

Government of India  
Ministry of Earth Sciences  
India Meteorological Department



Press Release

Date: 22<sup>nd</sup> February, 2025

Time of Issue: 1430 hours IST

**Subject: a) Thunderstorms accompanied with lightning, gusty winds & hailstorm are likely over East India on 22<sup>nd</sup> & 23<sup>rd</sup> February, 2025.**

**b) An active Western Disturbance is likely to affect Northwest India from 25<sup>th</sup> and cause heavy rainfall/snowfall over Western Himalayan region during 25<sup>th</sup> -28<sup>th</sup> February, 2025.**

**Temperature:**

- ❖ During Past 24 hours, Day temperatures have fallen by 1-4°C over many parts of plains of Northwest India. It has raised by 3-5°C over many parts of Gangetic West Bengal and no significant change over remaining parts of the country.
- ❖ Day temperatures were above normal by 1-3°C over many parts of Maharashtra, Telangana, East of central India, Bihar, Jharkhand and Uttar Pradesh. These were below normal by 1-4°C over some parts of Northwest India and near normal over remaining parts of the country.
- ❖ During past 24 hours, Night temperatures have fallen by 1-4°C over many parts of plains of Northwest India; some parts of Central India and it has raised by 1-4°C over many parts of Western Himalayan region, Northwest India, Gangetic West Bengal, Jharkhand and no significant change over remaining parts of the country.
- ❖ Night temperatures were above normal by 2-5°C over many parts of Uttar Pradesh, Bihar, northeast Madhya Pradesh, Chhattisgarh, Odisha, West Bengal & Sikkim and west Assam and near normal over remaining parts of the country.
- ❖ Further detailed temperature observations during past 24 hours till 0830 hours IST of today are provided in **Annexure II**

**Rainfall:**

- ❖ Light to moderate **Rainfall/Snowfall** observed at many places over Arunachal Pradesh; at isolated places over Himachal Pradesh; Light to moderate **Rainfall** at many places over Sub-Himalayan West Bengal & Sikkim; at a few places over Assam & Meghalaya & Andaman & Nicobar Islands; at isolated places over Nagaland, Manipur, Mizoram & Tripura, Odisha, Jharkhand and Chhattisgarh.
- ❖ **Hailstorms reported** at isolated places over Sub-Himalayan West Bengal & Sikkim and Odisha.
- ❖ **Thunderstorm with lightning** reported at isolated places over Sub-Himalayan West Bengal & Sikkim, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Lakshadweep and Odisha.

**i. Weather Systems, Forecast and warning (Annexure III & IV):**

- ❖ A trough in westerlies runs from south Gangetic West Bengal to north Coastal Andhra Pradesh in the lower levels. An anti-cyclonic circulation lies over north Bay of Bengal in lower tropospheric levels, which is feeding moisture into east and east central India in the lower levels. Under the influence of these systems;
  - ✓ **Isolated to Scattered** light/moderate rainfall accompanied with **thunderstorm, lightning with squall (speed 40-60 kmph)** very likely over Odisha, Gangetic West Bengal on 22<sup>nd</sup> & 23<sup>rd</sup>, Jharkhand on 22<sup>nd</sup>; **thunderstorm, lightning with gusty winds (speed 30-40 kmph)** very likely over Nagaland, Manipur, Mizoram & Tripura on 22<sup>nd</sup>; Assam & Meghalaya on 22<sup>nd</sup> & 23<sup>rd</sup> and Jharkhand on 23<sup>rd</sup> February. Isolated to scattered light/moderate rainfall accompanied with **thunderstorm & lightning** very likely over Chhattisgarh, Sub-Himalayan West Bengal & Sikkim, Bihar, Arunachal Pradesh & Nagaland, Manipur, Mizoram & Tripura on 22<sup>nd</sup> & 23<sup>rd</sup>; Assam & Meghalaya during 22<sup>nd</sup>-24<sup>th</sup>; Odisha on 24<sup>th</sup> February.
  - ✓ **Hailstorm activity also likely at isolated places over Chhattisgarh, Sub-Himalayan West Bengal & Sikkim, Jharkhand & Odisha, Arunachal Pradesh on 22<sup>nd</sup>; Gangetic West Bengal on 22<sup>nd</sup> & 23<sup>rd</sup> February.**

- ❖ Under the influence of an active easterly wave **Heavy rainfall** at isolated places likely over Andaman & Nicobar Islands on 25<sup>th</sup> & 26<sup>th</sup> February. **Fairly widespread to widespread** light/moderate rainfall accompanied with **thunderstorm, lightning** very likely over Andaman & Nicobar Islands during 24<sup>th</sup>-26<sup>th</sup> February.
- ❖ A **fresh Western Disturbance** is likely to affect Northwest India from the night of 24<sup>th</sup> February, 2025. Under its influence,
  - ✓ **Fairly widespread to widespread** light to moderate rainfall/snowfall accompanied with thunderstorm & lightning likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh & Uttarakhand on 25<sup>th</sup> & 26<sup>th</sup> February.
  - ✓ **Heavy rainfall/snowfall** at isolated places likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad during 25<sup>th</sup>-28<sup>th</sup>; Himachal Pradesh during 26<sup>th</sup>-28<sup>th</sup>; Uttarakhand on 27<sup>th</sup> & 28<sup>th</sup> February.
  - ✓ **Isolated to scattered** light to moderate rainfall likely over Punjab, Haryana, Chandigarh during 26<sup>th</sup>- 28<sup>th</sup>; over West Uttar Pradesh & Rajasthan on 27<sup>th</sup> & 28<sup>th</sup> and East Uttar Pradesh on 28<sup>th</sup> February.

### Temperature Forecast:

#### Forecast of temperature:

##### Minimum Temperature:

- ❖ Gradual fall in minimum temperatures by 1-2°C likely over Northwest India during next 2 days and gradual rise by 3-5°C thereafter.
- ❖ No significant change in minimum temperatures likely over Central India & Gujarat State during next 3 days and rise by 2-3°C thereafter.
- ❖ No significant change in minimum temperatures likely over rest parts of India during next 4-5 days.

##### Maximum temperature:

- ❖ No significant change in maximum temperatures likely over Western Himalayan region during next 3 days and gradual fall by 4-5°C thereafter.
- ❖ Gradual rise in maximum temperatures by 2-4°C likely over plains of Northwest India during next 4 days and no significant change thereafter.
- ❖ No significant change in maximum temperatures likely over Central India & Gujarat State during next 3 days and rise by 2-3°C thereafter.
- ❖ No significant change in maximum temperatures likely over rest parts of India during next 4-5 days.

### Dense Fog Warnings:

**Dense fog conditions** very likely to continue to prevail during night/early morning hours in isolated pockets of Sikkim till 24<sup>th</sup> February.

### iii. Weather conditions and forecast over Delhi/NCR during 22<sup>nd</sup> Feb. to 25<sup>th</sup> Feb. 2025 (Annexure V)

**For more details, kindly refer National Weather Bulletin:**

[https://mausam.imd.gov.in/responsive/all\\_india\\_forecast\\_bulletin.php](https://mausam.imd.gov.in/responsive/all_india_forecast_bulletin.php)

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

**Significant rainfall recorded during past 24 hours till 0830 hours IST of today 22.02.2025 (in cm):**

- ❖ **Arunachal Pradesh:** Tezu (dist Lohit) 3, Tuting (dist Upper Siang) 2, Tuting\_Aws (dist Upper Siang) 1, Namsai (dist Lohit) 1, Itanagar (dist Papumpara) 1;
- ❖ **Assam & Meghalaya:** Mushalpur\_aws (dist Baksa) 1, Dc\_Ofc\_Dibrugarh (Arg) (dist Dibrugarh) 1, Bongaigaon (Aws) (dist Bongaigaon) 1;
- ❖ **Nagaland, Manipur, Mizoram & Tripura:** Mangkolemba (dist Mokokchung) 1

**Visibility reported ( $\leq 200$  m) (in meter):**

- ❖ **Dense fog (visibility 50-199 m)** reported in isolated pockets of Gangetic West Bengal and Meghalaya.
- ❖ **Visibility reported ( $\leq 200$  m) (in meter): Gangetic West Bengal:** Dum Dum 50, Diamond Harbour 50, Durgapur 200; **Meghalaya:** Barapani 100.

**Hailstorm reported:**

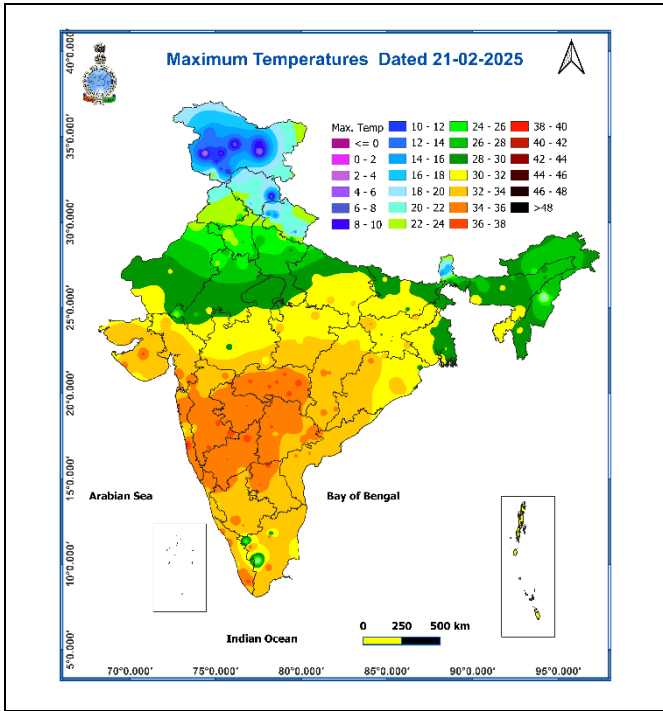
- ❖ **Sub-Himalayan West Bengal & Sikkim:** Gangtok, Tadong.

**Thunderstorm reported:**

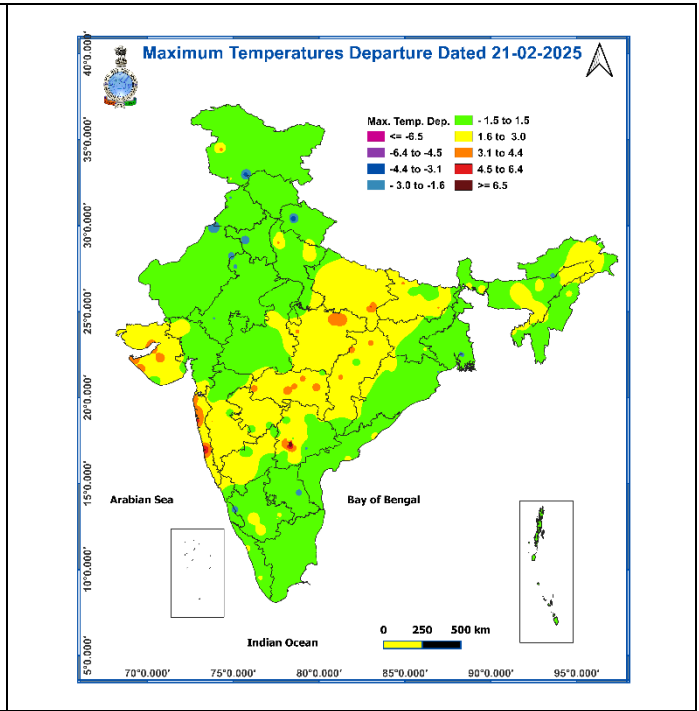
- ❖ **Assam & Meghalaya:** Dibrugarh, Jorhat; **Nagaland, Manipur, Mizoram & Tripura:** Dimapur; **Sub-Himalayan West Bengal & Sikkim:** Gangtok, Pakyong, Tadong, Darjeeling; **Odisha:** Balasore.

- ❖ Minimum temperatures are in the range of 4°C to 8°C over many parts of Himachal Pradesh & Uttarakhand; 8-14°C over many parts of plains of Northwest India; 14-20°C over many parts of Bihar, Jharkhand, Central and West India; 20-24°C over many parts of south peninsular India. Today, the lowest minimum temperature of **8.7°C** is reported at **Ambala (Haryana)** over the plains of the country.
- ❖ During the past 24 hours, **minimum temperatures** have risen by 1-3°C at many places over Himachal Pradesh & West Bengal & Sikkim; at some places over Assam & Meghalaya, Gujarat State, Tamilnadu Puducherry & Karaikal; at isolated places over Uttarakhand, Jharkhand, Odisha, East Madhya Pradesh; by 3-6°C at some places over Jammu-Kashmir; at isolated places over Punjab and fallen by 1-4°C at some places over West Madhya Pradesh; at isolated places over East Rajasthan, Chhattisgarh, Maharashtra & Telangana and no significant change over rest parts of the country.
- ❖ Minimum temperatures are **appreciably above normal (3°C to 5°C)** at a few places over East Madhya Pradesh, Coastal Karnataka; at isolated places over East Uttar Pradesh, Bihar, Odisha, Madhya Maharashtra, Gujarat Region, Assam & Meghalaya; **above normal (1°C to 3°C)** at few places over Gangetic West Bengal, Andaman & Nicobar Islands, Konkan & Goa, Jharkhand; at isolated places over Kerala & Mahe, Saurashtra & Kutch, Chhattisgarh, Telangana, Rayalaseema, Tamil Nadu, Puducherry & Karaikal, North Interior Karnataka, Punjab, West Uttar Pradesh. These are **below normal (-3°C to -1°C)** at isolated places over East Madhya Pradesh and near normal over rest parts of the country.
- ❖ Maximum temperatures are in the range of 35-39°C over many parts of Maharashtra & Kerala & Mahe; at some places over North Interior Karnataka, Telangana & Tamilnadu Puducherry & Karaikal; at isolated places over Saurashtra & Kutch & Rayalaseema; 30-35°C over many parts of Central & East India; at some places over Gujarat Region; at isolated place over West Rajasthan & East Uttar Pradesh. Yesterday, the highest **maximum temperature of 38.6°C** was reported at **Ratnagiri (Konkan & Goa)** over the plains of the country.
- ❖ Maximum temperatures were **markedly above normal (5°C or more)** at isolated places over Konkan & Goa; **appreciably above normal (3°C to 5°C)** at isolated places over East Madhya Pradesh, Vidarbha, Chhattisgarh, Saurashtra & Kutch; **above normal (1°C to 3°C)** at a few places over Assam & Meghalaya; at isolated places over Uttar Pradesh, Bihar, Jharkhand, Interior Karnataka, Kerala & Mahe, Sub-Himalayan West Bengal & Sikkim. These were **below normal (-3°C to -1°C)** at isolated places over Rajasthan, Gangetic West Bengal and near normal over rest parts of the country.

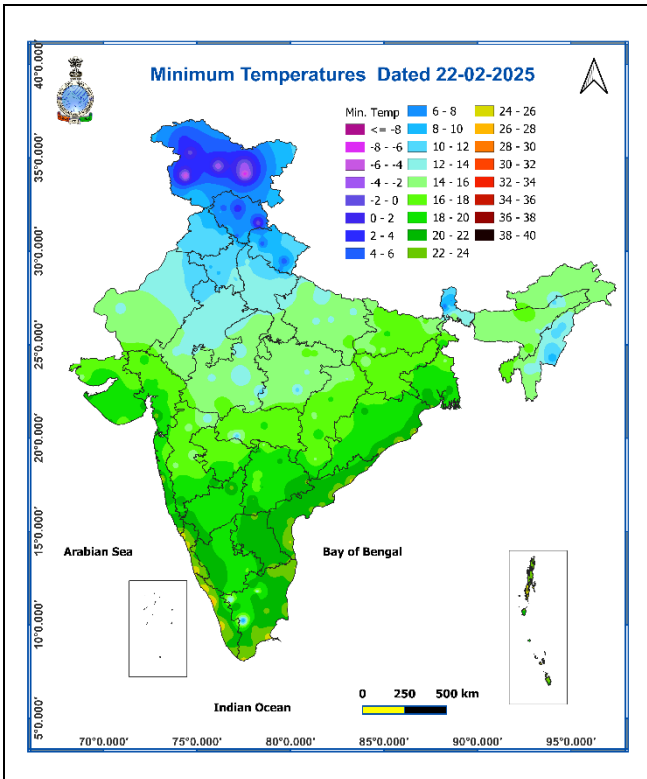
**Fig. 1: Maximum Temperatures**



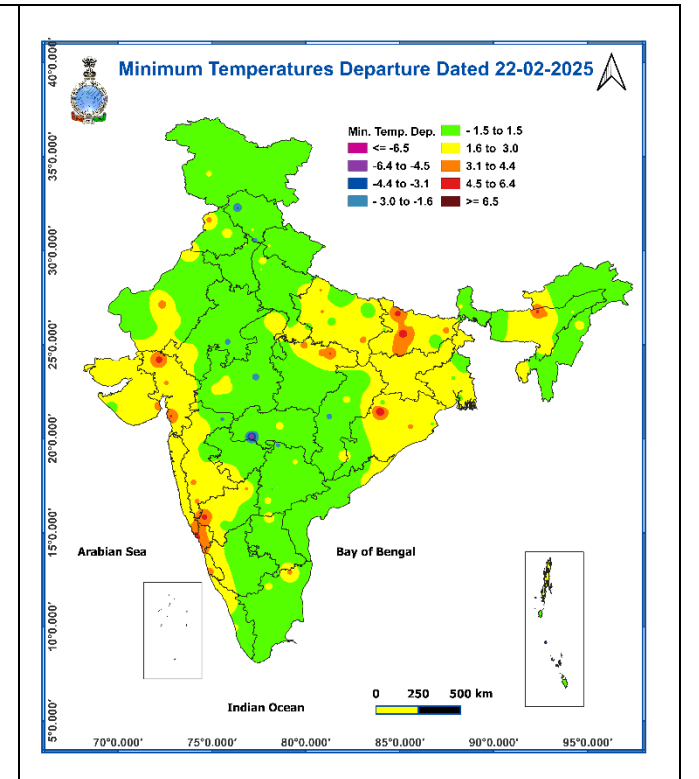
**Fig. 2: Departure of Maximum Temperatures**



**Fig. 3: Minimum Temperatures**



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

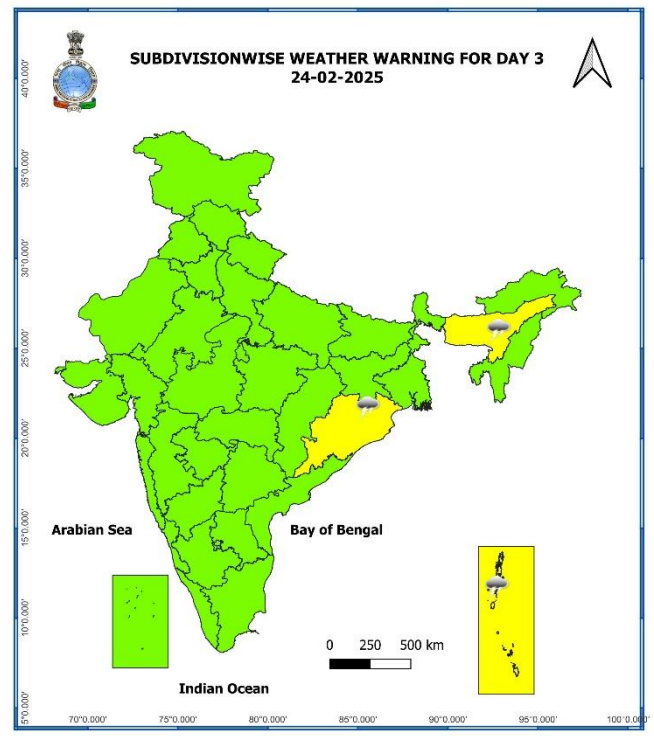
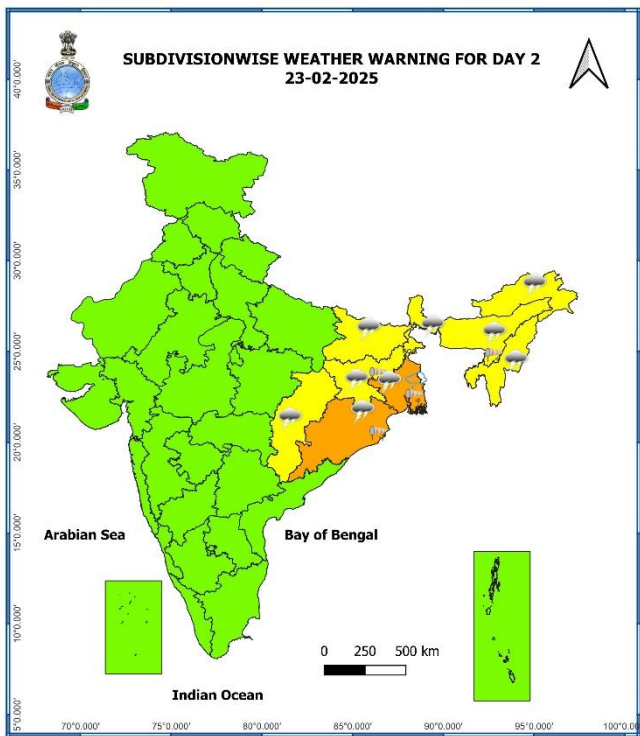
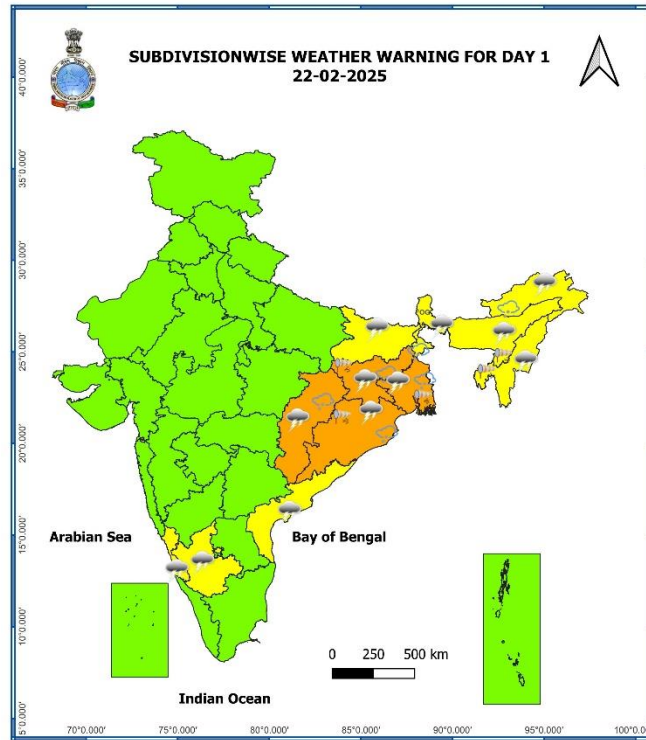


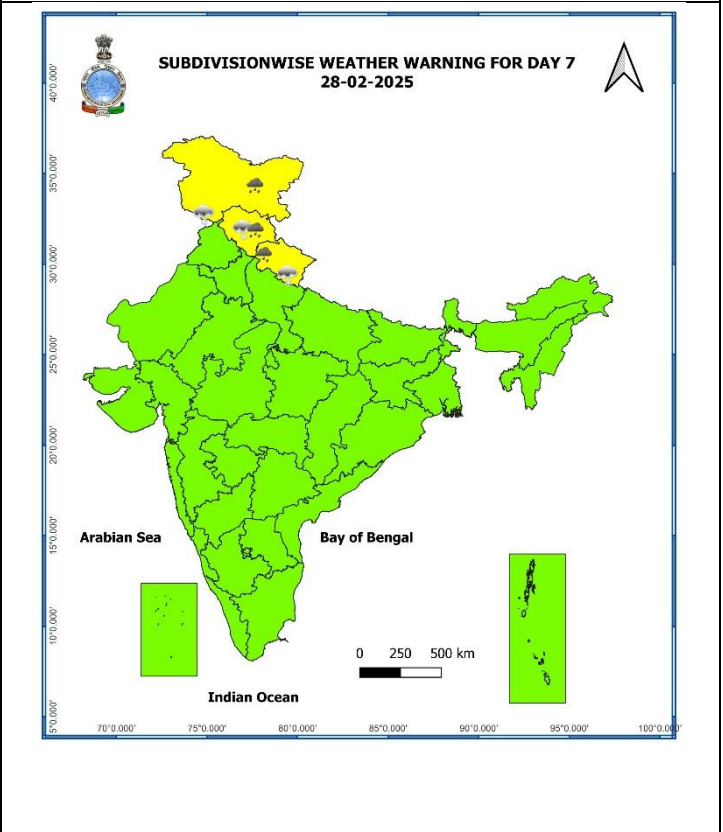
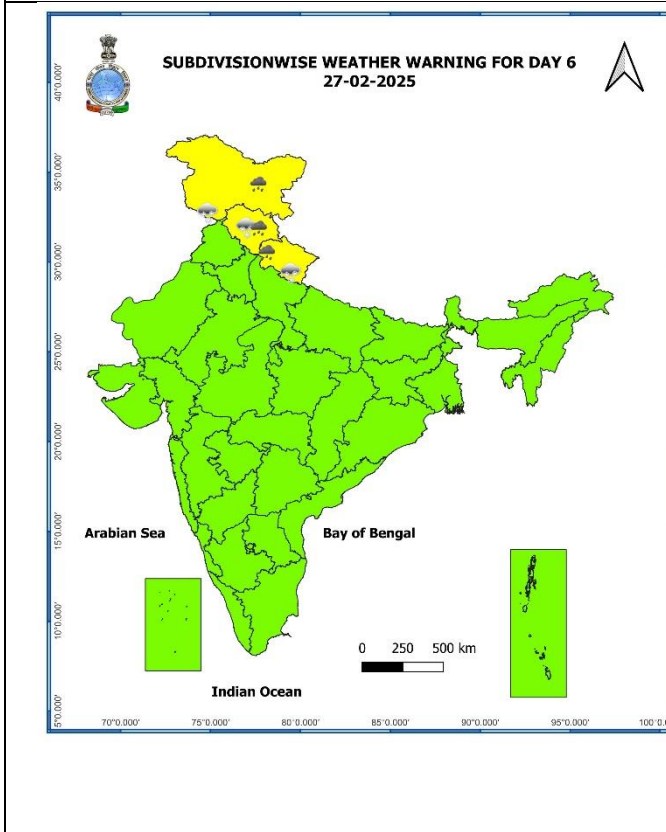
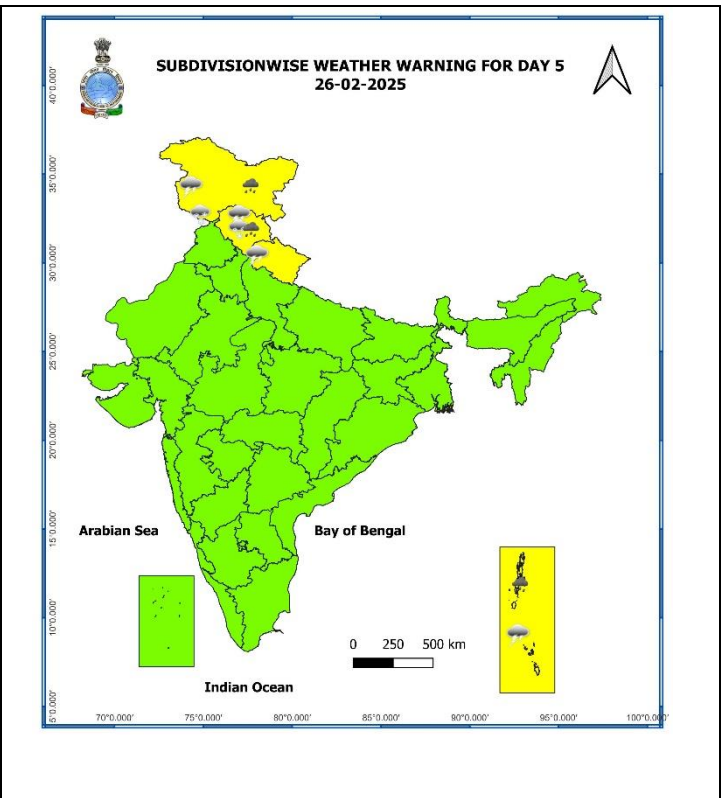
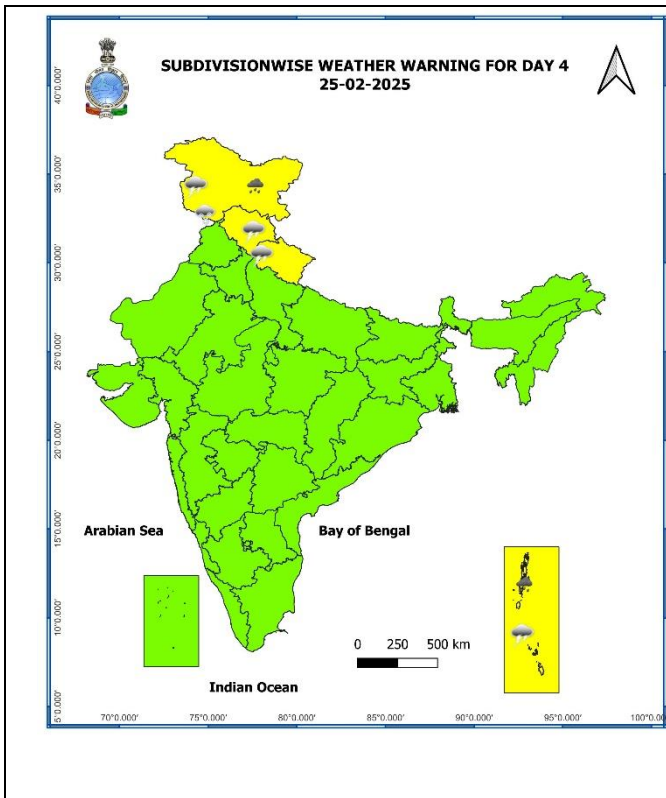
## ANNEXURE III

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

- As the lead period increases forecast accuracy decreases.







S

- 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.

Detailed district wise Multi Hazard weather warning for next five days available at <https://mausam.imd.gov.in/responsive/districtWiseWarningGIS.php>

**Weather forecast over Delhi/NCR during 22<sup>nd</sup> Feb. to 25<sup>th</sup> Feb. 2025****Past Weather:**

There has been a slight fall in minimum and maximum temperatures over Delhi/NCR during the past 24 hours. The Maximum and Minimum temperatures over Delhi are in the range of 25 to 26°C and 11 to 12°C respectively. Shallow fog was reported at Safdarjung and Palam airport. Palam airport recorded the lowest visibility 500m from 0700 hours to 0730 hours IST which improved thereafter becoming 600 m at 0800 hours IST. Safdarjung airport recorded the lowest visibility 900m from 0630 hours to 0730 hours IST which improved thereafter becoming 1200 m at 0800 hours IST. The minimum and maximum temperatures were near normal over most places. Mainly clear sky conditions with predominant surface wind from the west direction with wind speed reaching 14 to 16 kmph prevailed during the past 24 hours. Mainly mist conditions with wind speed less than 10 kmph southwest direction prevailed over the region in the forenoon today.

**Weather Forecast:**

**22.02.2025:** Partly cloudy sky. The maximum temperature over Delhi is likely to be in the range of 23 to 25°C. The predominant surface wind will likely to be from northwest direction with a wind speed of less than 14 kmph till evening. It would decrease thereafter becoming less than 06 kmph from the northwest direction during the night.

**23.02.2025:** Mainly clear sky. Mist likely in the morning. The maximum and minimum temperatures over Delhi are likely to be in the range of 24 to 26°C and 11 to 13°C respectively. The predominant surface wind is likely to be from the northwest direction with a wind speed less than 06 kmph during morning hours. The wind speed will gradually increase thereafter becoming 10-12 kmph from the northwest direction during the afternoon. It will increase further becoming less than 04 kmph from the northwest direction during evening and night.

**24.02.2025:** Partly cloudy sky. Mist likely in the morning. The maximum and minimum temperatures over Delhi are likely to be in the range of 26 to 28°C and 11 to 13°C respectively. The predominant surface wind will likely to be from the northwest direction with a wind speed of less than 04 kmph during morning hours. The wind speed will gradually increase thereafter becoming 10-12 kmph from the northwest direction during the afternoon. It will decrease becoming less than 06 kmph from northwest direction during evening and night.

**25.02.2025:** Partly cloudy sky. Mist likely in the morning. The maximum and minimum temperatures over Delhi are likely to be in the range of 27 to 29°C and 12 to 14°C respectively. The predominant surface wind will likely to be from west-north-west direction with a wind speed of less than 06 kmph during morning hours. The wind speed will gradually increase thereafter becoming 12-14 kmph from the northwest direction during the afternoon. It will decrease becoming less than 06 kmph from west-north-west direction during evening and night.

**Agromet advisories for likely impact of Hailstorms**

- Use hail nets or hail caps in fruit orchards and vegetable plants to protect them from mechanical damage in **Arunachal Pradesh, Gangetic West Bengal, Sikkim, Odisha, Jharkhand** and **Chhattisgarh**.
- Keep the harvested produce in safer places or cover the produce with tarpaulin sheets in the fields.
- Provide mechanical support to horticultural crops and staking to vegetables.

**Livestock**

- Keep the animals inside the shed during hailstorms and provide them with balanced feed.
- Store feed and fodder in a safe place to prevent spoilage.



## Impact expected and action suggested due to isolated thunderstorm with lightning/gusty winds & Hailstorm

### Impact expected:

- Strong wind/hail may damage plantation, horticulture and standing crops.
- Hail may injure people and cattle at open places.
- Partial damage to vulnerable structures due to strong winds.
- Minor damage to kutcha houses/walls and huts.
- Loose objects may fly.

### Action suggested:

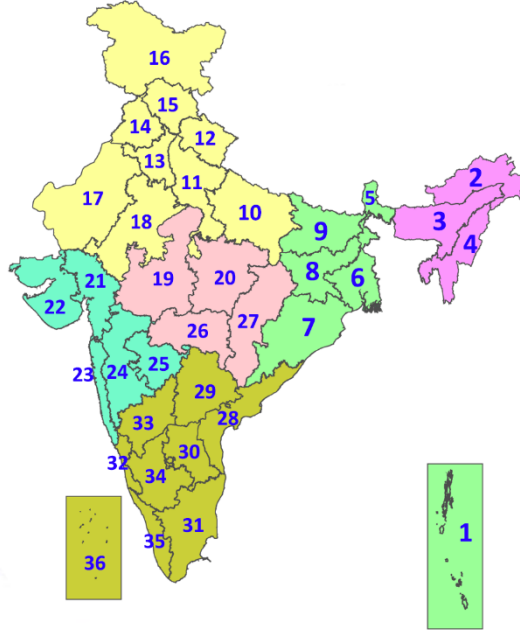
- Stay indoors, close windows & doors and avoid travel if possible.
- Take safe shelters; do not take shelter under trees.
- Do not lie on concrete floors and do not lean against concrete walls.
- Unplug electrical/ electronic appliances.
- Immediately get out of water bodies.
- Keep away from all the objects that conduct electricity.

### Legends & abbreviations:

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

## LEGENDS

1. अंडमान और निकोबार द्वीपसमूह
2. अरुणाचल प्रदेश
3. असम और मेघालय
4. नागालैंड, मणिपुर, मिजोरम और त्रिपुरा
5. उप-हिमालयी पश्चिम बंगाल और सिक्किम
6. गंगीय पश्चिम बंगाल
7. ओडिशा
8. झारखंड
9. बिहार
10. पूर्वी उत्तर प्रदेश
11. पश्चिम उत्तर प्रदेश
12. उत्तराखंड
13. हरियाणा, चंडीगढ़ और दिल्ली
14. पंजाब
15. हिमाचल प्रदेश
16. जम्मू और कश्मीर और लद्दाख
17. पश्चिम राजस्थान
18. पूर्वी राजस्थान
19. पश्चिम मध्य प्रदेश
20. पूर्वी मध्य प्रदेश
21. गुजरात
22. सौराष्ट्र
23. कोंकण और गोवा
24. मध्य महाराष्ट्र
25. मराठवाड़ा
26. विदर्भ
27. छत्तीसगढ़
28. तटीय आंध्र प्रदेश और यनम
29. तेलंगाना
30. रायलसीमा
31. तमिलनाडु, पुडुचेरी और कराईकल
32. तटीय कर्नाटक
33. आंतरिक उत्तरी कर्नाटक
34. आंतरिक दक्षिणी कर्नाटक
35. केरल और माहे
36. लक्षद्वीप



1. Andaman & Nicobar Islands
2. Arunachal Pradesh
3. Assam & Meghalaya
4. Nagaland, Manipur, Mizoram & Tripura
5. Sub-Himalayan West Bengal & Sikkim
6. Gangetic West Bengal
7. Odisha
8. Jharkhand
9. Bihar
10. East Uttar Pradesh
11. West Uttar Pradesh
12. Uttarakhand
13. Haryana, Chandigarh & Delhi
14. Punjab
15. Himachal Pradesh
16. Jammu & Kashmir and Ladakh
17. West Rajasthan
18. East Rajasthan
19. West Madhya Pradesh
20. East Madhya Pradesh
21. Gujarat
22. Saurashtra
23. Konkan & Goa
24. Madhya Maharashtra
25. Marathwada
26. Vidarbha
27. Chhattisgarh
28. Coastal Andhra Pradesh & Yanam
29. Telangana
30. Rayalaseema
31. Tamilnadu, Puducherry & Karaikal
32. Coastal Karnataka
33. North Interior Karnataka
34. South Interior Karnataka
35. Kerala & Mahe
36. Lakshadweep

## SPATIAL DISTRIBUTION (% of Stations reporting)

% Stations	Category	% Stations	Category
76-100	Widespread (WS/Most Places)	26-50	Scattered (SCT/A Few Places)
51-75	Fairly Widespread (FWS/Many Places)	1-25	Isolated (ISOL)



Fog



Heavy Snow



Cold Wave



Heavy Rain



Dust Storm



Cold Day



Very Heavy Rain



Heat Wave



Ground Frost



Extremely Heavy Rain



Warm Night



Thunder & Lightning



Hot Day



Hailstorm



Hot & Humid



Dust Raising Winds



Strong Surface Winds

### COLOUR CODED WARNING

No Warning (No Action)

Watch (Be Aware)

Alert (Be Prepared To Take Action)

Warning (Take Action)

### Probabilistic Forecast

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

\* Red colour warning does not mean "Red Alert", Red colour warning means "Take Action".  
Forecast and Warning for any day is valid from 0830 hours IST of day till 0830 hours IST of next day.  
For more details, kindly visit <https://mausam.imd.gov.in> or contact: 011-2434-4599  
(Service to the Nation since 1875)

## DEFINITION/CRITERIA

### Rain/ Snow \*

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

### Heat Wave

When maximum temperature of a station reaches  $\geq 40^\circ\text{C}$  for plains and  $\geq 30^\circ\text{C}$  for hilly regions  
(a) Based on Departure from normal

Heat Wave: Maximum Temperature Departure from normal  $4.5^\circ\text{C}$  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 Storm: Wind speed  $> 220$  kmph ( $> 119$  knots)

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