राष्ट्रीय मौसम पूर्वानुमान केन्द्र
भारत मौसम विज्ञान विभाग
पृथ्वी विज्ञान मंत्रालय

National Weather Forecasting Centre
India Meteorological Department
Ministry of Earth Sciences

Friday, January 31, 2025
Time of Issue: 1430 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 cyclonic circulation over north Pakistan in lower tropospheric levels. An induced cyclonic circulation lies over Haryana & neighbourhood in lower tropospheric levels. A fresh Western Disturbance seen as a trough in middle & upper tropospheric level runs roughly along Long. 63°E to the north of Lat. 28°N. Another fresh Western Disturbance is likely to affect Northwest India during 03rd February, 2025. Under the influence of these systems,
  - ✓ Isolated to scattered light/moderate rainfall/snowfall activity likely over Western Himalayan Region; isolated light rainfall is also likely over Punjab and Haryana & Chandigarh till 1st February, 2025.
  - ✓ Thereafter, under the influence of fresh Western Disturbance from 03rd February; Fairly widespread light/moderate rainfall/snowfall likely over Western Himalayan Region on 04th February and Isolated to scattered light/moderate rainfall/snowfall activity likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad during 03rd, 05th & 06th, Himachal Pradesh and Uttarakhand on 03rd & 05th and. Isolated to scattered light/moderate rainfall activity likely over Punjab, Haryana & Chandigarh during 03rd-05th, West Uttar Pradesh & Rajasthan on 03rd & 04th February.
  - ✓ Thunderstorm activity accompanied with lightning at isolated places likely over Punjab and Haryana on 31st January.
- A **cyclonic circulation** lies over northeast Assam in lower tropospheric levels. Under its influence,
  - ✓ Isolated to scattered light to moderate rainfall very likely over Arunachal Pradesh during 31st January- 02nd February, Isolated light to moderate rainfall very likely over northeast Assam on 31st January & 01st February, Nagaland & Sub-Himalayan West Bengal & Sikkim on 31st January.
- Under the influence of a cyclonic circulation over south Kerala and a trough in easterly over south Bay of Bengal in lower tropospheric levels, Isolated light to moderate rainfall very likely at isolated places over Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe during 31st January – 02nd February with thunderstorm accompanied with lighting likely over Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe on 31st January.

Temperature and Fog Forecast:

- Minimum temperatures are **5-12°C** over many parts of plains of Northwest India & Bihar; **12-20°C** in many parts of Central, East & West India. Today, the lowest minimum temperature of **5.8°C** is reported at **Fatehpur (Rajasthan)** over the plains of the country.
- During the past 24 hours, there has been **fall in minimum temperatures by 1-4^{0}C** in some parts of Madhya Pradesh; at isolated places over Himachal Pradesh, Gujarat State, Sub-Himalayan West Bengal & Sikkim, Coastal Andhra Pradesh & Yanam and **rise by 1-4^{0}C** in many parts of Uttar Pradesh, Tamilnadu Puducherry & Karaikal; in some parts of Gangetic West Bengal, Vidarbha, Kerala & Mahe; at isolated places over Jammu-Kashmir, Bihar, Assam & Meghalaya and Jharkhand.

Forecast of temperature:

- No significant change in minimum temperatures likely over Northwest India during next 48 hours and gradual rise by 2-3°C thereafter.
- No significant change in minimum temperatures likely over Central & East India and Gujarat State during next 5 days.
- No significant change in minimum temperatures likely over Maharashtra region during next 24 hours and gradual rise by 2-3°C thereafter.

Dense Fog Warnings:

Dense fog conditions very likely to continue to prevail during night/early morning hours in isolated pockets of West Rajasthan till 01st, Uttar Pradesh, West Bengal & Sikkim, Odisha, Assam & Meghalaya & Nagaland, Manipur, Mizoram & Tripura till 02nd; Bihar till 03rd February.

Main Weather Observations:

- **Rainfall/Snowfall distribution** (from 0830 hours IST of yesterday to 0830 hours IST of today): **at many places** over Arunachal Pradesh; **at isolated places** over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Sub-Himalayan West Bengal & Sikkim, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Tamil Nadu, Puducherry & Karaikal.

- **Significant amount of rainfall** (from 0830 hours IST of yesterday to 0830 hours IST of today) (in cm): **Assam & Meghalaya:** Ranganadi Nt Xing (dist Lakhimpur) 7, Dhemaji (dist Dhemaji) 7.

- **Heavy rainfall recorded** (from 0830 hours IST of yesterday to 0830 hours IST of today): **Heavy rainfall** recorded at isolated places over Assam & Meghalaya.

- **Fog reported** (upto 0830 hours IST of today): **Dense to very dense fog conditions (visibility < 50 m)** reported in isolated pockets of Punjab, East Uttar Pradesh, West Rajasthan, Odisha, Chhattisgarh and **dense fog (visibility 50-199 m)** reported in isolated pockets of Haryana, West Uttar Pradesh, Bihar, West Bengal & Sikkim and Nagaland.

- **Visibility reported** (upto 0830 hours IST of today) (≤200 m): **West Rajasthan:** Churu 0; **East Uttar Pradesh:** Gorakhpur 0, Ballia 20, Varanasi 200; **Chhattisgarh:** Jagdalpur 0; **Odisha:** Koraput 20; **Punjab:** Ludhiana 20; **Bihar:** Purnea 50; **Gangetic West Bengal:** Kalai Kunda 50; **Sub-Himalayan West Bengal & Sikkim:** Cooch Behar 50; **West Uttar Pradesh:** Moradabad 100; **Nagaland:** Dimapur 100; **Haryana:** Hisar 150.

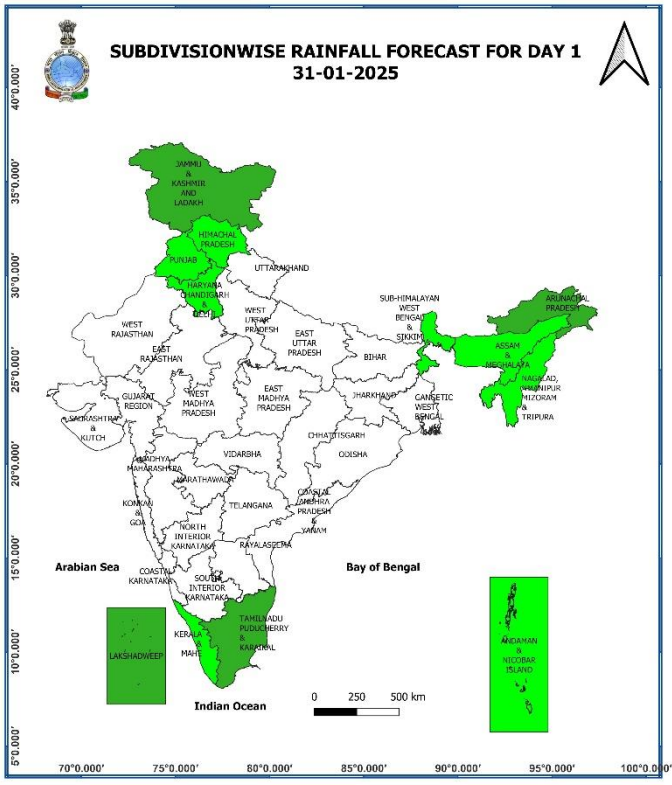
- **Minimum Temperature Departures (as on 31-01-2025):** Minimum temperatures are **markedly above normal (5.1°C or above)** at many places over Odisha; at a few places over Gangetic West Bengal; at isolated places over Assam & Meghalaya; **appreciably above normal (3.1°C to 5.0°C)** at a few places over Marathwada, Vidarbha and Tamil Nadu, Puducherry & Karaikal; at isolated places over Madhya Maharashtra and Nagaland, Manipur, Mizoram & Tripura; **above normal (1.6°C to 3.0°C)** at many places over Madhya Pradesh and Gujarat state; at a few places over Kerala & Mahe; at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Haryana-Chandigarh-Delhi, West Uttar Pradesh, Rajasthan, Bihar and Coastal Andhra Pradesh & Yanam. These are **below normal (-1.6°C to -3.0°C)** at isolated places over East Uttar Pradesh and near normal over rest parts of the country **(Fig. 4)**. Today, the **lowest minimum temperature** of **5.8°C** is reported at **Fatehpur (Rajasthan)** over the plains of the country.

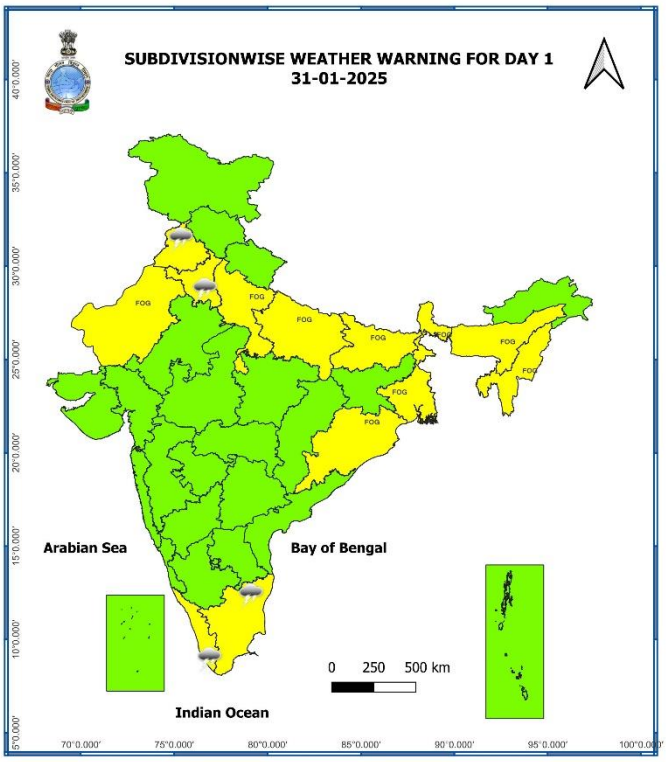
- **Maximum Temperature Departures (as on 30-01-2025**): Maximum temperatures were **markedly above normal (5.1°C or above)** at a few places over Chhattisgarh; **appreciably above normal (3.1°C to 5.0°C)**at most places over East Rajasthan, Vidarbha, East Madhya Pradesh and Jharkhand; at many places over Marathwada and Gangetic West Bengal; at a few places over West Rajasthan, Haryana-Chandigarh-Delhi, Uttar Pradesh, West Madhya Pradesh, Madhya Maharashtra, Odisha and Gujarat Region; at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh and Saurashtra & Kutch; **above normal (1.6°C to 3.0°C)** at most places over Bihar; at many places over Punjab, Konkan & Goa, Rayalaseema and North Interior Karnataka; at a few places over Telangana and Coastal & South Interior Karnataka; at isolated places over Coastal Andhra Pradesh & Yanam and Tamil Nadu, Puducherry & Karaikal. These were **appreciably below normal (-3.1°C to -5.0°C)** at isolated places over Assam & Meghalaya and near normal over rest parts of the country **(Fig. 2).** Yesterday, the **highest maximum temperature** of **36.2°C** was reported at **Washim (Marathwada) & Kannur Airport (Kerala)** over the plains of the country.

Meteorological Analysis (Based on 0830 hours IST)

- The **Western Disturbance** as a cyclonic circulation now lies over north Pakistan between 3.1 & 4.5 km above mean sea level. The associated trough has moved away northeastwards.
- The induced **cyclonic circulation** over west Rajasthan now lies over Haryana & neighbourhood and extends upto 1.5 km above mean sea level.
- A fresh **Western Disturbance** as a trough in middle & upper tropospheric level with its axis at 5.8 km above mean sea level runs roughly along Long. 63°E to the north of Lat. 28°N.
- Subtropical **westerly Jet Stream** with core winds of the order upto 130 knots at 12.6 km above mean sea level is prevailing over North India.
- The **cyclonic circulation** over northeast Assam & neighbourhood extending upto 1.5 km above mean sea level persists.
- The **trough** in easterlies over Southwest Bay of Bengal extending upto 0.9 km above mean sea level persists.
- A **cyclonic circulation** lies over south Kerala at 0.9 km above mean sea level.
- A fresh **Western Disturbance** is likely to affect Northwest India during 03rd February, 2025.

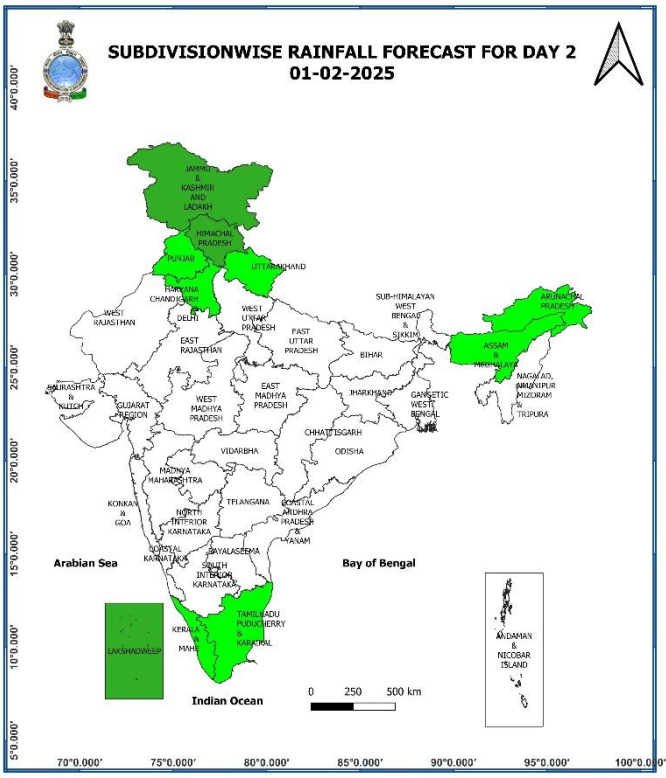
Weather Forecast & Warnings for next 7 days (Upto 0830 hours IST of 07th February, 2025)

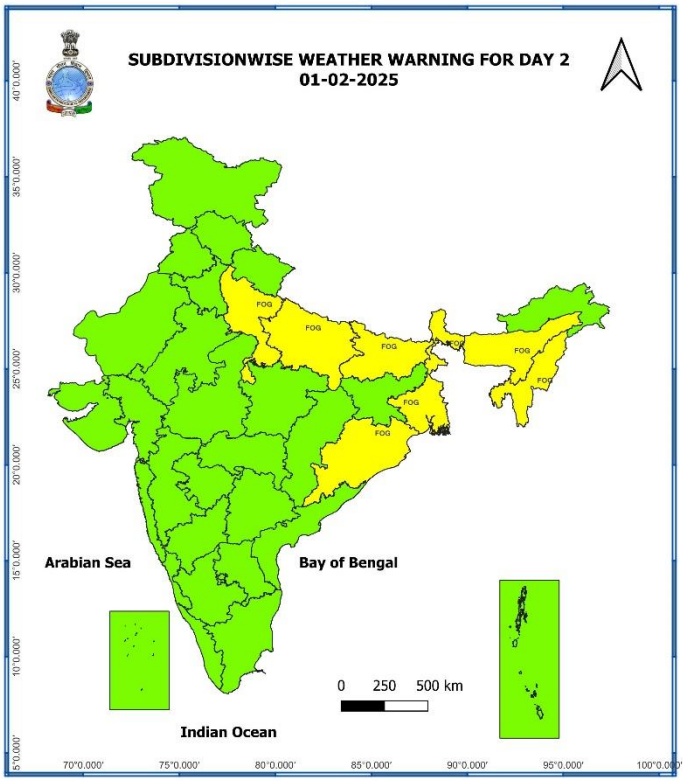




31st January (Day 1):

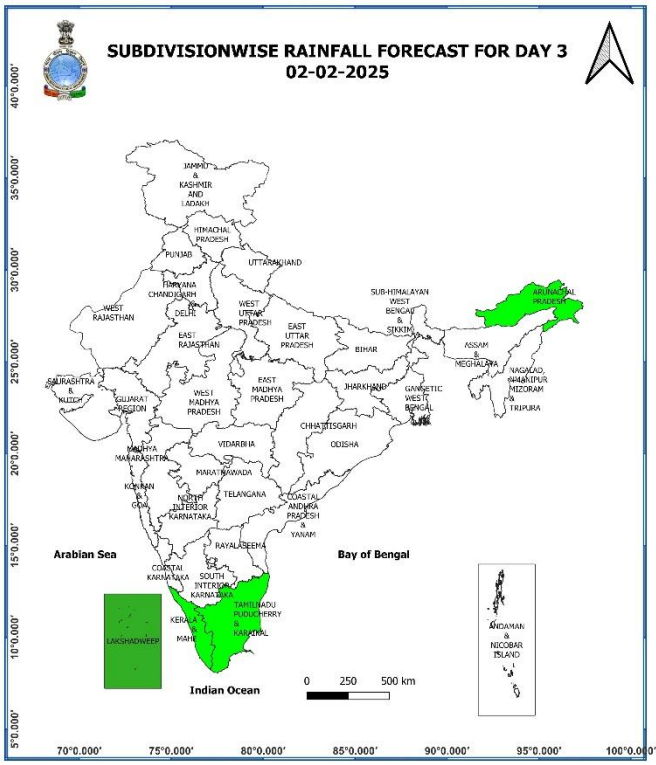
- **Dense fog conditions** very likely in isolated pockets of Uttar Pradesh, West Rajasthan, West Bengal & Sikkim, Bihar, Odisha, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.
- **Thunderstorm accompanied with lightning** very likely at isolated places over Punjab and Haryana-Chandigarh-Delhi, Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe.

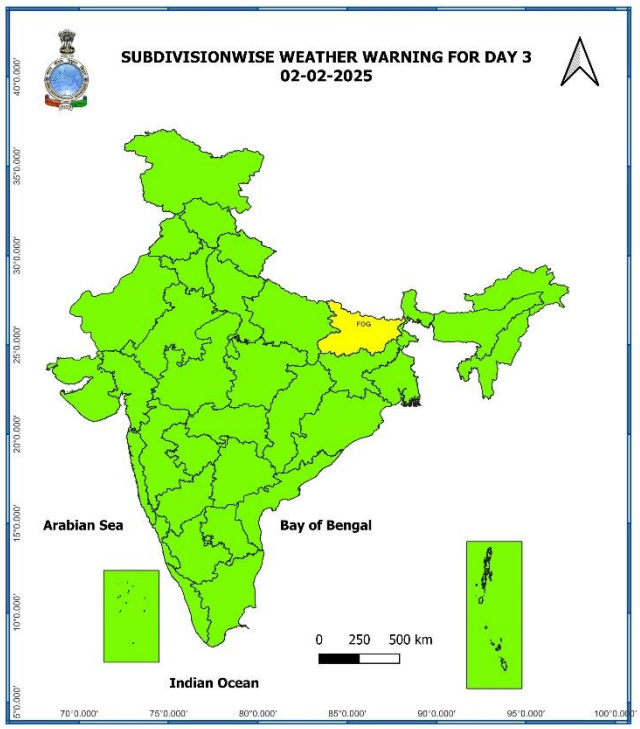




01st February (Day 2):

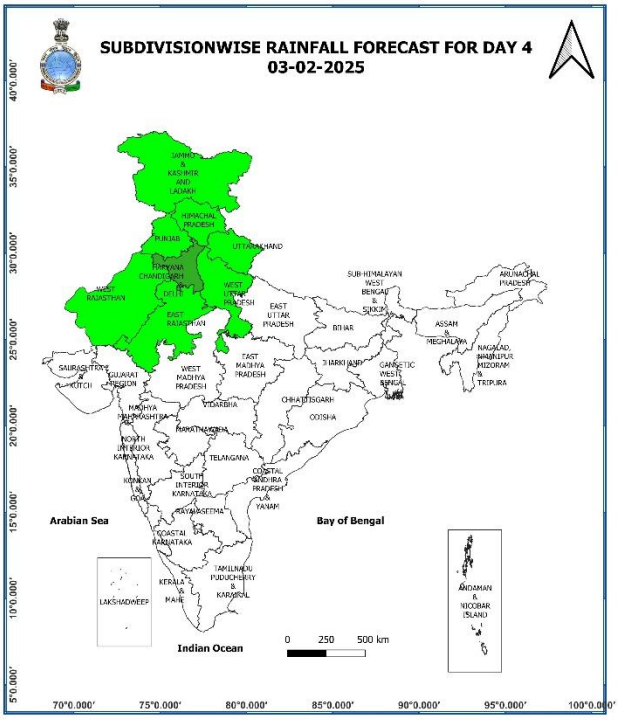
- **Dense fog conditions** very likely in isolated pockets of Uttar Pradesh, West Bengal & Sikkim, Bihar, Odisha, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.

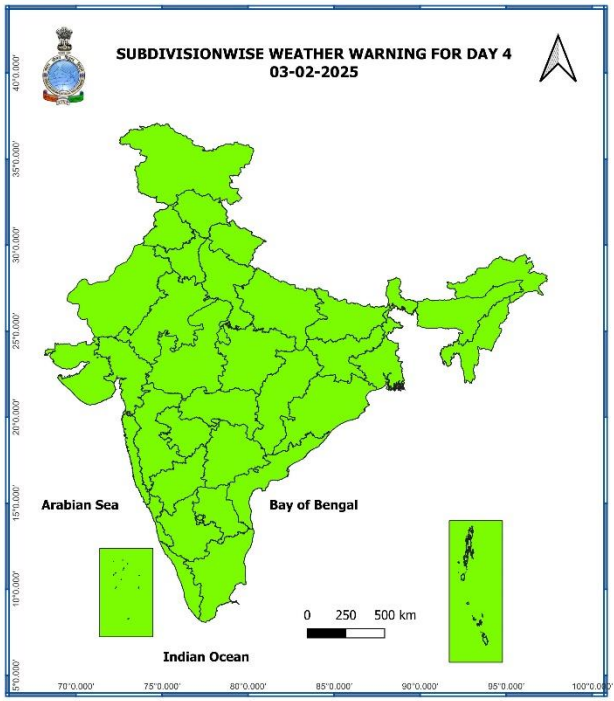




02nd February (Day 3):

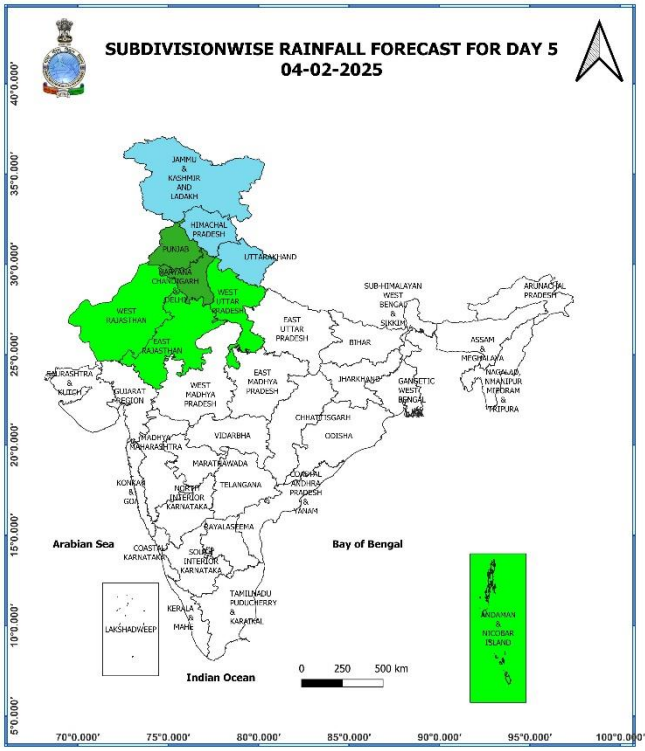
- **Dense fog conditions** very likely in isolated pockets of Bihar.

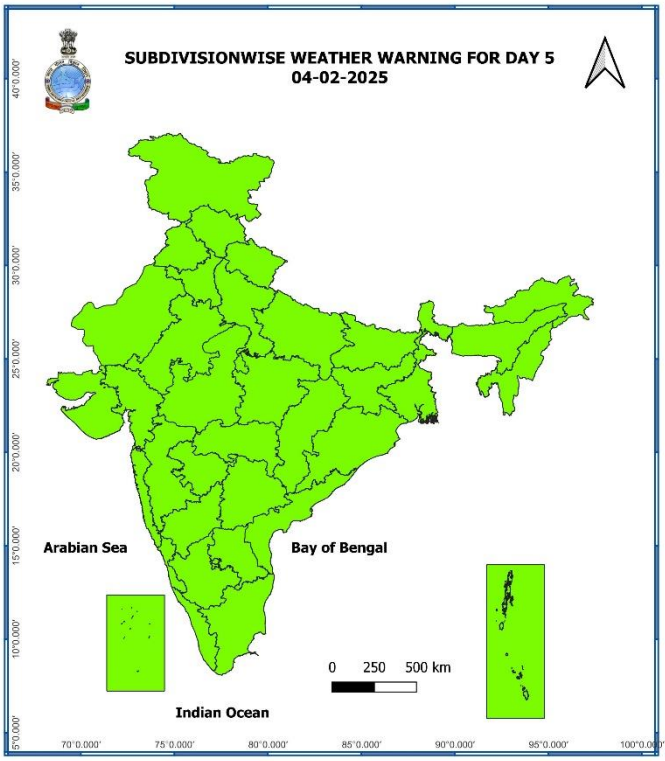




03rd February (Day 4):

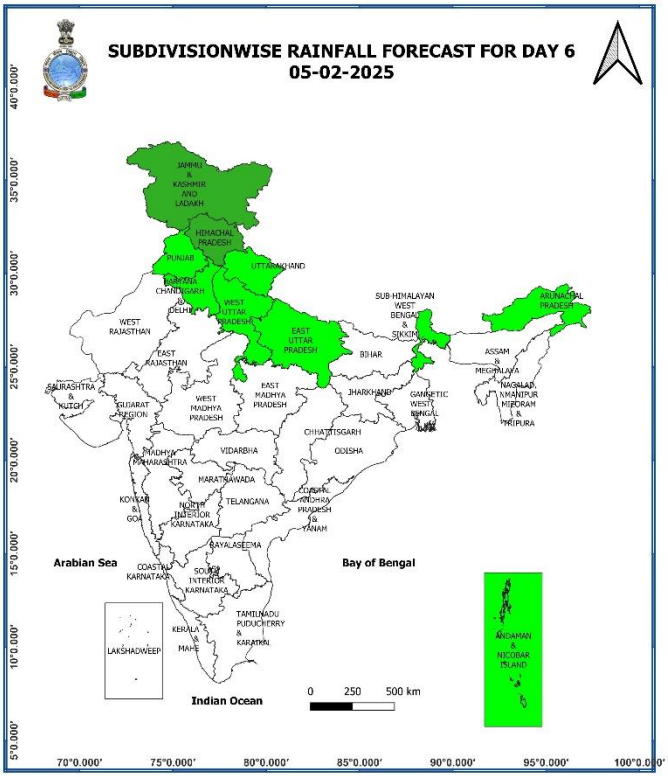
- **No Weather Warning.**

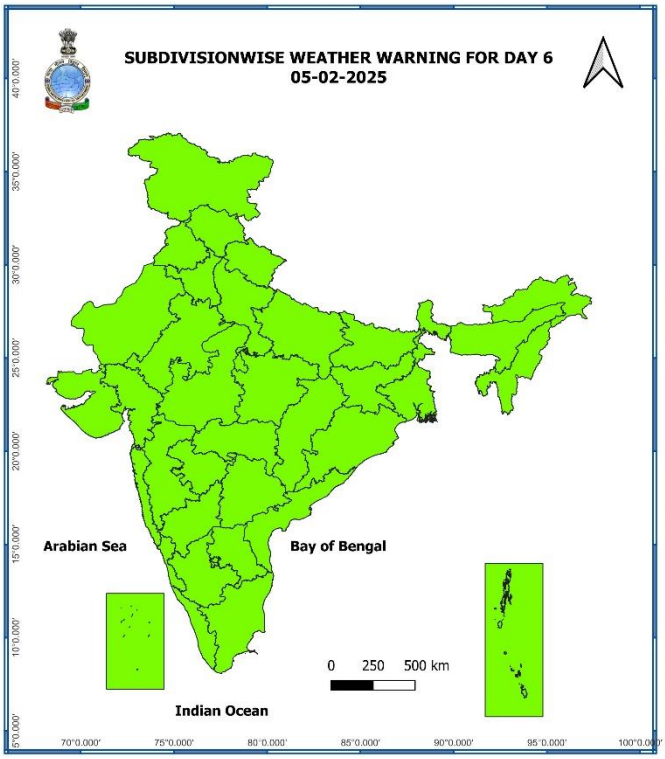




04th February (Day 5):

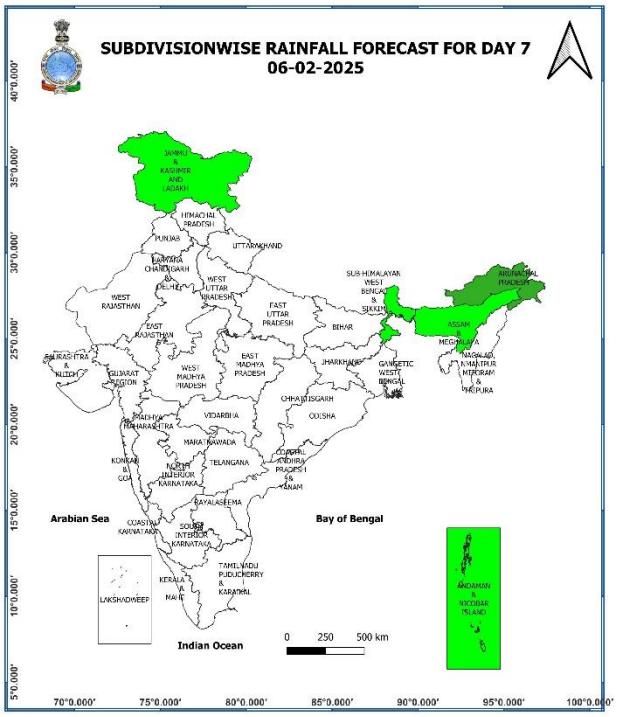
- **No Weather Warning.**

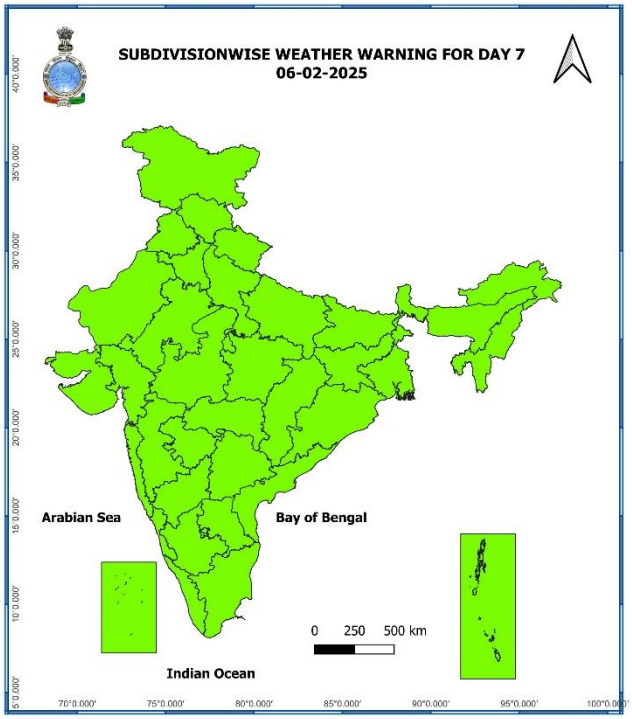




05th February (Day 6):

- **No Weather Warning.**





06th February (Day 7):

- **No Weather Warning.**

Weather Outlook for subsequent 3 days (During 07th February- 09th February, 2025)

- **Isolated to scattered rainfall likely** over western Himalayan region, northeast India and Andaman & 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

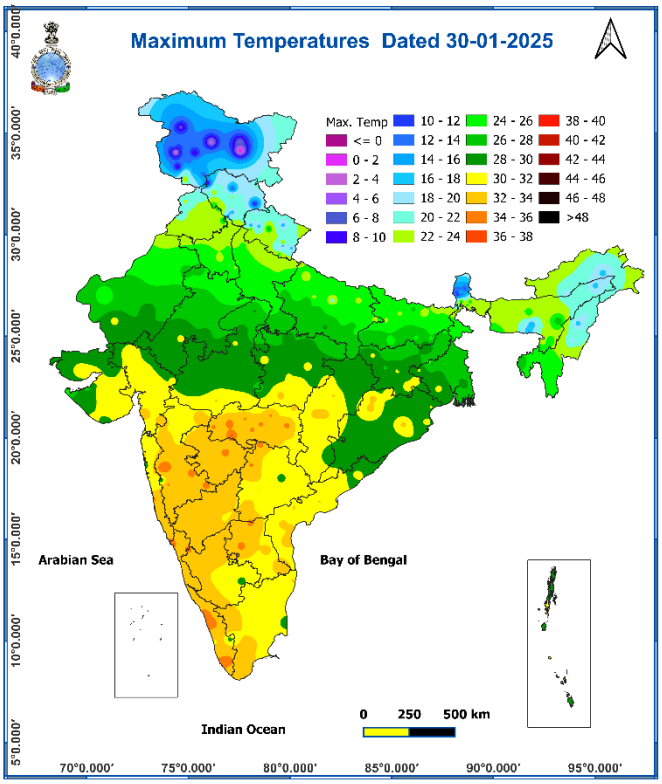


Fig. 2: Departure of Maximum Temperatures

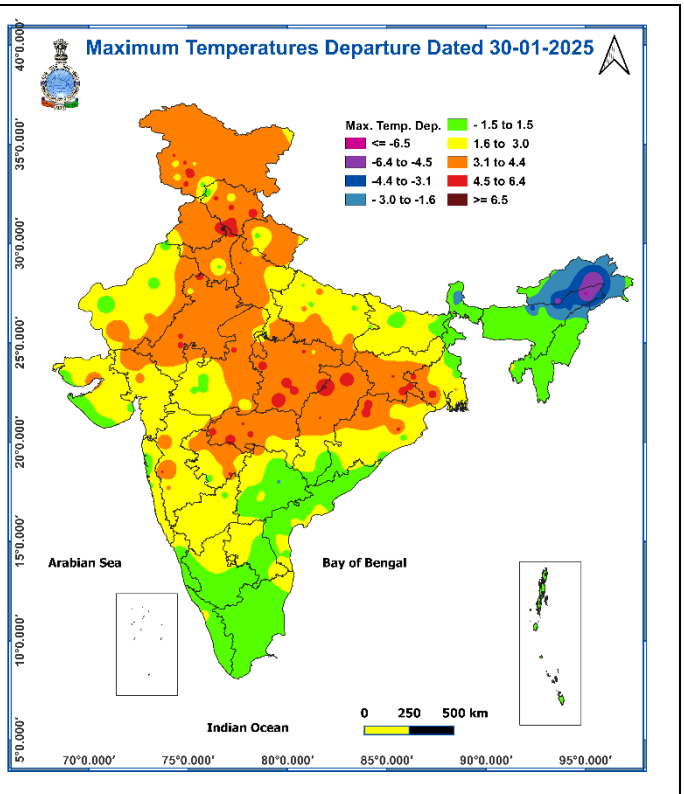


Fig. 3: Minimum Temperatures

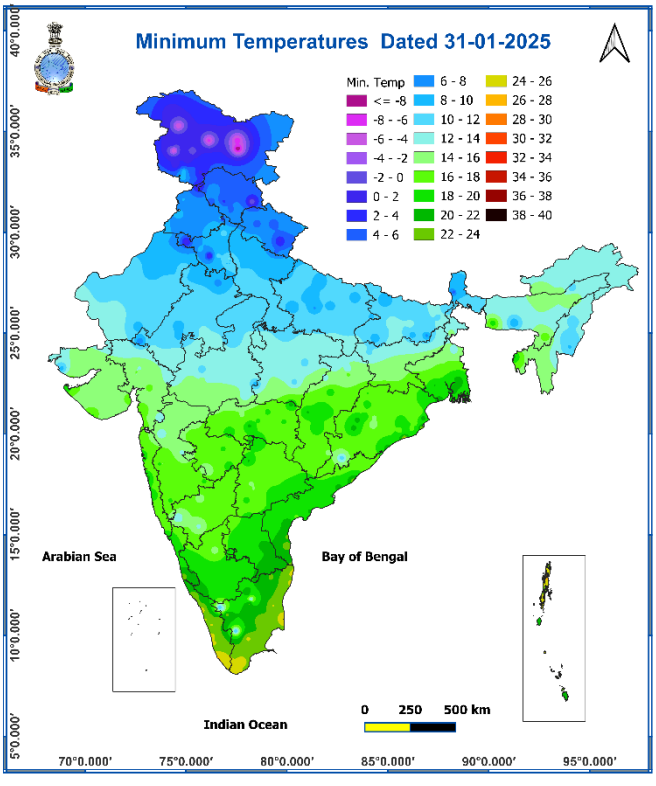
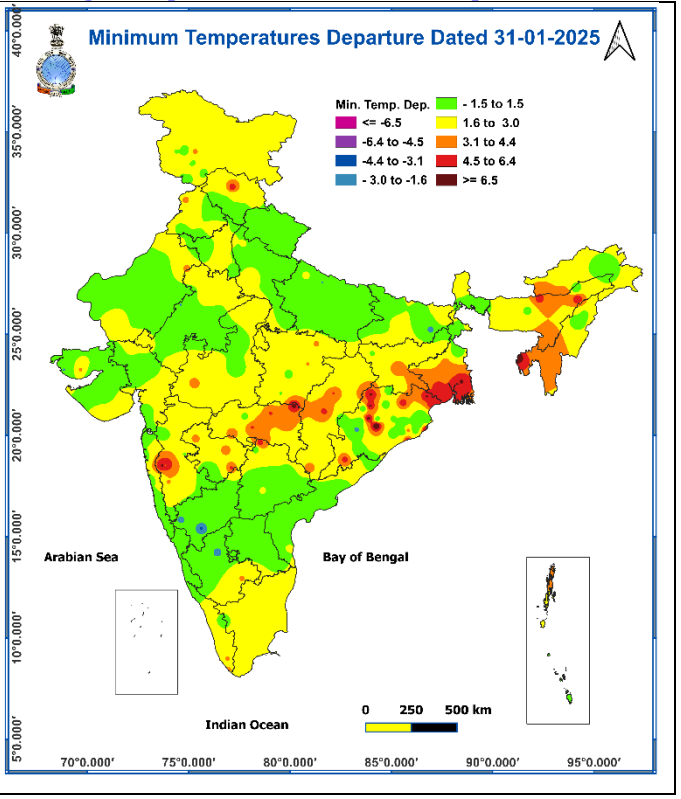


Fig. 4: Departure of Minimum Temperatures



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(Service to the Nation since 1875)

Impact expected due to dense fog in the night /morning hours over plains of North Uttar Pradesh, East India:

❖ 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:

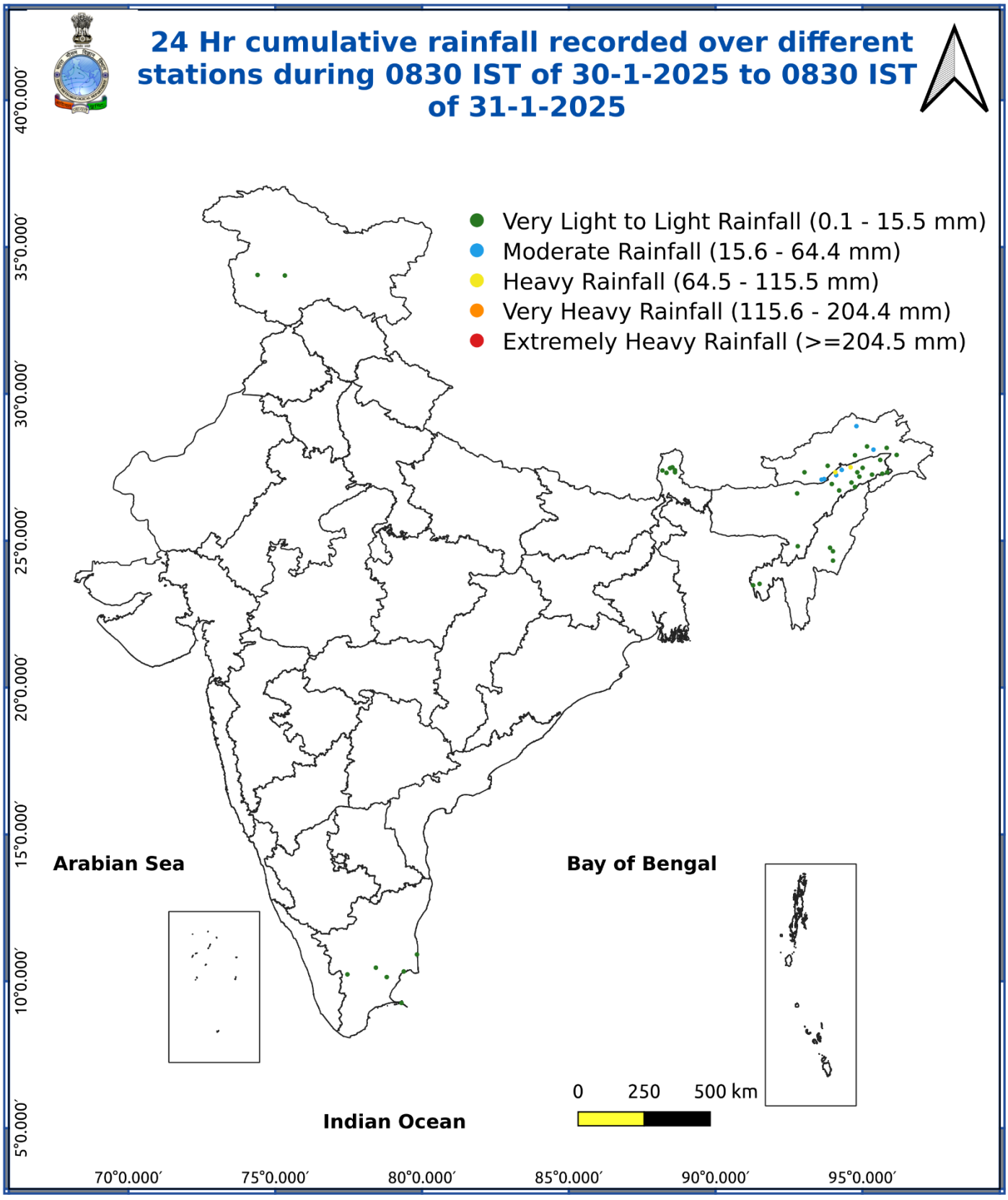
❖ Transport and Aviation:

- 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:

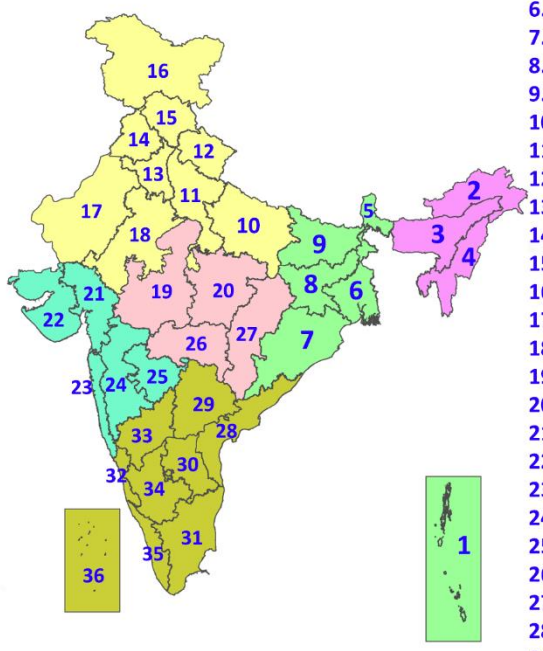
- To keep ready Maintenance Team.
- Human Health: To avoid outing until unless emergency and to cover the face.

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

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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)

* 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)