

ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

Significant Weather Features

Weather Systems, Forecast and Warnings:

- Light rainfall/snowfall at isolated places over Western Himalayan Region Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad from 13th-18th and over Himachal Pradesh and Uttarakhand on 14th December.
- Light to moderate rainfall with **thunderstorm and lightning** very likely at a few/many places likely to prevail over Andaman & Nicobar Islands during 12th - 14th December.

Forecast of minimum temperatures:

- Gradual rise in minimum temperature likely by 2-3^oC over Northwest India during next 4 days and no significant change thereafter.
- Gradual rise in minimum temperature likely by 2-3^oC over Vidarbha and Chhattisgarh during next 2 days & no significant change thereafter.
- No significant change in minimum temperature very likely over Maharashtra during next 24 hours, rise by 2-3^oC during subsequent 5 days. No significant change in minimum temperature very likely over Gujarat region during next 5 days, rise by 2-3^oC during subsequent 2 days.
- No significant change in minimum temperature over Madhya Pradesh, east and north east India during next 7 days.

Dense Fog & Cold wave warning Warnings:

- **Cold wave conditions** very likely to prevail at isolated places over Vidarbha, Madhya Maharashtra on 13th, Chhattisgarh, Telangana, South Interior Karnataka, Odisha on 13th & 14th December.
- **Severe cold wave to cold wave conditions** very likely to prevail at isolated places over North Interior Karnataka on 13th & 14th with **Cold wave conditions** very likely to prevail at isolated places on 15th December.
- **Dense fog conditions** very likely to prevail during morning hours in isolated pockets of Nagaland, Manipur, Mizoram & Tripura during 13th -17th, Assam & Meghalaya, Punjab, Haryana during 13th-15th, Himachal Pradesh on 13th & 14th December.
- **Dense fog conditions** very likely to prevail during morning hours in isolated pockets of West Uttar Pradesh during 13th-15th and at a few places over East Uttar Pradesh during 13th -16th with **very dense fog** over West Uttar Pradesh on 13th & 14th and over East Uttar Pradesh during 13th-15th December.

Main Weather Observations:

- ❖ **Rainfall distribution** (from 0830 hours IST of yesterday to 0830 hours IST of today): **Dry** over rest of the country.
- ❖ **Fog Condition Observed (at 0830 hours of today): Dense fog conditions:** at isolated places over Gangetic West Bengal, Bihar, East Uttar Pradesh, West Uttar Pradesh and Punjab **Moderate fog conditions:** at isolated places over Assam & Meghalaya, East Uttar Pradesh, Punjab and Rayalaseema **Shallow fog conditions:** at a few places over Bihar, East Uttar Pradesh and Haryana Chandigarh & Delhi, at isolated places over Assam & Meghalaya and Punjab
- ❖ **Visibility reported (at 0830 hours of today):** Gangetic West Bengal: Basirhat (dist North 24 Parganas), Suri (dist Birbhum) Each, Purulia-obs (dist Purulia) 50.0; Odisha: Sundargarh (dist Sundargarh), Bolangir, Titlagarh (dist Balangir), Koraput (dist Koraput), Chhatrapur (dist Ganjam), Rayagada-obs (dist Rayagada), Boudh (dist Boudh), Malkangiri-obs (dist Malkangiri), Paralakhemundi-obs (dist Gajapati) Each; West Uttar Pradesh: Bulandshahr (dist Bulandshahr), Bareilly (dist Bareilly), Shahajahanpur (dist Shahjahanpur) 50.0 Each; East Uttar Pradesh: Hardoi (dist Hardoi), Basti-obs (dist Basti), Ballia-obs2 (dist Ballia) 50.0 Each, Azamgarh-obs (dist Azamgarh), Barabanki (dist Barabanki) 200.0 Each, Lucknow (amausi) AP (dist Lucknow), Varanasi (babatpur) AP (dist Varanasi), Fursatganj (dist Amethi), Kanpur/Chakeri, Kanpur Airforce (dist Kanpur Nagar) 500.0 Each; Punjab: Amritsar (rajasansi) AP (dist Amritsar) 50.0, Ludhiana (dist Ludhiana) 200.0, Patiala (dist Patiala) 500.0; Bihar: Chapra (dist Saran) 50.0, Patna-airport (dist Patna), Sabaur (dist Bhagalpur), Supaul (dist Supaul) 500.0 Each; Assam & Meghalaya: Barapani/shillong (dist East Khasi Hills) 200.0, Dhubri (dist Dhubri), Jorhat (dist Jorhat) 500.0 Each; Rayalaseema: Anantapur (dist Anantapuramu) 200.0; Haryana Chandigarh & Delhi: Ambala (dist Ambala), Karnal (dist Karnal) 500.0 Each;.
- ❖ **Minimum Temperature Departures (as on 12-12-2025): below normal(-1.6°C to -3.0°C)** at few places over East Madhya Pradesh and Marathwada; at isolated places over Chhattisgarh and Telangana. **appreciably below normal(-5.0°C to -3.1°C)** at isolated places over North Interior Karnataka. **The lowest minimum temperature of 4.5°C** is reported at INDORE (MADHYA PRADESH) over the Plains of India.
- ❖ **Maximum Temperature Departures (as on 11-12-2025): The highest maximum temperature of 35.0°C** is reported at CANNANORE (KANNUR) (KERALA).

***Red color warning does not mean "Red Alert" Red color 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)

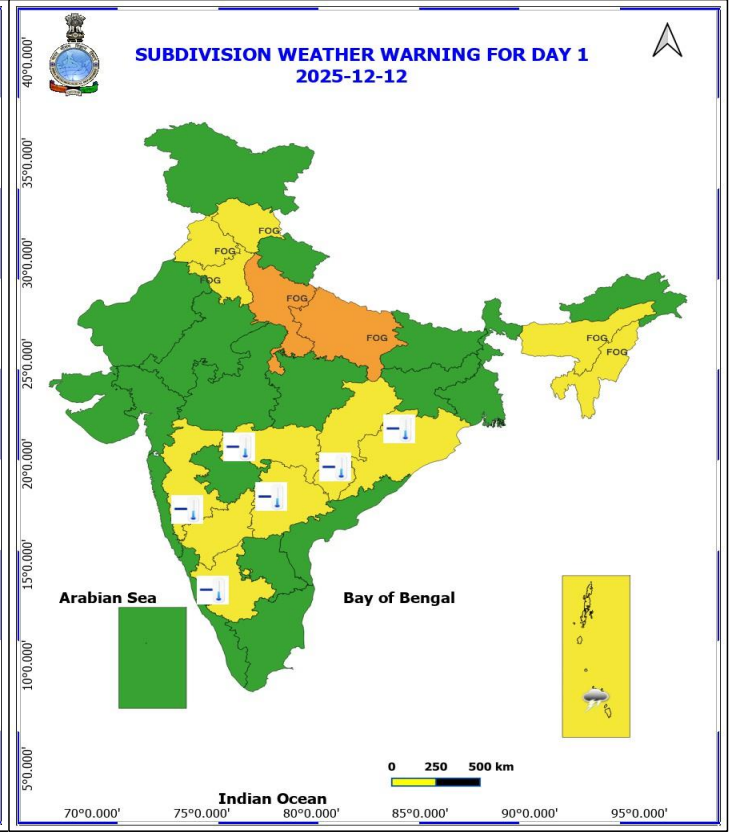
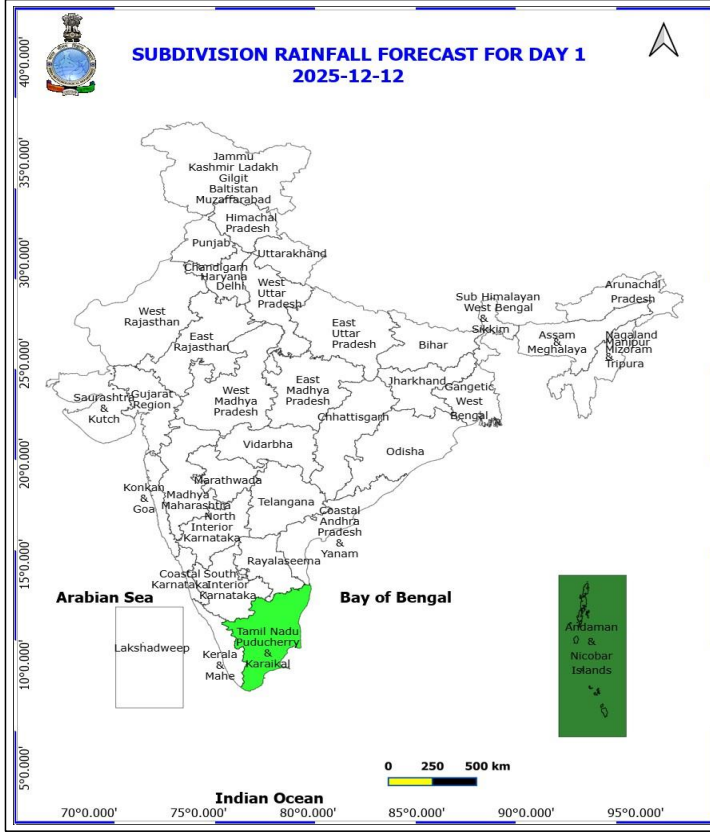


Meteorological Analysis (Based on 1430 hours IST)

- ❖ The **Western Disturbance** as a trough in middle tropospheric level with its axis at 5.8 km above mean sea level runs roughly along Longitude 53°E to the north of Latitude 32°N persists.
- ❖ **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 Northeast India.

Weather Outlook for subsequent 3 days

- ◆ Isolated to Scattered rainfall activity over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Hiamchal Pradesh, Kerala, Tamil Nadu and Islands.



12 December (Day 1)

- ❖ **Thunderstorm accompanied with lightning & gusty winds(30-40kmph)** very likely at isolated places over Andaman & Nicobar Islands.
- ❖ **Cold wave to Severe Cold wave conditions** very likely at isolated places over North Interior Karnataka;**Cold wave conditions** very likely at isolated places over Chhattisgarh, Madhya Maharashtra, Odisha, South Interior Karnataka, Telangana and Vidarbha.
- ❖ **Fog** very likely at isolated pockets over Assam & Meghalaya, Haryana, Chandigarh & Delhi, Himachal Pradesh, Nagaland, Manipur, Mizoram and Tripura, Punjab and Uttar Pradesh.

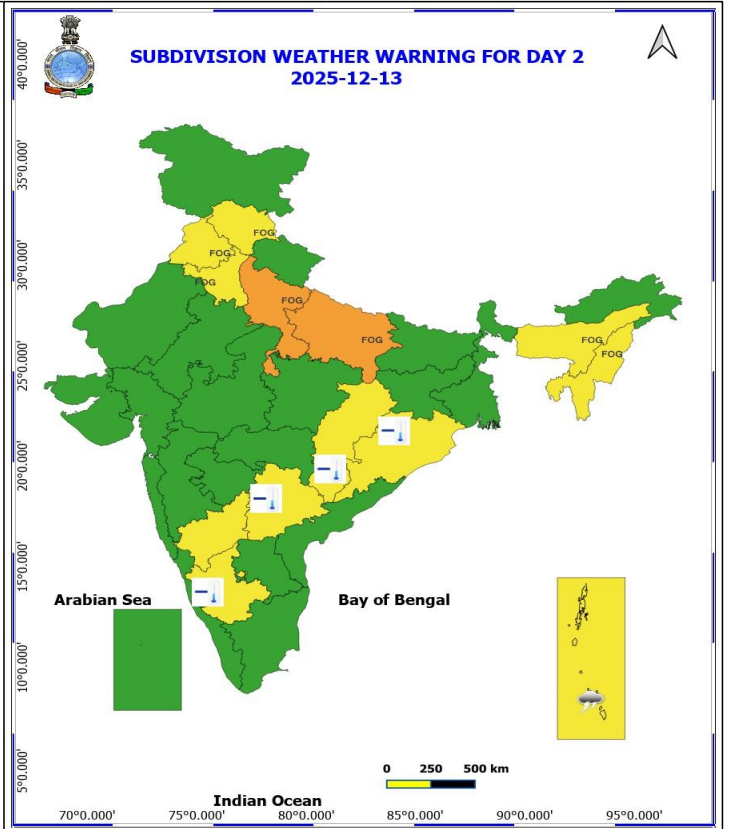
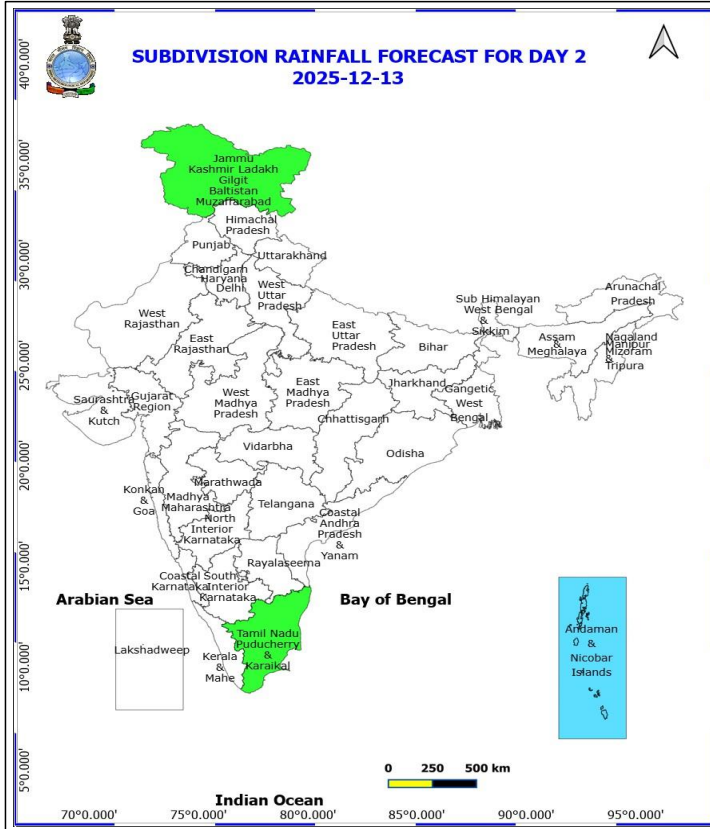
Squally weather with wind speeds reaching 35 kmph to 45 kmph gusting to 55 kmph is likely to prevail over Gulf of Mannar & adjoining, some parts of Comorin area, along and off south Tamil Nadu coast.

***Red color warning does not mean "Red Alert" Red color 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)



13 December (Day 2)

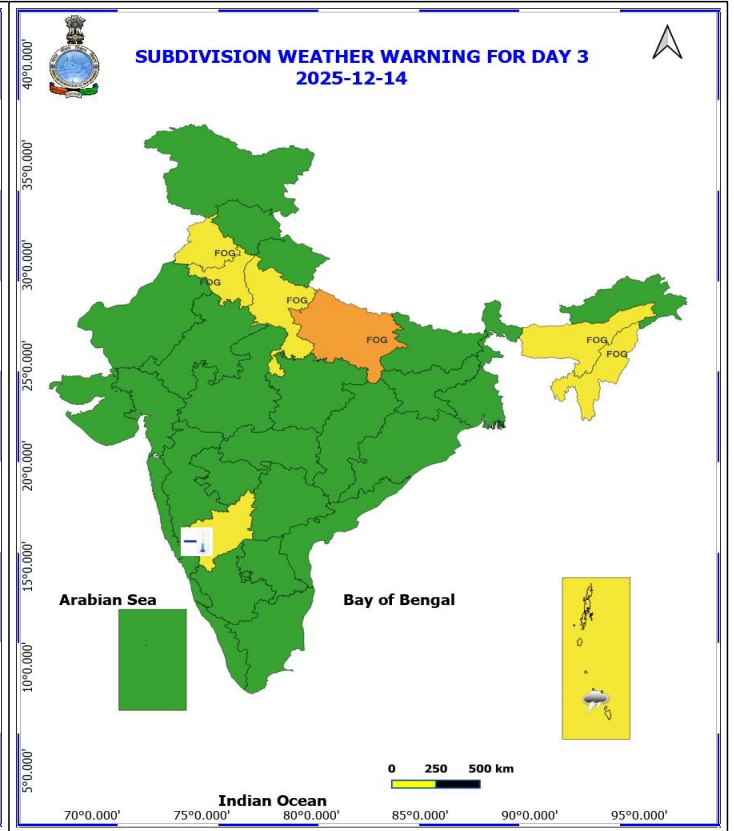
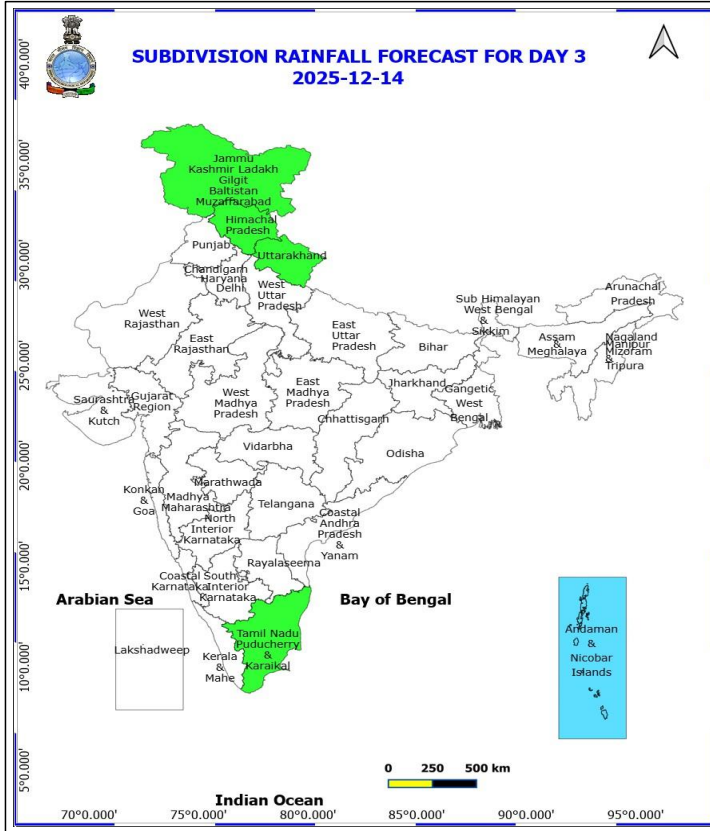
- ❖ **Thunderstorm accompanied with lightning & gusty winds(30-40kmph)** very likely at isolated places over Andaman & Nicobar Islands.
- ❖ **Cold wave to Severe Cold wave conditions** very likely at isolated places over North Interior Karnataka; **Cold wave conditions** very likely at isolated places over Chhattisgarh, Odisha, South Interior Karnataka and Telangana.
- ❖ **Fog** very likely at isolated pockets over Assam & Meghalaya, Haryana, Chandigarh & Delhi, Himachal Pradesh, Nagaland, Manipur, Mizoram and Tripura, Punjab and Uttar Pradesh.
- ❖ Squally weather with wind speeds reaching 35 kmph to 45 kmph gusting to 55 kmph is likely to prevail over Gulf of Mannar & adjoining Comorin area.

***Red color warning does not mean "Red Alert" Red color 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)

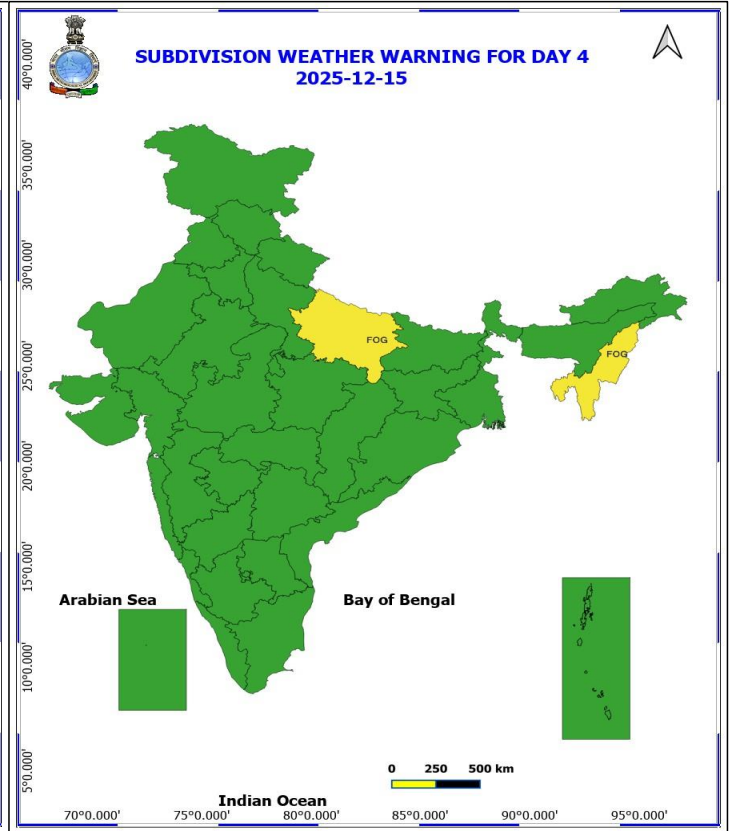
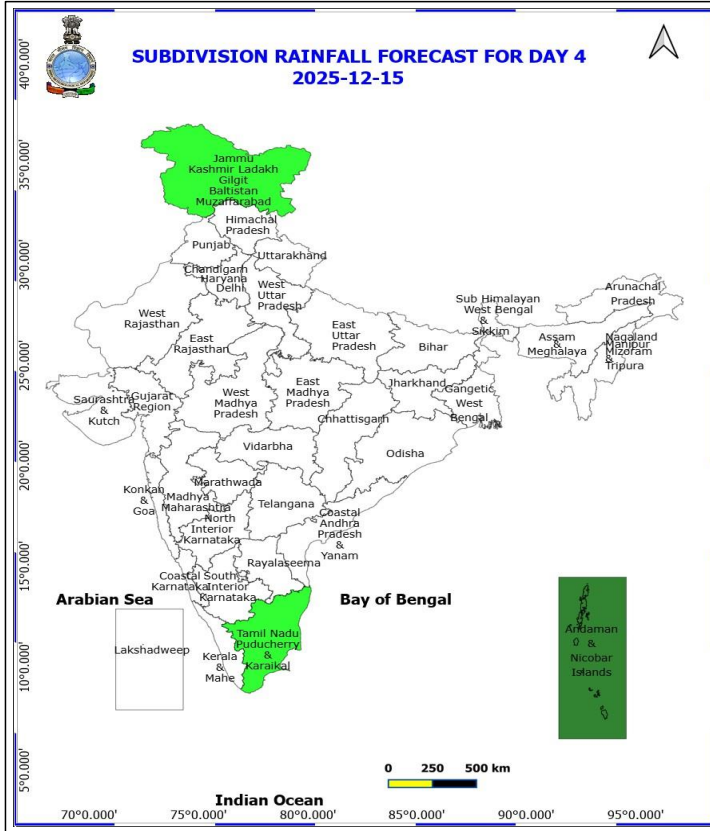


14 December (Day 3)

- ❖ **Thunderstorm accompanied with lightning & gusty winds(30-40kmph)** very likely at isolated places over Andaman & Nicobar Islands.
- ❖ **Cold wave conditions** very likely at isolated places over North Interior Karnataka.
- ❖ **Fog** very likely at isolated pockets over Assam & Meghalaya, Haryana, Chandigarh & Delhi, Nagaland, Manipur, Mizoram and Tripura, Punjab and Uttar Pradesh.
- ❖ Squally weather with wind speeds reaching 35 kmph to 45 kmph gusting to 55 kmph is likely to prevail over Gulf of Mannar & adjoining Comorin area.

***Red color warning does not mean "Red Alert" Red color 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)

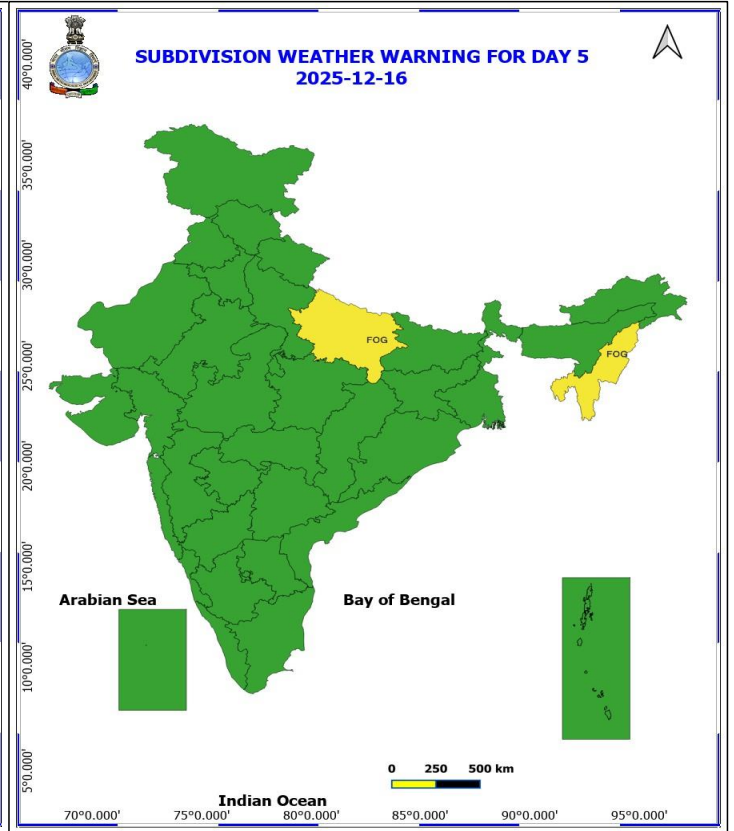
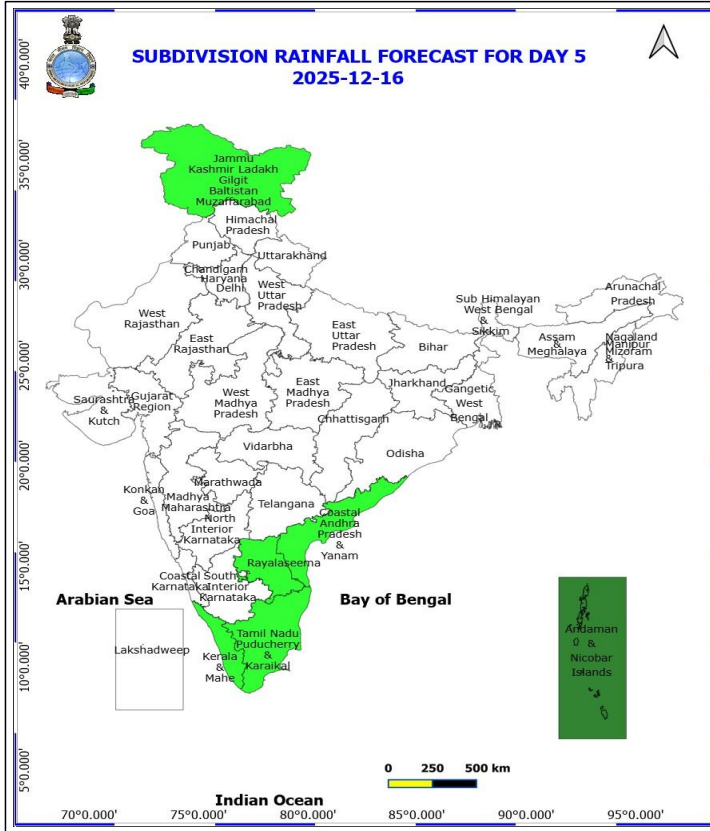


15 December (Day 4)

- ❖ Fog likely at isolated pockets over East Uttar Pradesh and Nagaland, Manipur, Mizoram and Tripura.
- ❖ Squally weather with wind speeds reaching 35 kmph to 45 kmph gusting to 55 kmph is likely to prevail over Gulf of Mannar & adjoining Comorin area.

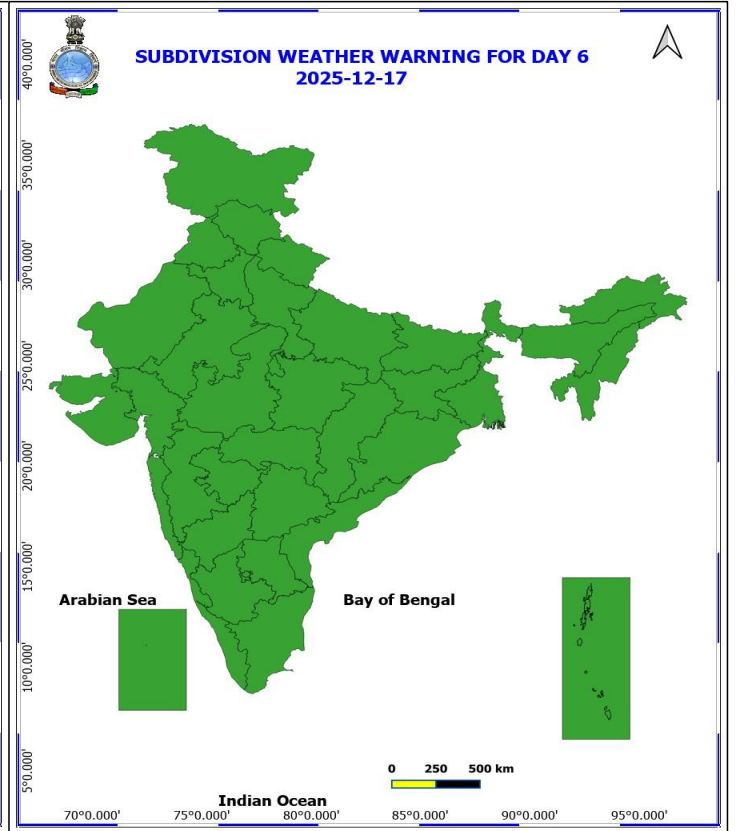
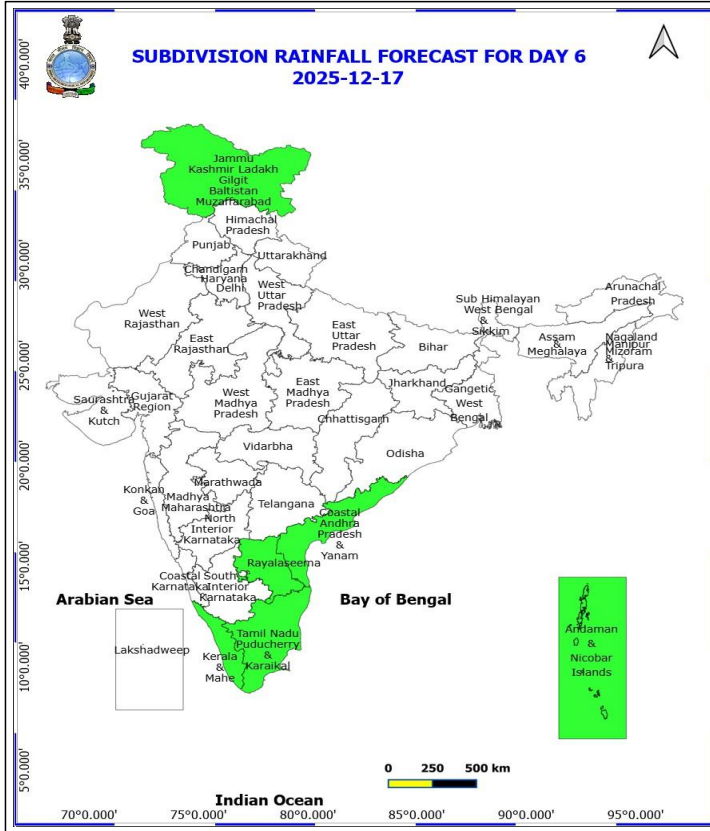
***Red color warning does not mean "Red Alert" Red color warning means "Take Action"**
Forecast and warning for any day is valid from 0830 hours IST of day till 0830 hours IST of next day
For more details kindly visit <https://mausam.imd.gov.in> or contact 011-2434-4599

(Service to the nation since 1875)



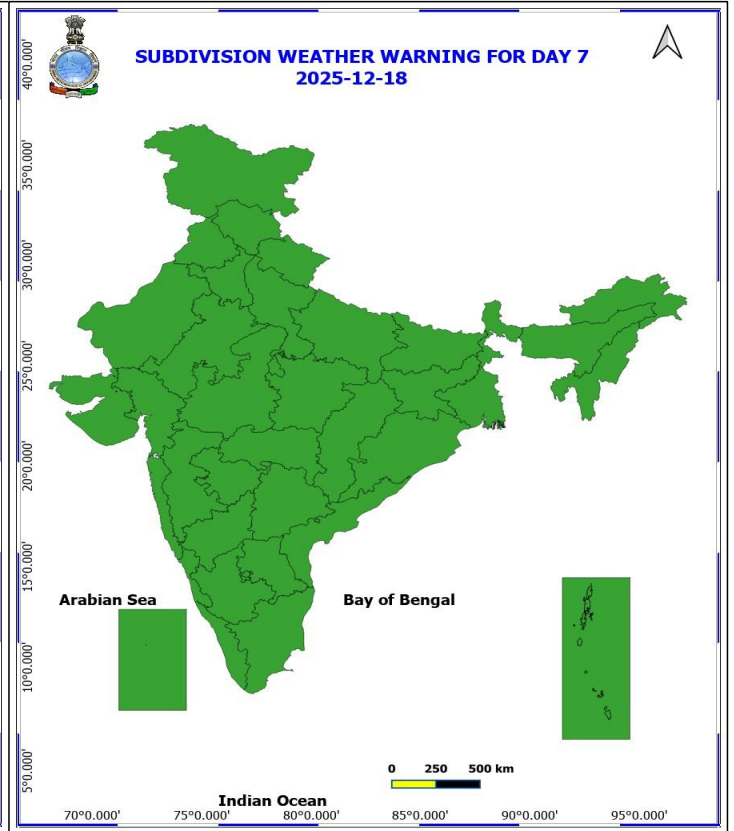
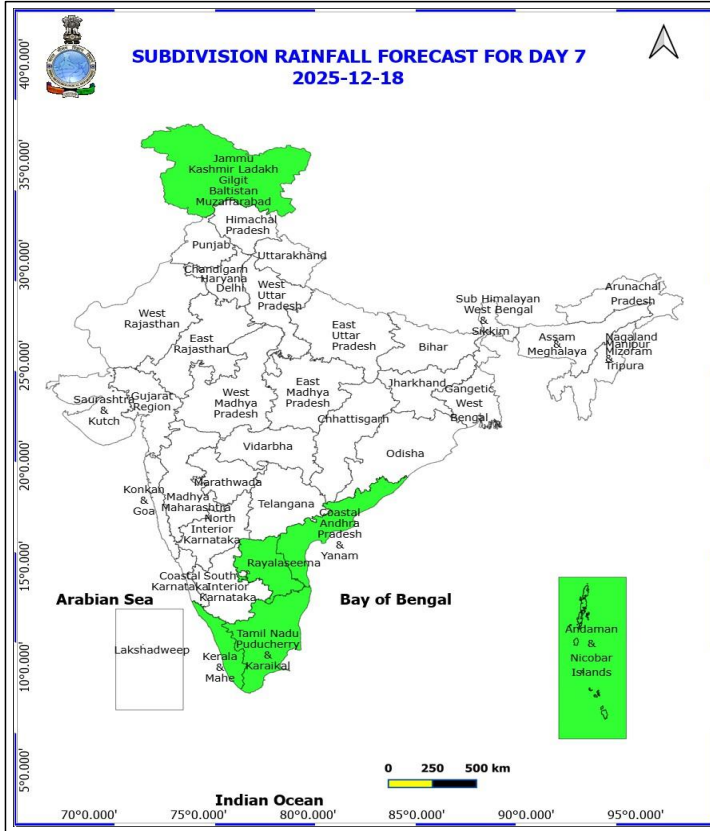
16 December (Day 5)

- ❖ Fog likely at isolated pockets over East Uttar Pradesh and Nagaland, Manipur, Mizoram and Tripura.
- ❖ Squally weather with wind speeds reaching 35 kmph to 45 kmph gusting to 55 kmph is likely to prevail over Gulf of Mannar & adjoining Comorin area.



17 December (Day 6)

No Warning
No Fishermen Warning



18 December (Day 7)

No Warning

No Fishermen Warning



Table-1

7 Days Rainfall Forecast

S.No.	Subdivision	12- Dec	13- Dec	14- Dec	15- Dec	16- Dec	17- Dec	18- Dec
		Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
1	ANDAMAN & NICOBAR ISLANDS	SCT	FWS	FWS	SCT	SCT	ISOL	ISOL
2	ARUNACHAL PRADESH	DRY	DRY	DRY	ISOL	ISOL	ISOL	DRY
3	ASSAM & MEHGHALAYA	DRY	DRY	DRY	DRY	ISOL	ISOL	DRY
4	N. M. M. & T.	DRY	DRY	DRY	DRY	DRY	DRY	DRY
5	S.H. WEST BENGAL & SIKKIM	DRY	DRY	DRY	DRY	DRY	DRY	DRY
6	GANGETIC WEST BENGAL	DRY	DRY	DRY	DRY	DRY	DRY	DRY
7	ODISHA	DRY	DRY	DRY	DRY	DRY	DRY	DRY
8	JHARKHAND	DRY	DRY	DRY	DRY	DRY	DRY	DRY
9	BIHAR	DRY	DRY	DRY	DRY	DRY	DRY	DRY
10	EAST UTTAR PRADESH	DRY	DRY	DRY	DRY	DRY	DRY	DRY
11	WEST UTTAR PRADESH	DRY	DRY	DRY	DRY	DRY	DRY	DRY
12	UTTARAKHAND	DRY	DRY	ISOL	DRY	DRY	DRY	DRY
13	HARYANA, CHD & DELHI	DRY	DRY	DRY	DRY	DRY	DRY	DRY
14	PUNJAB	DRY	DRY	DRY	DRY	DRY	DRY	DRY
15	HIMACHAL PRADESH	DRY	DRY	ISOL	DRY	DRY	DRY	DRY
16	JAMMU AND KASHMIR AND LADAKH	DRY	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
17	WEST RAJASTHAN	DRY	DRY	DRY	DRY	DRY	DRY	DRY
18	EAST RAJASTHAN	DRY	DRY	DRY	DRY	DRY	DRY	DRY
19	WEST MADHYA PRADESH	DRY	DRY	DRY	DRY	DRY	DRY	DRY
20	EAST MADHYA PRADESH	DRY	DRY	DRY	DRY	DRY	DRY	DRY
21	GUJRAT REGION	DRY	DRY	DRY	DRY	DRY	DRY	DRY
22	SAURASHTRA & KUTCH	DRY	DRY	DRY	DRY	DRY	DRY	DRY
23	KONKAN & GOA	DRY	DRY	DRY	DRY	DRY	DRY	DRY
24	MADHYA MAHARASHTRA	DRY	DRY	DRY	DRY	DRY	DRY	DRY
25	MARATHWADA	DRY	DRY	DRY	DRY	DRY	DRY	DRY
26	VIDARBHA	DRY	DRY	DRY	DRY	DRY	DRY	DRY
27	CHATTISGARH	DRY	DRY	DRY	DRY	DRY	DRY	DRY
28	COASTAL ANDHRA PRADESH	DRY	DRY	DRY	DRY	ISOL	ISOL	DRY
29	TELANGANA	DRY	DRY	DRY	DRY	DRY	DRY	DRY
30	RAYALASEEMA	DRY	DRY	DRY	DRY	ISOL	ISOL	DRY
31	TAMILNADU & PUDUCHERRY	ISOL	ISOL	ISOL	ISOL	ISOL	SCT	ISOL
32	COSTAL KARNATAKA	DRY	DRY	DRY	DRY	DRY	DRY	DRY
33	NORTH INTERIOR KARNATAKA	DRY	DRY	DRY	DRY	DRY	DRY	DRY
34	SOUTH INTERIOR KARNATAKA	DRY	DRY	DRY	DRY	DRY	DRY	DRY
35	KERALA	DRY	DRY	DRY	DRY	ISOL	ISOL	ISOL
36	LAKSHDWEEP	DRY	DRY	DRY	DRY	DRY	SCT	SCT

Legend	Category	%Stations
WS	Widespread/Most Places	76-100
FWS	Fairly Widespread/Many Places	51-75
SCT	Scattered/ A Few Places	26-50
ISOL	Isolated Places	1-25
DRY	No Rain	0

***Red color warning does not mean "Red Alert" Red color 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. 1: Maximum Temperatures Dated 2025-12-11

Fig. 2: Departure of Maximum Temp. Dated 2025-12-11

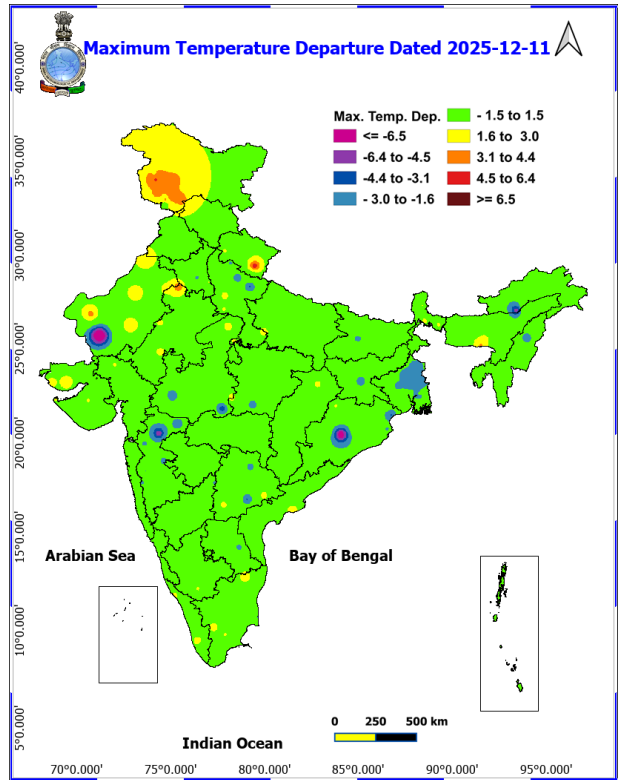
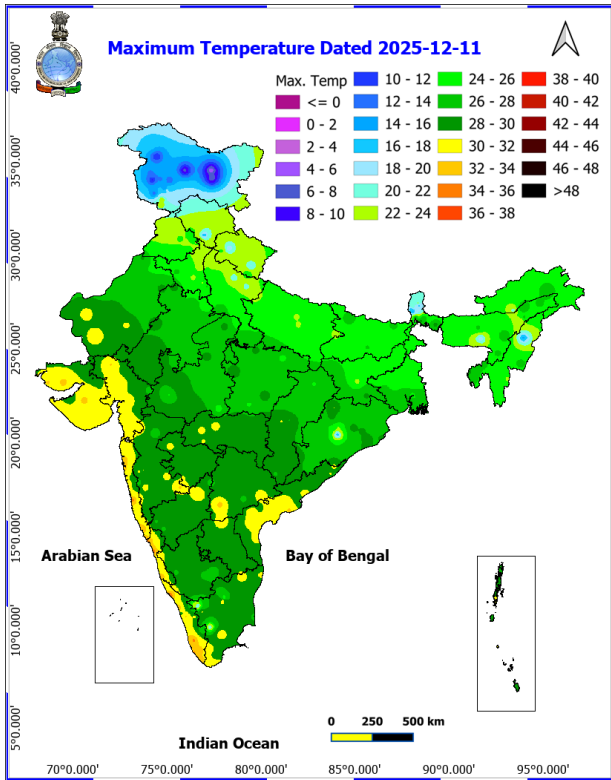
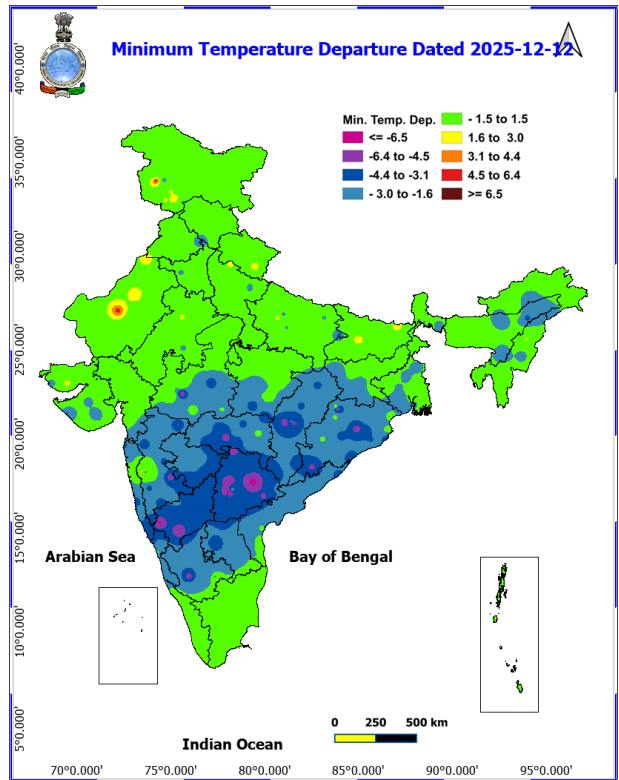
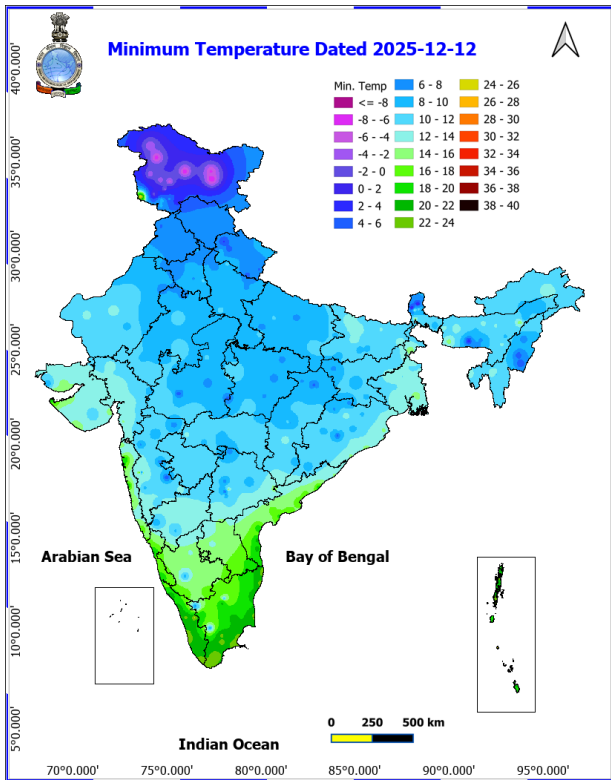


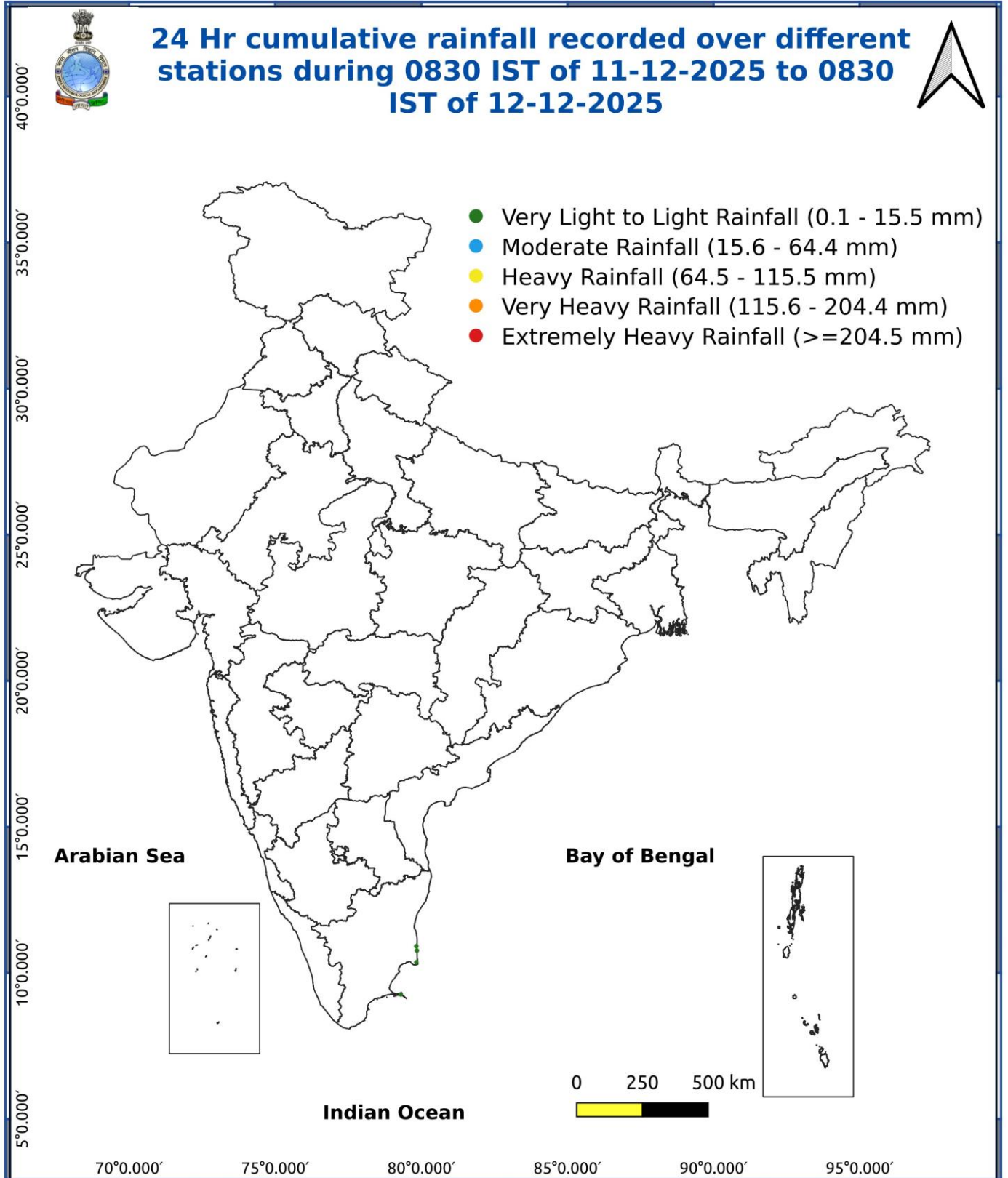
Fig. 3: Minimum Temperatures Dated 2025-12-12

Fig. 4: Departure of Minimum Temp. Dated 2025-12-12



***Red color warning does not mean "Red Alert" Red color 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)



Impact expected due to Cold Wave/severe cold wave conditions likely to prevail at isolated places over Vidarbha, Madhya Maharashtra on 13th, Chhattisgarh, Telangana, South Interior Karnataka, Odisha on 13th & 14th North Interior Karnataka on 13th & 14th December.

- ❖ 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 expected due to dense/very dense fog in the morning hours: likely to prevail during morning hours in isolated pockets of West Uttar Pradesh on 13th -15th and over East Uttar Pradesh during 13th -17th, Nagaland, Manipur, Mizoram & Tripura during 13th -17th, Assam & Meghalaya, Punjab, Haryana during 13th-15th, Himachal Pradesh on 13th & 14th December.

❖ Transport and Aviation:

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

❖ Power Sector:

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

❖ Human Health:

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

Action suggested:

❖ Transport and Aviation:

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

❖ Power Sector:

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

Agromet advisories for various parts of the country

In **Odisha, Vidarbha, Chhattisgarh, Madhya Maharashtra, Interior Karnataka** and **Telangana**, apply light and frequent irrigation to the standing crops in the evening to protect the crops from low temperature stress. Use mulching and cover vegetable nurseries and young fruit plants with straw / polythene sheets to maintain optimum soil temperature.

Livestock / Poultry

Keep cattle inside the sheds during night and provide dry bedding to protect them from cold.

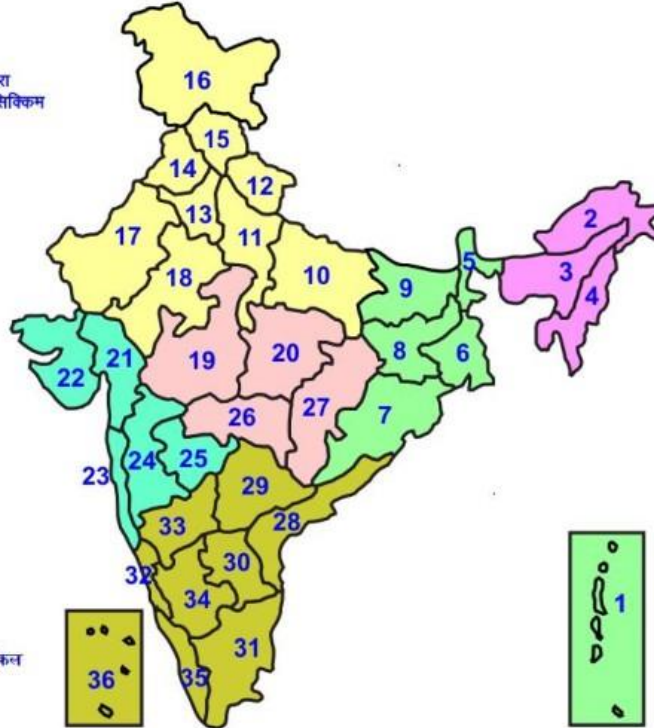
Keep the chicks warm by providing artificial light in the poultry sheds.

Agromet advisories for likely impact of Thunderstorm / Gusty Winds for Andaman & Nicobar Islands

Provide mechanical support to horticultural crops and staking or support to vegetables and young fruit plants / fruit-bearing plants to avoid lodging due to strong winds.

LEGENDS

- 1 अंडमान और निकोबार द्वीप समुद्र
- 2 अरुणाचल प्रदेश
- 3 असम और मेघालय
- 4 नागालैंड मनीपुर मीजोरम और त्रिपुरा
- 5 उप हिमालय पश्चिम बंगाल एवं सिक्किम
- 6 पश्चिम गंगेय बंगाल
- 7 ओडिसा
- 8 झारखंड
- 9 बिहार
- 10 पूर्वी उत्तर प्रदेश
- 11 पश्चिम उत्तर प्रदेश
- 12 उत्तराखंड
- 13 हरियाणा चंडिगढ़ एवं दिल्ली
- 14 पंजाब
- 15 हिमाचल प्रदेश
- 16 जम्मू एवं कश्मीर एवं लद्दाख
- 17 पश्चिम राजस्थान
- 18 पूर्वी राजस्थान
- 19 पश्चिम मध्य प्रदेश
- 20 पूर्वी मध्य प्रदेश
- 21 गुजरात क्षेत्र
- 22 सौराष्ट्र एवं कच्छ
- 23 कोंकण एवं गोवा
- 24 मध्य महाराष्ट्र
- 25 मराठावाड़ा
- 26 विदर्भ
- 27 छत्तीसगढ़
- 28 तटीय आंध्र प्रदेश एवं यनम
- 29 तेलंगाना
- 30 रायलसीमा
- 31 तमिलनाडु, पुदुचेरी एवं कराईकल
- 32 तटिय कर्नाटक
- 33 आंतरिक उत्तरी कर्नाटक
- 34 आंतरिक दक्षिणी कर्नाटक
- 35 केरल एवं 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. Orissa
8. Jharkhand
9. Bihar
10. East Uttar Pradesh
11. West Uttar Pradesh
12. Uttarakhand
13. Haryana, Chd & 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. Marathawada
26. Vidharbha
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)

Subdivision Colour

- NO WARNING
- WATCH (BE UPDATED)
- 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

- | | | | |
|--------------------------|-----------------|----------------------|--------------------|
| Heavy Rain | Very Heavy Rain | Extremely Heavy Rain | Heavy Snow |
| Thunderstorm & Lightning | Hailstrom | Dust Storm | Dust Raising Winds |
| Strong surface winds | Heat Wave | Hot Day | Warm Night |
| Cold Wave | Cold Day | Ground Frost | FOG |
| Hot & Humid | | | |

*Red color warning does not mean "Red Alert" Red color 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)

LEGENDS

WARNING

WARNING (TAKE ACTION)
ALERT (BE PREPARED)
WATCH (BE UPDATED)
NO WARNING (NO ACTION)

Probabilistic Forecast

Terms	Probability of Occurrence (%)
Unlikely	< 25
Likely	25 - 50
Very Likely	50 - 75
Most Likely	> 75



Heavy: 64.5 to 115.5 mm/cm *
Very Heavy: 115.6 to 204.4 mm/cm*
Extremely Heavy: > 204.4 mm/cm *



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 $\geq 37^\circ\text{C}$



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 $> 6.4^\circ\text{C}$.



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 $\leq 15^\circ\text{C}$



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 $\leq -6.5^\circ\text{C}$



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



Sudden electrical discharges manifested by a flash of light (Lightning) and a sharp rumbling sound (thunder)



An ensemble of particles of dust or sand energetically lifted to great heights by a strong and turbulent wind.



Ice deposits on ground

Air temperature $\leq 4^\circ\text{C}$ (over Plains)



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



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



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 Storm: Wind speed > 220 kmph (> 119 knots)