राष्ट्रीय मौसम पूर्वानुमान केन्द्र
भारत मौसम विज्ञान विभाग
पृथ्वी विज्ञान मंत्रालय

National Weather Forecasting Centre
India Meteorological Department
Ministry of Earth Sciences

Sunday, December 29, 2024
Time of Issue: 1330 hours IST
(MID-DAY)

ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

Significant Weather Features:

Weather Systems, Forecast and warning

- A Western disturbance seen as a trough in middle tropospheric westerlies roughly along Long. 53°E to the north of Lat. 32°N. it is very likely to cause light isolated to scattered rainfall/snowfall over Western Himalayan region from 1st to 4th January 2025.
- A fresh **Western Disturbance** in quick succession likely to affect Northwest India from 06th January, 2025.

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 & Ladakh; **6-12°C** over many parts of Northwest India; **12-18°C** over many parts of Central, West & East India. Today, the lowest minimum temperature of 5.7°C is reported at Sikar (Rajasthan) over the plains of the country.

- There has been a fall in minimum temperature by 1-3^{0}C over many parts of Uttar Pradesh, East Madhya Pradesh, Chhattisgarh and in some parts of Himachal Pradesh, Uttarakhand, Haryana-Chandigarh-Delhi and West Rajasthan; by 3-6^{0}C over many parts of East Rajasthan and in isolated parts of Jammu-Kashmir-Ladakh and Punjab during past 24 hours and rise in minimum temperature by 1-2^{0}C over some parts of East India.

Forecast of temperature:

- Fall in minimum temperatures by 4-6°C likely over Uttar Pradesh during next 5 days and by 3-4°C over Punjab, Haryana-Chandigarh-Delhi and Rajasthan during next 3 days & no significant change thereafter.
- No significant change in minimum temperatures during next 24 hours and fall by 3-5°C likely over Central India during Subsequent 5 days.
- No significant change in minimum temperatures during next 24 hours and fall by 3-4°C likely over East India during Subsequent 3 days.
- Fall in minimum temperatures by 2-4°C likely over Maharashtra during next 5 days.

Cold Wave Warnings:

Cold wave conditions very likely in isolated pockets of Punjab and Haryana-Chandigarh during 31st December-02nd January and over Rajasthan during 30th December-02nd January.

Cold Day Warnings:

Cold Day conditions very likely in isolated pockets of Himachal Pradesh and Rajasthan on 29th and Punjab and Haryana-Chandigarh on 29th & 30th December.

Dense Fog Warnings:

Dense to Very dense fog conditions very likely to prevail during late night/early morning hours in isolated pockets of Punjab, Haryana-Chandigarh during 29th-30th December and over Rajasthan on 29th December;
Dense fog conditions very likely to prevail during late night/early morning hours in isolated pockets of Himachal Pradesh during 29th December-01st January; Uttar Pradesh during 29th-30th; Rajasthan on 30th & 31st December and over Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura till 02nd January,

Main Weather Observations:

- **Rainfall distribution** (from 0830 hours IST of yesterday to 0830 hours IST of today): **at most places** over Himachal Pradesh, Uttarakhand; **at many places** over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Andaman & Nicobar Islands; **at a few places** over Haryana-Chandigarh-Delhi, Uttar Pradesh; **at isolated places** over Punjab, East Rajasthan, Bihar, Jharkhand, Odisha, Konkan & Goa, Madhya Maharashtra, Gujarat state, Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe.

- **Heavy rainfall observed** (from 0830 hours IST of yesterday to 0830 hours IST of today): at isolated places over Uttarakhand.

- **Heavy rainfall/snowfall observed** (from 0830 hours IST of yesterday to 0830 hours IST of today): at isolated places over Jammu Kashmir, Himachal Pradesh and Uttarakhand.

- **Significant amount of rainfall** (from 0830 hours IST of yesterday to 0830 hours IST of today): **Himachal Pradesh:** Bharari (dist Hamirpur) 4, Mehre (barsar) (dist Hamirpur) 4, Palampur (dist Kangra) 3, Chamba Aws (dist Chamba) 3, Dharmsala (dist Kangra) 3, Dharmshala Aws (dist Kangra) 3, Kangra Aero (dist Kangra) 3, Jogindarnagar (dist Mandi) 3, Sujanpur Tira (dist Hamirpur) 3, **Uttarakhand:** Koti-9, Haripur-6, Dhanolti & Narendra Nagar-4 each.

- **Fog reported (**at 0830 hours IST): **Dense to very dense fog** reported in some parts of Punjab, Haryana, ; in isolated pockets of Rajasthan, East Uttar Pradesh; **Dense fog** in isolated pockets of Himachal Pradesh, Delhi and Jharkhand.

- **Visibility reported** at 0830 hours IST (≤500m): **Rajasthan:** Ganganagar, Bikaner & Ajmer-0, Churu-200; **Punjab:** Patiala-0; **Haryana:** Ambala-0, Hissar-200; **East Uttar Pradesh:** Varanasi, Prayagraj, Ballia & Fursatganj-0 each, Lucknow-200; **Himachal Pradesh:** Sundernagar-200; **Delhi:** Palam-200; **Jharkhand:** Daltonganj-200.

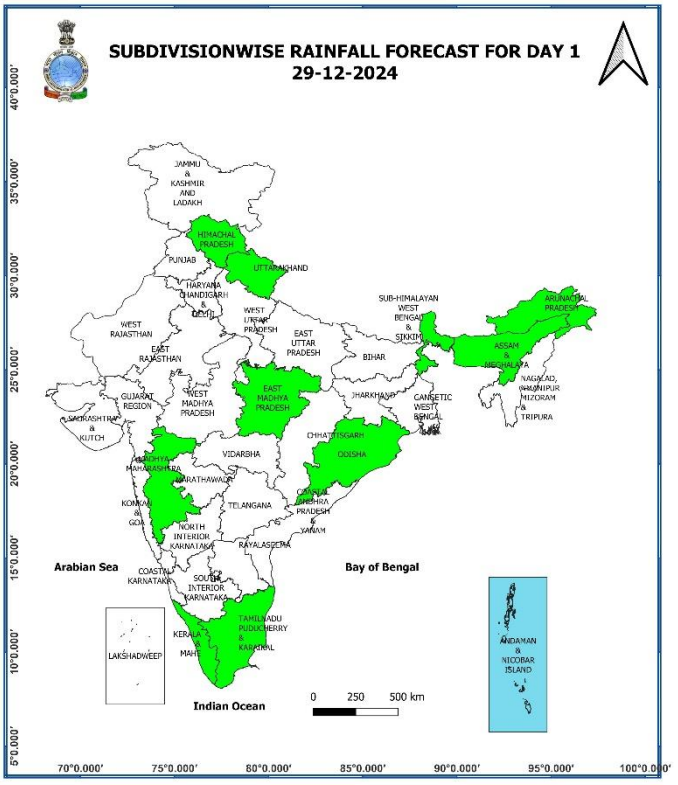
- **Minimum Temperatures Departures (as on 29-12-2024):** Minimum temperatures are **markedly above normal (5.1°C or more)** at many places over Bihar, Jharkhand, East Uttar Pradesh, Madhya Maharashtra, Vidarbha; at a few places over West Madhya Pradesh; at isolated places over East Madhya Pradesh, East Uttar Pradesh, Punjab, Chhattisgarh, East Madhya Pradesh, Marathwada; **appreciably above normal (3.1°C to 5.0°C)** at many places over Haryana-Chandigarh-Delhi, West Bengal & Sikkim, Odisha, Telangana, North Interior Karnataka, Konkan & Goa, Andaman & Nicobar Islands; at a few places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad; at isolated places over East Rajasthan, Himachal Pradesh, Gujarat Region; **above normal (1.6°C to 3.0°C)** at most places over South Interior Karnataka; at many places over Nagaland, Manipur, Mizoram & Tripura, Coastal Andhra Pradesh & Yanam, Rayalaseema, Coastal Karnataka, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe**;** at isolated places over West Rajasthan, Assam & Meghalaya. These are **below normal (-1.6°C to -3.0°C)** at isolated places over Saurashtra & Kutch and near normal over rest parts of the country. Today, **the lowest minimum temperature** of **5.7°C** is reported at **Sikar (Rajasthan)** over the plains of the country (Fig. 4).

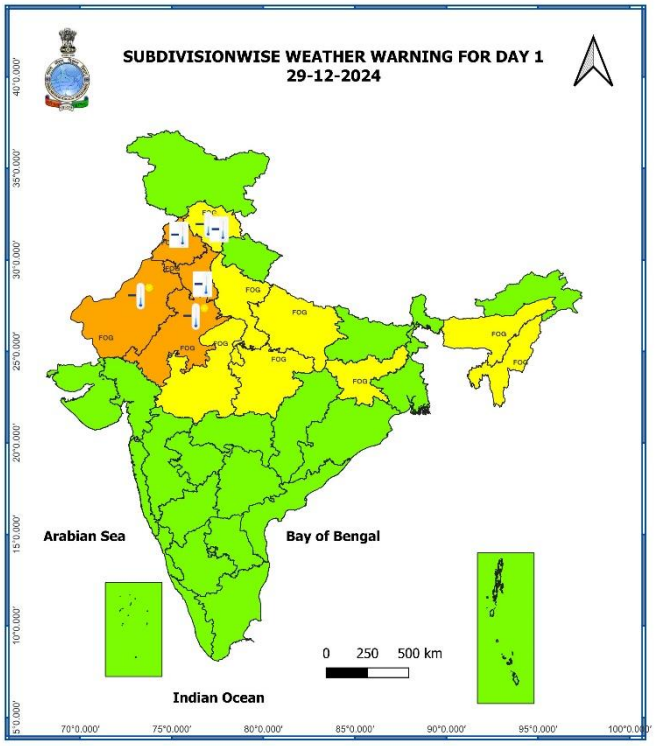
- **Maximum Temperature Departures (as on 28-12-2024):** Maximum temperatures were **appreciably above normal (3.1°C to 5.0°C)** at a few places over Sub-Himalayan West Bengal & Sikkim and Bihar isolated places over Gangetic West Bengal, Assam & Meghalaya, Jharkhand, Odisha and Chhattisgarh; **above normal (1.6°C to 3.0°C)** at many places over Vidarbha and Nagaland, Manipur, Mizoram & Tripura; at a few places over Arunachal Pradesh; at isolated places over Telangana, Coastal Andhra Pradesh & Yanam, Kerala & Mahe, Tamil Nadu, Puducherry & Karaikal, Coastal Karnataka, Madhya Maharashtra, East Uttar Pradesh and Andaman & Nicobar Islands. These were **markedly below normal (-5.1° C or less)** at most places over Himachal Pradesh; at a few places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad; at isolated places over Uttarakhand, East Madhya Pradesh; **appreciably below normal (-3.1°C to -5.0°C)** at most places over Haryana-Chandigarh-Delhi, Punjab; at a few places over West Rajasthan; at isolated places over West Uttar Pradesh, East Rajasthan; **below normal (-1.6°C to -3.0°C)** at many places over Gujarat Region; at isolated places over West Madhya Pradesh, Saurashtra & Kutch and near normal over rest part of the country . Yesterday, the **highest maximum temperature** of **36.6°C** was reported at **Karwar (Coastal Karnataka)** over the plains of the country (Fig. 2).

Meteorological Analysis (Based on 0830 hours IST)

- The **Western disturbance** as a cyclonic circulation over Northwest Uttar Pradesh at 3.1 km above mean sea level with a trough aloft in upper tropospheric westerlies with its axis at 5.8 km above mean sea level roughly along Long. 80°E to the north of Lat. 23°N persists.
- The **induced cyclonic circulation** over northeast Rajasthan & neighbourhood at 1.5 km above mean sea level persists.
- The **trough** from **cyclonic circulation** over northeast Rajasthan & neighbourhood to north Gujarat at 1.5 km above mean sea level persists.
- A fresh **Western disturbance** seen as a trough in middle tropospheric westerlies with its axis at 5.8 km above mean sea level runs roughly along Long. 53°E to the north of Lat. 32°N.
- The **trough** in easterlies now runs from southeast Arabian sea to south Maharashtra coast at 0.9 km above mean sea level
- A **cyclonic circulation** lies over east Bangladesh & neighbourhood and extends upto at 1.5 km above mean sea level.
- The **upper air cyclonic circulation** over Tripura & neighbourhood at 1.5 km above mean sea level has become less marked.
- The **upper air cyclonic circulation** over southeast Arabian Sea off south Kerala coast at 3.1 km above mean sea level has become less marked.
- A **fresh western disturbance in quick succession** is likely to affect Northwest India to 6th January, 2025.

Weather Forecast & Warnings for next 7 days (Upto 0830 hours IST of 05th January, 2025)

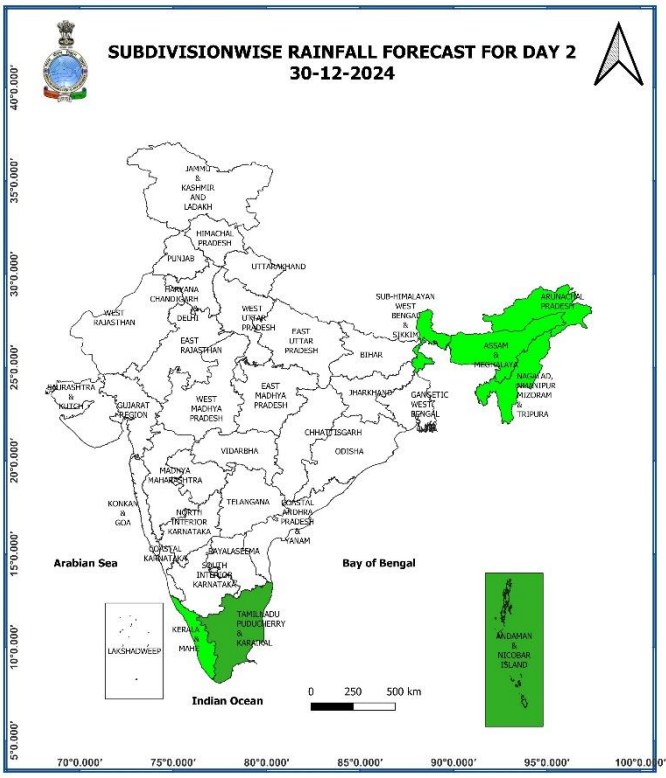


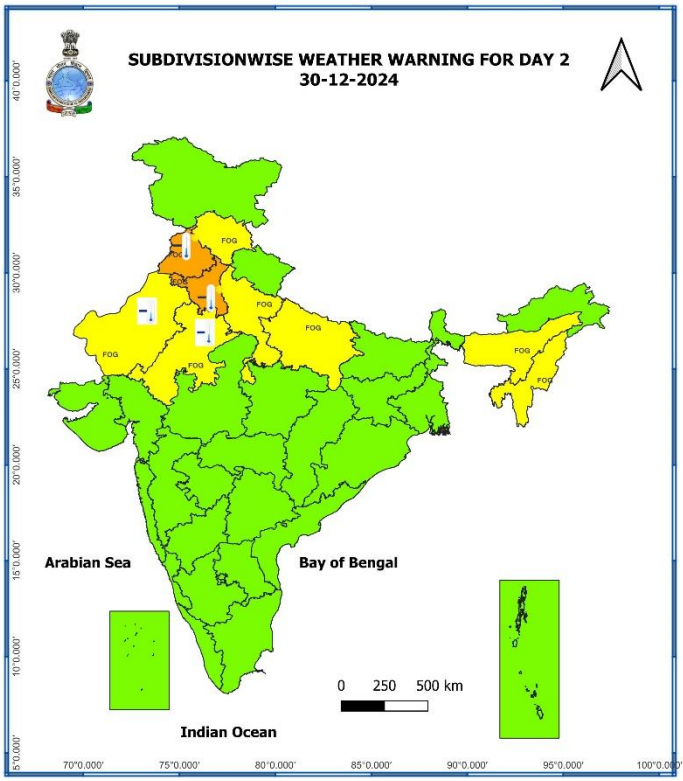


29th December (Day 1):

- **Dense fog to very dense fog** very likely in isolated pockets of Punjab, Haryana, Rajasthan; **Dense fog** in isolated pockets of Himachal Pradesh, Uttar Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura in night/morning hours.

- **Cold day conditions** very likely in isolated pockets of Himachal Pradesh, Punjab, Haryana and Rajasthan.





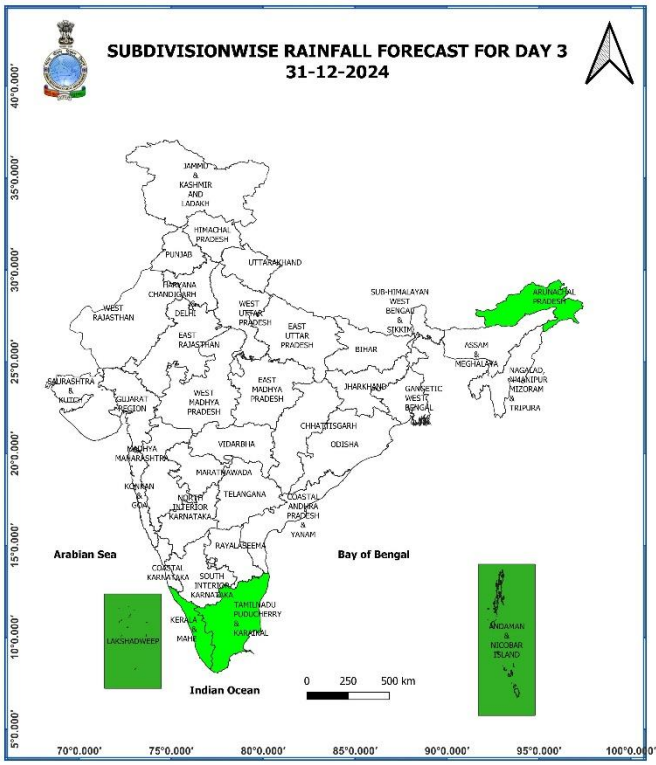
30th December (Day 2):

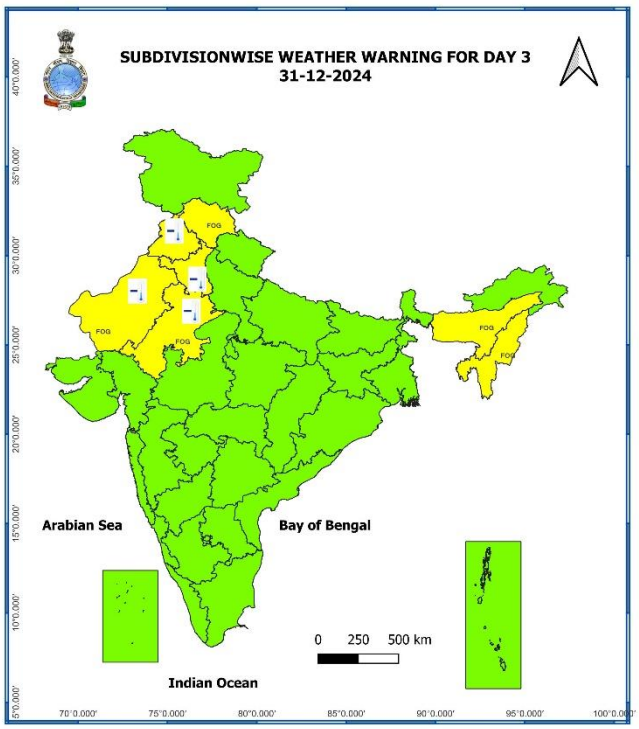
- **Dense fog to very dense fog** very likely in isolated pockets of Punjab, Haryana; **Dense fog** in isolated pockets of Himachal Pradesh, Uttar Pradesh, Rajasthan, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura in night/morning hours.

- **Cold wave conditions** very likely in a few pockets of Rajasthan.

- **Cold day conditions** very likely in isolated pockets of Punjab and Haryana.

- **Squally weather with wind** (speed 35 kmph to 45 kmph gusting to 55 kmph) very likely to prevail over southern parts of southwest Bay of Bengal, off Sri Lanka coast. Fisherman are advised not to venture in to this areas.



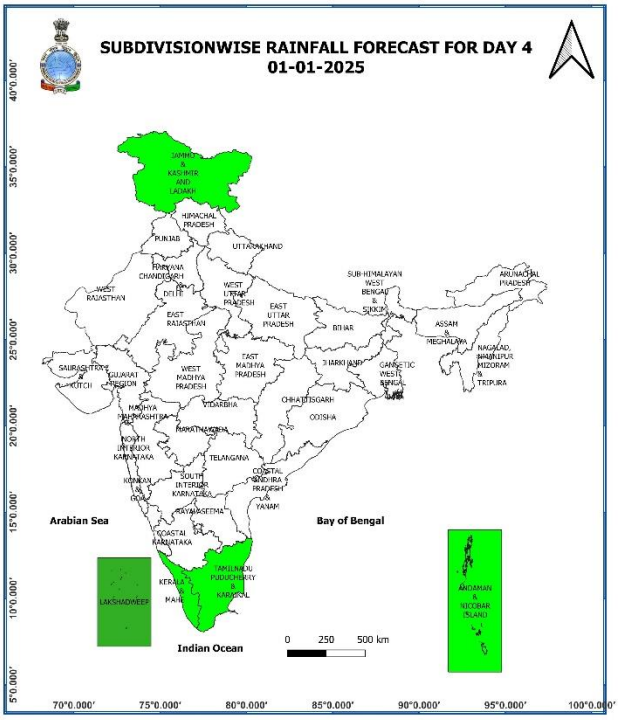


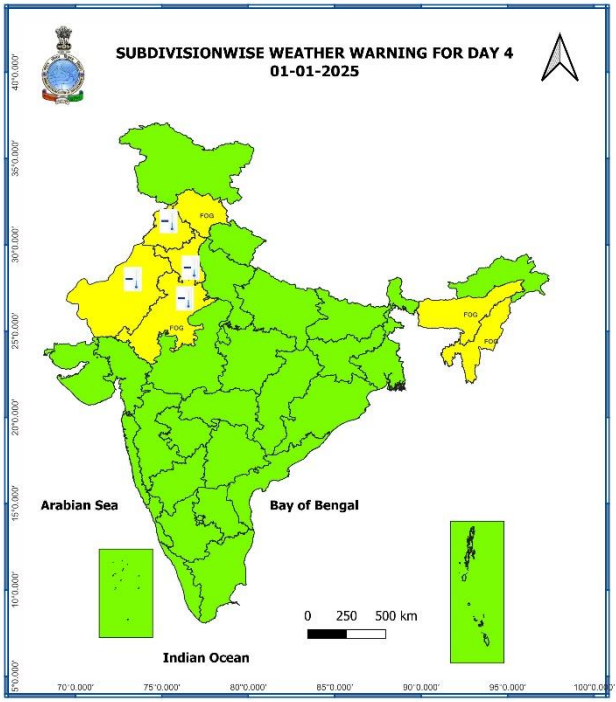
31st December (Day 3):

- **Dense fog** likely in isolated pockets of Himachal Pradesh, Rajasthan, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura in night/morning hours.

- **Cold wave to severe cold wave conditions** likely in a few pockets of Himachal Pradesh; cold wave conditions in isolated pockets of Punjab, Haryana, Rajasthan.

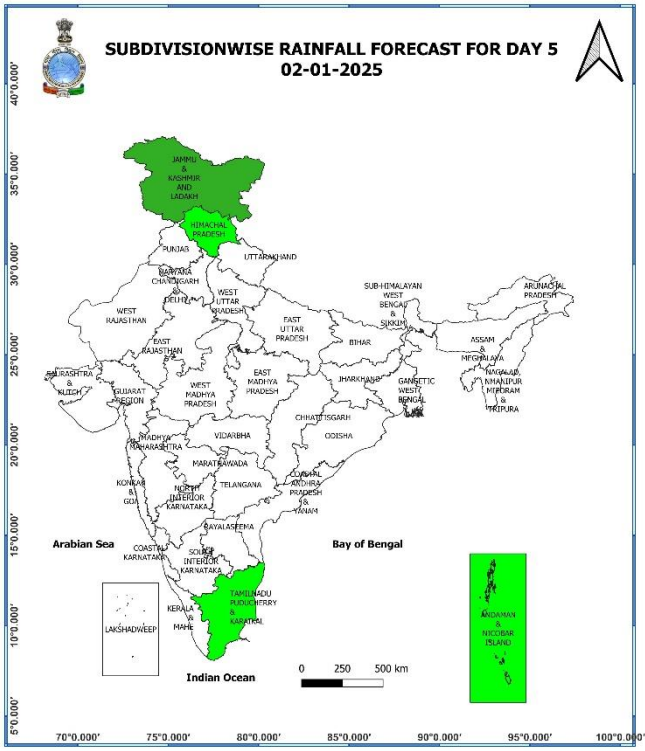
- **Squally weather with wind** (speed 35 kmph to 45 kmph gusting to 55 kmph) very likely to prevail over along and off Sri Lanka coast, Gulf of Mannar and adjoining Comorin area. Fisherman are advised not to venture in to these areas.

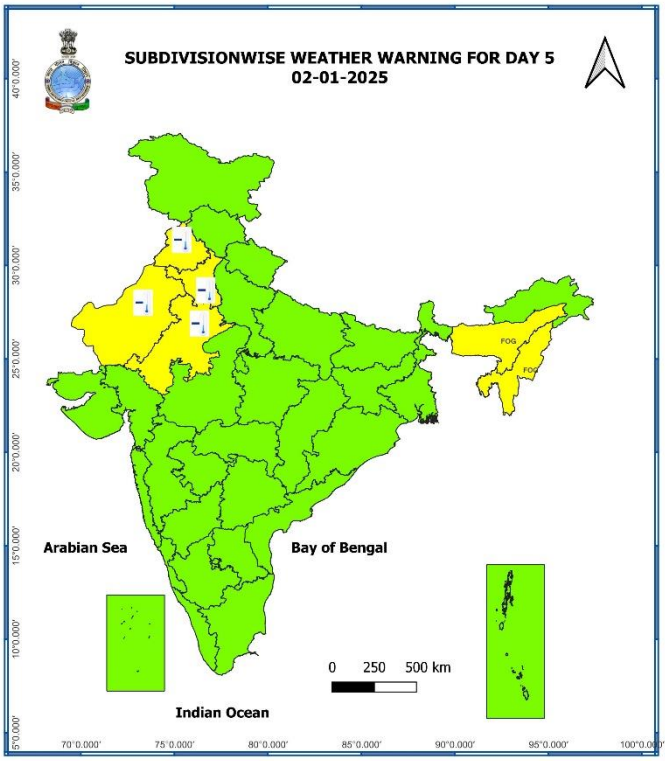




01st January (Day 4):

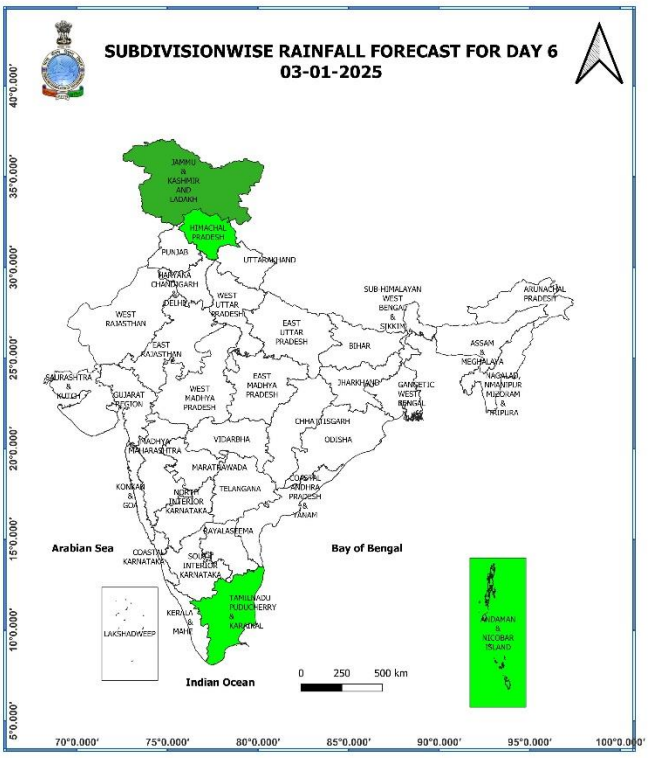
- **Dense fog** likely in isolated pockets of Himachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura in night/morning hours.
- **Cold wave conditions** likely in a few pockets of Punjab, Haryana and Rajasthan.
- **Squally weather with wind** (speed 35 kmph to 45 kmph gusting to 55 kmph) likely to prevail over Gulf of Mannar and Comorin area. Fisherman are advised not to venture in to these areas.

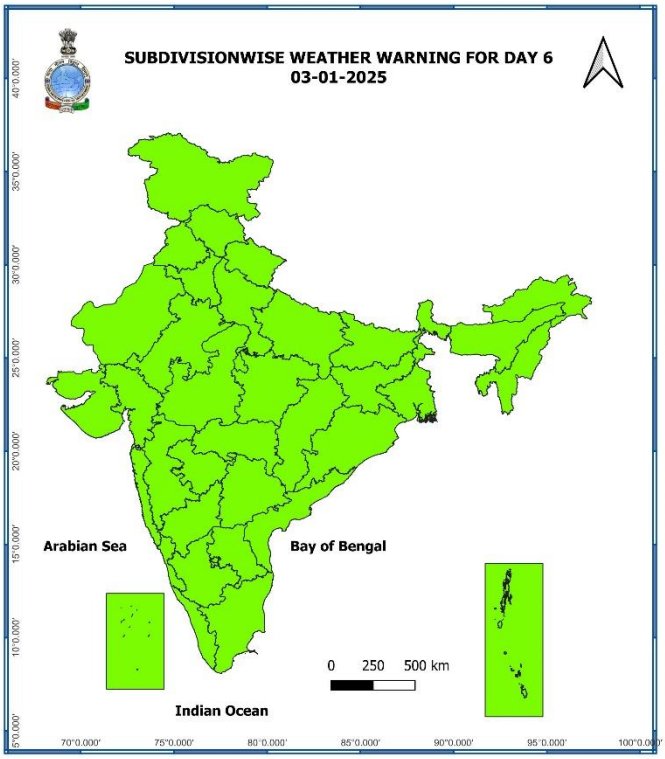




02nd January (Day 5):

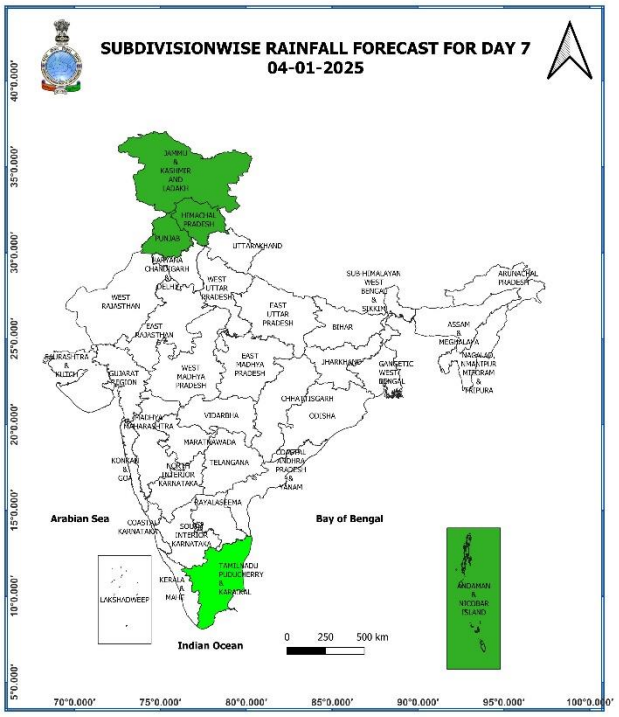
- **Dense fog** likely in isolated pockets Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura in night/morning hours.
- **Squally weather with wind** (speed 35 kmph to 45 kmph gusting to 55 kmph) likely to prevail over Gulf of Mannar, Comorin area and adjoining Maldives islands area. Fisherman are advised not to venture in to these areas.

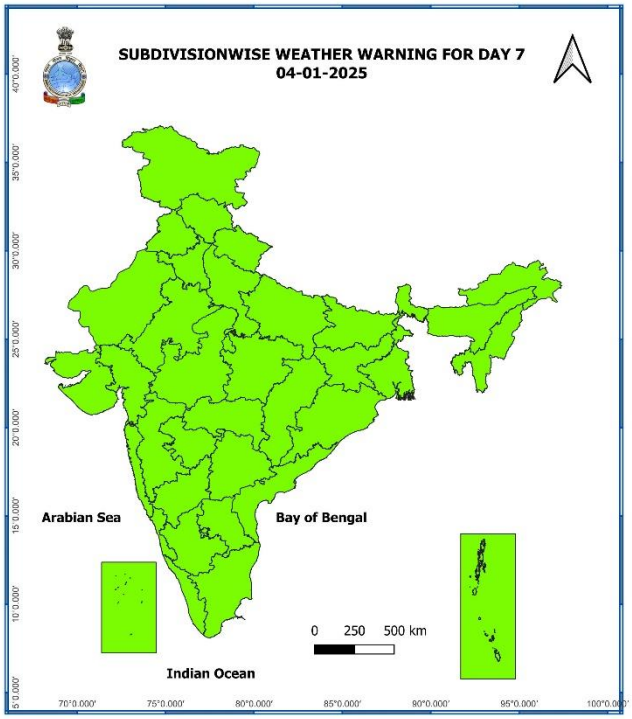




03rd January (Day 6):

- **No Weather Warning.**





04th January (Day 7):

- **No Weather Warning.**

Weather Outlook for subsequent 3 days (During 05th January, 2025– 07th 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 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 likely over various parts of the country

- Keep the harvested produce in safer places or cover the produce with tarpaulin sheets in the fields.
- Make necessary arrangements to drain out excess water from standing crop fields and vegetables in **Jammu & Kashmir, Himachal Pradesh**, **Uttarakhand** and drain out excess water from standing crop fields and vegetables in **Punjab, Haryana and Tamil Nadu.**
- Use hail nets to protect orchards and vegetable plants in **Uttarakhand, Sub Himalayan West Bengal & Sikkim, Madhya Pradesh, Vidarbha,** and **Chhattisgarh**.
- In **Jammu & Kashmir, Himachal Pradesh** and **Uttarakhand**, in case of heavy snowfall, shake the trees to remove snow immediately from the branches.
- Provide mechanical support to horticultural crops and staking to vegetables.
- In **Himachal Pradesh**, **Punjab and Haryana,** 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.
- Remove excess water from fish ponds to avoid losses of fish (if feasible).
- 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

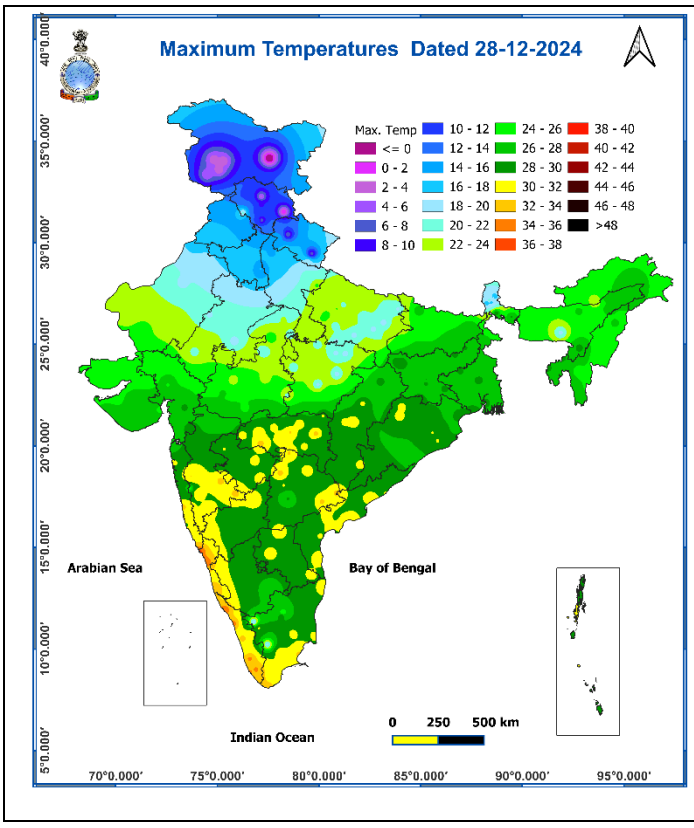


Fig. 2: Departure of Maximum Temperatures

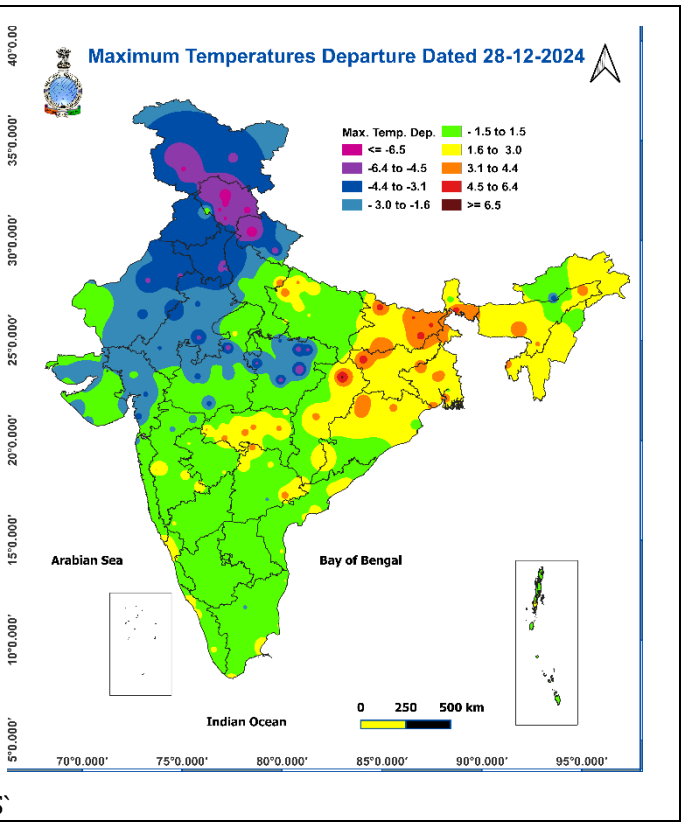


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Fig. 3: Minimum Temperatures

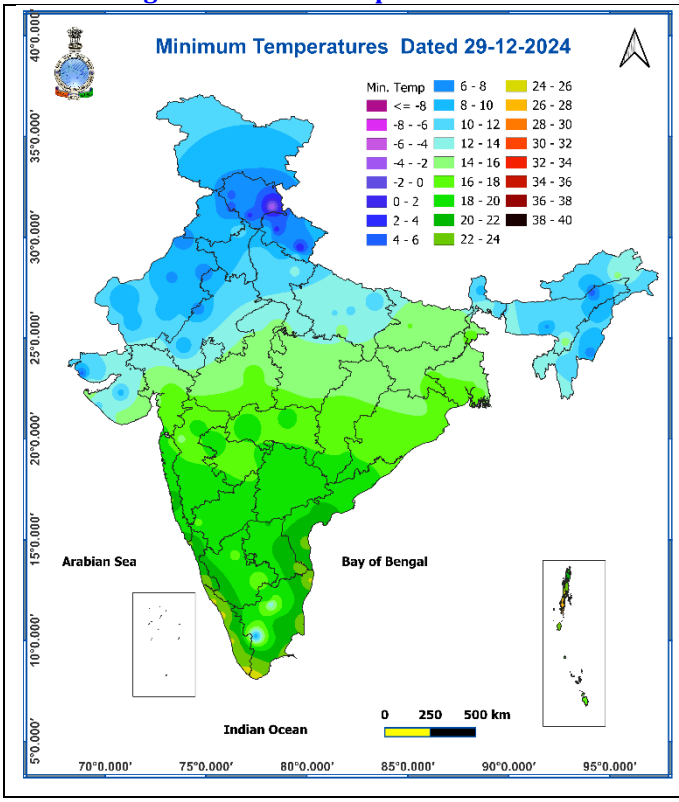
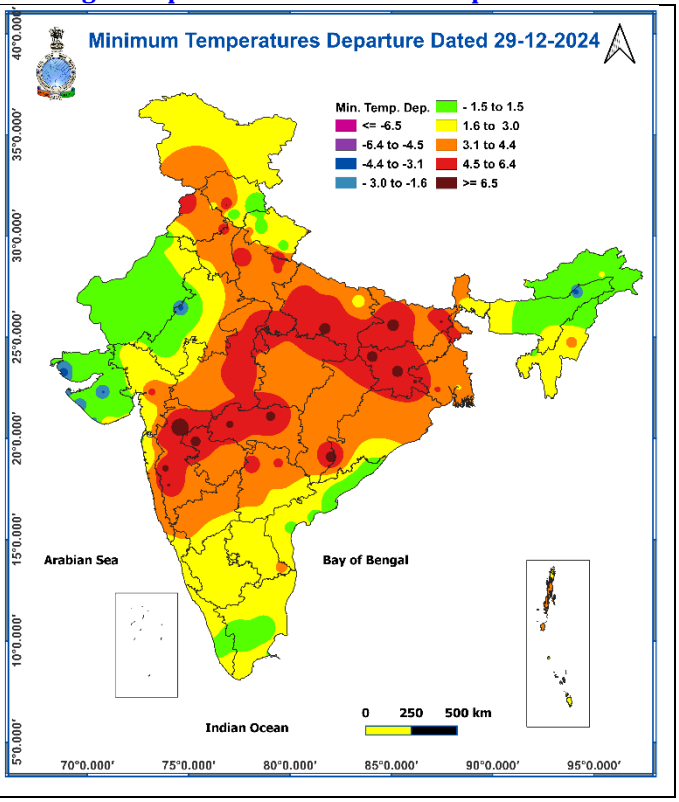
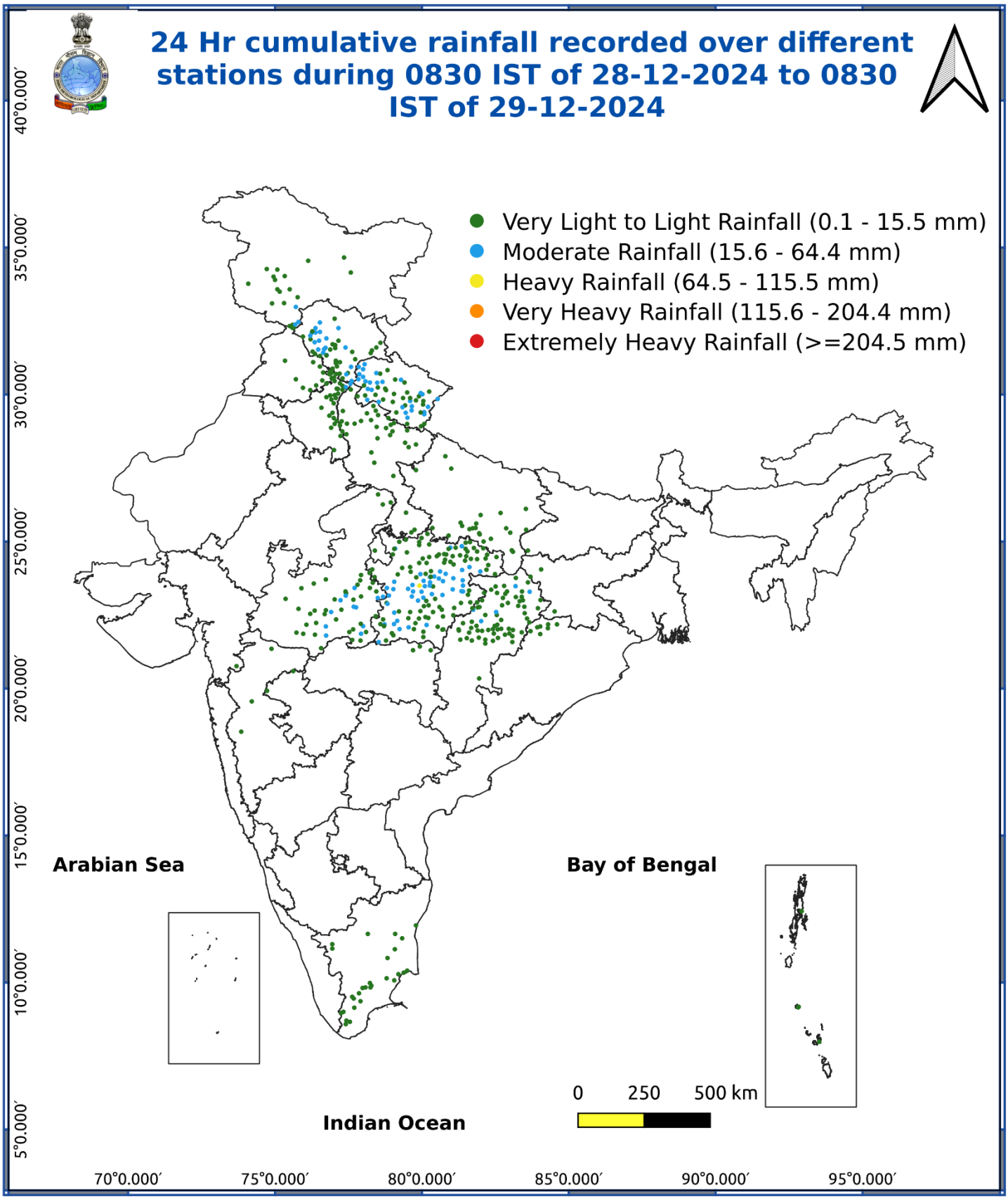


Fig. 4: Departure of Minimum Temperatures



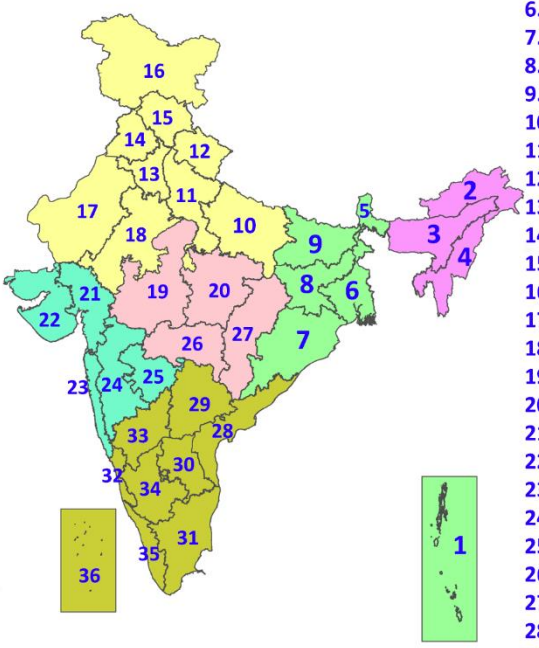
* Red colour warning does not mean "Red Alert", Red colour warning means "Take Action".
Forecast and Warning for any day is valid from 0830 hours IST of day till 0830 hours IST of next day.
For more details, kindly visit https://mausam.imd.gov.in or contact: 011-2434-4599
(Service to the Nation since 1875)

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



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)