

Thursday, December 26, 2024
Time of Issue: 1315 hours IST
(MID-DAY)

ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

Significant Weather Features:

Weather Systems, Forecast and warning:

- ❖ Yesterday's **well marked low pressure area** over Southwest and 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 and become less marked at 0830 hrs IST of today, the 26th December. However, the associated cyclonic circulation persisted over the same area at lower tropospheric levels.
- ❖ Under the influence of these systems:
 - ✓ Light to moderate rainfall accompanied with thunderstorm, lightning very likely at isolated places with **heavy rainfall** at isolated places over Coastal Andhra Pradesh on 26th December.
 - ✓ Light to moderate rainfall at a few places accompanied with thunderstorm, lightning over Tamil Nadu, Puducherry & Karaikal on 26th & 27th December.
- ❖ A Western disturbance seen as a trough in middle tropospheric westerlies runs roughly along Long. 60°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, lightning & gusty winds (wind speed 30-50 kmph) likely over Punjab, Haryana, Chandigarh, West Uttar Pradesh, East Rajasthan, Madhya Maharashtra, Marathwada on 27th, Madhya Pradesh on 27th & 28th; Isolated to Scattered rainfall accompanied with thunderstorm & lightning also likely over northwest Madhya Pradesh on 26th, West Rajasthan, Gujarat region on 27th, East Uttar Pradesh, Vidarbha, Chhattisgarh on 27th & 28th, West Uttar Pradesh on 28th December.
 - ✓ **Thunderstorm accompanied with hailstorms also likely over Punjab, Haryana, Chandigarh, West Uttar Pradesh, Rajasthan, Vidarbha, Madhya Maharashtra, Marathwada & Gujarat Region on 27th and 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:

- ❖ Minimum temperatures were **below 0°C** over many parts of Jammu, Kashmir & Ladak; **2-5°C** over plains of Uttarakhand & Himachal Pradesh; **5-12°C** over Northwest, Northeast India and Bihar; **12-18°C** over many parts of Central, West & East India. Today, **the lowest minimum temperature of 5.0°C** is reported at **Churu (West Rajasthan)** over the plains of the country.
- ❖ There has been a rise by 1-2°C in minimum temperature over some parts of Rajasthan, Saurashtra & Kutch, Maharashtra & Tamil Nadu and fall by 1-2°C over some parts of Uttar Pradesh during past 24 hours.
- ❖ Minimum temperatures are **appreciably below normal (-3°C to -5°C)** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad; **below normal (-1°C to -3°C)** at a few places over Lakshadweep; and **above normal by 4-6°C** at many places over Madhya Pradesh, East Rajasthan, East Uttar Pradesh, Bihar, Odisha, Telangana, Rayalaseema, Coastal Andhra Pradesh & Maharashtra.

Forecast of temperature:

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

Cold Wave Warnings:

Cold wave to severe cold wave conditions very likely in isolated pockets of Himachal Pradesh on 26th December.

Cold wave conditions very likely in isolated pockets over Himachal Pradesh on 29th & 30th, Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad on 26th, 29th & 30th December.

Cold Day Warnings:

Cold day to severe cold day conditions very likely in some parts of Himachal Pradesh on 28th December.

Cold Day conditions very likely in some parts of Himachal Pradesh on 27th and in isolated pockets of West Rajasthan on 26th 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, 27th & during 29th - 31st, Punjab, Haryana, Chandigarh during 26th-31st, Assam & Meghalaya during 26th-28th, Odisha on 26th & 27th, Rajasthan during 28th-31st December.

Ground Frost Warnings:

Ground Frost conditions very likely in isolated pockets of Himachal Pradesh on 26th, 29th & 30th December.

* 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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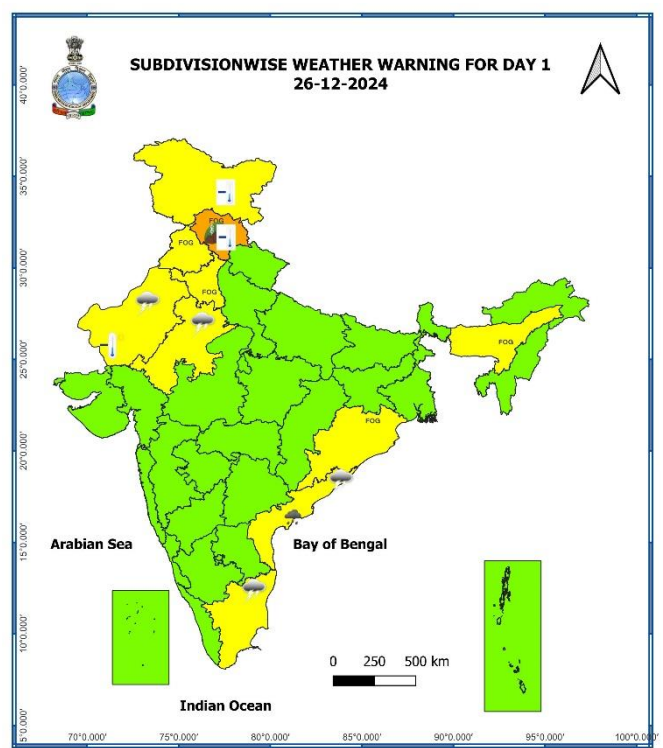
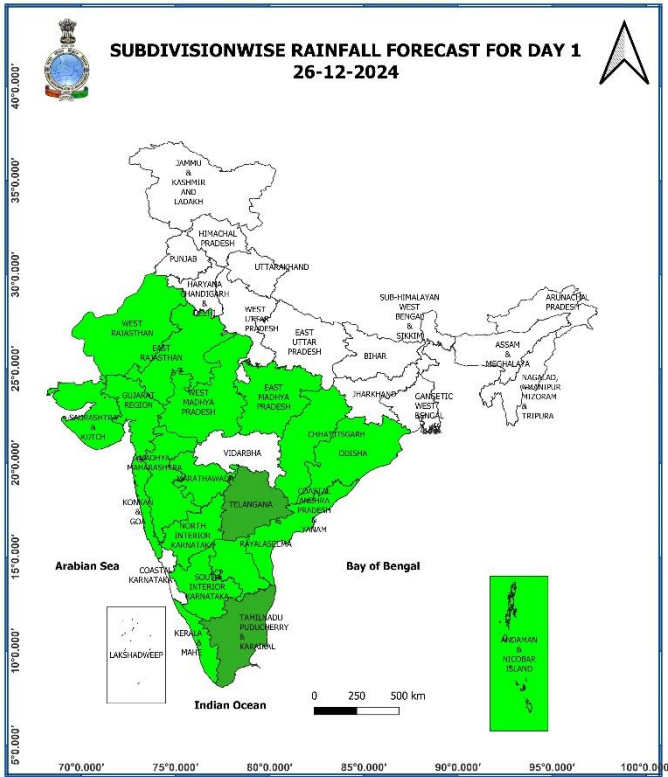
Main Weather Observations:

- ❖ **Rainfall distribution** ((from 0830 hours IST of yesterday to 0830 hours IST of today): **at most places** over Odisha; **at many places** over Coastal Andhra Pradesh & Yanam; **at a few places** over Gangetic West Bengal, Jharkhand, Telangana and Rayalaseema; **at isolated places** over Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Andaman & Nicobar Islands, Himachal Pradesh, Chhattisgarh, Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe.
- ❖ **Heavy rainfall observed** ((from 0830 hours IST of yesterday to 0830 hours IST of today): **Heavy rainfall** at isolated places over Odisha.
- ❖ **Significant amount of rainfall** ((from 0830 hours IST of yesterday to 0830 hours IST of today): **Odisha:** Narla (Kalahandi) 8, Koksara (Kalahandi) 7, Bhawanipatna (Kalahandi) 7, Junagarh (Kalahandi) 6, Banki (Cuttack) 6, Chilika (Khurda) 6, Th Rampur (Kalahandi) 6, Kalampur (Kalahandi) 6, Belanguntha (Ganjam) 6, Tangi (Khurda) 6.
- ❖ **Fog reported** (upto 0830hrs IST of today): **Very dense fog (visibility < 50 m)** reported in isolated pockets of Haryana; **dense fog (visibility 50-200 m)** reported in isolated pockets of Delhi, Rajasthan, Meghalaya, Manipur.
- ❖ **Visibility reported** (upto 0830hrs IST of today, ≤ 200 m): **Haryana:** Sirsa <50; **West Rajasthan:** Churu 50; **East Rajasthan:** Pilani 50; **Meghalaya:** Barapani 50; **Delhi:** Safdarjung 100; **Manipur:** Imphal 100.
- ❖ **Cold wave to severe cold wave conditions** observed in isolated pockets of Himachal Pradesh; **Cold wave** in isolated pockets of Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad and Punjab.
- ❖ **Cold day** observed in isolated pockets of Himachal Pradesh and West Rajasthan.
- ❖ **Minimum Temperatures Departures (as on 26-12-2024):** Minimum temperatures are **markedly above normal (5.1°C or more)** at many places over Madhya Pradesh, Madhya Maharashtra and Rayalaseema; at a few places over Telangana; at isolated places over East Rajasthan, Gujarat Region, Marathwada, Vidarbha, Odisha and Gangetic West Bengal ; **appreciably above normal (3.1°C to 5.0°C)** at most places over East Uttar Pradesh, Bihar and North Interior Karnataka; at many places over Jharkhand, Tamil Nadu, Puducherry & Karaikal, South Interior Karnataka; at a few places over Coastal Andhra Pradesh & Yanam; at isolated places over Chhattisgarh; **above normal (1.6°C to 3.0°C)** at many places over Konkan & Goa; at a few places over Saurashtra & Kutch ; at isolated places over West Rajasthan, West Uttar Pradesh, Kerala & Mahe and Nagaland, Manipur, Mizoram & Tripura. These are **appreciably below normal (-3.1°C to -5.0°C)** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad; **below normal (-1.6°C to -3.0°C)** at isolated places over Lakshadweep and near normal over rest parts of the country. Today, **the lowest minimum temperature** of 5.0°C is reported at **Churu (West Rajasthan)** 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 0830 hours IST)

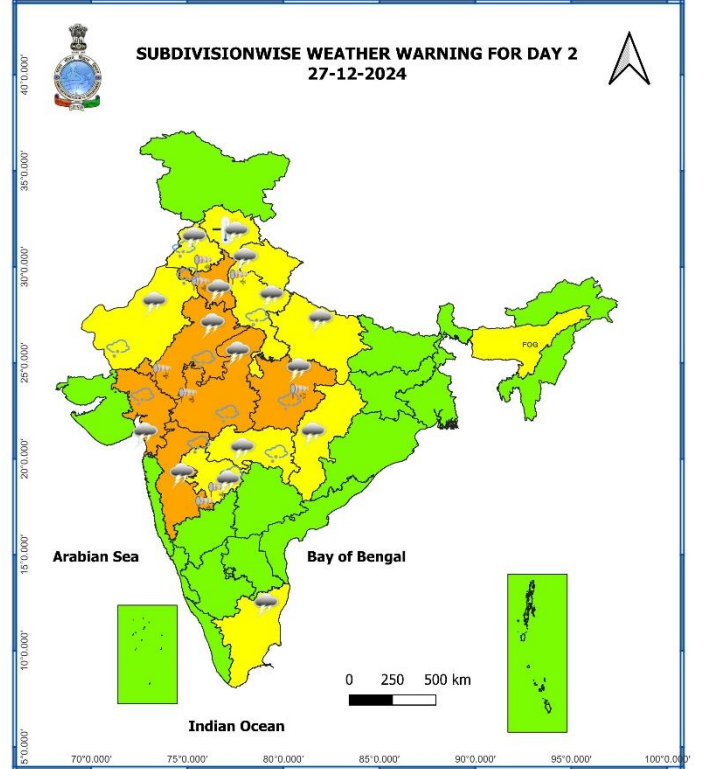
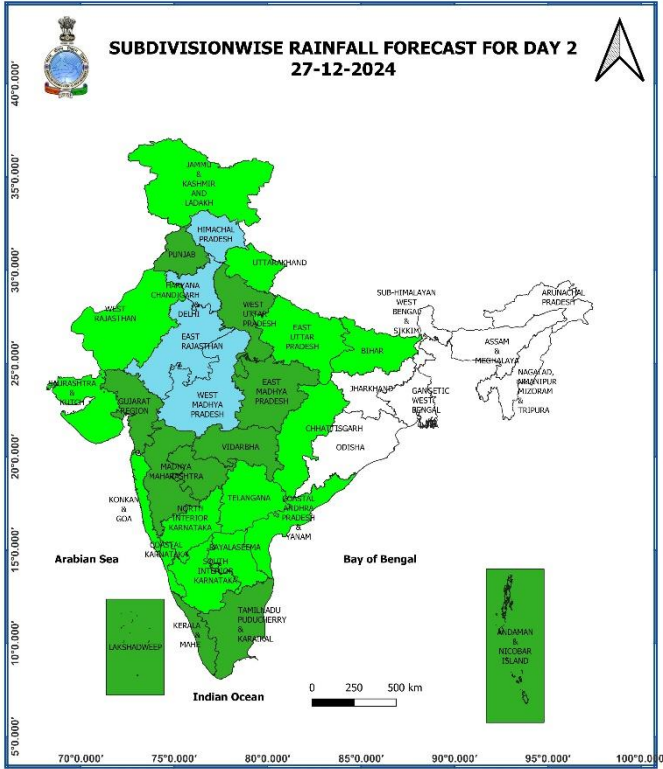
- ❖ The **low pressure area** over Southwest & adjoining Westcentral Bay of Bengal off South Andhra Pradesh-North Tamil Nadu coasts has become less marked. However, the associated cyclonic circulation persists over the same region and now extends upto 1.5 km above mean sea level.
- ❖ The **cyclonic circulation** over east Bangladesh at 1.5 km above mean sea level persists.
- ❖ The **Western disturbance** as a trough in middle tropospheric westerlies with its axis at 5.8 km above mean sea level now runs roughly along Long. 60°E to the north of Lat. 30°N.
- ❖ A **cyclonic circulation** lies over north Punjab & neighbourhood at 1.5 km above mean sea level.
- ❖ **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.

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



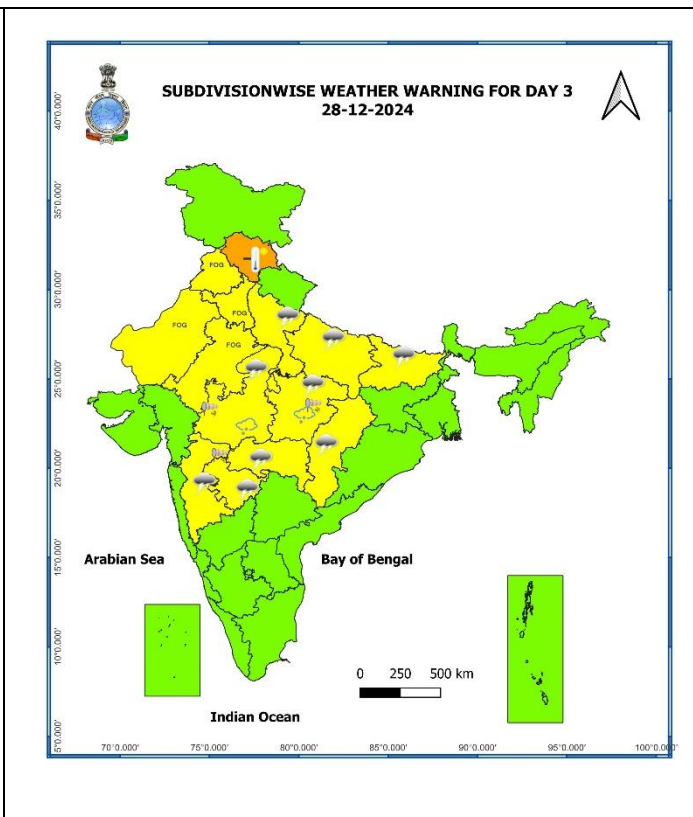
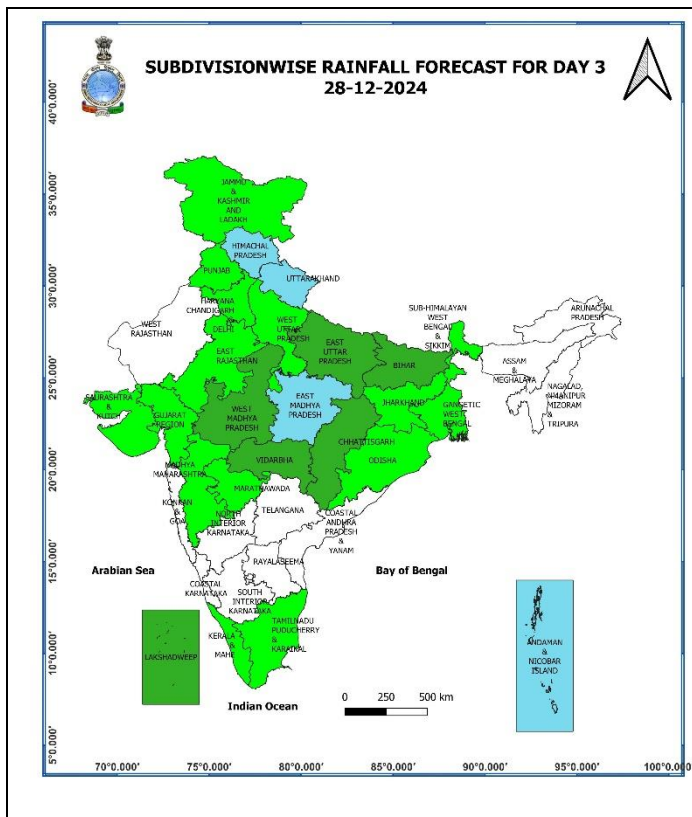
26 December (Day 1):

- ❖ **Heavy rainfall (≥ 7 cm)** very likely at isolated places over Coastal Andhra Pradesh & Yanam.
- ❖ **Thunderstorm accompanied with lightning** very likely at isolated places over Rajasthan, Tamil Nadu, Puducherry & Karaikal and Coastal Andhra Pradesh & Yanam.
- ❖ **Dense fog** very likely in isolated pockets of Himachal Pradesh, Punjab, Haryana-Chandigarh-Delhi, Odisha and Assam & Meghalaya in night/morning hours.
- ❖ **Cold wave to severe cold wave conditions** very likely in isolated pockets of Himachal Pradesh; **cold wave conditions** in isolated pockets of Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad.
- ❖ **Cold day conditions** very likely in isolated pockets of West Rajasthan.
- ❖ **Ground Frost conditions** very likely in isolated pockets of Himachal Pradesh.
- ❖ **Squally weather with wind speed 35 kmph to 45 kmph gusting to 55 kmph** is likely to prevail over some parts of southwest Bay of Bengal and adjoining parts of westcentral Bay of Bengal, along and off north Tamil Nadu coast and south Andhra Pradesh coast. **Squally wind with speed 45 kmph to 55 kmph gusting to 65 kmph** is likely to prevail along and off north Andhra Pradesh coast. Fishermen are advised not to venture into these areas.



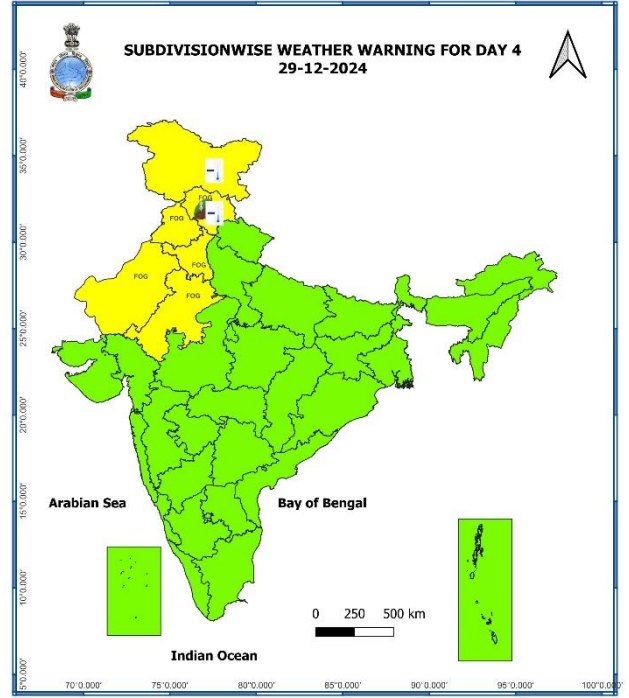
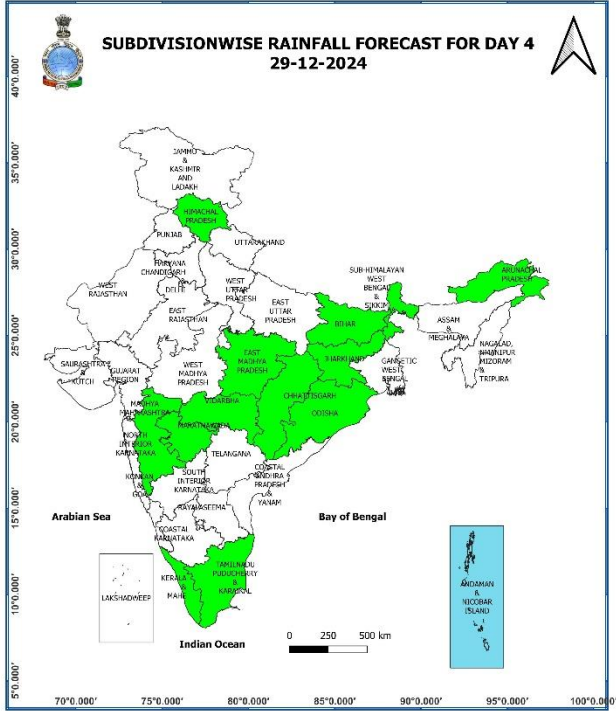
27 December (Day 2):

- ❖ **Thunderstorm accompanied with hailstorm, gusty winds (30-40 kmph) & lightning** very likely at many places over East Rajasthan; at a few places over Punjab, East Madhya Pradesh; **accompanied with hailstorm, gusty winds (40-50 kmph) & lightning** at many places over Haryana-Chandigarh-Delhi and West Madhya Pradesh; at isolated places over Madhya Maharashtra and Marathwada; **with hailstorm & lightning** at isolated places over West Rajasthan, Gujarat Region and Vidarbha; **with lightning** at many places over Himachal Pradesh; at a few places over Uttarakhand; at isolated places over East Uttar Pradesh, Chhattisgarh and Tamil Nadu, Puducherry & Karaikal.
- ❖ **Dense fog** very likely in isolated pockets of Assam & Meghalaya in night/morning hours.
- ❖ **Cold day conditions** very likely in many parts of Himachal Pradesh.



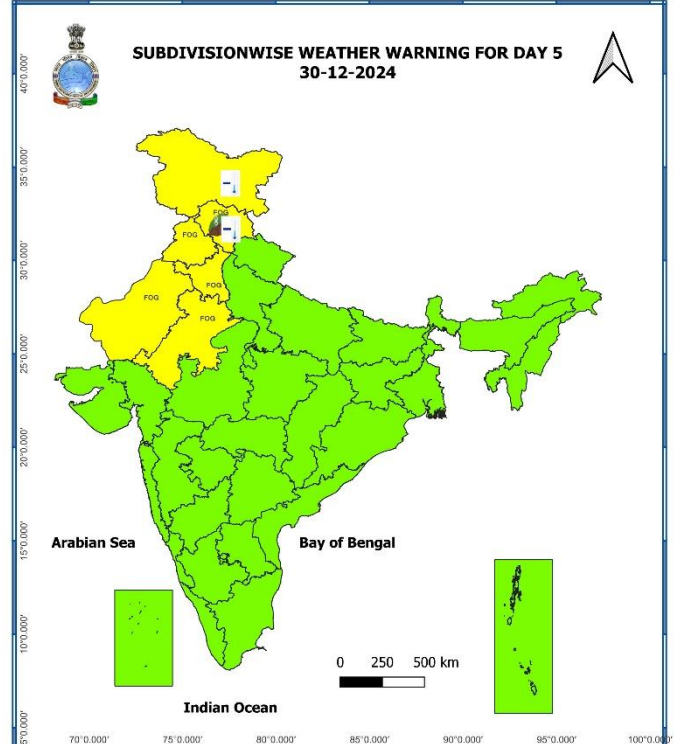
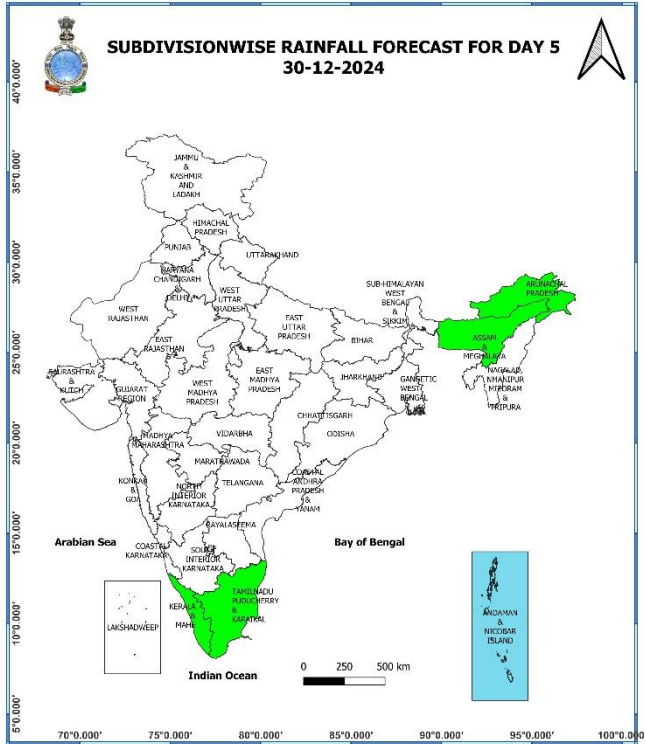
28 December (Day 3):

- ❖ **Thunderstorm accompanied with hailstorm, gusty winds (30-40 kmph) & lightning** very likely at many places over East Madhya Pradesh; at a few places over West Madhya Pradesh; **with gusty winds (30-40 kmph) & lightning** at isolated places over Madhya Maharashtra; **with lightning** at a few places over Uttar Pradesh, Vidarbha, Chhattisgarh, Bihar and Marathwada.
- ❖ **Dense fog** very likely in isolated pockets of Punjab, Haryana-Chandigarh-Delhi and Rajasthan in night/morning hours.
- ❖ **Cold Day to severe cold day conditions** very likely in some parts of Himachal Pradesh.



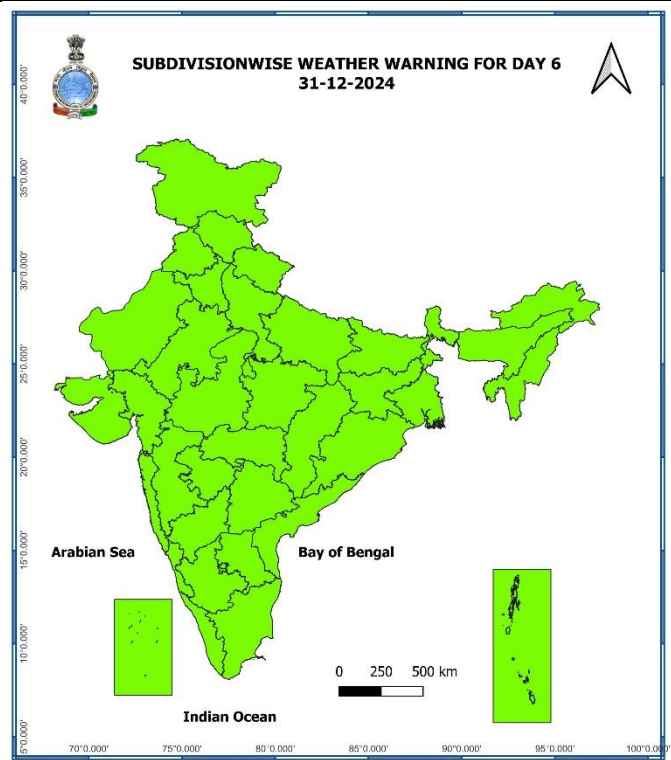
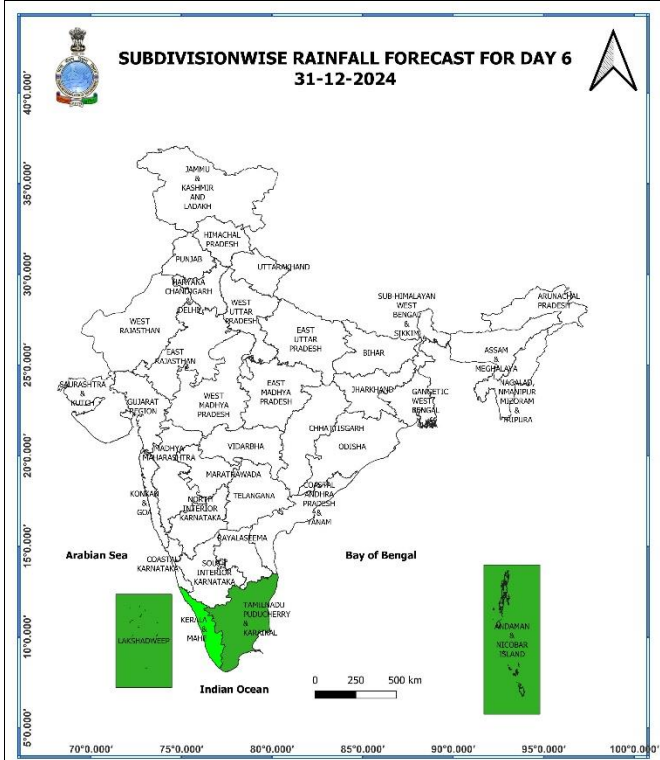
29 December (Day 4):

- ❖ **Dense fog** likely in isolated pockets of Himachal Pradesh, Punjab, Haryana-Chandigarh-Delhi and Rajasthan in night/morning hours.
- ❖ **Cold wave conditions** likely in isolated pockets of Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad.
- ❖ **Ground Frost conditions** likely in isolated pockets of Himachal Pradesh.



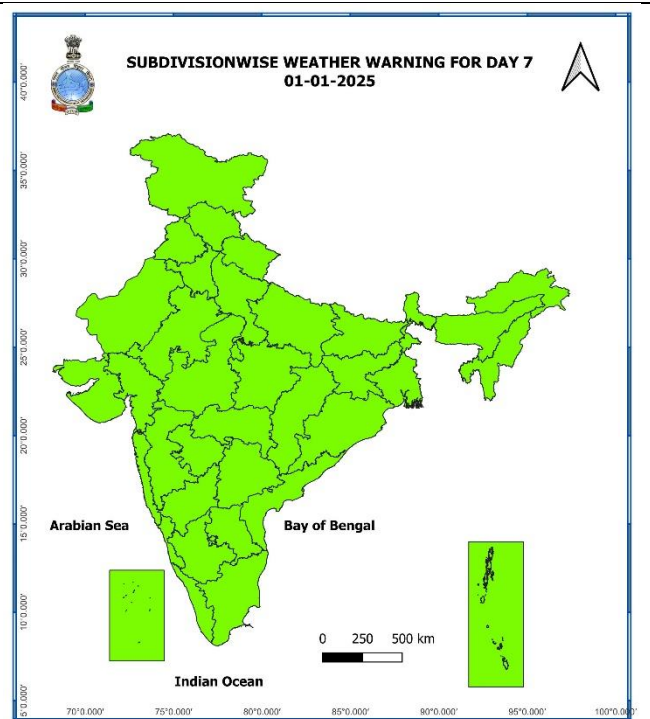
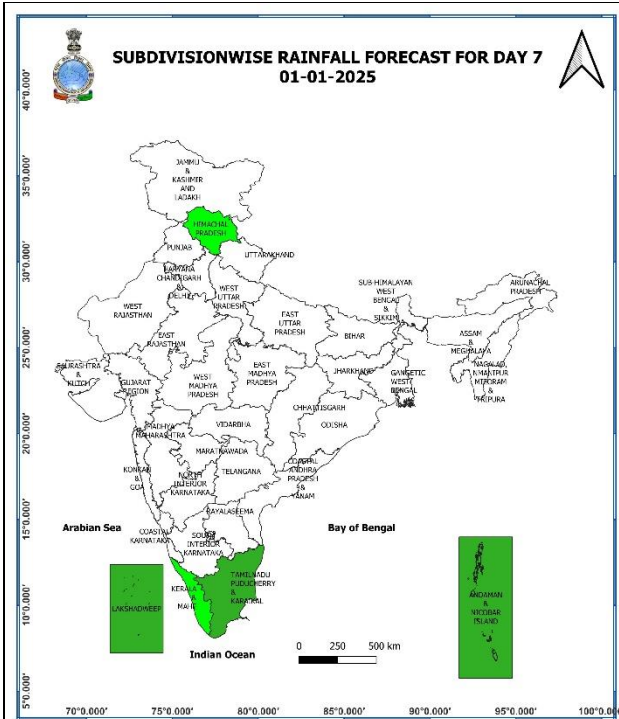
30 December (Day 5):

- ❖ **Dense fog** likely in isolated pockets of Himachal Pradesh, Punjab, Haryana-Chandigarh-Delhi and Rajasthan in night/morning hours.
- ❖ **Cold wave conditions** likely in isolated pockets of Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad.
- ❖ **Ground Frost conditions** likely in isolated pockets of Himachal Pradesh.



31 December (Day 6):

❖ **No weather warning.**



01 January (Day 7):

❖ No weather warning.

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

- Use hail nets to protect orchards and vegetable plants in **Punjab, Haryana, West Uttar Pradesh, Rajasthan, Madhya Pradesh, Vidarbha, Madhya Maharashtra, Marathwada and Gujrat region.**
- Provide mechanical support to horticultural crops and staking to vegetables.
- Drain out excess water from rice, green gram, black gram, mustard, vegetables and other standing crop fields in **Odisha** and make necessary arrangements to drain out excess water 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** and **Himachal Pradesh**, 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/ hailstorms and provide them with balanced feed.
- Store feed and fodder in a safe place to prevent spoilage.
- 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

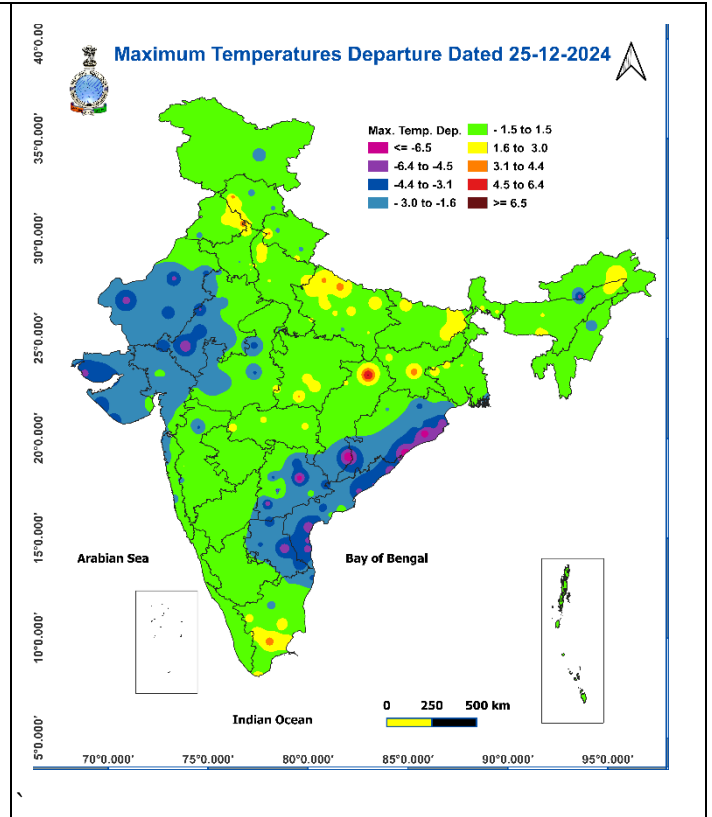
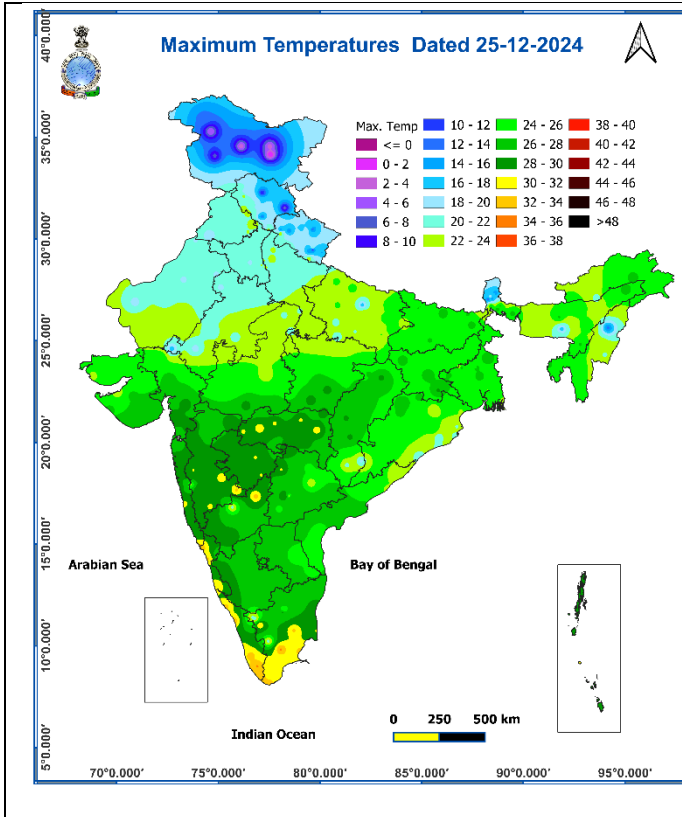


Fig. 3: Minimum Temperatures

Fig. 4: Departure of Minimum Temperatures

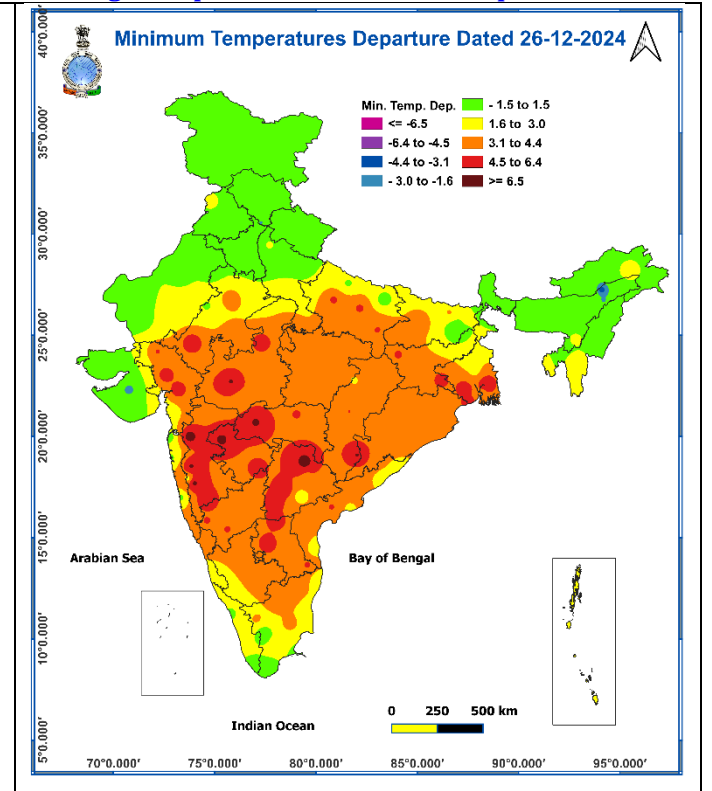
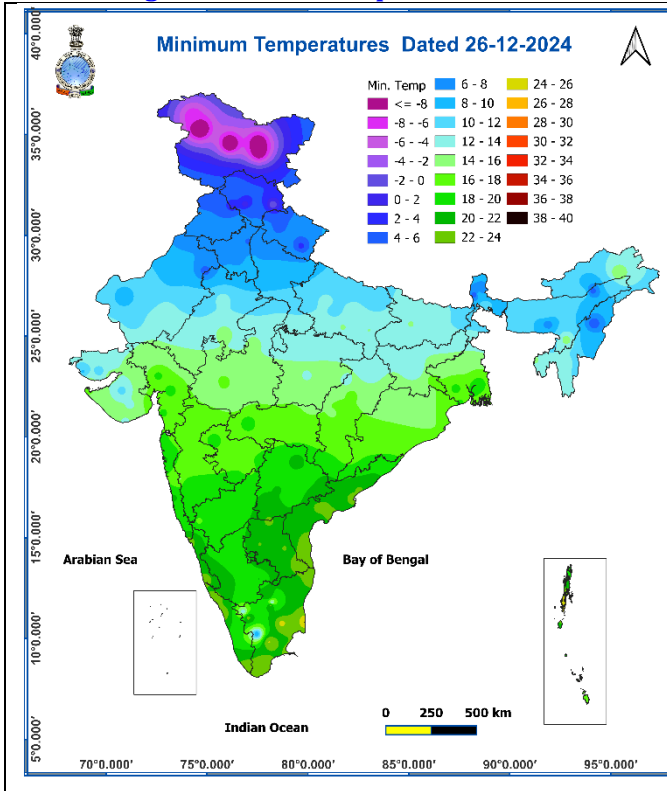
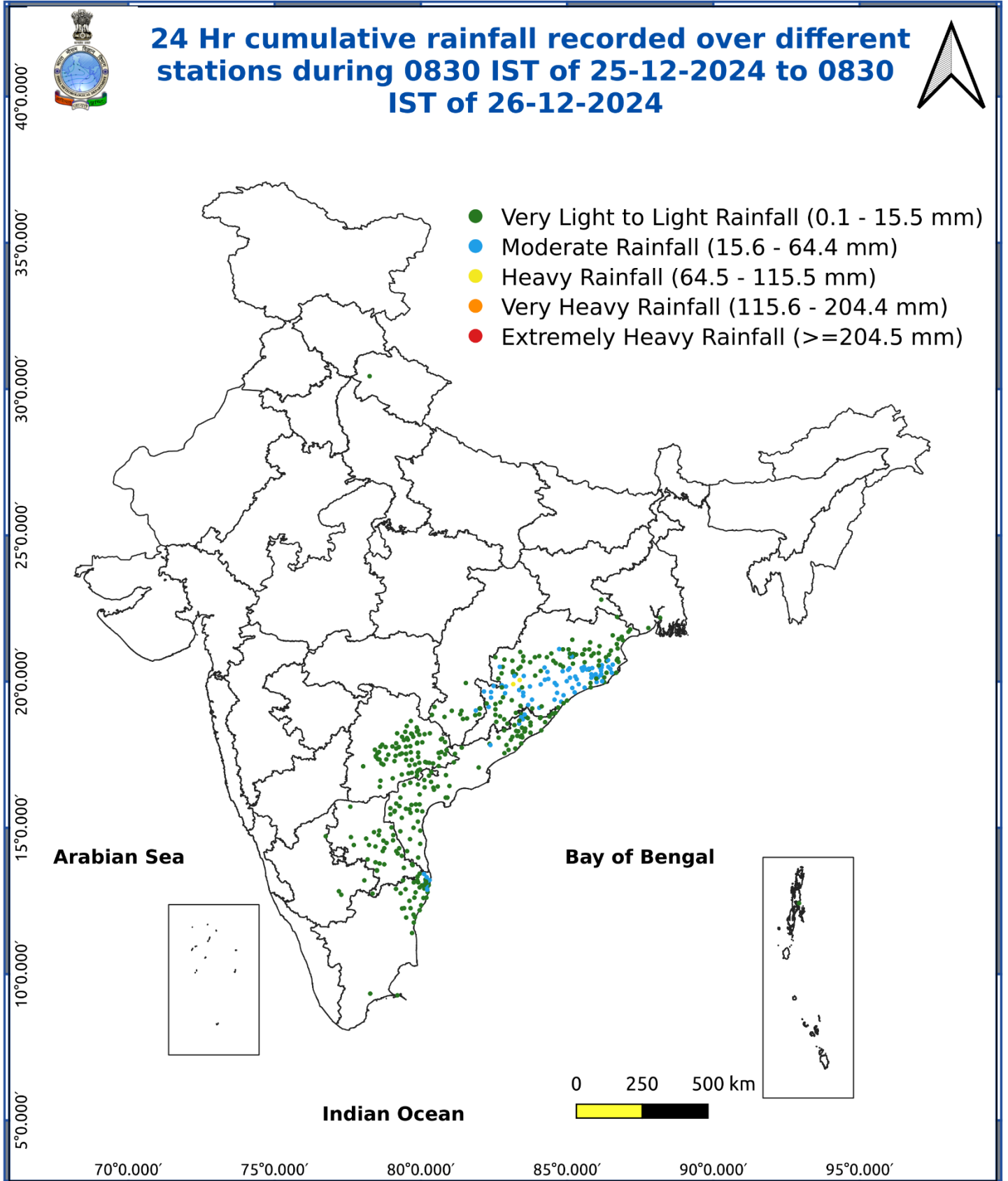


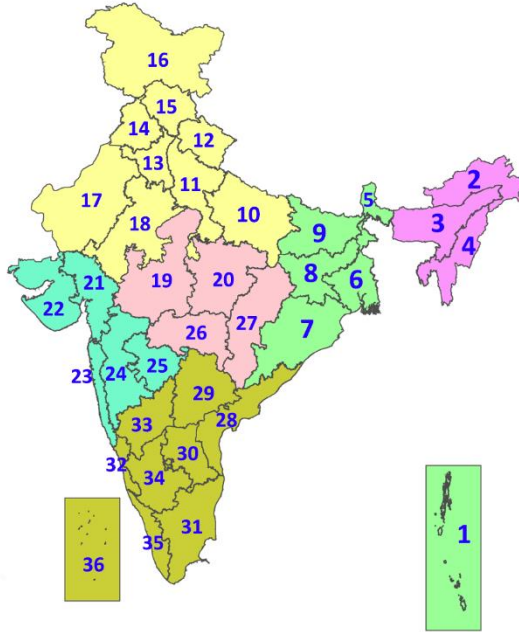
Fig. 5: Accumulated Rainfall (mm) during past 24 hours



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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 *

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)