



Government of India  
Ministry of Earth Sciences  
India Meteorological Department



Press Release

Date: 17<sup>th</sup> March 2026

Time of Issue: 1330 hours IST

**Subject: (i) Isolated heavy rainfall likely to continue over northeast India for the next 24 hours and reduce in intensity thereafter. Isolated heavy rainfall also likely over on Himachal Pradesh on 19<sup>th</sup> & 20<sup>th</sup>, Uttarakhand & Jammu & Kashmir on 20<sup>th</sup> March.**

**(ii) Isolated thunderstorm, lightning & gusty likely to continue over Western Himalayan Region and plains of northwest India till 20<sup>th</sup> March. Isolated hailstorm activity also likely over Himachal Pradesh during 18<sup>th</sup> & 19<sup>th</sup> March; Uttarakhand, Punjab, Haryana and Rajasthan during 19<sup>th</sup> & 20<sup>th</sup> March.**

**(iii) Isolated thunderstorm activities accompanied with Gusty winds likely to continue over Central & East India till 21<sup>st</sup> March along with hailstorm over Chhattisgarh during 18<sup>th</sup> & 19<sup>th</sup>; Vidarbha on 18<sup>th</sup>; Madhya Pradesh on 20<sup>th</sup>; West Bengal & Sikkim and Odisha during 20<sup>th</sup> & 21<sup>st</sup> March.**

**(iv) Because of large scale thunderstorm activity, normal to below normal day temperatures likely during next one week. No significant heat wave conditions likely during next one week.**

**Realised weather during past 24 hours ending at 0830 hours IST of today, the 17<sup>th</sup> March, 2026:**

- ❖ **Heavy rainfall (7-11 cm)** has been recorded at isolated places over Arunachal Pradesh and Assam & Meghalaya.
- ❖ **Hailstorm** reported at isolated places over West Bengal & Sikkim, Odisha, Jharkhand, Himachal Pradesh, Chhattisgarh.

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

- ❖ **Maximum/day temperatures** were in the range (36°C-40°C) over South Rajasthan, Madhya Pradesh, South East Uttar Pradesh, West Jharkhand, Chhattisgarh, Northwest Odisha, Vidarbha, Madhya Maharashtra, Marathwada, Gujrat, North Karnataka, Telangana, Rayalaseema, South Tamil Nadu, South Kerala. **Yesterday, the highest maximum temperature of 40.5°C was reported at WASHIM-OBS (MAHARASHTRA), and RAJNANDGAON (CHHATTISGARH).**
- ❖ **Maximum Temperatures/day temperatures** were markedly above normal (> 5.1°C) at few places over Uttarakhand; at isolated places over West Uttar Pradesh, East Rajasthan and Chhattisgarh. appreciably above normal (3.1°C to 5.0°C) at few places over East Uttar Pradesh, East Madhya Pradesh and Vidarbha; at isolated places over Sub Himalayan West Bengal & Sikkim, Jharkhand, Bihar, Haryana-Chandigarh-Delhi, West Rajasthan, West Madhya Pradesh, Saurashtra & Kutch, Coastal Andhra Pradesh & Yanam and Tamil Nadu, Puducherry & Karaikal. above normal (1.6°C to 3.0°C) at most places over Marathwada; at few places over Gangetic West Bengal, Gujarat Region and Madhya Maharashtra; at isolated places over Odisha, Konkan & Goa and Kerala & Mahe. Near normal (-1.5°C to 1.5°C) at many places over Nagaland, Manipur, Mizoram & Tripura and Telangana; at most places over Andaman & Nicobar Islands, Coastal Karnataka, North Interior Karnataka, South Interior Karnataka and Lakshadweep; at few places over Punjab, Himachal Pradesh, Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad and Rayalaseema; at isolated places over Assam & Meghalaya.
- ❖ **Minimum/night temperatures** were in the range of 14–18°C over Haryana, Chandigarh, Delhi, Rajasthan, Uttar Pradesh, Madhya Pradesh, Chhattisgarh, Saurashtra & Kutch, Madhya Maharashtra, West Bengal, Assam. They were in the range of 18–25°C over remaining parts of the plains of the country. **Today, the lowest minimum temperature of 12.8°C was observed at Amritsar (Punjab) over the plains of India.**
- ❖ **Minimum/night Temperature** were appreciably above normal (3.1°C to 5.0°C) over east Uttar Pradesh above normal (1.6°C to 3.0°C) over West Uttar Pradesh, south Rajasthan, east Madhya Pradesh, Gujarat State, Chhattisgarh, Vidarbha, Marathwada, Bihar, Jharkhand, Rayalaseema and Tamil Nadu, Puducherry & Karaikal and near normal over rest parts of the country.

## Weather Systems, Forecast and Warnings (refer to ANNEXURE I & II):

- ❖ The **Western Disturbance** as a trough in middle & upper-level westerlies with its axis in middle tropospheric level runs roughly along Long. 80°E to the north of Lat. 22°N.
- ❖ A **cyclonic circulation** lies over Haryana & neighbourhood in lower tropospheric level.
- ❖ A **cyclonic circulation** lies over East Rajasthan & adjoining north Madhya Pradesh in lower tropospheric level.
- ❖ A **trough** in westerlies now runs roughly along Long. 92°E to the north of Lat. 23°N between lower and middle tropospheric levels.
- ❖ A **trough** in easterlies runs roughly along Long. 82°E to the north of Lat. 9°N in lower tropospheric level.
- ❖ A **cyclonic circulation** lies over West Uttar Pradesh & neighbourhood in lower tropospheric level.
- ❖ A **cyclonic circulation** lies over East Uttar Pradesh & neighbourhood in lower tropospheric level.
- ❖ A **cyclonic circulation** lies over southwest Rajasthan & neighbourhood in lower tropospheric level.
- ❖ A **cyclonic circulation** lies over west Rajasthan & adjoining Pakistan in lower tropospheric level.
- ❖ A **cyclonic circulation** over Northeast Assam & adjoining Arunachal Pradesh extending upto lower tropospheric level.
- ❖ A **trough** from North Interior Karnataka to Gulf of Mannar across South Interior Karnataka, Tamil Nadu in lower tropospheric level.
- ❖ Subtropical westerly Jet Stream with core winds of the order of 110 knots at 12.6 km above mean sea level continues to prevail over East India.
- ❖ A Western Disturbance as a trough in middle & upper-level westerlies with its axis at 5.8 km above mean sea level runs roughly along Long. 52°E to the north of Lat. 33°N.

## Under the influence of above system, the following weather is likely:

### Northwest India:

- ❖ Scattered light to moderate rainfall/snowfall accompanied with isolated thunderstorm, lightning & gusty winds speed reaching (40-50 kmph) likely to continue over Western Himalayan region on 17<sup>th</sup> March. Another fresh wet spell with Fairly widespread to widespread light to moderate rainfall/snowfall likely with isolated thunderstorm, lightning & gusty winds speed reaching (40-50 kmph) during 18<sup>th</sup>-20<sup>th</sup> March and reduction in intensity thereafter. **Isolated heavy rainfall/snowfall very likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad and Uttarakhand on 20<sup>th</sup> & Himachal Pradesh on 19<sup>th</sup> & 20<sup>th</sup> March.**
- ❖ Isolated to Scattered light to moderate rainfall accompanied with isolated thunderstorm, lightning & gusty winds speed reaching (40-50 kmph) likely to continue over the plains of Northwest India on 19<sup>th</sup> & 20<sup>th</sup> March.
- ❖ **Thundersquall (wind speed reaching 50-60 kmph gusting to 70 kmph)** very likely at isolated places over Uttarakhand on 19<sup>th</sup> & 20<sup>th</sup>.
- ❖ Isolated **Hailstorm** activity likely over Himachal Pradesh on 18<sup>th</sup> & 19<sup>th</sup>; Uttarakhand, Punjab, Haryana Chandigarh and Rajasthan on 19<sup>th</sup> & 20<sup>th</sup>.

### Northeast India:

- ❖ **Fairly widespread to widespread** light to moderate rainfall with **thunderstorm & lightning** likely over Northeast India during next 5 days; with **gusty winds speed reaching (30-50 kmph)** over Nagaland, Manipur, Mizoram & Tripura, Arunachal Pradesh and Assam & Meghalaya on 17<sup>th</sup> & 18<sup>th</sup> March.
- ❖ Isolated **heavy rainfall** very likely over Nagaland, Manipur, Mizoram & Tripura, Arunachal Pradesh & Assam & Meghalaya on 17<sup>th</sup> March.
- ❖ Isolated **Hailstorm** activity likely over Assam & Meghalaya on 17<sup>th</sup> March.

### East & Central India:

- ❖ **Scattered to fairly widespread** light to moderate rainfall with **thunderstorm, lightning & gusty winds speed reaching (30-50 kmph)** likely over West Bengal & Sikkim 17<sup>th</sup> -21<sup>st</sup> March. Isolated **heavy rainfall** very likely over Sub-Himalayan West Bengal & Sikkim on 20<sup>th</sup> March.
- ❖ **Isolated to Scattered** light to moderate rainfall with **thunderstorm, lightning & gusty winds speed reaching (30-50 kmph)** likely over Madhya Pradesh during 18<sup>th</sup> -21<sup>st</sup>, Vidarbha during 17<sup>th</sup> to 20<sup>th</sup>, Gangetic West Bengal, Bihar, Jharkhand, Odisha during 17<sup>th</sup> -21<sup>st</sup> March. **Thunderstorm, lightning & squally winds speed reaching (50-60 gusting to 70 kmph)** likely over Sub-Himalayan West Bengal & Sikkim on 20<sup>th</sup>, Gangetic West Bengal & Odisha on 20<sup>th</sup> & 21<sup>st</sup> March.
- ❖ Isolated **Hailstorm** activity likely over Madhya Pradesh on 20<sup>th</sup>; Vidarbha on 18<sup>th</sup>; Chhattisgarh on 18<sup>th</sup> & 19<sup>th</sup>; West Bengal & Sikkim and Odisha on 20<sup>th</sup> & 21<sup>st</sup> March.

### South Peninsular India:

❖ **Isolated to Scattered** light to moderate rainfall with **thunderstorm, lightning & gusty winds speed reaching (30-50 kmph)** likely over Telangana and Interior Karnataka during 17<sup>th</sup>-21<sup>st</sup>; Coastal Andhra Pradesh & Yanam during 17<sup>th</sup> -20<sup>th</sup>; Rayalaseema on 17<sup>th</sup> & 18<sup>th</sup>; Kerala & Mahe during 17<sup>th</sup> -19<sup>th</sup> with lightening Tamil Nadu, Puducherry & Karaikal and Coastal Karnataka during 17<sup>th</sup> -21<sup>st</sup> March.

### West India:

❖ **Isolated** light/moderate rainfall with **thunderstorm & lightning & gusty winds speed reaching (30-50 kmph)** likely over Madhya Maharashtra, Marathwada during 17<sup>th</sup> -19<sup>th</sup> Gujarat State on 18<sup>th</sup> & 19<sup>th</sup> and with thunderstorm & lightning over Konkan & Goa on 18<sup>th</sup> & 19<sup>th</sup> March.

### Forecast of maximum/day temperatures:

- ❖ Gradual rise in maximum temperatures by 2-3°C likely over Northwest India during next 2 days; gradual fall by 5-7°C during subsequent 3 days & gradual rise in temperatures by 3-5°C thereafter.
- ❖ Gradual fall in maximum temperatures by 3-5°C likely over Central India during next 4 days & gradual rise in maximum temperatures by 2-4°C during subsequent 3 days.
- ❖ No significant change in maximum temperatures likely over East India during next 4 days and gradual fall by 2-3°C during subsequent 3 days.
- ❖ Gradual rise in maximum temperature by 3-4°C likely over Northeast India during next 3 days and no significant change during subsequent 4 days.
- ❖ No significant change in maximum temperatures likely over Maharashtra during next 24 hours and gradual fall by 2-3°C during subsequent 3 days; no significant change thereafter.
- ❖ Gradual fall in maximum temperature by 2-3°C likely over Gujarat during next 3 days and no significant change during subsequent 4 days.
- ❖ Gradual fall in maximum temperature by 2-4°C likely over South Peninsular India during next 5 days and no significant change during subsequent 2 days.

### Fisherman Warning:

Fishermen are advised not to venture into the following areas:

- ❖ **Bay of Bengal:** Along and off North Odisha & West Bengal coasts and adjoining sea area on 16<sup>th</sup> March.
- ❖ **Arabian Sea:** No warning.

### Weather conditions and forecast over Delhi/NCR during 17<sup>th</sup>-20<sup>th</sup> March, 2026 (ANNEXURE III)

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>

For Fishermen warning refer <https://rsmcnewdelhi.imd.gov.in/fishermen-warning.php>

### Significant rainfall recorded (in cm) (from 0830 hours IST of yesterday to 0830 hours IST of today):

**Assam & Meghalaya:** Silchar (dist Cachar) 7, Cherrapunji 7

**Arunachal Pradesh:** Hayuliang 10; Tuting 7

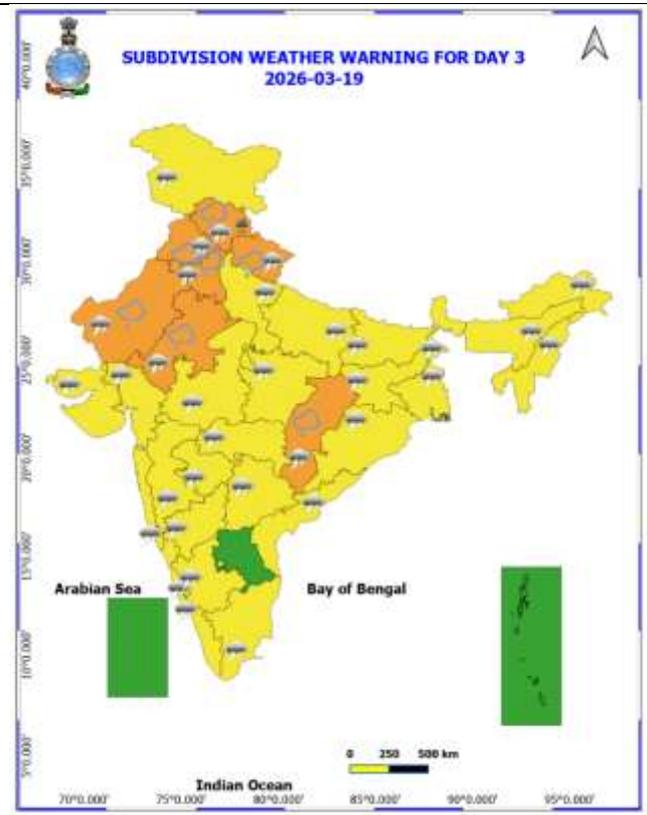
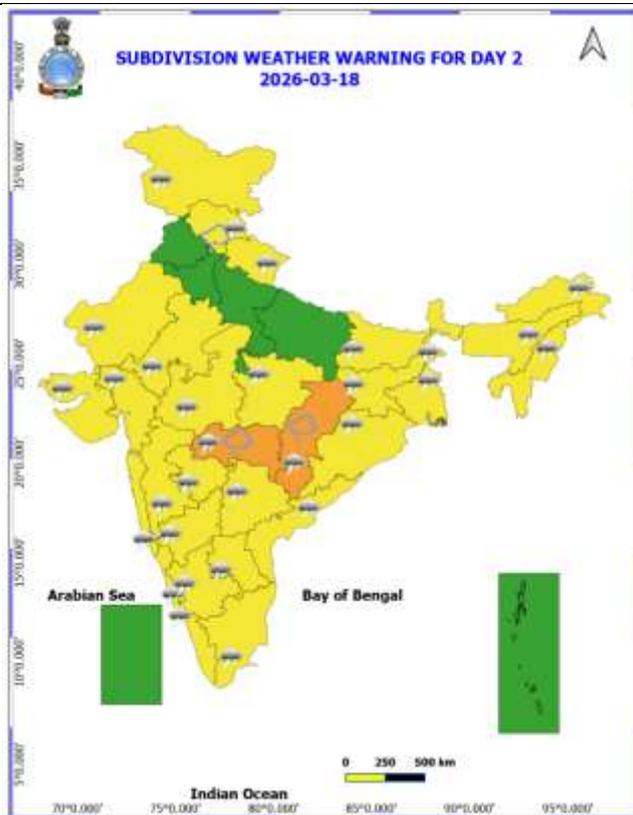
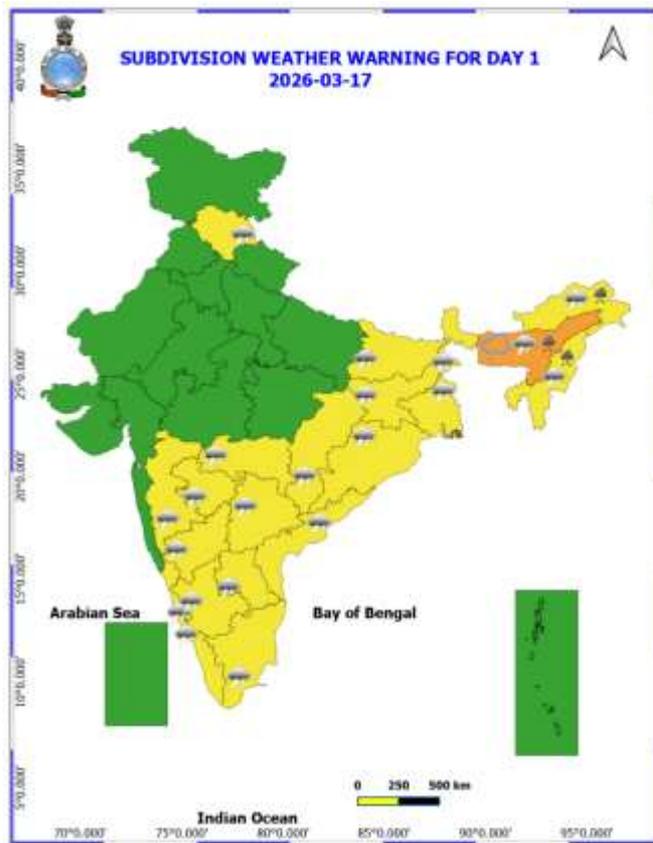
### Gusty winds (in kmph) (from 0830 hours IST of yesterday to 0830 hours IST of today):

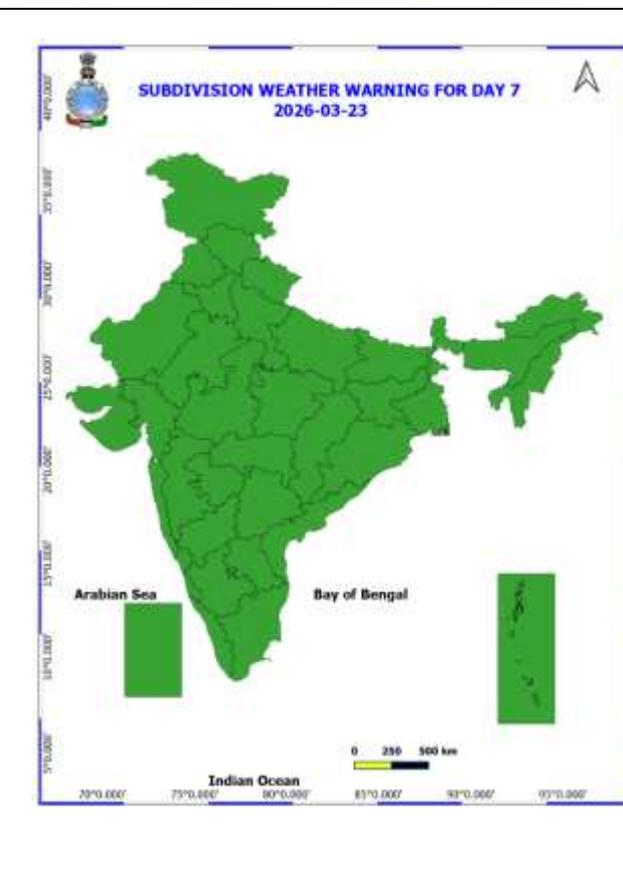
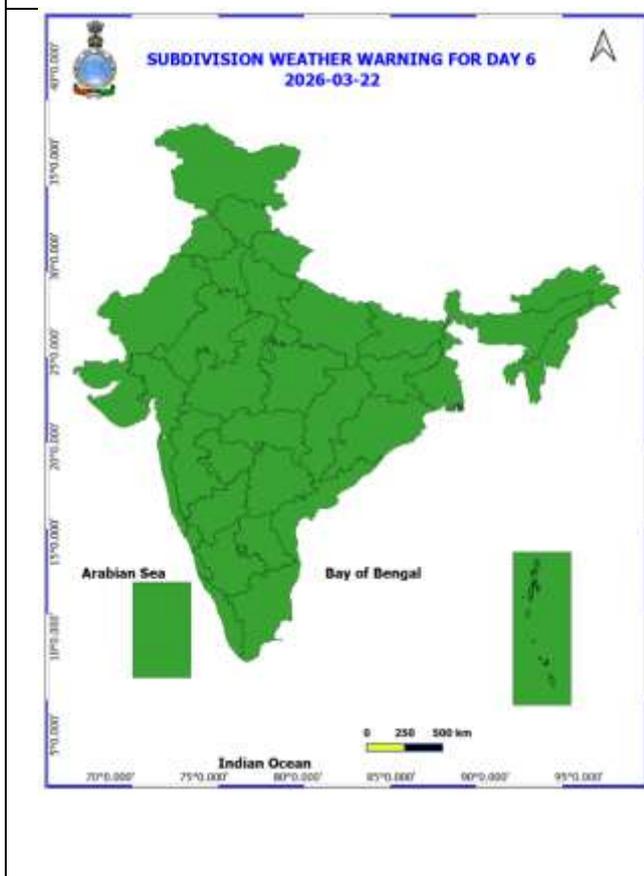
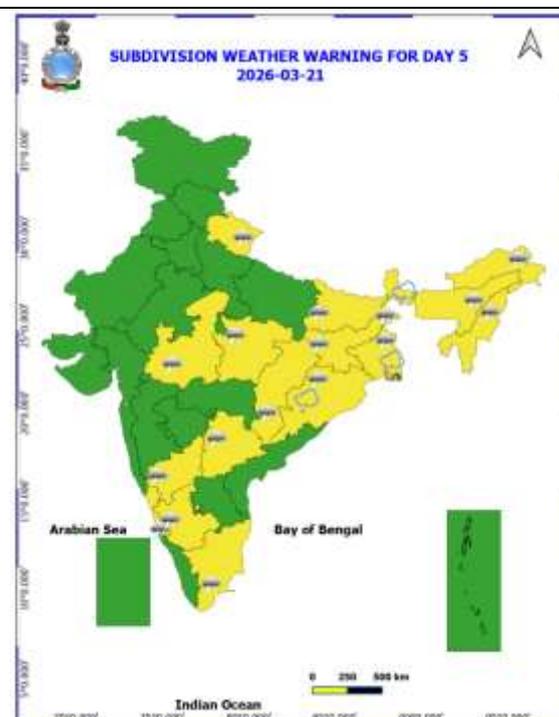
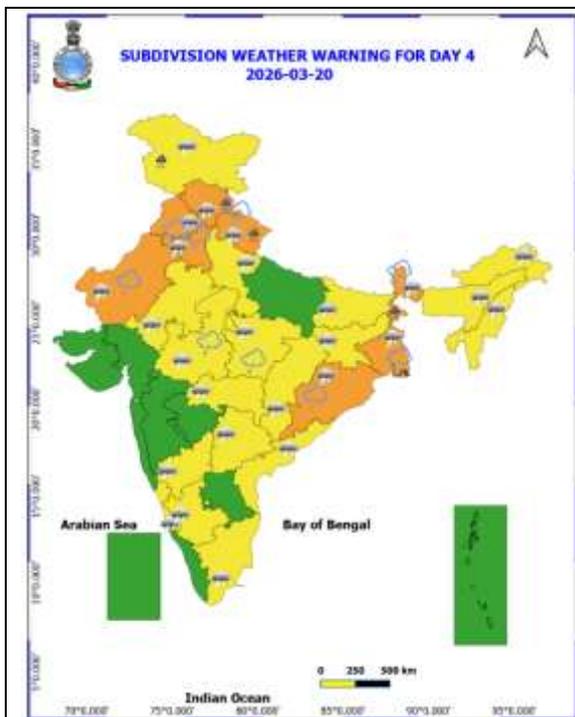
**Assam & Meghalaya:** Rani 80, Shillong 85; **Tripura & Manipur:** Ghilatali 78, Kamjong 67; **Himachal Pradesh:** Neri 78, Bilaspur 52, Seobagh 44, Sundernagar 37 **Gangetic West Bengal:** Uluberia 68, Nimpith 65, Ramkrishna Mission College 59, Kalyani 57, Digha 56, Purulia 43, Dumdum 40, Agarpara 37, Asansol 37, Gangasagar 35, Berhampore 33, Durgapur-Airport 31, Bolpur 30; **Sub-Himalaya West Bengal & Sikkim:** Pundibari 65, Darjeeling 61, Jalpaiguri 50, Dinhata 39, Ramshai 37, Dhupguri 31, Jalpaiguri 30; **Odisha:** Mayurbhanj 65, NIT-Rourkela 44, Jauhukuda 44, Cuttack 43, Baripada 39, FM-University 35, Sonapur 31; **Arunachal Pradesh:** Bomdila 67; **Bihar:** Arrabari 59, Sipaya 44, Sukhet 43, Patna 30; **West Uttar Pradesh:** Agra\_Fatehabad 54, Agra(T)(Aws) 41; **Jammu-Kashmir:** Kathua 52; **Punjab:** Ropar 50, Hoshiarpur 46; **West Madhya Pradesh:** Sehore 50; **Jharkhand:** Simdega 48, Ranchi 46, Bahragora 46, Simdega44, Jaganathpur 44, Gumla-Bishnupur 39, Diyakel 35, Netarhat 33; **Tamil Nadu:** Natham\_ISRO (Dindigul) 48; **Chhattisgarh:** Bemetara 46, Mungeli 41, Bilaspur 37; **Uttarakhand:** Chamoli 44, Rani\_Chawri 33, Maldevta 30; **East Uttar Pradesh:** Kushinagar

(Turkaha), Kushinagar (Padrauna) & Kushinagar (Gajipur) 44 each, Gorakhpur (Dumri Khas) 43, Sonbhadra, Lucknow Jm\_Park & Kushinagar 41 Each; **Saurashtra & Kutch**: Khavda (Kutch) 43; **East Madhya Pradesh**: Shahdol 37; **Madhya Maharashtra**: Shivajinagar (Pune) 37, Talegaon (Pune) 35; **Gujarat Region**: Dantivada And Tharad (Banaskantha) Dholera (Ahmedabad) 31; **Konkan & Goa**: Karjat (Raigad) 30, Mulde (Sindhudurg) 30; **Marathwada**: Hingoli 30, Ambejogai (Beed) 28.

Table-1								
7 Days Rainfall Forecast								
S.No.	Subdivision	17- Mar	18- Mar	19- Mar	20- Mar	21- Mar	22- Mar	23- Mar
		Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
1	ANDAMAN & NICOBAR ISLANDS	SCT	FWS	SCT	ISOL	DRY	DRY	DRY
2	ARUNACHAL PRADESH	W3	FWS	FWS	FWS	SCT	SCT	FWS
3	ASSAM & MEHGHALAYA	FWS	FWS	SCT	FWS	FWS	SCT	SCT
4	NAGALAND, MANIPUR, MIZORAM AND TRIPURA	FWS	SCT	SCT	SCT	ISOL	ISOL	ISOL
5	SUB HIMALAYAN WEST BENGAL & SIKKIM	SCT	SCT	SCT	W3	W3	SCT	ISOL
6	GANGETIC WEST BENGAL	ISOL	ISOL	ISOL	FWS	FWS	ISOL	ISOL
7	ODISHA	ISOL	ISOL	ISOL	SCT	SCT	ISOL	ISOL
8	JHARKHAND	ISOL	ISOL	ISOL	SCT	SCT	DRY	DRY
9	BIHAR	ISOL	DRY	DRY	ISOL	ISOL	ISOL	DRY
10	EAST UTTAR PRADESH	DRY	DRY	DRY	SCT	SCT	ISOL	DRY
11	WEST UTTAR PRADESH	DRY	DRY	ISOL	FWS	ISOL	DRY	DRY
12	UTTARAKHAND	ISOL	SCT	FWS	FWS	SCT	SCT	ISOL
13	HARYANA, CHANDIGARH & DELHI	DRY	ISOL	ISOL	FWS	ISOL	DRY	DRY
14	PUNJAB	ISOL	ISOL	ISOL	FWS	DRY	ISOL	ISOL
15	HIMACHAL PRADESH	SCT	W3	W3	W3	SCT	ISOL	ISOL
16	JAMMU AND KASHMIR AND LADAKH	SCT	W3	W3	W3	ISOL	ISOL	ISOL
17	WEST RAJASTHAN	DRY	ISOL	ISOL	ISOL	DRY	DRY	DRY
18	EAST RAJASTHAN	DRY	ISOL	ISOL	ISOL	DRY	DRY	DRY
19	WEST MADHYA PRADESH	DRY	ISOL	ISOL	SCT	ISOL	ISOL	DRY
20	EAST MADHYA PRADESH	DRY	ISOL	ISOL	SCT	ISOL	ISOL	DRY
21	GUJRAT REGION	DRY	ISOL	SCT	ISOL	DRY	DRY	DRY
22	SAURASHTRA & KUTCH	DRY	ISOL	SCT	ISOL	DRY	DRY	DRY
23	KONKAN & GOA	DRY	ISOL	ISOL	DRY	DRY	DRY	DRY
24	MADHYA MAHARASHTRA	ISOL	ISOL	ISOL	ISOL	DRY	DRY	DRY
25	MARATHWADA	ISOL	ISOL	ISOL	ISOL	DRY	DRY	DRY
26	VIDARBHA	ISOL	SCT	ISOL	ISOL	ISOL	DRY	DRY
27	CHHATTISGARH	ISOL	ISOL	ISOL	SCT	SCT	ISOL	ISOL
28	COASTAL ANDHRA PRADESH	ISOL	SCT	FWS	SCT	ISOL	ISOL	ISOL
29	TELANGANA	SCT	SCT	SCT	ISOL	ISOL	DRY	DRY
30	RAYALASEEMA	ISOL	SCT	FWS	SCT	ISOL	DRY	DRY
31	TAMILNADU & PUDUCHERRY	ISOL	SCT	ISOL	ISOL	ISOL	ISOL	ISOL
32	COSTAL KARNATAKA	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL	DRY
33	NORTH INTERIOR KARNATAKA	ISOL	ISOL	ISOL	ISOL	ISOL	DRY	DRY
34	SOUTH INTERIOR KARNATAKA	SCT	SCT	ISOL	ISOL	ISOL	ISOL	ISOL
35	KERALA AND MAHE	SCT	SCT	ISOL	ISOL	ISOL	ISOL	ISOL
36	LAKSHADWEEP	SCT	SCT	DRY	DRY	DRY	DRY	DRY

- As the lead period increases forecast accuracy decrease.





- Action may be taken based on ORANGE AND REDCOLOUR 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 districtwise MultiHazard weather warning for next five days available at <https://mausam.imd.gov.in/responsive/districtWiseWarningGIS.php>

**Weather forecast over Delhi/NCR during 17<sup>th</sup> to 20<sup>th</sup> March 2026****Past Weather:**

There has been fall in minimum temperatures up to 1-2°C and rise in maximum temperatures by 2-3°C during past 24 hours over Delhi. The maximum temperatures were in the range of 31 - 33°C and minimum temperatures are 15 - 16°C respectively during past 24 hours over Delhi. The minimum temperatures are below normal (-1.6°C to -3.0°C) at isolated places and normal (-1.5°C to 1.5°C) over remaining part of Delhi. The maximum temperatures were appreciably above normal (3.1°C to 5.0°C) at isolated places, above normal (1.6°C to 3.0°C) at isolated places and normal (-1.5°C to 1.5°C) over remaining parts of Delhi. Generally cloudy sky with easterly surface winds (speed 10-20 kmph) gusting to 37 kmph prevailed during past 24 hours. Partly cloudy sky with surface wind from the southwest direction reaching up to 10 kmph to be prevailed over the region in the forenoon today.

**Weather Forecast:**

**17.03.2026:** Partly cloudy sky. The maximum temperatures over Delhi are likely to be in the range of 31°C to 33°C. The maximum temperatures will be near normal (-1.5°C to 1.5°C) over Delhi. The predominant surface wind is likely to be from the northeast direction reaching up to 10 kmph during the afternoon hours. The wind speed will gradually increase becoming less than 15 kmph from the north direction during evening and night.

**18.03.2026:** Generally cloudy sky. Possibility of very light rain/drizzle accompanied with thunderstorm/lightning and strong surface winds speed 20-30 kmph gusting 40 kmph towards night. The maximum and minimum temperatures over Delhi are likely to be in the range of 32°C to 34°C and 17°C to 19°C respectively. The minimum temperature will be near normal (-1.5°C to 1.5°C) and the maximum temperature will be above near normal (1.6°C to 3.0°C) over Delhi. The predominant surface wind is likely to be from north direction with wind associated with calm wind reaching up to 05 kmph during the morning hours. The wind speed will increase up to 12 kmph from northeast direction during the afternoon. The wind speed will gradually increase becoming less than 15 kmph from the northeast direction during evening and night.

**19.03.2026:** Generally cloudy sky. A spell of very light rain/drizzle accompanied with thunderstorm/lightning and strong surface winds speed 20-30 kmph gusting 40 kmph in the morning/forenoon. Another spell of very light/light rain accompanied with thunderstorm/lightning and gusty winds 30-40 kmph gusting to 50 kmph in the afternoon/evening. The maximum and minimum temperatures over Delhi are likely to be in the range of 29°C to 31°C and 19°C to 21°C respectively. The minimum temperature will be above normal (1.6°C to 3.0°C) and the maximum temperature will be near normal (-1.5°C to 1.5°C) over Delhi. The predominant surface wind is likely to be from the north direction with wind associated with wind reaching up to 10 kmph during the morning hours. The wind speed will increase up to 15 kmph from east direction during the afternoon. The wind speed will gradually increase becoming less than 20 kmph from the northeast direction during evening and night.

**20.03.2026:** Generally cloudy sky. A spell of very light/light rain accompanied with thunderstorm/lightning and strong surface winds 30-40 kmph gusting to 50 kmph likely in the forenoon. Another spell of very light/light rain accompanied with thunderstorm/lightning and gusty winds 30-40 kmph gusting to 50 kmph in the afternoon/evening. The maximum and minimum temperatures over Delhi are likely to be in the ranges of 27°C to 29°C and 17°C to 19°C respectively. The minimum temperature will be near normal (-1.5°C to 1.5°C) and the maximum temperature will be below normal (-1.6°C to -3.0°C) at many places and near normal (-1.5°C to 1.5°C) at isolated places over Delhi. The predominant surface wind is likely to be from the northeast direction with wind speed reaching up to 10 kmph during the morning hours. The wind speed will increase reaching up to 15 kmph from the northwest direction in the afternoon. The wind speed will gradually increase becoming less than 20 kmph from the north direction during evening and night.

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

- ❖ Isolated **Hailstorm** activity likely over Himachal Pradesh on 18<sup>th</sup> & 19<sup>th</sup>; Uttarakhand, Punjab, Haryana Chandigarh and Rajasthan on 19<sup>th</sup> & 20<sup>th</sup>; Assam & Meghalaya on 17<sup>th</sup>; Madhya Pradesh on 20<sup>th</sup>; Vidarbha on 18<sup>th</sup>; Chhattisgarh on 18<sup>th</sup> & 19<sup>th</sup>; West Bengal & Sikkim and Odisha, on 20<sup>th</sup> & 21<sup>st</sup> March.
- ❖ **Thundersquall (wind speed reaching 50-60 kmph gusting to 70 kmph)** very likely at isolated places over Uttarakhand on 19<sup>th</sup> & 20<sup>th</sup>; Sub-Himalayan West Bengal & Sikkim on 20<sup>th</sup>, Gangetic West Bengal & Odisha on 20<sup>th</sup> & 21<sup>st</sup> March.

### **Impact expected:**

- Breaking of tree branches, uprooting of large avenue trees. Large dead limbs blown from trees. Damage to Standing crops.
- Minor to Major damage to banana and papaya trees.
- Minor to major damage to power and communication lines due to breaking of branches.
- 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:**

- People are advised to keep a watch on the weather for worsening conditions and be ready to move to safer places accordingly.
- 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.

### **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 Himachal Pradesh, Assam and Meghalaya.

### **Agromet advisories for likely impact of Heavy Rainfall**

- In **Arunachal Pradesh**, postpone harvesting of cabbage, pea, mustard and late-maturing paddy varieties and digging of potatoes. Shift the harvested produce to safe places. Drain out excess rainwater from the standing crop fields. Nursery for chilli, tomato, and other vegetables may be prepared under covered shelters or poly houses to protect seedlings from rain. Open nurseries should be immediately covered with polythene sheets or sack cloths to protect seedlings from rain.
- In **Assam**, drain out excess rainwater from the standing crop fields.
- In **Meghalaya**, ensure proper drainage in summer vegetable crops. Carry out staking and propping of plantation crops and protect young seedlings from heavy rainfall. Keep the harvested pods of garden peas in safer place immediately.
- In **Jammu & Kashmir**, provide proper drainage channels to avoid water stagnation in standing crops.
- In **Himachal Pradesh**, undertake harvesting of matured vegetables at the earliest.
- In **Uttarakhand**, undertake harvesting of matured rapeseed, mustard & vegetable pea at the earliest and keep the harvested produce in safe place. Make arrangements to drain out excess water.
- In **Sub Himalayan West Bengal**, postpone harvesting of potato for 2-3 days after rainfall until soil dries. Cover the nursery of cucurbits and Dalle khorsani with polyethylene sheets or agro-net

### **Agromet advisories for likely impact of Thunderstorm / Gusty Winds**

- Provide mechanical support to horticultural crops and staking or support to vegetables and young fruit plants / fruit-bearing plants to avoid lodging due to strong winds.
- Shift the harvested produce in safer places or cover the produce with tarpaulin sheets in the fields. Tie the harvested crops properly and cover them to minimise the risk of displacement due to strong surface winds.

### **Livestock / Poultry**

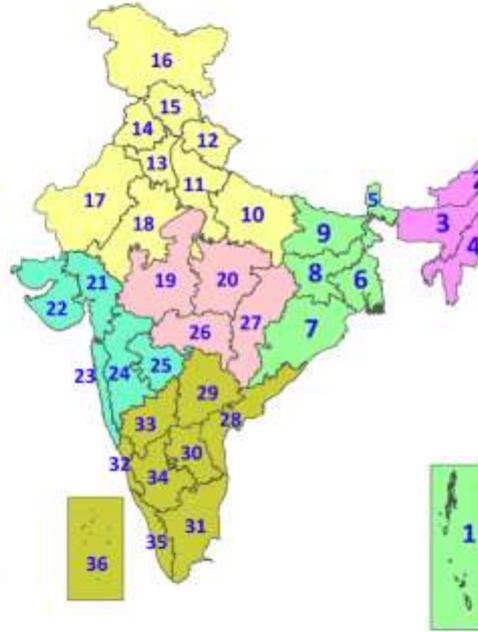
- Keep the animals inside the shed during Heavy Rainfall/Hailstorm period and provide them balanced feed. Store feed and fodder in a safe place to prevent spoilage.
- Provide clean, hygienic and plenty of drinking water to animals.

### **Legends & abbreviations:**

- ❖ **Heavy Rain:**64.5-115.5mm; **Very Heavy Rain:**115.6-204.4mm; **Extremely Heavy Rain:** >204.4mm.
- ❖ **Obsy:** Observatory; 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

<b>Rain/ Snow *</b>	<p><b>Heavy:</b> 64.5 to 115.5 mm/cm *</p> <p><b>Very Heavy:</b> 115.6 to 204.4 mm/cm*</p> <p><b>Extremely Heavy:</b> &gt; 204.4 mm/cm *</p>
<b>Heat Wave</b>	<p>When maximum temperature of a station reaches <math>\geq 40^{\circ}\text{C}</math> for plains and <math>\geq 30^{\circ}\text{C}</math> for hilly regions</p> <p><b>(a) Based on Departure from normal</b></p> <p><b>Heat Wave:</b> Maximum Temperature Departure from normal <math>4.5^{\circ}\text{C}</math> to <math>6.4^{\circ}\text{C}</math>.</p> <p><b>Severe Heat Wave:</b> Maximum Temperature Departure from normal <math>\geq 6.5^{\circ}\text{C}</math></p> <p><b>(b). Based on Actual maximum temperature</b></p> <p><b>Heat Wave:</b> When actual maximum temperature <math>\geq 45^{\circ}\text{C}</math>.</p> <p><b>Severe Heat Wave:</b> When actual maximum temperature <math>\geq 47^{\circ}\text{C}</math></p> <p><b>( c). Criteria for heat wave for coastal stations</b></p> <p>When maximum temperature departure is <math>&gt;4.5^{\circ}\text{C}</math> from normal. Heat Wave may be described provided maximum temperature <math>\geq 37^{\circ}\text{C}</math>.</p>
<b>Warm Night</b>	<p><b>When maximum temperature remains <math>40^{\circ}\text{C}</math></b></p> <p><b>Warm Night:</b> When minimum temperature departure <math>4.5^{\circ}\text{C}</math> to <math>6.4^{\circ}\text{C}</math>.</p> <p><b>Severe Warm Night:</b> When minimum temperature departure <math>&gt;6.4^{\circ}\text{C}</math>.</p>
<b>Cold Wave</b>	<p>When minimum temperature of a station <math>\leq 10^{\circ}\text{C}</math> for plains and <math>\leq 0^{\circ}\text{C}</math> for hilly regions.</p> <p><b>(a). Based on departure</b></p> <p><b>Cold Wave:</b> Minimum Temperature Departure from normal <math>-4.5^{\circ}\text{C}</math> to <math>-6.4^{\circ}\text{C}</math>.</p> <p><b>Severe Cold Wave:</b> Minimum Temperature Departure from normal <math>\leq -6.5^{\circ}\text{C}</math></p> <p><b>(b) Based on actual Minimum Temperature (for Plains only)</b></p> <p><b>Cold Wave :</b> When Minimum Temperature is <math>\leq 4.0^{\circ}\text{C}</math></p> <p><b>Severe Cold Wave:</b> When Minimum Temperature is <math>\leq 2.0^{\circ}\text{C}</math></p> <p><b>( c) For Coastal Stations</b></p> <p>When Minimum Temperature departure is <math>\leq -4.5^{\circ}\text{C}</math> &amp; actual Minimum Temperature is <math>\leq 15^{\circ}\text{C}</math></p>
<b>Cold Day</b>	<p>When minimum temperature of a station <math>\leq 10^{\circ}\text{C}</math> for plains and <math>\leq 0^{\circ}\text{C}</math> for hilly regions</p> <p><b>Based on departure</b></p> <p><b>Cold Day:</b> Maximum Temperature Departure from normal <math>-4.5^{\circ}\text{C}</math> to <math>-6.4^{\circ}\text{C}</math>.</p> <p><b>Severe Cold Day:</b> Maximum Temperature Departure from normal <math>\leq -6.5^{\circ}\text{C}</math></p>
<b>Fog</b>	<p><b>Phenomenon of small droplets suspended in air and the horizontal visibility <math>&lt; 1\text{km}</math></b></p> <p><b>Moderate Fog:</b> When the visibility between 500-200 metres</p> <p><b>Dense Fog:</b> when the visibility between 50- 200 metres</p> <p><b>Very Dense Fog:</b> when the visibility <math>&lt; 50</math> metres</p>
<b>Thunderstorm</b>	<p>Sudden electrical discharges manifested by a flash of light (Lightning) and a sharp rumbling sound (thunder)</p>
<b>Dust/Sand Storm</b>	<p>An ensemble of particles of dust or sand energetically lifted to great heights by a strong and turbulent wind.</p>
<b>Frost</b>	<p><b>Ice deposits on ground</b></p> <p>Air temperature <math>\leq 4^{\circ}\text{C}</math> ( over Plains)</p>
<b>Squall</b>	<p><b>A strong wind that rises suddenly, lasts for atleast 1 minute.</b></p> <p><b>Moderate:</b> Wind speed 52-61 kmph</p> <p><b>Severe:</b> Wind speed 62-87 kmph</p> <p><b>Very Severe:</b> Wind speed <math>&gt;87</math> kmph</p>
<b>Sea State</b>	<p><b>Effect of various waves in the sea over specific area</b></p> <p><b>Rough to very rough:</b> Wind speed 41-62 kmph (22-33 knots) &amp; Wave height 2.5-6 metre</p> <p><b>High to very high:</b> Wind speed 63-117 kmph ( 34-63 knots) &amp; Wave height 6-14 metre</p> <p><b>Phenomenal:</b> Wind speed <math>&gt;117</math> kmph (<math>&gt;63</math> knots) &amp; Wave height <math>&gt;14</math> metre</p>
<b>Cyclone</b>	<p><b>Cyclonic Storm:</b> Wind speed 62-87 kmph (34-47 knots)</p> <p><b>Severe Cyclonic Storm:</b> Wind speed 88-117 kmph (48-63 knots)</p> <p><b>Very Severe Cyclonic Storm:</b> Wind speed 118-165 kmph (64 - 89 knots)</p> <p><b>Extremely Severe Cyclonic Storm:</b> Wind speed 166-220 kmph (90 -119 knots)</p> <p><b>Super Cyclone Storm:</b> Wind speed <math>&gt;220</math> kmph (<math>&gt;119</math> knots)</p>

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