

Monday, January 27, 2025
Time of Issue: 1345 hours IST
(MID-DAY)

ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

Significant Weather Features:

Weather Systems, Forecast and warning:

- ❖ Two Western Disturbances in quick succession are likely to affect Western Himalayan Region one from 29th January & second from 01st February, 2025. Under their influence, scattered to fairly widespread rainfall/snowfall activity likely over Western Himalayan region during 29th January- 02nd February, 2025 and isolated to scattered rainfall over adjoining plains on 30th January- 01st February, 2025.
- ❖ The Northeast Monsoon rains have ceased over Kerala & Mahe, South Interior Karnataka, Tamilnadu, Puducherry & Karaikal, Rayalaseema and adjoining areas of Coastal Andhra Pradesh & Yanam from today, the 27th January, 2025.
- ❖ Light to moderate rainfall very likely at a few places with **heavy rainfall** at isolated places over Tamil Nadu, Puducherry & Karaikal during 30th January-01st February and over Kerala & Mahe on 31st January.

Temperature, Cold Wave, Cold Day and Fog Forecast:

Temperature Conditions during past 24 hours till 0830 hours IST of today:

- ❖ Minimum temperatures are **5-10°C** over many parts of plains of Northwest India & adjoining Uttarakhand; over some parts of Central India; **10-18°C** in many parts of East & West India. Today, the lowest minimum temperature of **0.5°C** is reported at **Fatehpur (Sikar) {Rajasthan}** over the plains of the country.
- ❖ During the past 24 hours, there has been **fall in minimum temperatures by 1-3°C** in isolated parts of Northwest and East India; **by 1-3°C** over Odisha and Jharkhand and **rise by 1-3°C** over East Rajasthan, Assam & Meghalaya and Telangana; **rise by 3-5°C** over Saurashtra & Kutch.
- ❖ Minimum temperatures are **above normal (2°C or more)** over some parts of West India. These are **below normal (-1°C to -3°C)** at isolated places over Rajasthan, Haryana and Punjab and near normal over rest parts of the country.

Forecast of temperature:

- ❖ No significant change in minimum temperatures likely over Northwest India during next 24 hours and rise by 3-5°C thereafter.
- ❖ No significant change in minimum temperatures likely over Central & East India during next 24 hours and rise by 2-4°C thereafter.
- ❖ Gradual rise in minimum temperatures by 2-3°C likely over West India during next 2-4 days.
- ❖ No significant change in minimum temperatures likely over rest parts of the country.

Cold Wave Warnings:

Cold Wave conditions very likely in isolated pockets of Himachal Pradesh, Punjab and Haryana on 27th & 28th January and over Rajasthan on 27th January.

Dense Fog Warnings:

Dense to very Dense fog Condition very likely to continue to prevail during night/early morning hours in some parts of Uttar Pradesh till 30th January.

Dense fog conditions very likely to continue to prevail during night/early morning hours in isolated pockets of Uttarakhand till 28th; Punjab, Haryana, Chandigarh, Delhi till 29th; Uttar Pradesh on 30th & 31st; Odisha till 30th; Bihar till 31st; Gangetic West Bengal during 28th-31st; Assam & Meghalaya till 28th January.

* 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.

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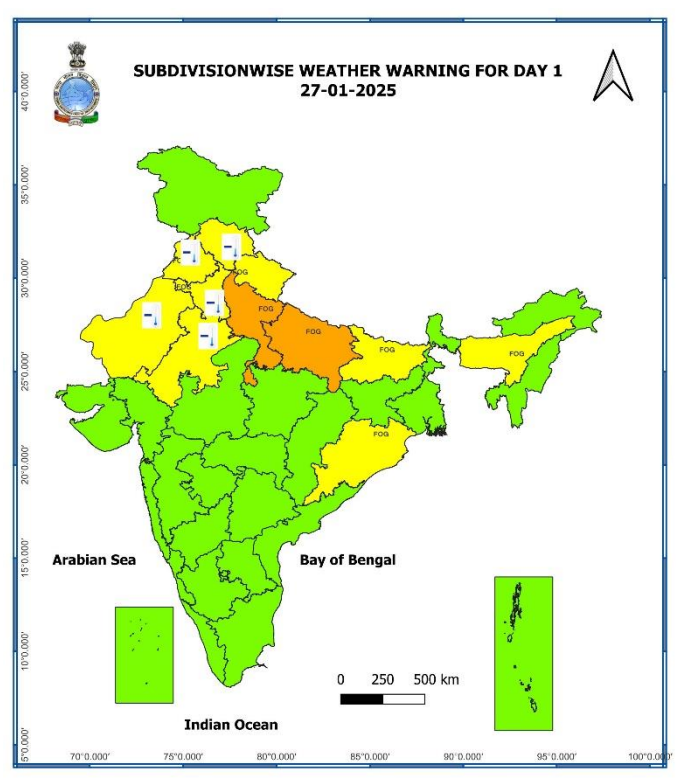
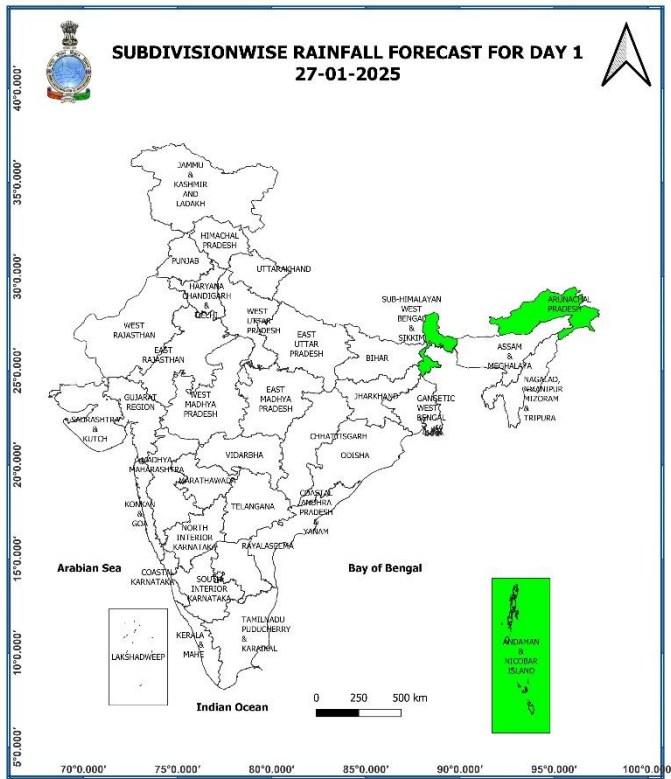
Main Weather Observations:

- ❖ **Rainfall distribution** (from 0830 hours IST of yesterday to 0830 hours IST of today): **at isolated places** over Andaman & Nicobar Islands and Arunachal Pradesh.
- ❖ **Significant amount of rainfall** (from 0830 hours IST of yesterday to 0830 hours IST of today) (in cm): **Arunachal Pradesh:** Lamang_2 (dist. Shiyomi) 1
- ❖ **Fog reported** (at 0830 hours IST of today): **Dense to very dense fog conditions** in isolated pockets of Odisha, Uttar Pradesh, Assam and **dense fog** in isolated pockets of Uttarakhand and Gangetic West Bengal.
- ❖ **Visibility reported** (at 0830 hours IST of today) (≤ 200 m): **East Uttar Pradesh:** Gorakhpur, Kushinagar -0 each; **West Uttar Pradesh:** Bareilly 15; **Odisha:** Gopalpur 0; Puri -200; **Assam:** Barapani 30; **Gangetic West Bengal:** Digha 50
- ❖ **Cold Wave conditions** prevailed in isolated parts of Himachal Pradesh, Haryana, Punjab and Rajasthan.
- ❖ **Minimum Temperature Departures (as on 27-01-2025):** Minimum temperatures are **appreciably above normal (3.1°C to 5.0°C)** at a few places over Konkan & Goa; at isolated places over Saurashtra & Kutch; **above normal (1.6°C to 3.0°C)** at many places over Gujarat Region, Marathwada, Bihar and Vidarbha; at a few places over Madhya Maharashtra; at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, West Madhya Pradesh, Chhattisgarh and Odisha. These are **appreciably below normal (-3.1°C to -5.0°C)** at many places over East Rajasthan; at isolated places over East Madhya Pradesh; **below normal (-1.6°C to -3.0°C)** at many places over Punjab and Haryana-Chandigarh-Delhi; at a few places over East Uttar Pradesh, Karnataka and Tamil Nadu, Puducherry & Karaikal; at isolated places over Jharkhand (**Fig. 4**). Today, the **lowest minimum temperature** of 0.5°C is reported at **Fatehpur (Sikar) {Rajasthan}** over the plains of the country.
- ❖ **Maximum Temperature Departures (as on 26-01-2025):** Maximum temperatures were **markedly above normal (5.1°C or above)** at a few places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad; at isolated places over Himachal Pradesh; **appreciably above normal (3.1°C to 5.0°C)** at many places over Punjab and Marathwada; at a few places over Uttarakhand, Konkan & Goa, Madhya Maharashtra and Coastal Karnataka; **above normal (1.6°C to 3.0°C)** at many places over Haryana-Chandigarh-Delhi, West Rajasthan and North Interior Karnataka; at a few places over Gujarat state, Telangana, Rayalaseema and Kerala & Mahe; at isolated places over Uttar Pradesh, West Madhya Pradesh, Chhattisgarh, Odisha, and Tamil Nadu, Puducherry & Karaikal. These were **below normal (-1.6°C to -3.0°C)** at isolated places over East Madhya Pradesh and near normal over rest parts of the country (**Fig. 2**). Yesterday, the **highest maximum temperature** of 37.2°C was reported at **Honavar (Coastal Karnataka)** over the plains of the country.

Meteorological Analysis (Based on 0830 hours IST)

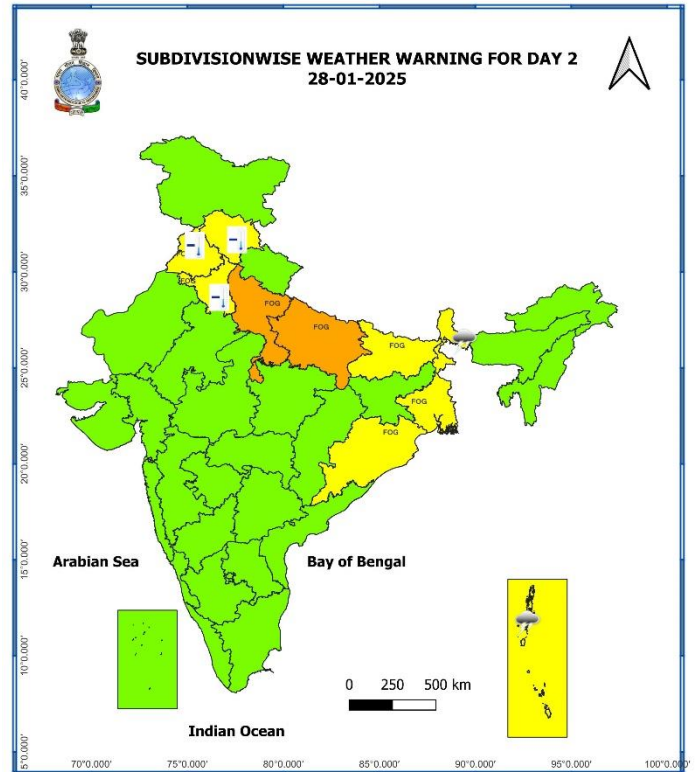
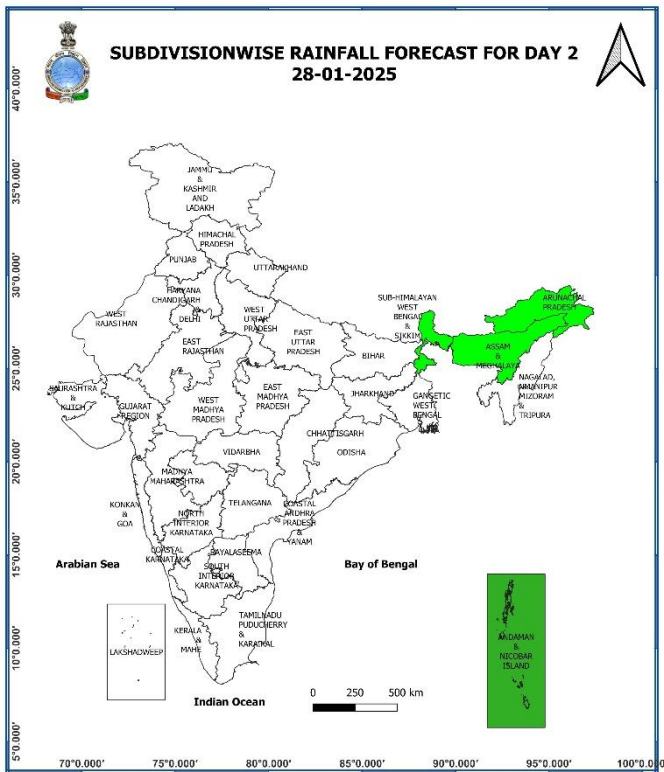
- ❖ The **Northeast Monsoon** rains have ceased over Kerala & Mahe, South Interior Karnataka, Tamilnadu, Puducherry & Karaikal, Rayalaseema and adjoining areas of Coastal Andhra Pradesh & Yanam from today, the 27th January, 2025.
- ❖ A **cyclonic circulation** lies over East Bangladesh & neighbourhood at 1.5 km above mean sea level.
- ❖ Subtropical **westerly Jet Stream** with core winds of the order upto 150 knots at 12.6 km above mean sea level is prevailing over Western Himalayan Region.
- ❖ Two **Western Disturbances** are likely to affect Western Himalayan Region one from 29th January, 2025 and another from 01st February, 2025.

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



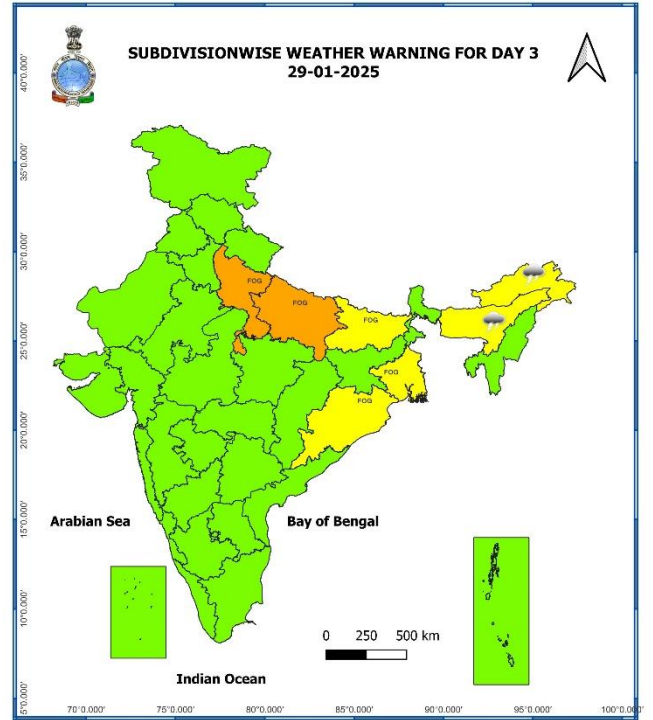
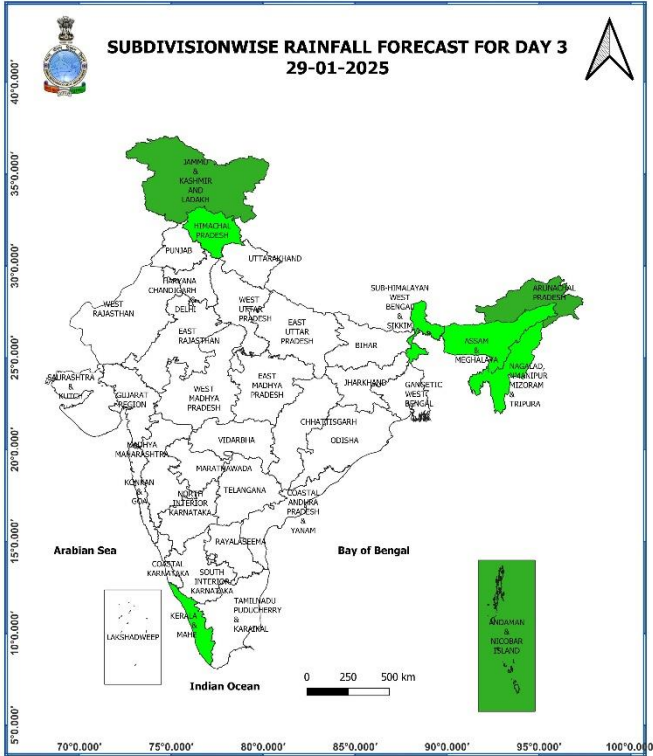
27th January (Day 1):

- ❖ **Dense to very dense fog conditions** very likely in isolated pockets of Uttar Pradesh and **dense fog conditions** in isolated pockets of Uttarakhand, Punjab, Haryana-Chandigarh, Bihar, Odisha and Assam & Meghalaya.
- ❖ **Cold wave conditions** very likely in some parts of Punjab; in isolated pockets of Himachal Pradesh, Haryana-Chandigarh and Rajasthan.
- ❖ **Squally weather with wind speed 35 kmph to 45 kmph gusting to 55 kmph** very likely to prevail over southwest Bay of Bengal and adjoining Equatorial Indian Ocean. Fishermen are advised not to venture into these areas.



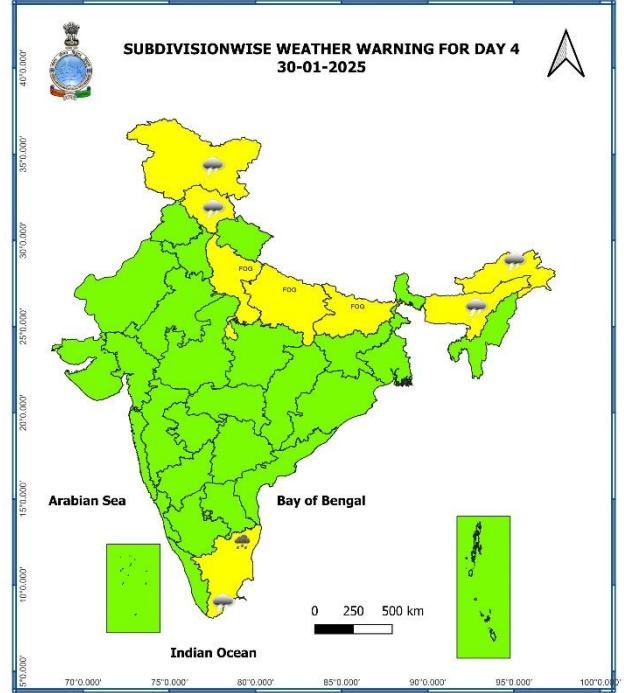
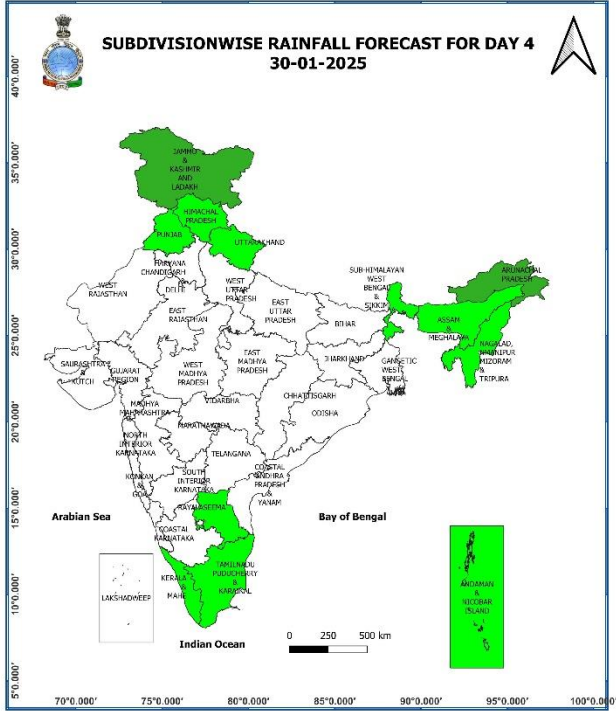
28th January (Day 2):

- ❖ **Dense to very dense fog conditions** very likely in isolated pockets of Uttar Pradesh and **dense fog conditions** in isolated pockets of Punjab, Haryana-Chandigarh, Gangetic West Bengal, Bihar and Odisha.
- ❖ **Cold wave conditions** very likely in isolated pockets of Himachal Pradesh, Punjab, Haryana and Chandigarh.
- ❖ **Thunderstorm accompanied with lightning** very likely at isolated places over Andaman & Nicobar Islands and Sikkim.
- ❖ **Squally weather with wind speed 35 kmph to 45 kmph gusting to 55 kmph** very likely to prevail over southwest Bay of Bengal and adjoining south Sri Lanka coast. Fishermen are advised not to venture into these areas.



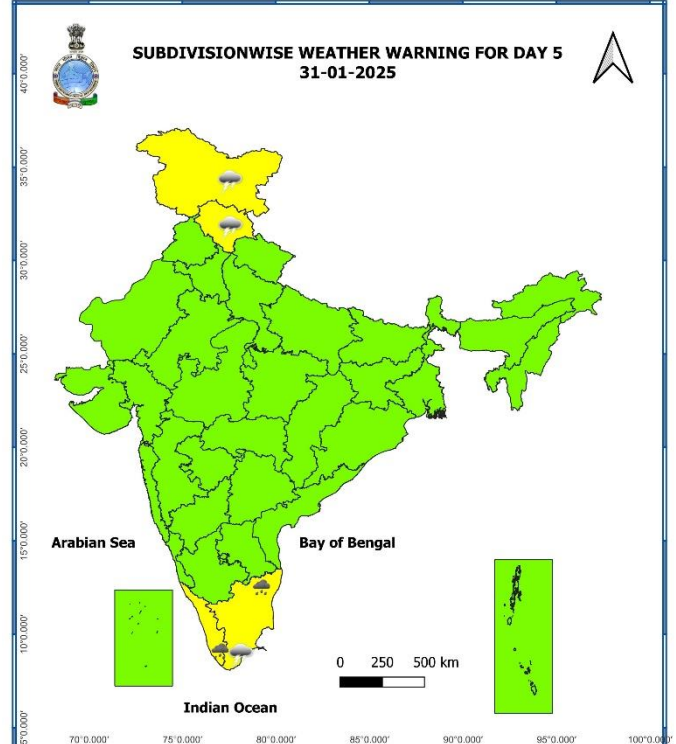
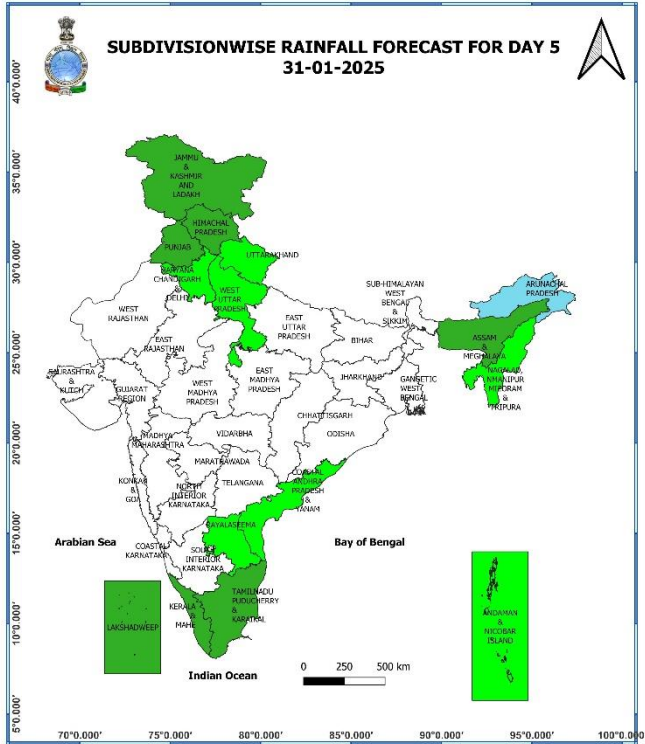
29th January (Day 3):

- ❖ **Dense to very dense fog conditions** very likely in isolated pockets of Uttar Pradesh and **dense fog conditions** in isolated pockets of Gangetic West Bengal, Bihar and Odisha.
- ❖ **Thunderstorm accompanied with lightning** very likely at isolated places over Arunachal Pradesh and Assam & Meghalaya.



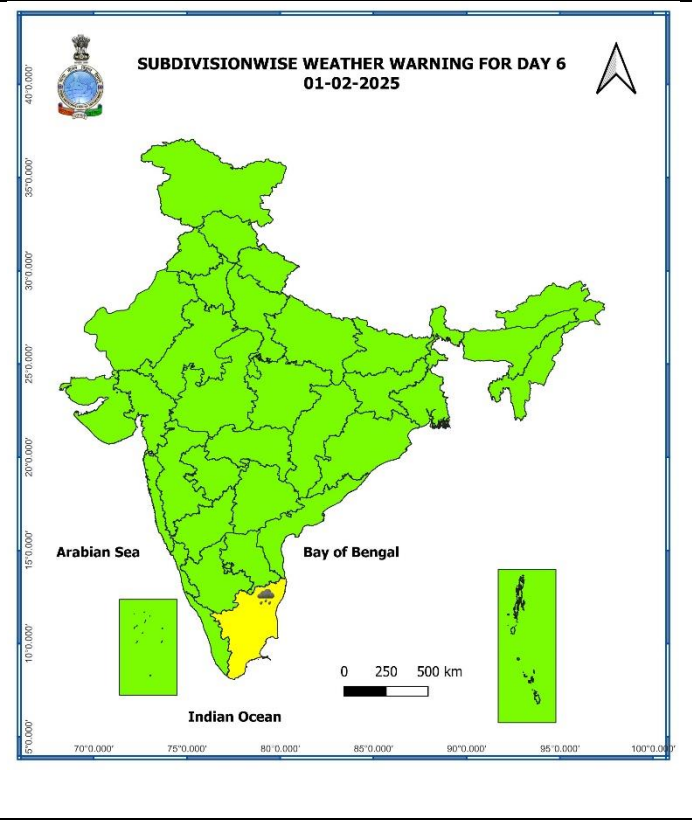
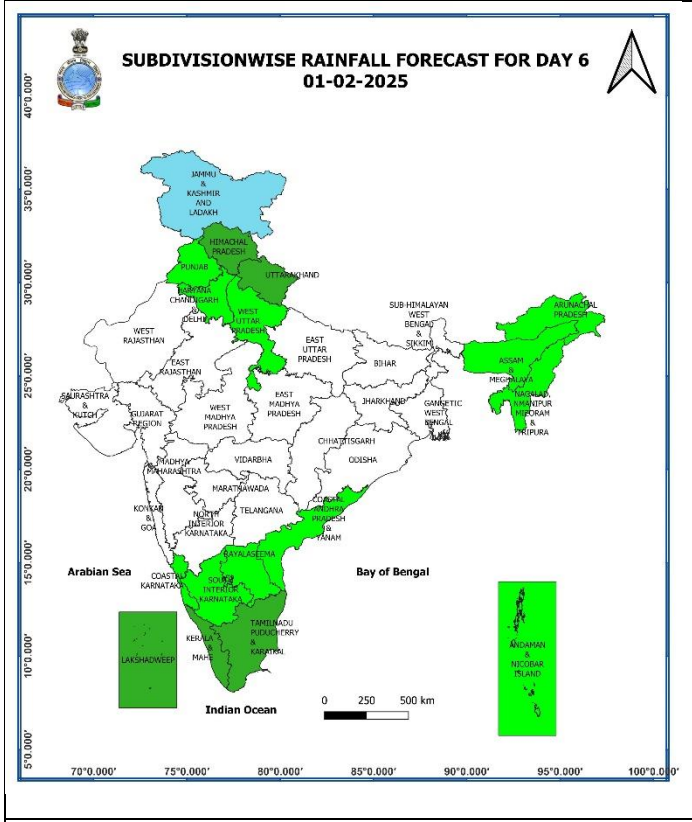
30th January (Day 4):

- ❖ **Dense fog conditions** likely in isolated pockets of Uttar Pradesh and Bihar.
- ❖ **Thunderstorm accompanied with lightning** likely at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Arunachal Pradesh, Assam & Meghalaya and Tamil Nadu, Puducherry & Karaikal.
- ❖ **Heavy Rainfall** likely at isolated places over Tamil Nadu, Puducherry & Karaikal.



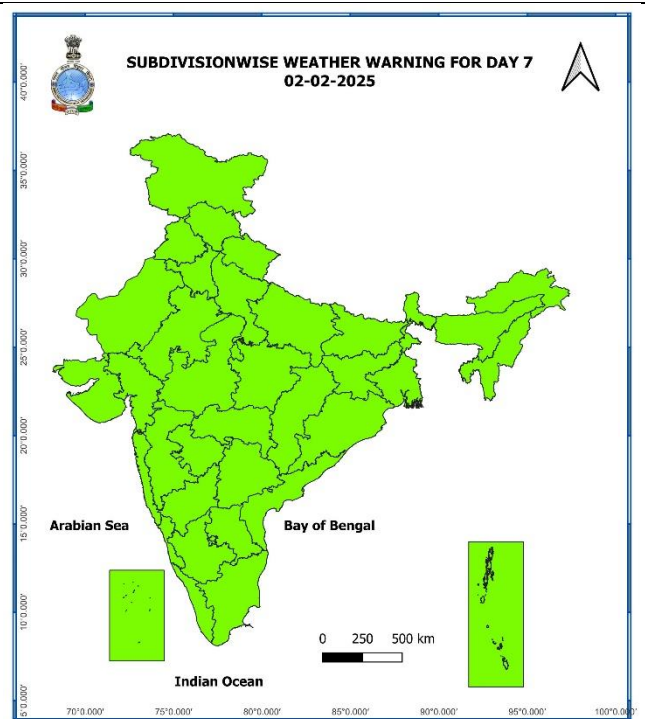
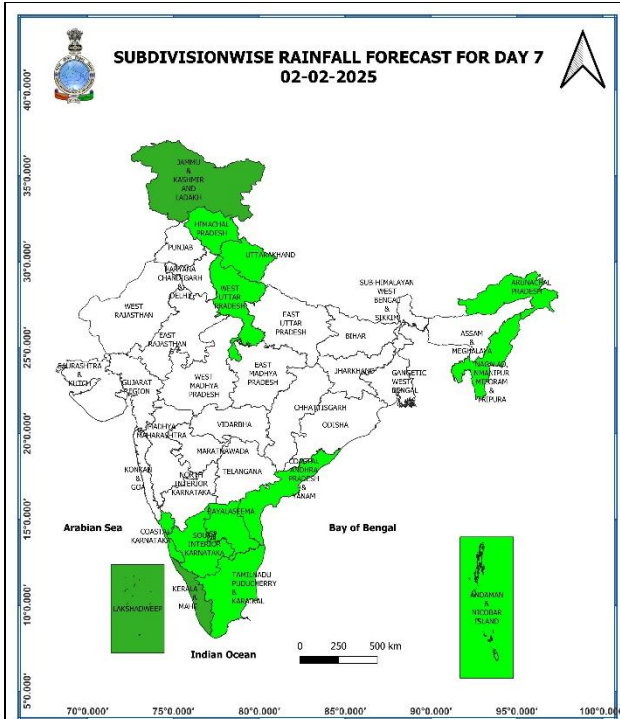
31st January (Day 5):

- ❖ **Thunderstorm accompanied with lightning** likely at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh and Tamil Nadu, Puducherry & Karaikal.
- ❖ **Heavy Rainfall** likely at isolated places over Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe.



01st February (Day 6):

❖ **Heavy Rainfall** likely at isolated places over Tamil Nadu, Puducherry & Karaikal.



02nd February (Day 7):

❖ **No Weather Warning.**

Weather Outlook for subsequent 3 days (During 03rd February- 05th February, 2025)

- ❖ Fairly widespread to widespread rainfall/snowfall over Northwest India.
- ❖ Scattered to Fairly widespread rainfall over Tamil Nadu and isolated to scattered rainfall over Kerala, Interior Karnataka, Telangana & Nicobar Islands.

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

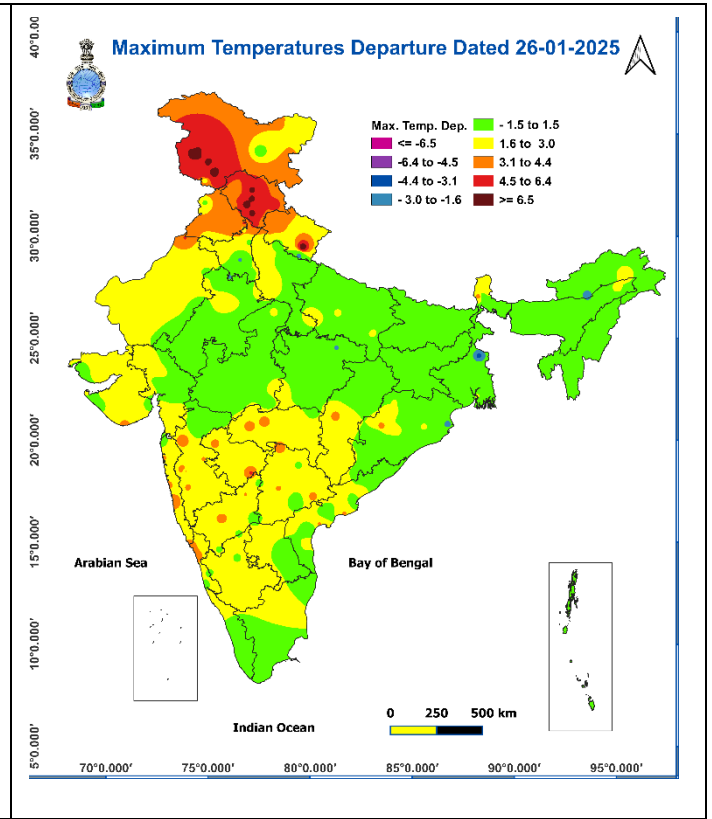
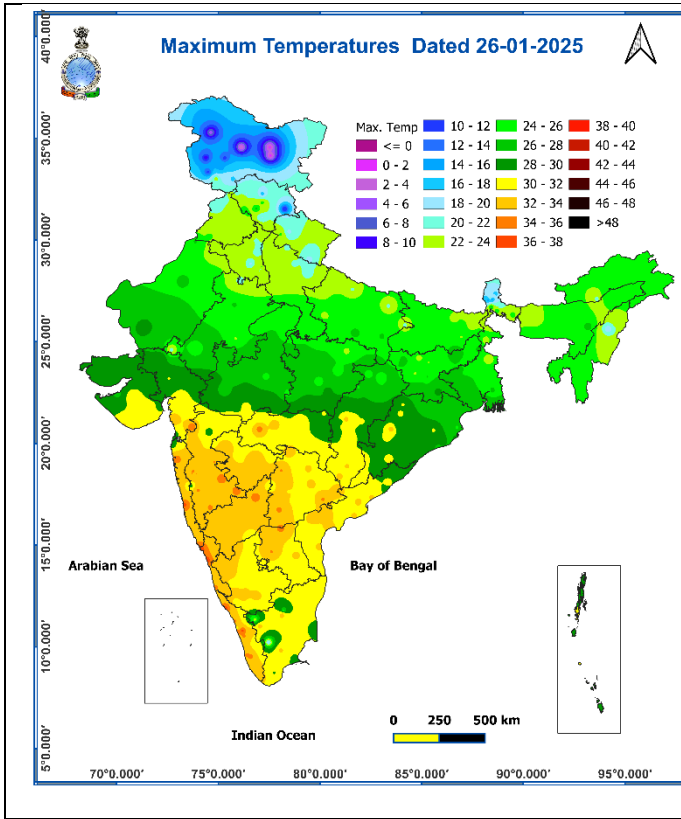
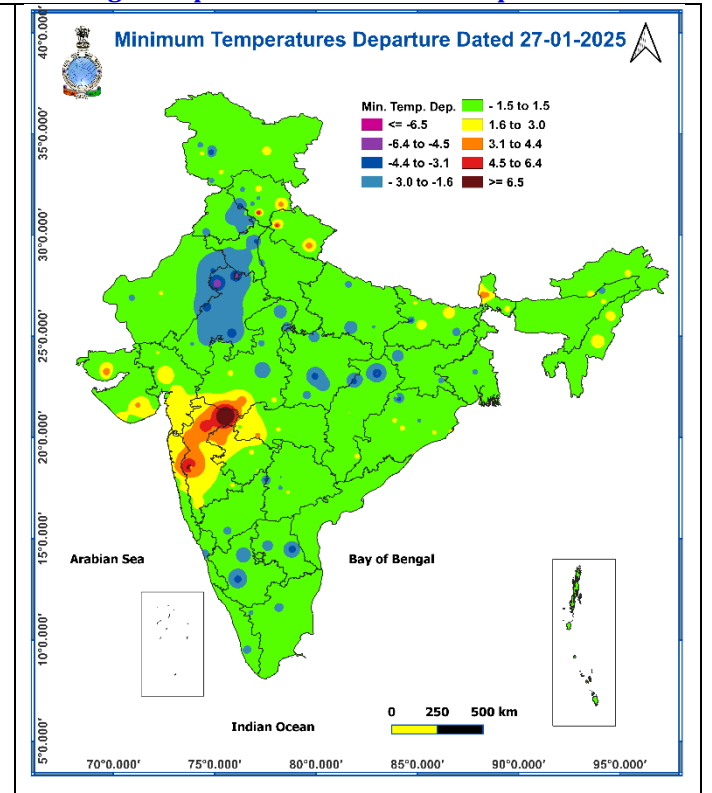
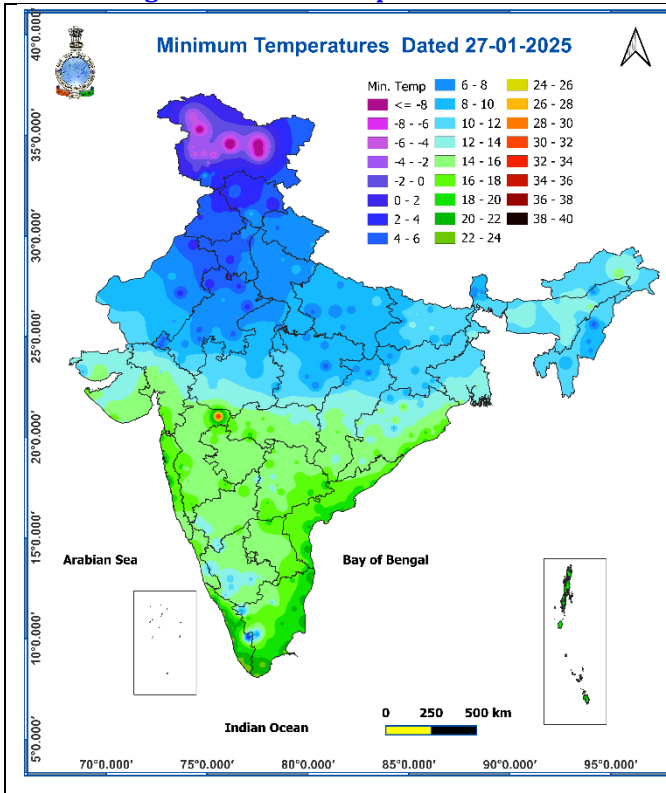


Fig. 3: Minimum Temperatures

Fig. 4: Departure of Minimum Temperatures



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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 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 Woolen 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.

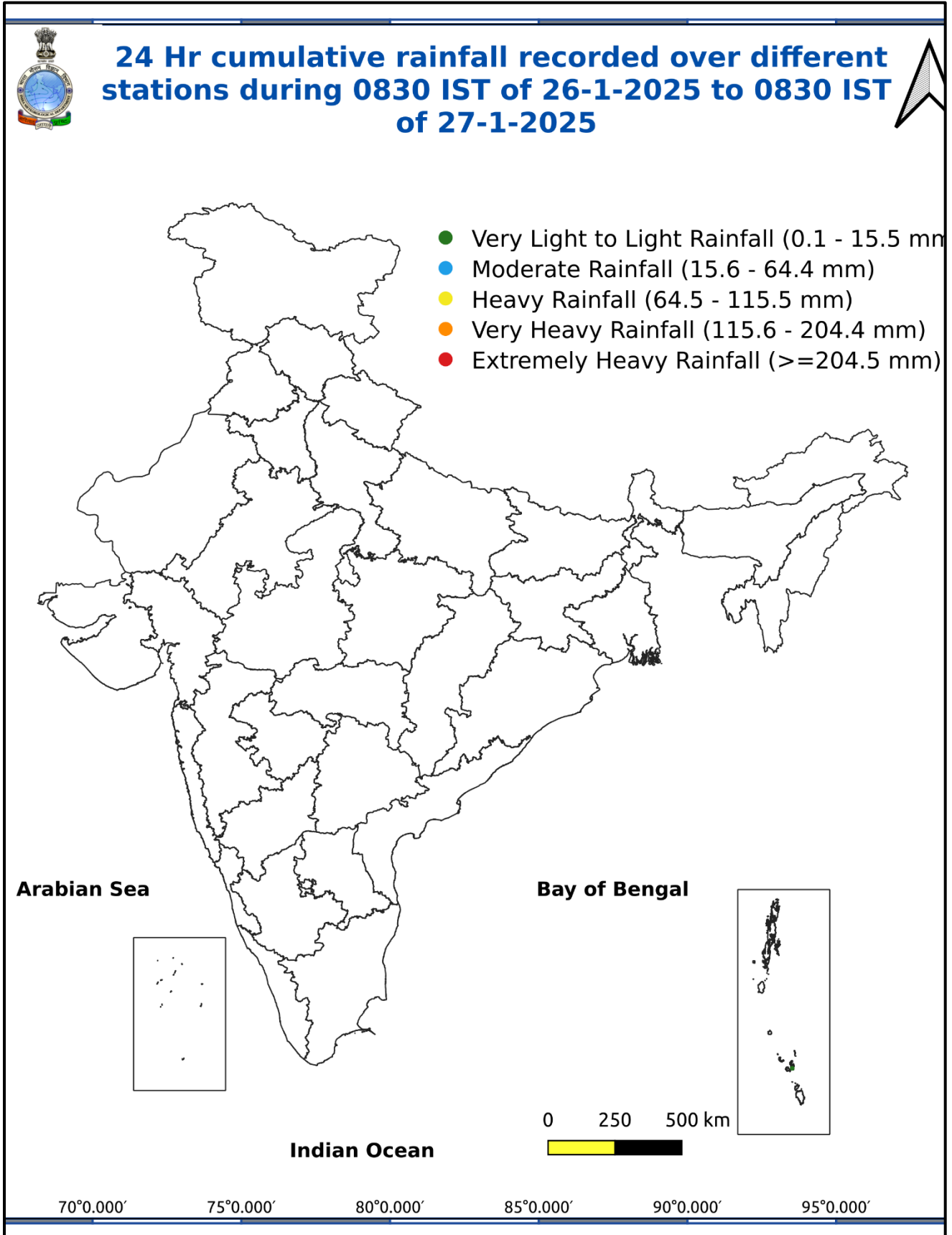
Agromet advisories for likely impact of Cold Wave

- In **Himachal Pradesh, Punjab, Haryana and Rajasthan**, 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

- 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.

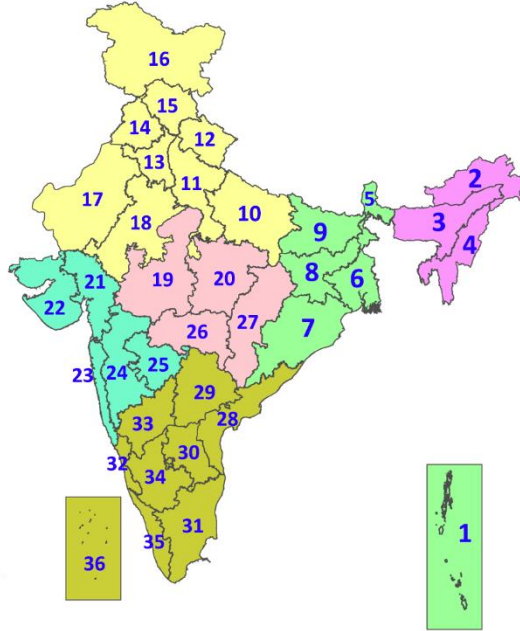
Fig. 5: Accumulated Rainfall (mm) during past 24 hours



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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)