



Government of India
Ministry of Earth Sciences
India Meteorological Department



Press Release

Date: 25th December, 2024

Time of Issue: 1400 hours IST

Subject:(i) An active Western Disturbance and its interaction with easterly winds is very likely to cause light to moderate rainfall/thunderstorm accompanied with hailstorm over Northwest & Central India on 27th & 28th December, 2024.

(ii) A Well marked low pressure area lay over Southwest and adjoining Westcentral Bay of Bengal off South Andhra Pradesh- North Tamil Nadu coasts.

i. Realised weather during past 24 hours till 0830 hours IST of today (Annexure I)

- ❖ Cold wave conditions observed in isolated pockets of Himachal Pradesh.
- ❖ Cold day to severe cold day conditions observed in isolated pockets of Himachal Pradesh and Cold day conditions in isolated pockets of Rajasthan.
- ❖ Dense fog (visibility 50-200 m) reported in isolated pockets of Delhi, Haryana and Rajasthan.
- ❖ Visibility reported (≤ 200 m) (in meter): **Delhi:** Palam, Safdarjung-100 each, Ayanagar- 200; **Haryana:** Bhiwani-200; **Rajasthan:** Bikaner, Udaipur-200 each.
- ❖ Heavy rainfall recorded at isolated places over Odisha.

Weather Systems, Forecast and warning (Annexure II & III):

- ❖ Yesterday's well marked low pressure area over Southwest and adjoining Westcentral Bay of Bengal off South Andhra Pradesh- North Tamil Nadu coasts persisted over the same region at 0830 hrs IST of today, the 25th December, 2024. It is likely to continue to move northwestwards and weaken gradually into a low pressure area over Westcentral & adjoining Southwest Bay of Bengal off South Andhra Pradesh-North Tamil Nadu coasts during next 24 hours.
- ❖ 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 25th & 26th and Odisha on 25th December.
 - ✓ Light to moderate rainfall at isolated places accompanied with thunderstorm, lightning over Tamil Nadu, Puducherry & Karaikal on 25th & 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. 55°E to the north of Lat. 31°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 to severe cold wave conditions very likely in isolated pockets of Himachal Pradesh on 25th December.

Cold wave conditions very likely in isolated pockets over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Punjab on 25th & 26th and Himachal Pradesh on 26th December.

Cold Day Warnings:

Cold Day conditions very likely in isolated pockets of Rajasthan on 25th, 27th & 28th; 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 25th, 26th & 29th; Punjab, Haryana, Chandigarh, Delhi on 25th, 26th & during 28th -31st; Uttar Pradesh, Bihar, Odisha, Assam & Meghalaya on 25th & 26th; Rajasthan on 25th & during 28th-31st December.

Ground Frost Warnings:

Ground Frost conditions very likely in isolated pockets of Himachal Pradesh during 25th -26th; Arunachal Pradesh, Meghalaya & Nagaland on 25th December.

Fishermen Warnings (Annexure V):

Fishermen are advised not to venture into Westcentral & adjoining southwest Bay of Bengal and along & off south Andhra Pradesh-north Tamil Nadu coasts on 25th December.

iii. Weather conditions and forecast over Delhi/NCR during 24th to 27th Dec. 2024 (Annexure VI)

For more details, kindly refer National Weather Bulletin:

https://mausam.imd.gov.in/responsive/all_india_forecast_bulletin.php

For District wise warnings refer: <https://mausam.imd.gov.in/responsive/districtWiseWarningGIS.php>

ANNEXURE I

Significant Rainfall recorded during past 24 hours till 0830 hours IST of today 25.12.2024 (in cm):

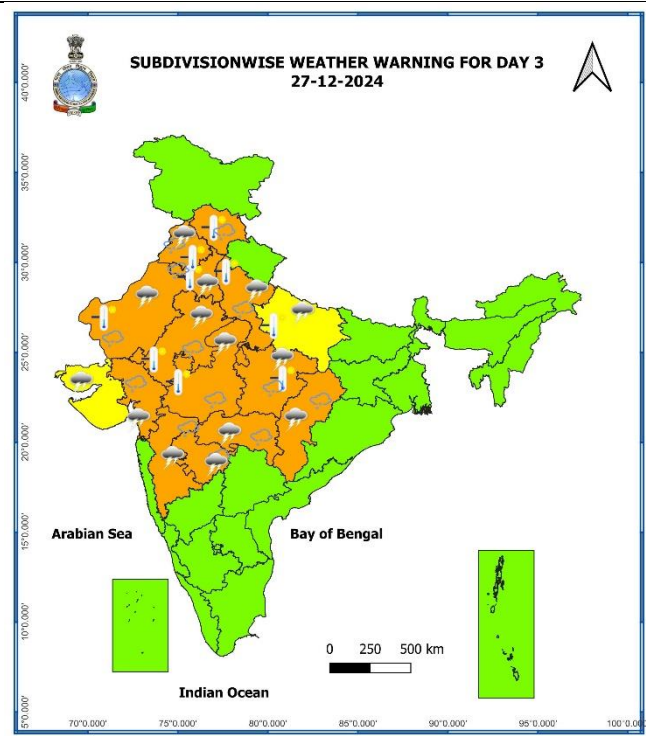
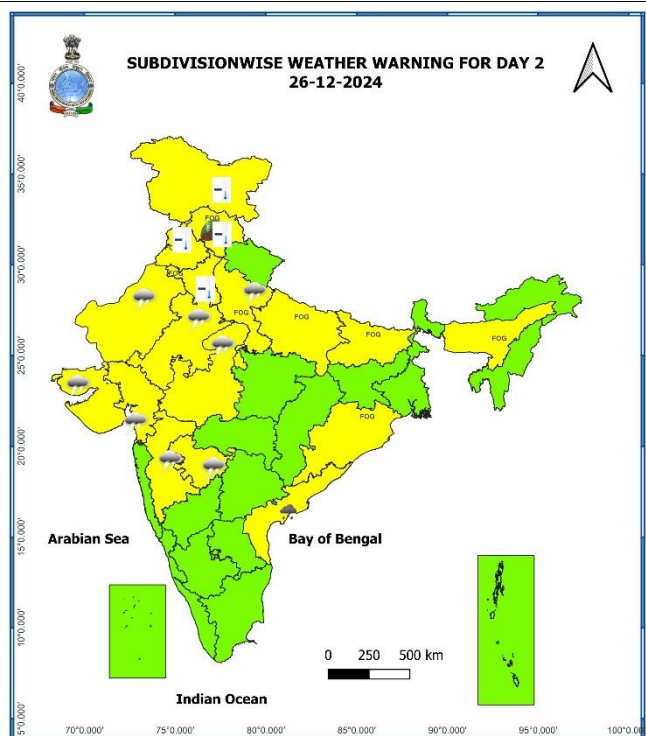
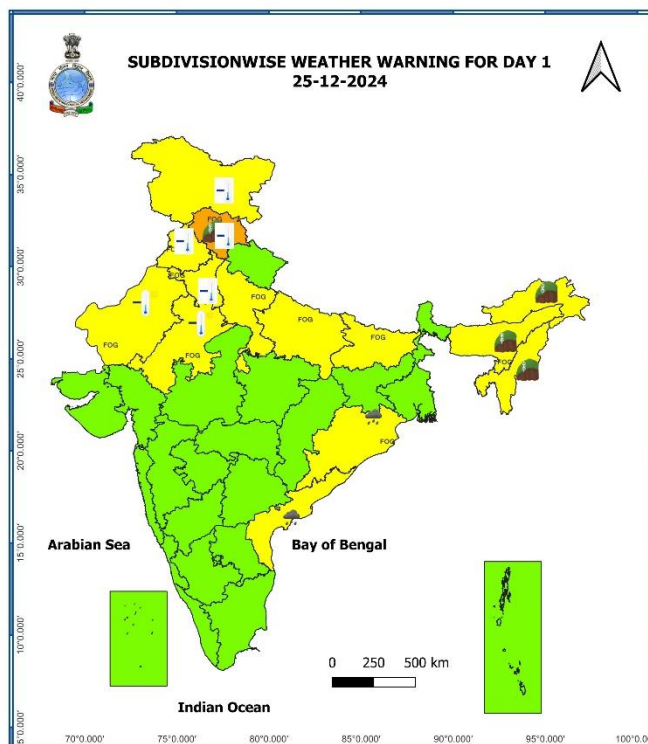
- ❖ **Odisha:** Tangi (dist Khurda) 7, Koksara (dist Kalahandi) 7, Dabugan & Kosagumda (dist Nawarangpur) 6 each, Jhorigam (dist Nawarangpur), Bhawanipatna & Junagarh (dist Kalahandi) 5 each.

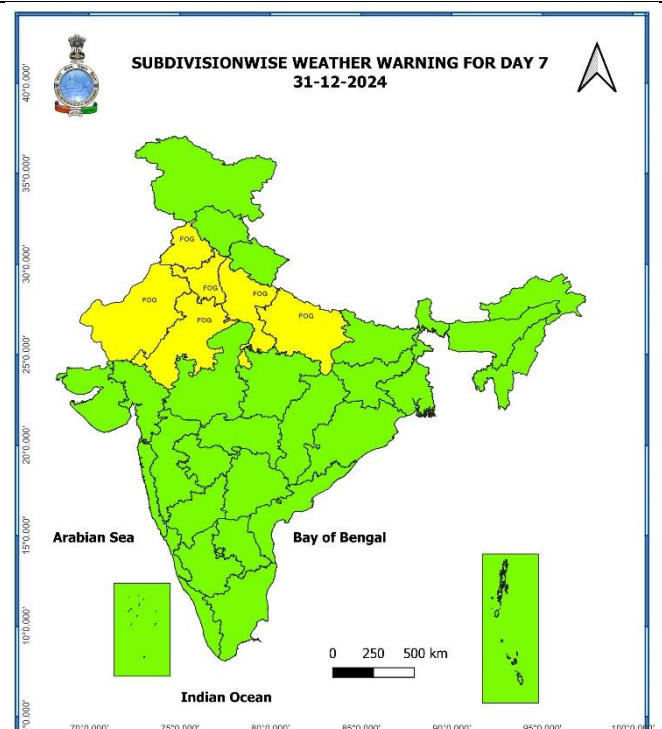
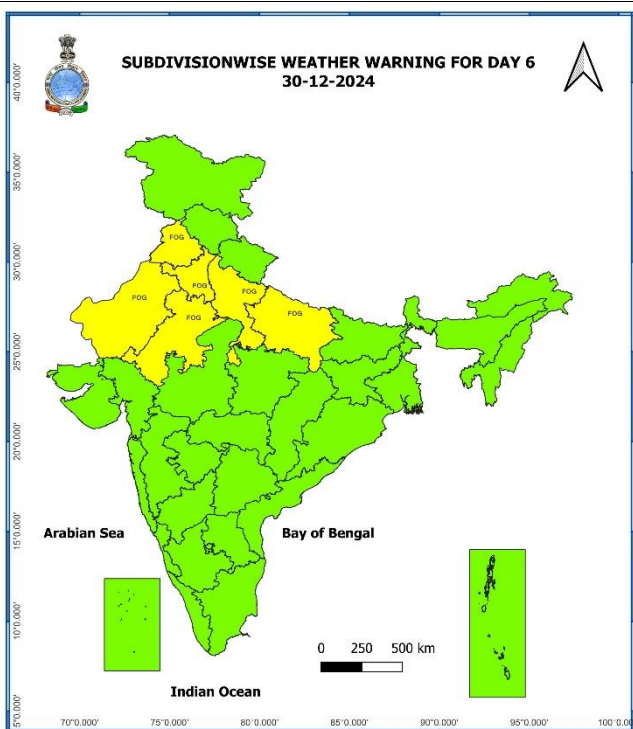
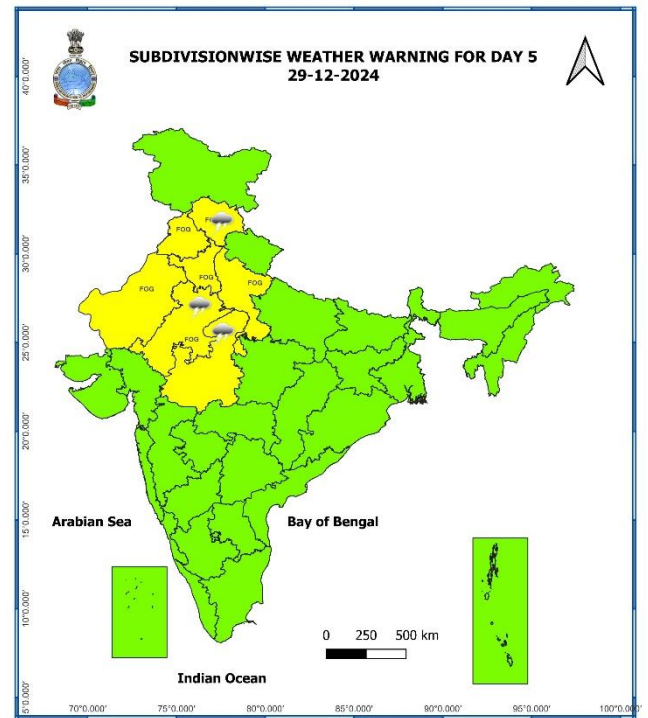
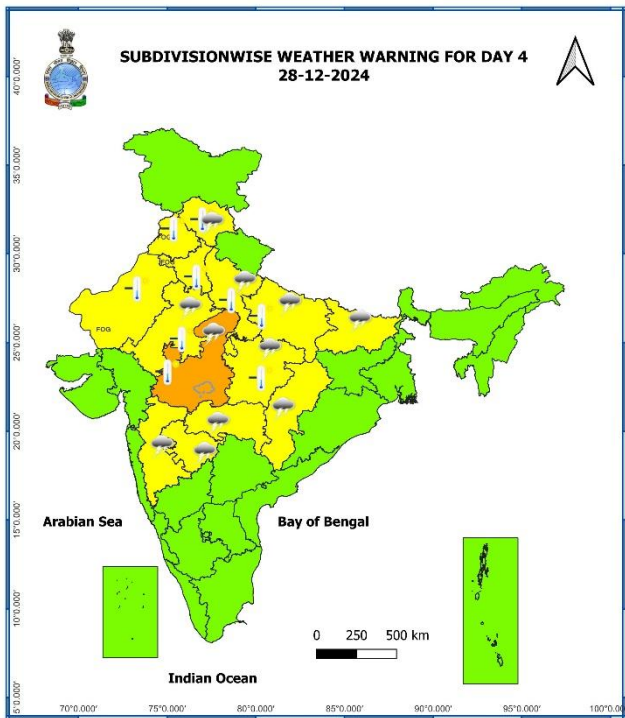
ANNEXURE II

7 Days Rainfall Forecast

| S. No. | Subdivision | 25-Dec | 26-Dec | 27-Dec | 28-Dec | 29-Dec | 30-Dec | 31-Dec |
|--------|--------------------------------------|--------|--------|--------|--------|--------|--------|--------|
| | | Day 1 | Day 2 | Day 3 | Day 4 | Day 5 | Day 6 | Day 7 |
| 1 | ANDAMAN & NICOBAR ISLANDS | ISOL | ISOL | SCT | FWS | FWS | FWS | FWS |
| 2 | ARUNACHAL PRADESH | ISOL | DRY | DRY | ISOL | ISOL | DRY | DRY |
| 3 | ASSAM & MEGHALAYA | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| 4 | NAGALAND, MANIPUR, MIZORAM & TRIPURA | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| 5 | SUB-HIMALAYAN WEST BENGAL & SIKKIM | ISOL | DRY | DRY | ISOL | ISOL | DRY | DRY |
| 6 | GANGETIC WEST BENGAL | ISOL | DRY | DRY | ISOL | DRY | DRY | DRY |
| 7 | ODISHA | FWS | ISOL | DRY | DRY | DRY | DRY | DRY |
| 8 | JHARKHAND | DRY | DRY | DRY | ISOL | ISOL | DRY | DRY |
| 9 | BIHAR | DRY | DRY | ISOL | SCT | ISOL | DRY | DRY |
| 10 | EAST UTTAR PRADESH | DRY | DRY | ISOL | ISOL | DRY | DRY | DRY |
| 11 | WEST UTTAR PRADESH | DRY | DRY | SCT | ISOL | DRY | DRY | DRY |
| 12 | UTTARAKHAND | DRY | DRY | SCT | SCT | ISOL | DRY | DRY |
| 13 | HARYANA CHANDIGARH & DELHI | DRY | ISOL | SCT | ISOL | DRY | DRY | DRY |
| 14 | PUNJAB | DRY | ISOL | SCT | ISOL | DRY | DRY | DRY |
| 15 | HIMACHAL PRADESH | ISOL | DRY | FWS | FWS | ISOL | DRY | DRY |
| 16 | JAMMU & KASHMIR AND LADAKH | DRY | DRY | ISOL | ISOL | DRY | DRY | DRY |
| 17 | WEST RAJASTHAN | DRY | ISOL | ISOL | DRY | DRY | DRY | DRY |
| 18 | EAST RAJASTHAN | DRY | ISOL | SCT | ISOL | DRY | DRY | DRY |
| 19 | WEST MADHYA PRADESH | ISOL | ISOL | FWS | SCT | ISOL | DRY | DRY |
| 20 | EAST MADHYA PRADESH | ISOL | ISOL | SCT | SCT | ISOL | DRY | DRY |
| 21 | GUJARAT REGION | DRY | ISOL | ISOL | ISOL | DRY | DRY | DRY |
| 22 | SAURASHTRA & KUTCH | DRY | ISOL | ISOL | ISOL | DRY | DRY | DRY |
| 23 | KONKAN & GOA | DRY | ISOL | ISOL | DRY | DRY | DRY | DRY |
| 24 | MADHYA MAHARASHTRA | DRY | ISOL | ISOL | ISOL | ISOL | DRY | DRY |
| 25 | MARATHAWADA | DRY | ISOL | SCT | ISOL | ISOL | DRY | DRY |
| 26 | VIDARBHA | DRY | DRY | SCT | SCT | ISOL | DRY | DRY |
| 27 | CHHATTISGARH | ISOL | ISOL | ISOL | SCT | ISOL | DRY | DRY |
| 28 | COASTAL ANDHRA PRADESH & YANAM | FWS | SCT | ISOL | ISOL | ISOL | DRY | DRY |
| 29 | TELANGANA | ISOL | ISOL | ISOL | DRY | DRY | DRY | DRY |
| 30 | RAYALASEEMA | SCT | SCT | ISOL | ISOL | ISOL | DRY | DRY |
| 31 | TAMILNADU PUDUCHERRY & KARAİKAL | ISOL | SCT | SCT | ISOL | ISOL | SCT | SCT |
| 32 | COASTAL KARNATAKA | DRY | DRY | ISOL | DRY | DRY | DRY | DRY |
| 33 | NORTH INTERIOR KARNATAKA | ISOL | ISOL | ISOL | DRY | DRY | DRY | DRY |
| 34 | SOUTH INTERIOR KARNATAKA | DRY | ISOL | ISOL | DRY | DRY | DRY | DRY |
| 35 | KERALA & MAHE | ISOL | ISOL | SCT | ISOL | ISOL | ISOL | ISOL |
| 36 | LAKSHADWEEP | DRY | DRY | SCT | SCT | DRY | DRY | SCT |

- As the lead period increases forecast accuracy decreases





- 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.

Fig. 1: Maximum Temperatures

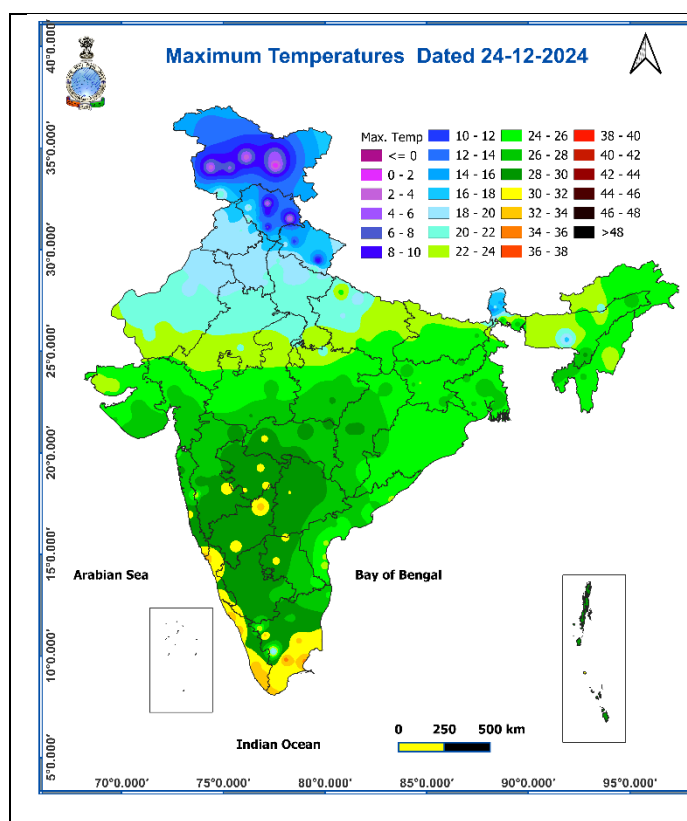


Fig. 2: Departure of Maximum Temperatures

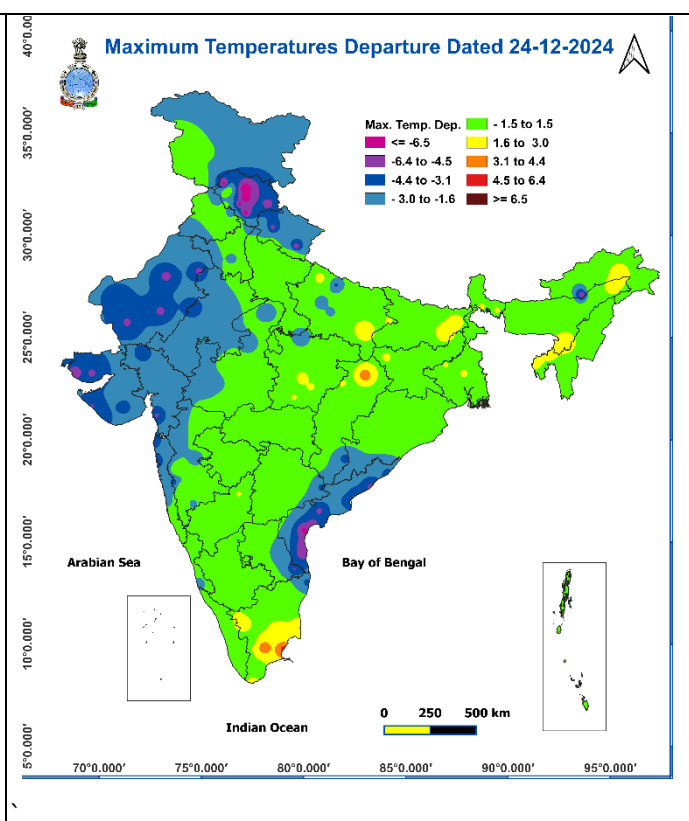


Fig. 3: Minimum Temperatures

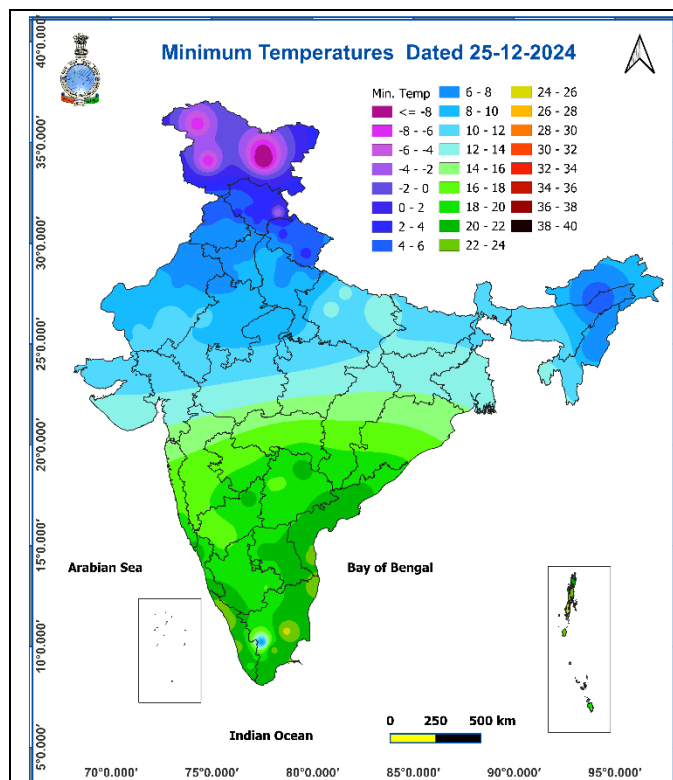
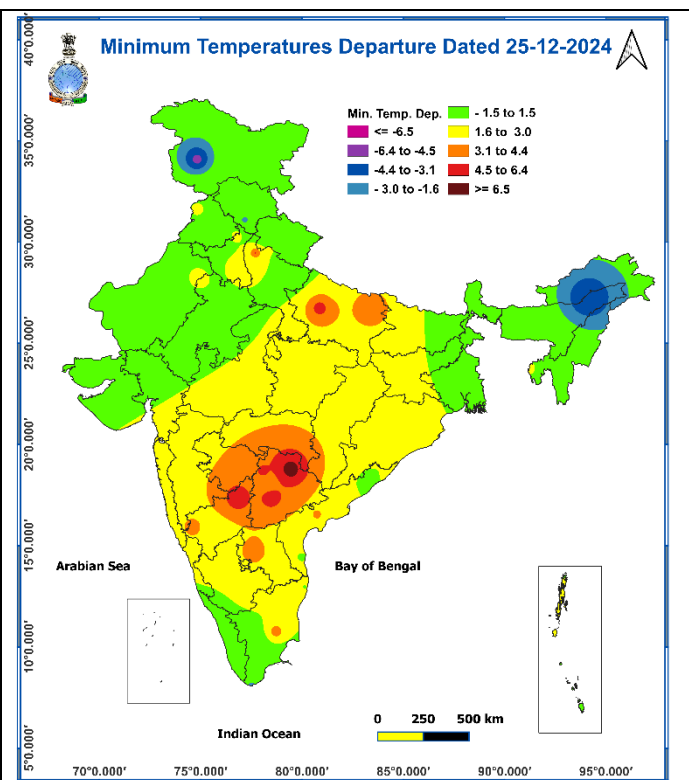


Fig. 4: Departure of Minimum Temperatures





Fishermen Warning Graphics



Weather forecast over Delhi/NCR during 25th Dec. to 28th Dec. 2024**Past Weather:**

There has been a fall in minimum temperature upto 01°C over Delhi/NCR during past 24hr. The Maximum and Minimum temperature over Delhi is in the range of 20 to 21°C and 08 to 10°C respectively. The minimum temperature was above normal upto 01 to 02°C and maximum temperature was near normal over most places. Dense fog reported at Safdarjung airport. Safdarjung airport recorded lowest visibility 100 m during 0530 hours to 0800 hours IST which improved thereafter becoming 150 m at 0830 hours IST. Palam airport recorded lowest visibility 100 m during 0530 hours to 0830 hours IST which improved thereafter becoming 300m at 0930 hours IST. Mainly smog/ dense fog condition with predominant surface wind from east direction with wind speed reaching 04 to 10 kmph prevailed past 24hr. Mainly smog/shallow fog condition with wind speed less than 08 kmph southwest direction prevailed over the region in the forenoon today.

Weather Forecast:

25.12.2024: Mainly clear sky. The predominant surface wind is likely to be north 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.

26.12.2024: Partly cloudy sky with possibility of very light to light rain towards evening/night. The predominant surface wind is likely to be from northeast direction with speed less than 04 kmph during morning hours. Smog/ moderate fog in most of the places and dense fog in isolated places is likely in the morning. The wind speed will increase thereafter becoming less than 08 kmph from north-northwest direction during afternoon. It will decrease thereafter becoming less than 04 kmph from north direction during evening and night. Smog/shallow fog is likely in the evening/night.

27.12.2024: Generally cloudy sky. Light to moderate rain/thunderstorm accompanied with lightning and gusty winds (speed 30-40 kmph). The predominant surface wind is likely to be from variable direction with speed less than 04 kmph during morning hours. Smog/ moderate fog in most of the places and dense fog in isolated places is likely in the morning. The wind speed will gradually increase becoming 06-08 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.

28.12.2024: Generally cloudy sky with light to moderate rain. The predominant surface wind is likely to be from southwest direction with wind speed less than 06 kmph during morning hours. Smog/ moderate fog in most of the places and dense fog in isolated places is likely in the morning. The wind speed will increase thereafter becoming 06-08 kmph from northwest direction during afternoon. It will gradually decrease becoming less than 04 kmph from northwest direction during evening and night. Smog/shallow fog is likely in the evening/night.

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/very 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.

Impact & Action Suggested due to: Heavy rainfall at isolated places very likely over Coastal and adjoining interior districts of Odisha and Coastal Andhra Pradesh on 25th December.

A. Impact Expected

- ❖ Damage to horticulture and standing crops including paddy due to rain.

B. Action Suggested

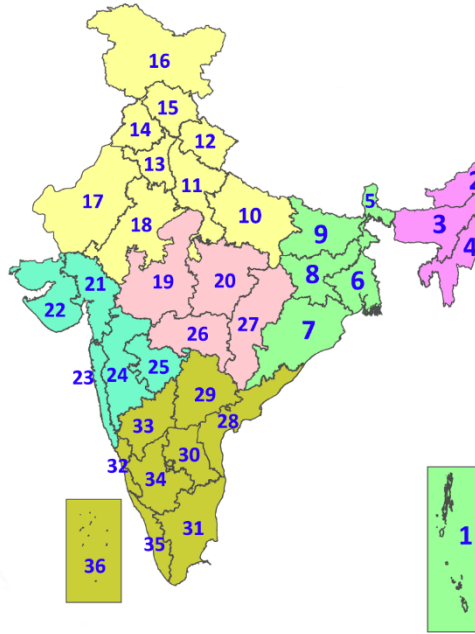
- Keep the harvested produce in safer places or cover the produce with tarpaulin sheets in the fields.
- Provide adequate drainage facilities for the removal of excess water from standing crop
- Provide mechanical support to horticultural crops and staking to vegetables.

Legends & abbreviations:

- ❖ **Heavy Rain:**64.5-115.5mm; **Very Heavy Rain:**115.6-204.4mm; **Extremely Heavy Rain:** >204.4mm.
- ❖ **Obsy:** Observatory; **AWS:** Automatic Weather Station; **ARG:** Automatic Rain Gauge; **dist:** District; **NH:** National Highway; **KVK:** Krishi Vigyan Kendra; **DVC:** Damodar Valley Corporation; **PTO:** Part Time Office, **Aero:** Aerodrome, **IAF:** Indian Air Force.
- ❖ **Region wise classification of meteorological Sub-Divisions:**
 - **Northwest India:** Western Himalayan Region (Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh and Uttarakhand); Punjab, Haryana-Chandigarh-Delhi; West Uttar Pradesh, East Uttar Pradesh, West Rajasthan and East Rajasthan.
 - **Central India:** West Madhya Pradesh, East Madhya Pradesh, Vidarbha and Chhattisgarh.
 - **East India:** Bihar, Jharkhand, Sub-Himalayan West Bengal & Sikkim; Gangetic West Bengal, Odisha and Andaman & Nicobar Islands.
 - **Northeast India:** Arunachal Pradesh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.
 - **West India:** Gujarat Region, Saurashtra & Kutch, Konkan & Goa, Madhya Maharashtra and Marathawada.
 - **South India:** Coastal Andhra Pradesh & Yanam, Telangana, Rayalaseema, Coastal Karnataka, North Interior Karnataka, South Interior Karnataka, Kerala & Mahe, Tamil Nadu, Puducherry & Karaikal and Lakshadweep.

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 |

* 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 $\geq 40^\circ \text{C}$ 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)

* 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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