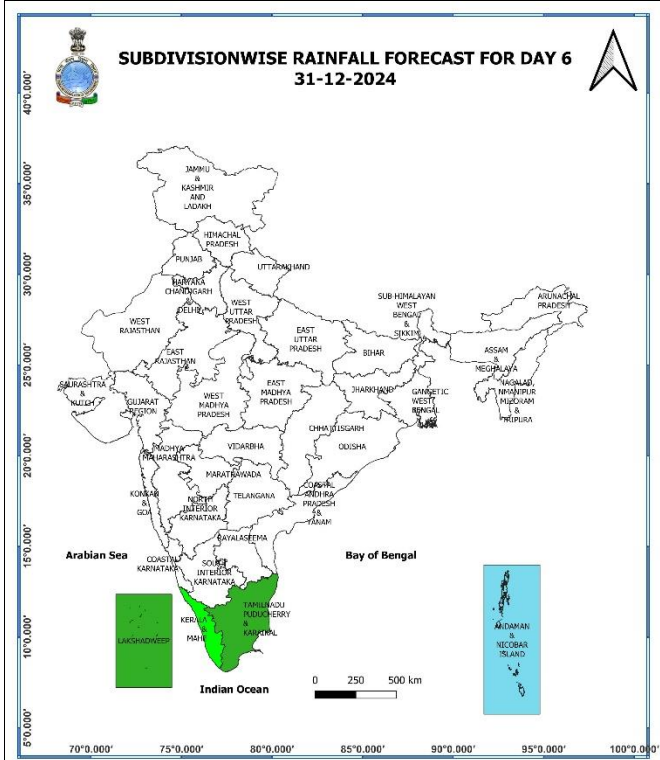
29 December (Day 4):

- ❖ **Thunderstorm accompanied with lightning very likely at isolated places over East Rajasthan, West Madhya Pradesh.**
- ❖ **Dense fog** very likely in isolated pockets of Himachal Pradesh, Punjab, Haryana-Chandigarh-Delhi, West Uttar Pradesh, Rajasthan in night/morning hours.
- ❖ **Ground Frost** conditions likely at isolated places over Himachal Pradesh.



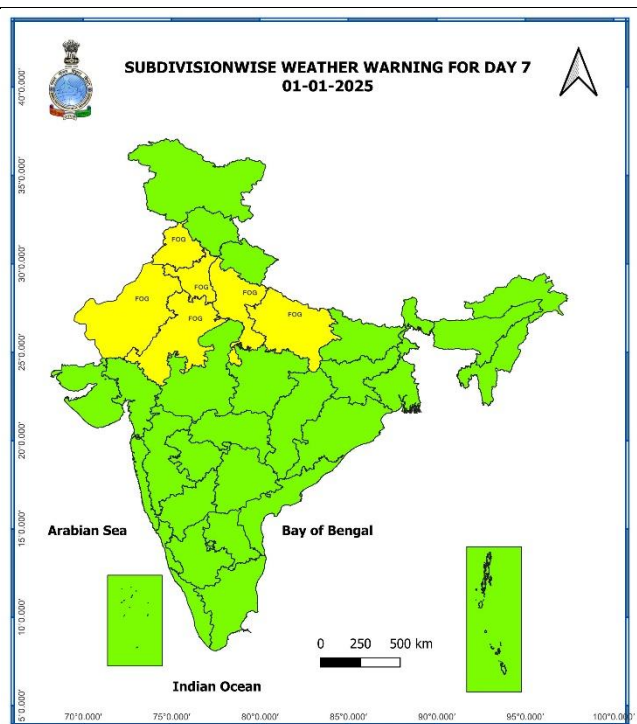
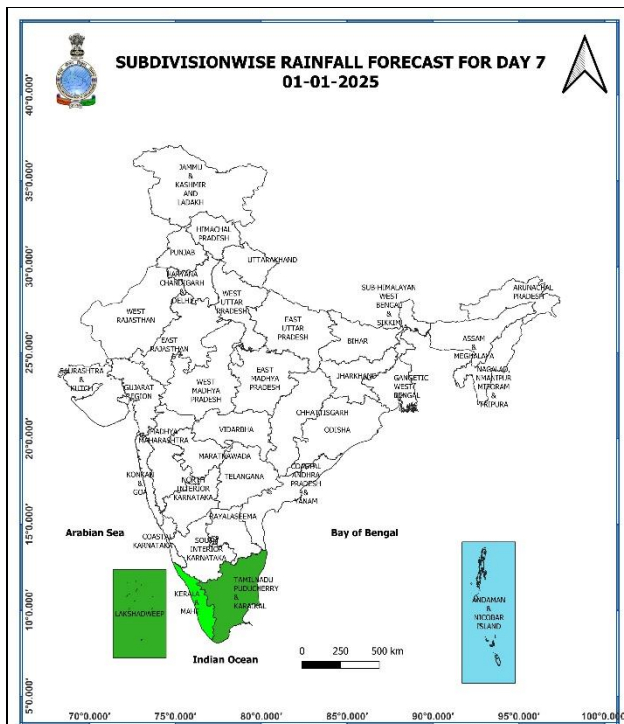
30 December (Day 5):

- ❖ **Dense fog** very likely in isolated pockets of Uttar Pradesh, Punjab, Haryana, Uttar Pradesh, Rajasthan in night/morning hours.



31 December (Day 6):

❖ **Dense fog** very likely in isolated pockets of Uttar Pradesh, Punjab, Haryana, Uttar Pradesh, Rajasthan in night/morning hours.



01 January (Day 7):

- ❖ **Dense fog** very likely in isolated pockets of Uttar Pradesh, Punjab, Haryana, Uttar Pradesh, Rajasthan in night/morning hours.

Weather Outlook for subsequent 3 days (During 02nd January, 2025– 04th January, 2025)

- ❖ Isolated to scattered light to moderate rainfall over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe, Andaman & Nicobar Islands.
- ❖ 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 expected and action suggested due to thunderstorm with lightning & Hailstorm.

Impact expected:

- ❖ Strong wind/hail may damage plantation, horticulture and standing crops.
- ❖ Hail may injure people and cattle at open places.
- ❖ Partial damage to vulnerable structures due to strong winds.
- ❖ Minor damage to kutcha houses/walls and huts.
- ❖ Loose objects may fly.

Action suggested:

- ❖ Stay indoors, close windows & doors and avoid travel if possible.
- ❖ Take safe shelters; do not take shelter under trees.
- ❖ Do not lie on concrete floors and do not lean against concrete walls.
- ❖ Unplug electrical/ electronic appliances.
- ❖ Immediately get out of water bodies.
- ❖ Keep away from all the objects that conduct electricity.

Impact expected due to dense fog in the night /morning hour:

- ❖ 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.

Impact expected due to cold wave/severe cold wave conditions:

- An increased likelihood of various illnesses like flu, running/ stuffy nose or nosebleed, which usually set in or get aggravated due to prolonged exposure to cold.
- Do not ignore shivering. It is the first sign that the body is losing heat. Get Indoors.
- Frostbite can occur due to prolonged exposure to cold. The skin turns pale, hard and numb and eventually black blisters appear on exposed body parts such as fingers, toes, nose and or earlobes. Severe frostbite needs immediate medical attention and treatment.
- Impact on agriculture, crop, livestock, water supply, transport and power sector at some places.

Action suggested:

- Wear several layers of loose fitting, light weight; warm woollen clothing.
- Cover your head, neck, hands and toes adequately as majority of heat loss occurs through these body parts. Wear several layers of loose fitting, light weight; warm woollen clothing rather than one layer of heavy cloth.
- Eat vitamin-C rich fruits & vegetable and drink sufficient fluids preferably warm fluids to maintain adequate immunity.
- Avoid or limit outdoor activities.
- Keep dry, if wet, change cloths immediately to prevent loss of body heat. Wear insulated/waterproof shoes.
- Warm the affected area of the body slowly with lukewarm water; do not rub the skin vigorously.
- If the affected skin area turns black, immediately consult a doctor.
- Maintain ventilation while using Heaters to avoid inhaling toxic fumes.
- Take safety measures while using electrical and gas heating devices.
- Extreme care needed for vulnerable people.
- Seek medical attention as soon as possible for someone suffering from frostbite/ Hypothermia.
- Protect livestock from cold weather.

Agromet advisories for Heavy Rainfall/ Cold Wave/ Ground Frost likely over various parts of the country

- Drain out excess water from rice, green gram, black gram, mustard, vegetables and other standing crop fields in **Odisha**; from rice nurseries, green gram, black gram, sesame and other standing crop fields and vegetables in **Coastal Andhra Pradesh**.
- Keep the harvested produce in safer places or cover the produce with tarpaulin sheets in the fields.
- In **Jammu & Kashmir, Himachal Pradesh, Punjab, Arunachal Pradesh, Meghalaya** and **Nagaland**, apply light and frequent irrigation to the standing crops in the evening to protect them from low temperature stress or cold injuries. Use mulching and cover vegetable nurseries and young fruit plants with straw/polythene sheets to maintain optimum soil temperature.

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.
- 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.
- To protect from cold, keep cattle inside the sheds during night and provide dry bedding. Also keep the chicks warm by providing artificial light in the poultry sheds.

Fig. 1: Maximum Temperatures

Fig. 2: Departure of Maximum Temperatures

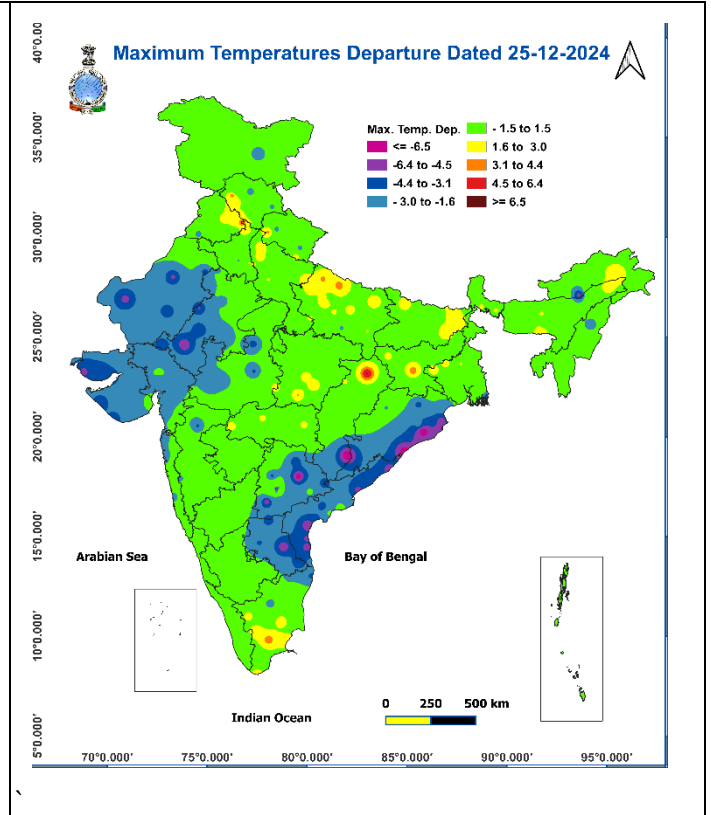
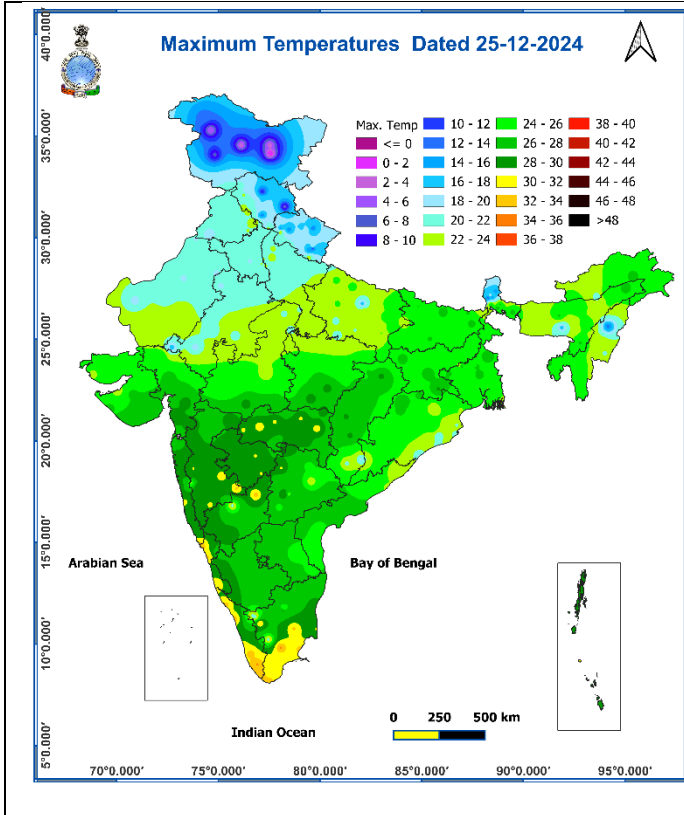


Fig. 3: Minimum Temperatures

Fig. 4: Departure of Minimum Temperatures

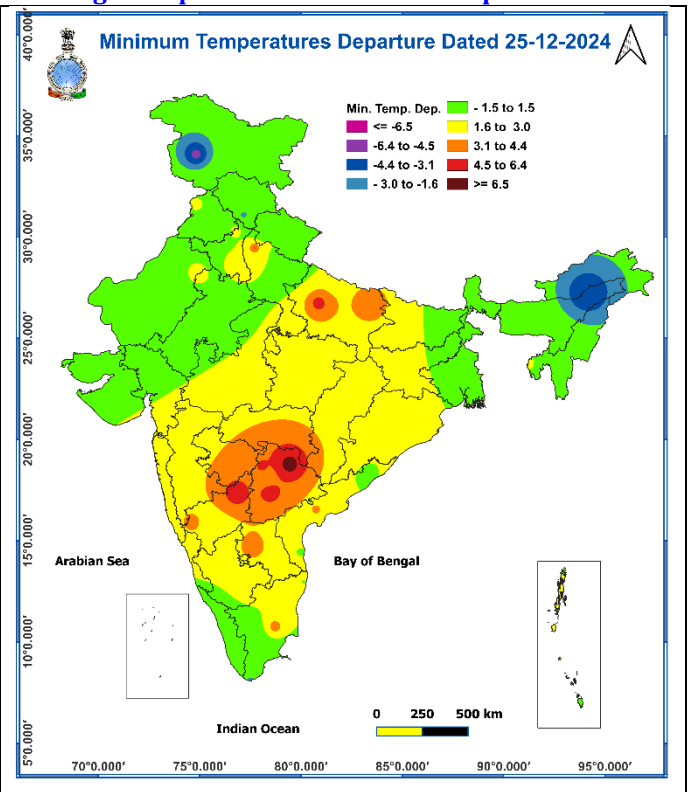
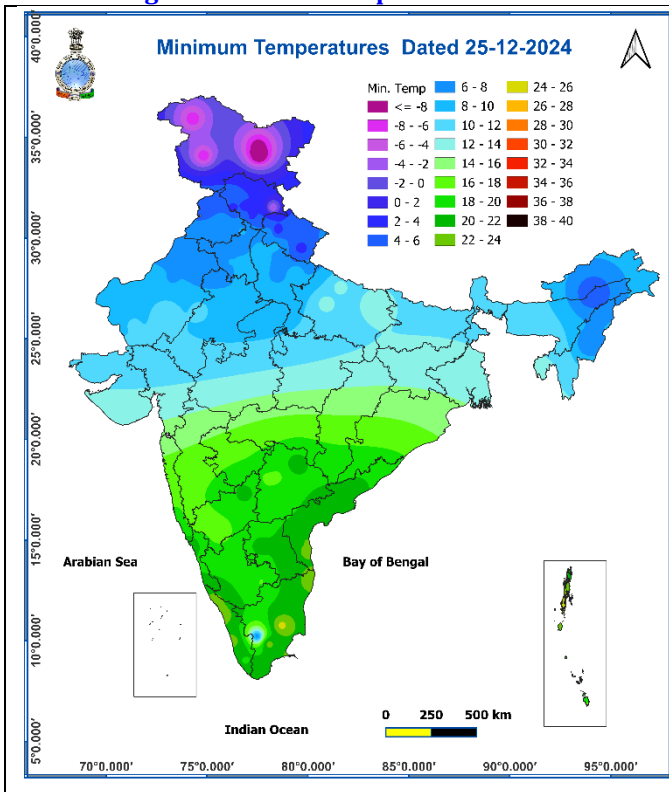
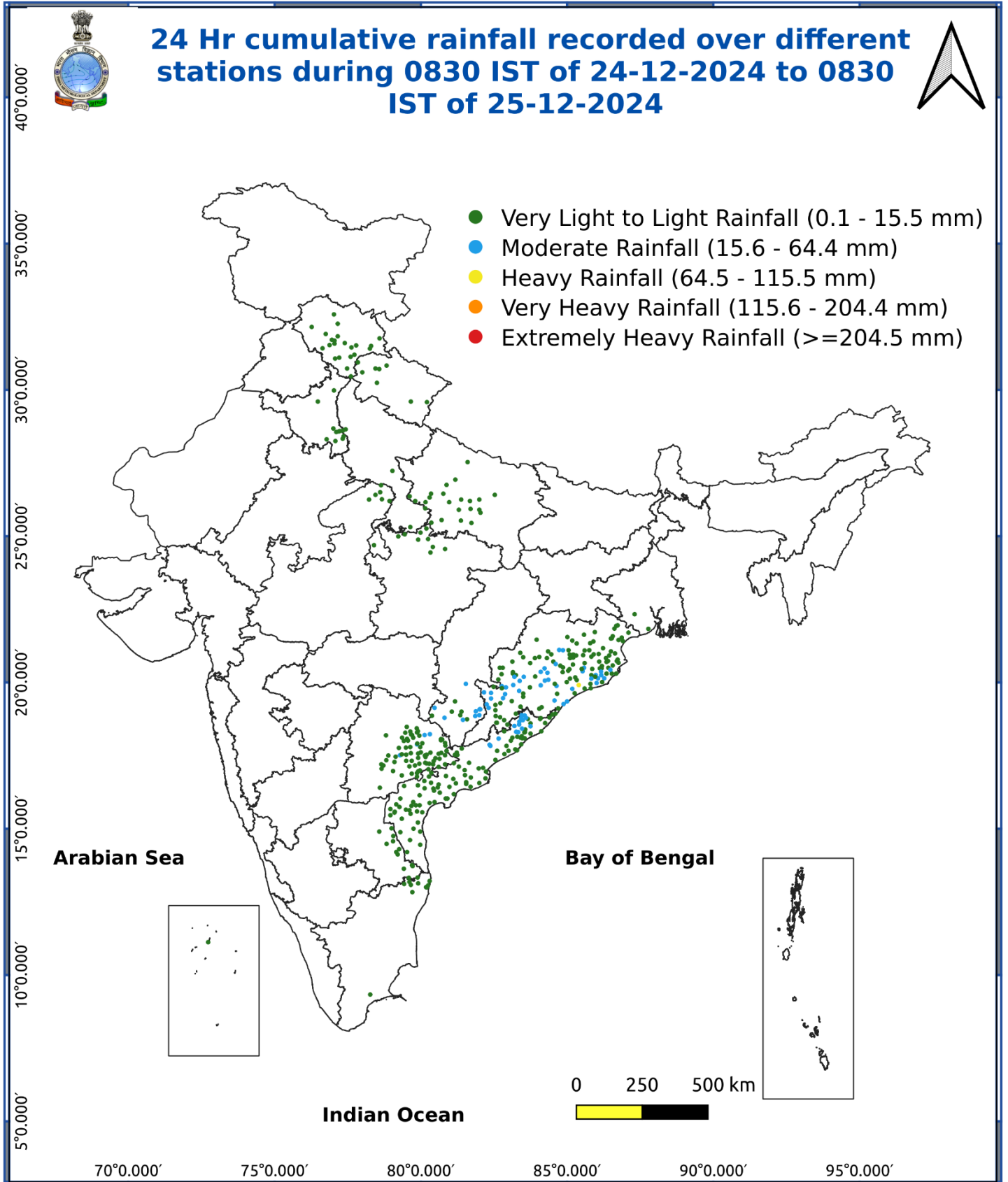


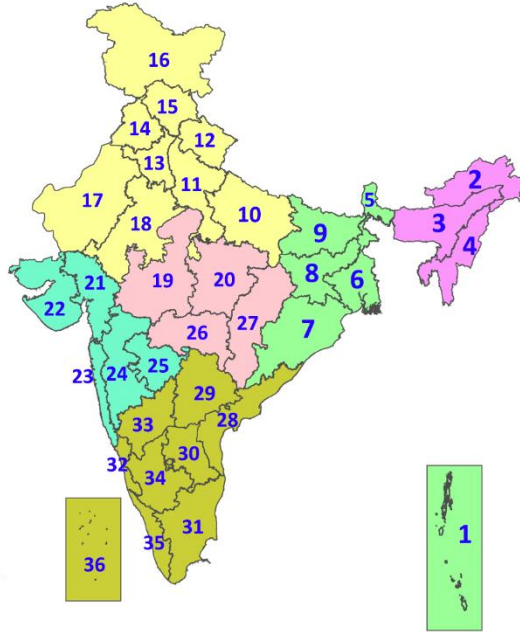
Fig. 5: Accumulated Rainfall (mm) during past 24 hours



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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>