

Thursday, January 30, 2025  
Time of Issue: 0800 hours IST  
(MORNING)

## ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

### Significant Weather Features:

#### Weather Systems, Forecast and warning:

- ❖ The **Western disturbance** seen as a cyclonic circulation over East Afghanistan in lower tropospheric levels. Two fresh **Western Disturbances** are likely to affect Northwest India between 01<sup>st</sup> to 04<sup>th</sup> February, 2025. Under their influence,
  - ✓ Scattered to fairly widespread light to moderate rainfall/snowfall activity likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad during 30<sup>th</sup> January- 04<sup>th</sup> February; isolated to scattered rainfall/snowfall over Himachal Pradesh during 30<sup>th</sup> January-04<sup>th</sup> February and 01<sup>st</sup> February and isolated to scattered light to moderate rainfall over Punjab, Haryana, West Uttar Pradesh during 31<sup>st</sup> January- 04<sup>th</sup> February, East Rajasthan, Vidarbha during 02<sup>nd</sup> -04<sup>th</sup>, Madhya Pradesh and Chhattisgarh on 03<sup>rd</sup> & 04<sup>th</sup> February, 2025.
- ❖ A **cyclonic circulation** lies over northeast Assam in lower tropospheric levels. Under its influence,
  - ✓ Light to moderate rainfall accompanied with thunderstorm & lightning very likely at a few places over Arunachal Pradesh and Assam & Meghalaya on 30<sup>th</sup> & 31<sup>st</sup> January.
  - ✓ Isolated light to moderate rainfall likely over Sub-Himalayan West Bengal & Sikkim on 30<sup>th</sup> & 31<sup>st</sup> January.
  - ✓ **Heavy rainfall/snowfall** likely over Arunachal Pradesh on 30<sup>th</sup> January.
- ❖ Under the influence of an easterly wave, Light to moderate rainfall accompanied with thunderstorm & lightning very likely at a few places over Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe during 30<sup>th</sup> January - 01<sup>st</sup> February with isolated **heavy rainfall** likely over south Tamil Nadu, Puducherry & Karaikal on 30<sup>th</sup> & 31<sup>st</sup> January and over Kerala & Mahe on 31<sup>st</sup> January.

#### Temperature and Fog Forecast:

##### Forecast of temperature:

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

##### Dense Fog Warnings:

**Dense to very Dense fog Conditions** very likely to continue to prevail during night/early morning hours in isolated pockets of Uttar Pradesh till 31<sup>st</sup> January.

**Dense fog conditions** very likely to continue to prevail during night/early morning hours in isolated pockets of Gangetic West Bengal, coastal Odisha till 31<sup>st</sup> January; Sub-Himalayan West Bengal & Sikkim and Bihar till 01<sup>st</sup> February and over Assam & Meghalaya during 31<sup>st</sup> January-03<sup>rd</sup> February, 2025.

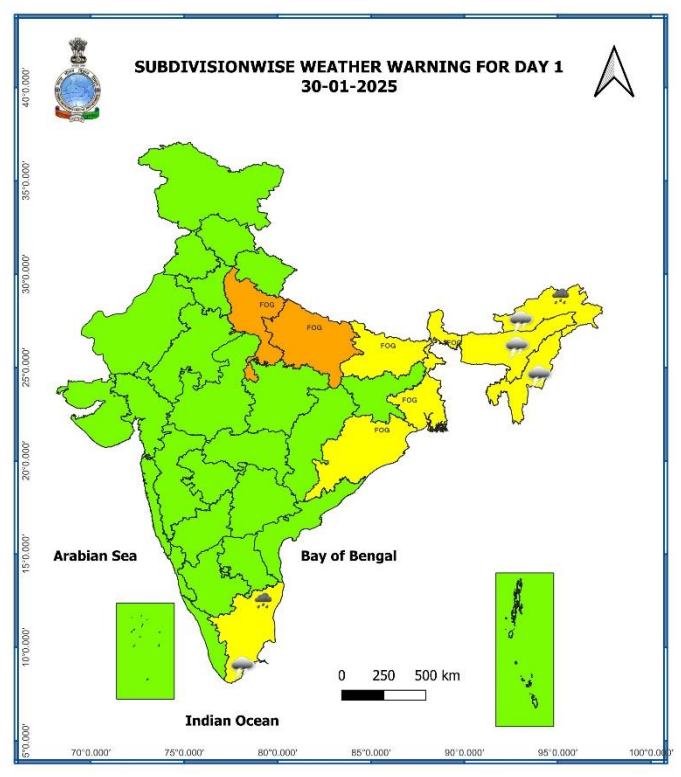
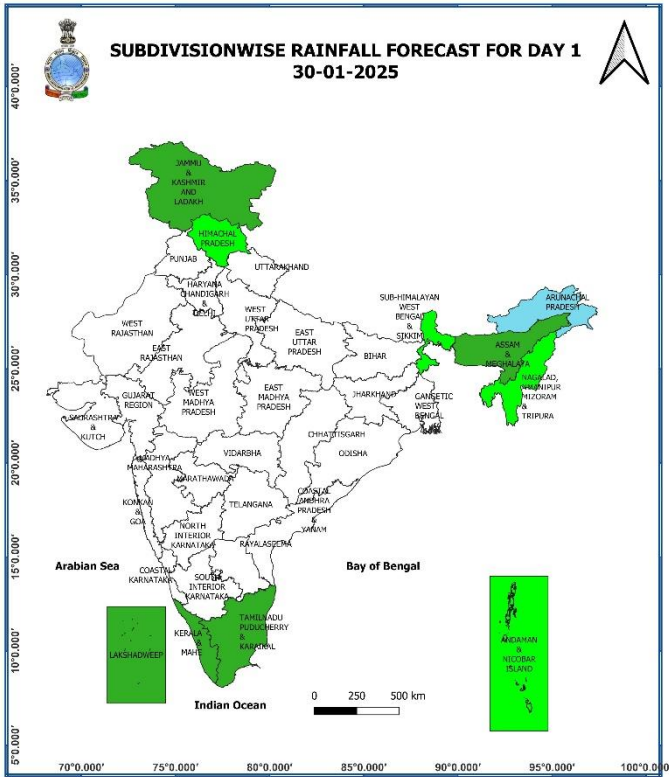
## Main Weather Observations:

- ❖ **Rainfall distribution** (from 0830 hours IST to 1730 hours IST of yesterday): **at a few places** over Andaman & Nicobar Islands.
- ❖ **Significant amount of rainfall** (from 0830 hours IST to 1730 hours IST of yesterday): (in cm): **Andaman & Nicobar Islands: Car Nicobar-1.**
- ❖ **Fog reported** (at 0530 hours IST of today): **Dense to very dense fog condition in isolated pockets of Uttar Pradesh and Odisha. Shallow to moderate fog conditions** in isolated pockets of Bihar, Gangetic West Bengal, Assam and Coastal Andhra Pradesh & Yanam.
- ❖ **Visibility reported** (at 0530 hours IST of today) ( $\leq 500$  m): **West Uttar Pradesh:** Bareilly 0, **East Uttar Pradesh:** Prayagraj, Bahraich, Gorakhpur Airport 00 each, Lucknow 100, Varanasi 250; **Bihar:** Purnea 200, Bhagalpur 500; **Odisha:** Chandbali 0, Keongjhargarh 200; **Gangetic West Bengal:** Bankura 200; **Assam:** North Lakhimpur, Mohanbari 500 each; **Coastal Andhra Pradesh & Yanam:** Vijayawada 500.
- ❖ **Yesterday, Cold Wave conditions** prevailed in isolated pockets of Himachal Pradesh.
- ❖ **Minimum Temperature Departures (as on 29-01-2025):** Minimum temperatures were **appreciably above normal ( $3.1^{\circ}\text{C}$  to  $5.0^{\circ}\text{C}$ )** at some places over East Rajasthan and Madhya Maharashtra; at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Saurashtra & Kutch, West Madhya Pradesh, Marathwada, Vidarbha, Assam & Meghalaya, Telangana, Andaman & Nicobar Islands; **above normal ( $1.6^{\circ}\text{C}$  to  $3.0^{\circ}\text{C}$ )** at many places over Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe; at a few places over Coastal Andhra Pradesh & Yanam; at isolated places over Haryana, Bihar, Gangetic West Bengal, West Rajasthan, Jharkhand, Gujarat Region. These were **below normal ( $-1.6^{\circ}\text{C}$  to  $-3.0^{\circ}\text{C}$ )** at many places over Delhi; at isolated places over East Madhya Pradesh, Konkan & Goa, Rayalaseema and near normal over rest parts of the country (**Fig. 4**). Yesterday, the **lowest minimum temperature** of  $4.8^{\circ}\text{C}$  was reported at **Narnaul (Haryana)** over the plains of the country.
- ❖ **Maximum Temperature Departures (as on 29-01-2025):** Maximum temperatures were **markedly above normal ( $5.1^{\circ}\text{C}$  or above)** at a few over West Rajasthan; at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad; **appreciably above normal ( $3.1^{\circ}\text{C}$  to  $5.0^{\circ}\text{C}$ )** at a few places over East Rajasthan, Gujarat state, Chhattisgarh, Jharkhand, Vidarbha, Marathwada, Madhya Maharashtra; at isolated places over Himachal Pradesh, Madhya Pradesh, Odisha; **above normal ( $1.6^{\circ}\text{C}$  to  $3.0^{\circ}\text{C}$ )** at most places over Punjab, Haryana-Chandigarh-Delhi, Uttarakhand, North Interior Karnataka; at many places over Uttar Pradesh, Bihar, Coastal Karnataka, Konkan & Goa, Telangana; at isolated places over Rayalaseema, South Interior Karnataka and Gangetic West Bengal. These were **below normal ( $-1.6^{\circ}\text{C}$  to  $-3.0^{\circ}\text{C}$ )** at isolated places over Kerala & Mahe and near normal over rest parts of the country (**Fig. 2**). Yesterday, the **highest maximum temperature** of  $36.3^{\circ}\text{C}$  was reported at **Akola (Vidarbha)** over the plains of the country.

### Meteorological Analysis (Based on 0530 hours IST)

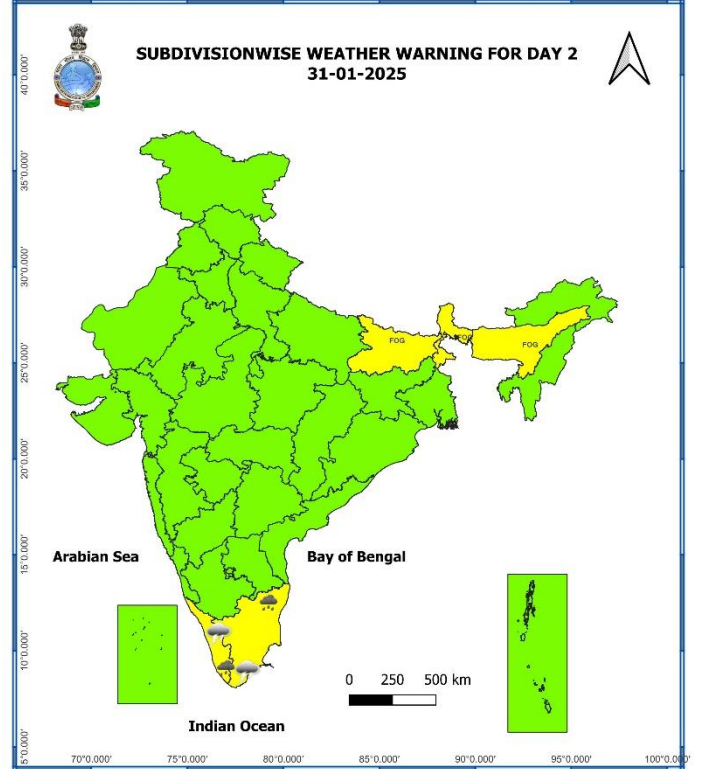
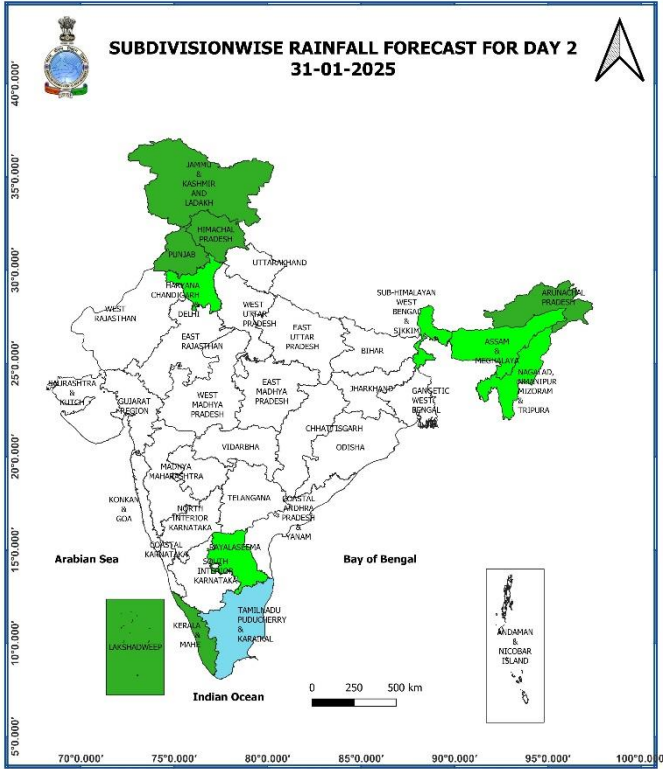
- ❖ The **Western Disturbance** as a cyclonic circulation over West Afghanistan & neighbourhood now lies over east Afghanistan & neighbourhood at 3.1 km above mean sea level with a trough aloft in middle & upper tropospheric westerlies with its axis at 5.8 km above mean sea level now runs roughly along Long. 68°E to the north of Lat. 33°N.
- ❖ The **cyclonic circulation** over South Haryana & neighbourhood at 1.5 km above mean sea level persists.
- ❖ The **cyclonic circulation** over northeast Assam & neighbourhood between 1.5 km & 3.1 km above mean sea level persists.
- ❖ Subtropical **westerly Jet Stream** with core winds of the order upto 140 knots at 12.6 km above mean sea level is prevailing over North India.
- ❖ Two fresh **Western Disturbances** are likely to affect Northwest India during 01<sup>st</sup> & 03<sup>rd</sup> February, 2025.

**Weather Forecast & Warnings for next 7 days (Upto 0830 hours IST of 06<sup>th</sup> February, 2025)**



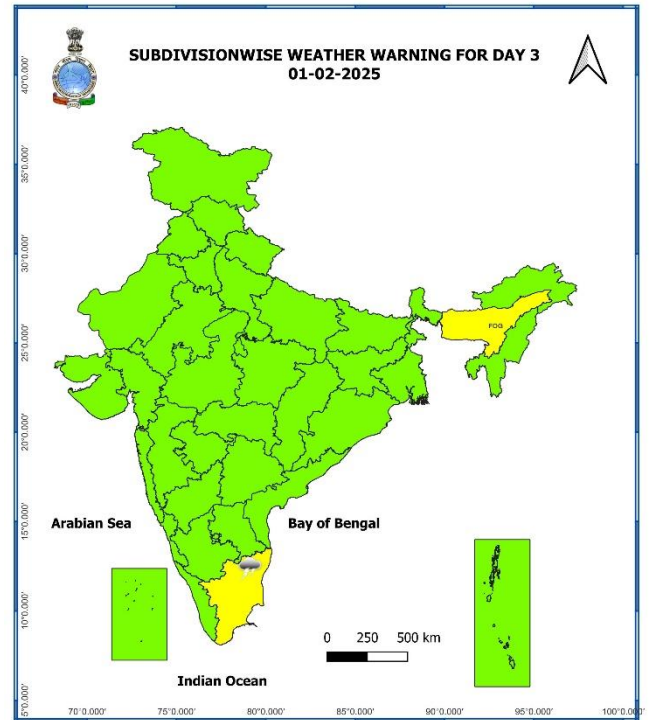
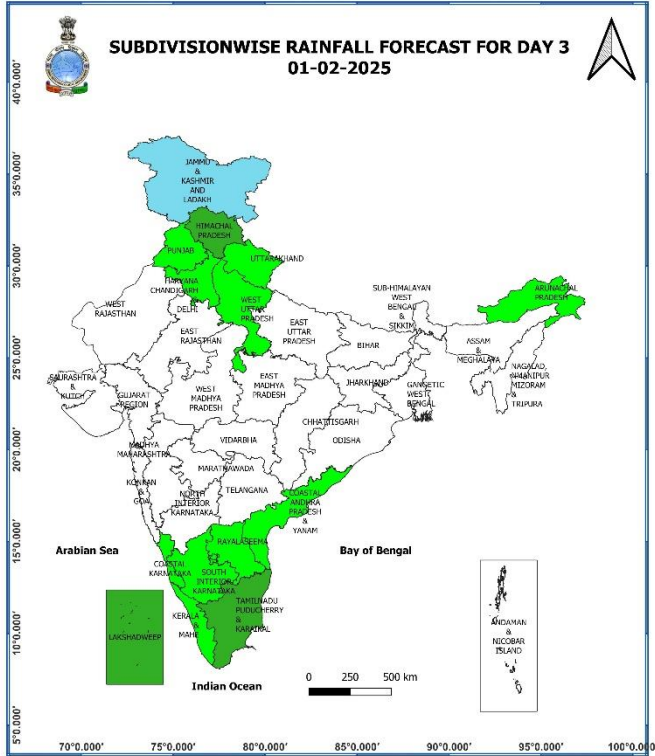
**30<sup>th</sup> January (Day 1):**

- ❖ **Dense to very dense fog conditions** very likely in some parts of Uttar Pradesh; **Dense fog conditions** very likely in isolated pockets of West Bengal & Sikkim, Bihar and Odisha.
- ❖ **Heavy Rainfall/snowfall** very likely at isolated places over Arunachal Pradesh; **Heavy Rainfall** at isolated places over south Tamil Nadu, Puducherry & Karaikal.
- ❖ **Thunderstorm accompanied with lightning** very likely at isolated places over Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura and Tamil Nadu, Puducherry & Karaikal.



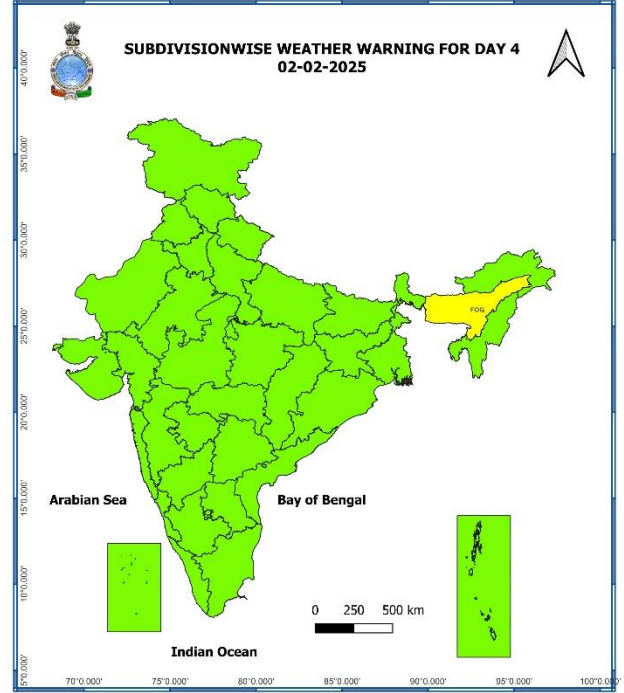
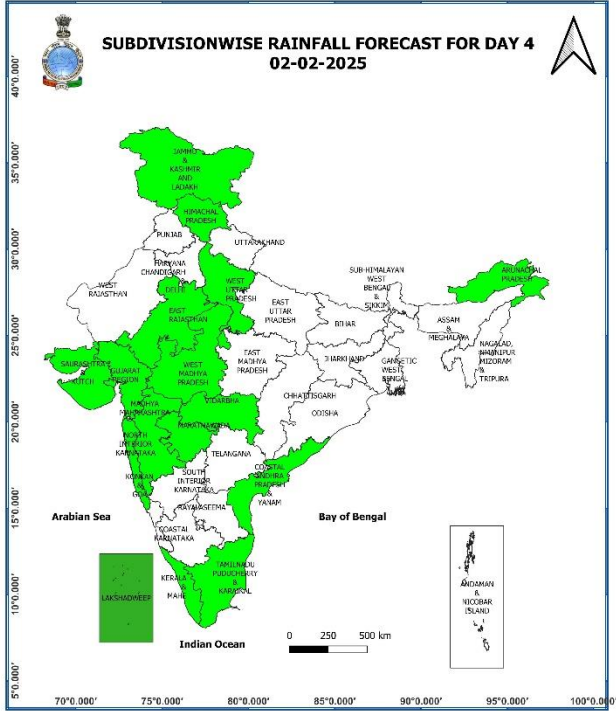
### 31<sup>st</sup> January (Day 2):

- ❖ **Dense fog conditions** very likely in isolated pockets of Sub-Himalayan West Bengal & Sikkim, Bihar and Assam & Meghalaya.
- ❖ **Heavy Rainfall** very likely at isolated places over Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe.
- ❖ **Thunderstorm accompanied with lightning** very likely at isolated places over Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe.



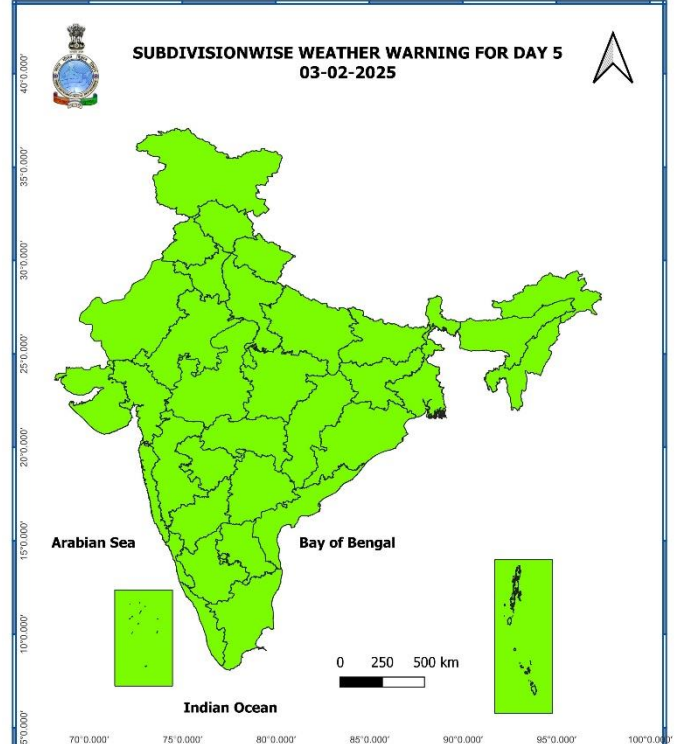
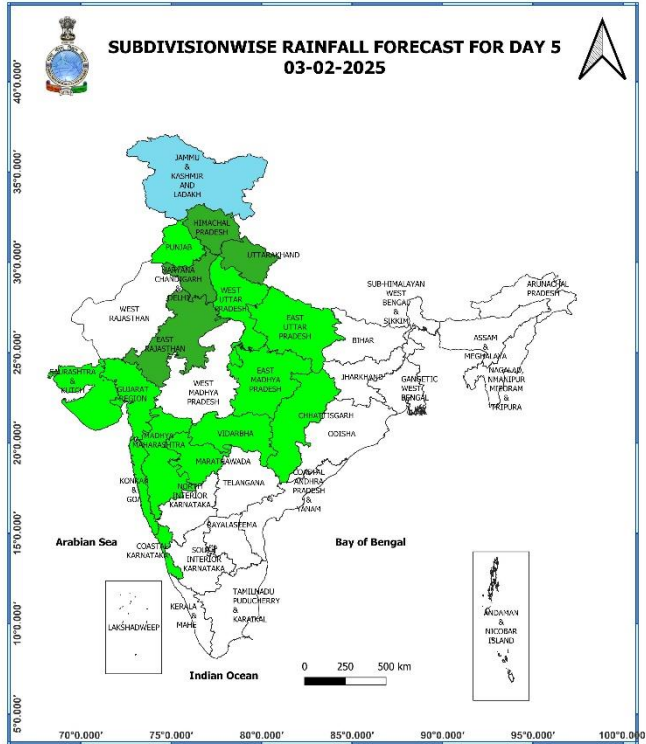
### 01<sup>st</sup> February (Day 3):

- ❖ **Dense fog conditions** likely in isolated pockets of Assam & Meghalaya.
- ❖ **Thunderstorm accompanied with lightning** likely at isolated places over Tamil Nadu, Puducherry & Karaikal.



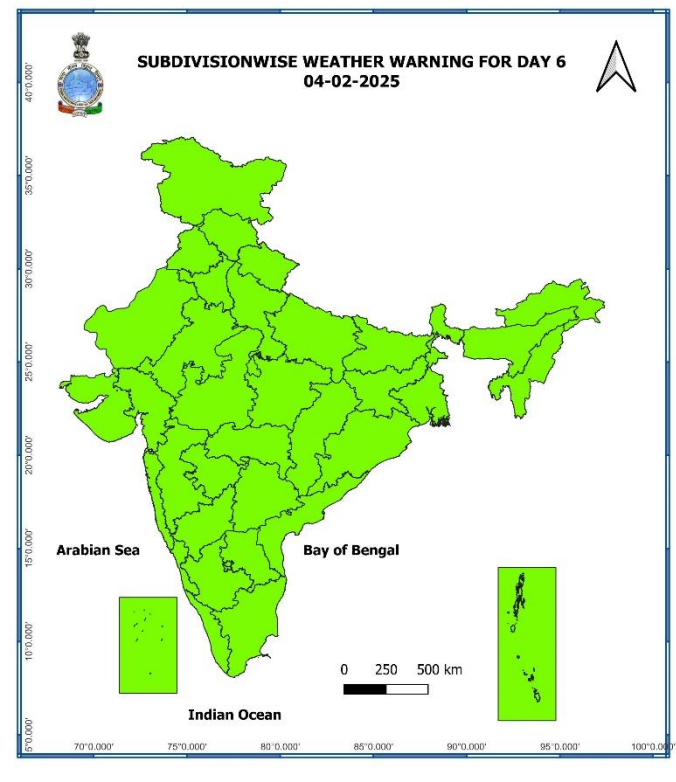
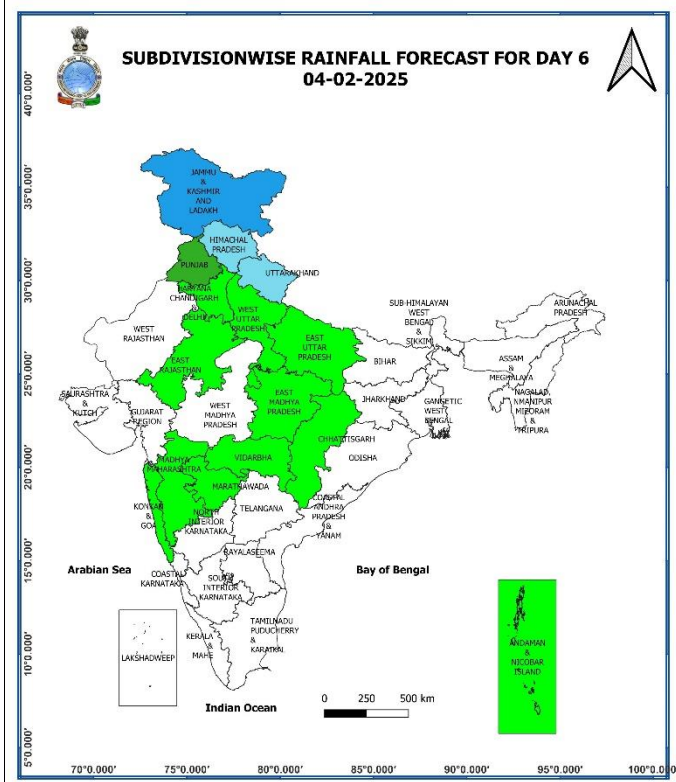
**02<sup>nd</sup> February (Day4):**

- ❖ **Dense fog conditions** likely in isolated pockets of Assam & Meghalaya.



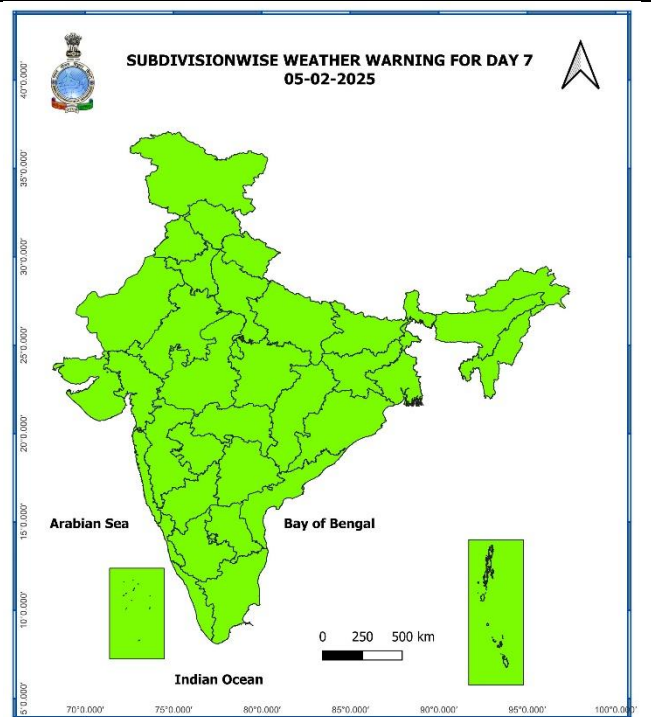
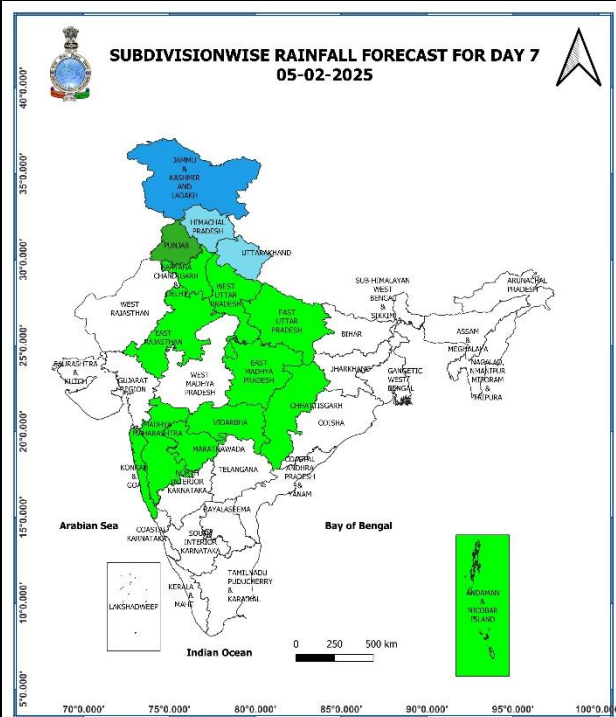
**03<sup>rd</sup> February (Day 5):**

❖ **No Weather Warning.**



**04<sup>th</sup> February (Day 6):**

❖ **No Weather Warning.**



**05<sup>th</sup> February (Day 7):**

❖ **No Weather Warning.**

**Weather Outlook for subsequent 3 days (During 06<sup>th</sup> February- 08<sup>th</sup> February, 2025)**

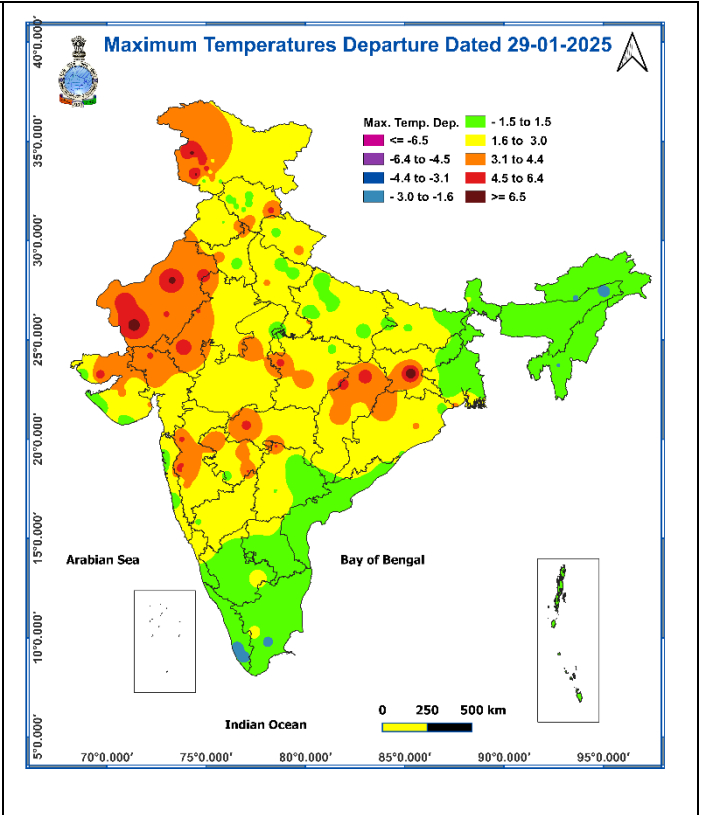
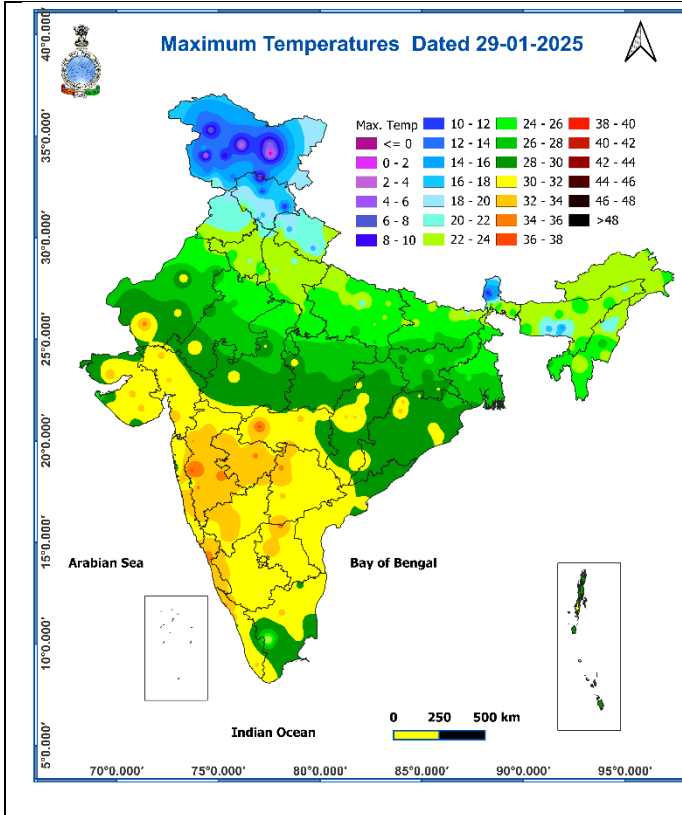
❖ **Isolated to scattered rainfall likely** over western Himalayan region, Uttar Pradesh, adjoining Central India, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe, Lakshadweep and Andaman & Nicobar Islands.

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.

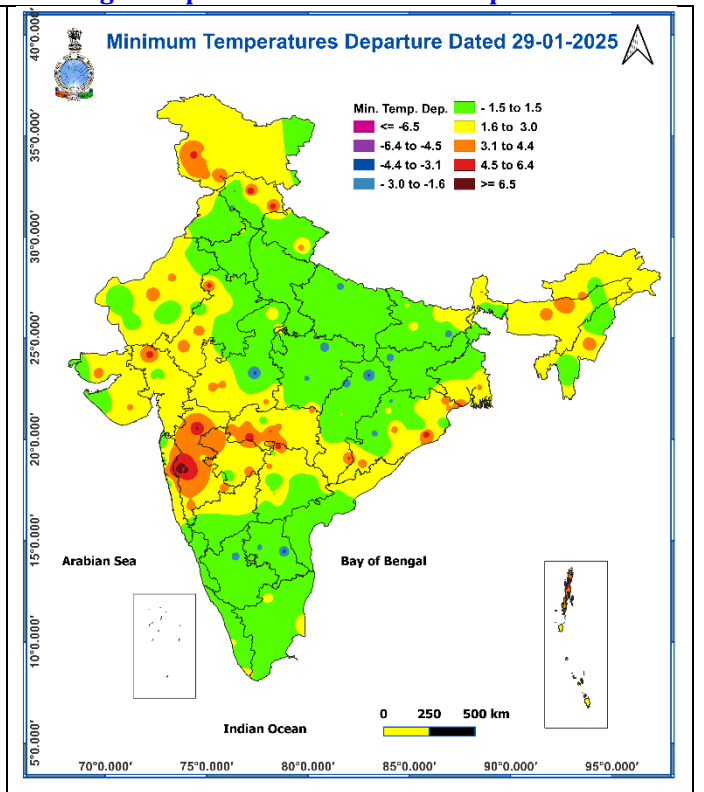
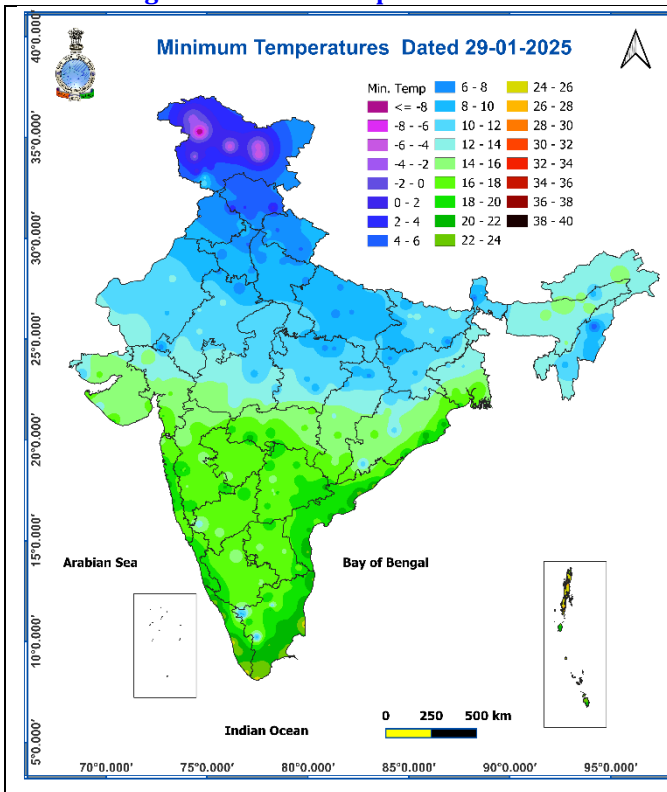
**Fig. 1: Maximum Temperatures**

**Fig. 2: Departure of Maximum Temperatures**



**Fig. 3: Minimum Temperatures**

**Fig. 4: Departure of Minimum Temperatures**



### 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.

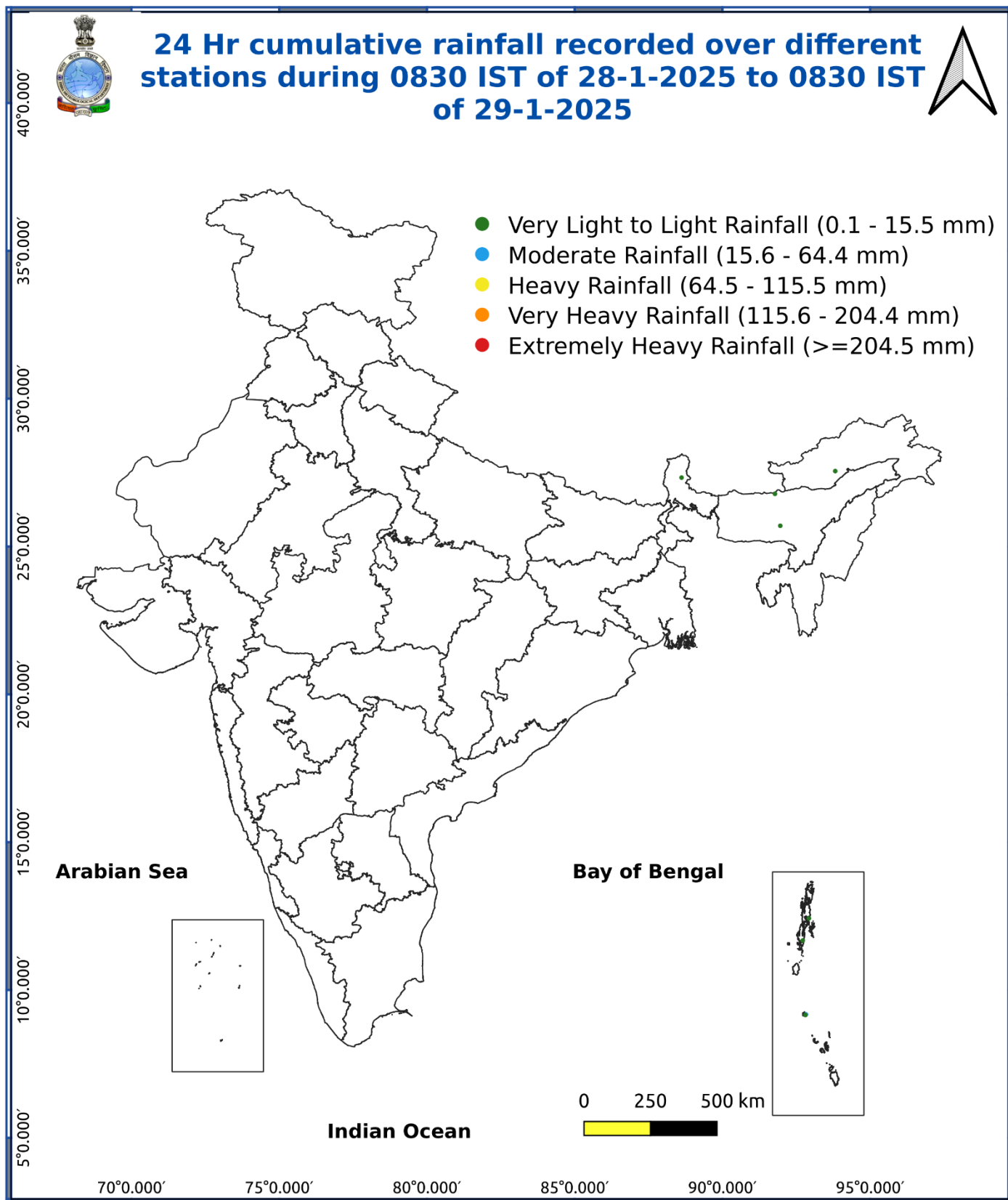
#### ❖ Power Sector:

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

### Agromet advisories for likely impact of Heavy Rainfall

- In **Tamil Nadu**, harvest the matured paddy immediately in order to protect from rainfall. Provide support to banana plants with wooden poles to avoid lodging due to rain and wind. Ensure adequate drainage facility in the turmeric and sugarcane fields.

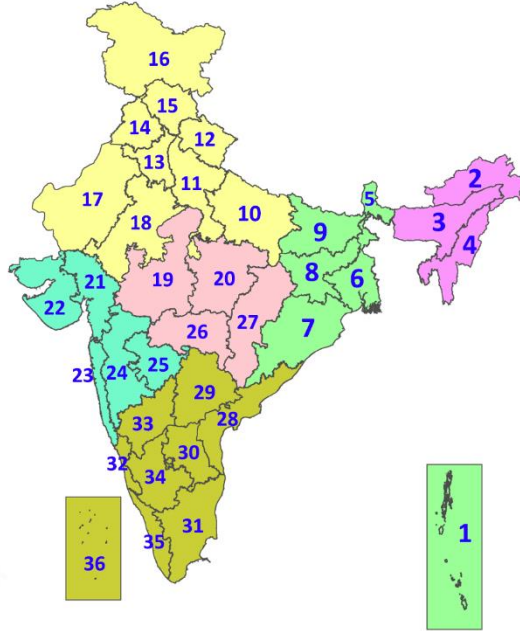
Fig. 5: Accumulated Rainfall (mm) during past 24 hours



\* 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)

## 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

### COLOUR CODED WARNING

No Warning (No Action)

Watch (Be Aware)

Alert (Be Prepared To Take Action)

Warning (Take Action)



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

### 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  $4.5^\circ\text{C}$  to  $6.4^\circ\text{C}$ .  
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  $40^\circ\text{C}$

Warm Night: When minimum temperature departure  $4.5^\circ\text{C}$  to  $6.4^\circ\text{C}$ .  
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  $-4.5^\circ\text{C}$  to  $-6.4^\circ\text{C}$ .  
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  $-4.5^\circ\text{C}$  to  $-6.4^\circ\text{C}$ .  
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)