



Government of India
Ministry of Earth Sciences
India Meteorological Department



Press Release
Date: 19th March 2026
Time of Issue: 1410 hours IST

Subject: (i) Scattered thunderstorm, lightning & gusty likely to continue over Western Himalayan Region and plains of northwest India till 20th March. Isolated hailstorm activity also likely over Jammu-Kashmir & Himachal Pradesh on 19th March; Uttarakhand, Punjab, Haryana, Chandigarh and West Uttar Pradesh on 19th & 20th; East Uttar Pradesh on 20th; Rajasthan on 19th March.

(ii) Scattered thunderstorm activities accompanied with Gusty winds likely to continue over Central & East India till 22nd March along with hailstorm over Madhya Pradesh & Jharkhand on 19th & 20th; Chhattisgarh on 19th; Sub-Himalayan West Bengal & Sikkim and Gangetic West Bengal & Odisha during 19th -21st; Bihar on 20th March.

(iii) Isolated heavy rainfall likely over Jammu & Kashmir, Himachal Pradesh and Uttarakhand on 19th & 20th, over Tamil Nadu & Andhra Pradesh on 19th March, over Sub-Himalayan West Bengal & Sikkim during 19th -21st with isolated very heavy falls on 20th March.

(iv) Because of large scale thunderstorm activity in many parts of the country and consecutive approach of Western Disturbances, 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 19th March, 2026:

- ❖ **Heavy to Very Heavy at few places with Extremely Heavy rainfall at isolated places (>21)** has been recorded at isolated places over Sub-Himalayan West Bengal & Sikkim
- ❖ **Heavy rainfall (7-11)** has been recorded at isolated places over South Interior Karnataka, Coastal Andhra Pradesh, Kerala and Tamil Nadu.
- ❖ **Hailstorm** reported at isolated places over Odisha, Sub-Himalayan West Bengal, Jharkhand, Haryana, Madhya Maharashtra, Marathwada, Interior Karnataka, Rayalaseema, Telangana, and Tripura.
- ❖ **Thunderstorm accompanied with Squally/Gusty winds** with speed 50-90 kmph prevailed at isolated places over West Bengal, Assam & Meghalaya, Madhya Maharashtra, Haryana, Tripura, West Uttar Pradesh and **30-50 kmph at isolated places** over Marathwada, Vidarbha, Arunachal Pradesh, Konkan & Goa, Punjab, East Madhya Pradesh, Odisha, Himachal Pradesh, Jammu-Kashmir, Jharkhand, Uttarakhand, West Madhya Pradesh.

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

- ❖ **Maximum/day temperatures** were in the range (36°C-40°C) over most parts of Vidarbha, Marathwada, East Madhya Pradesh; at many parts of Rayalaseema; at a few parts of West Madhya Pradesh, East Uttar Pradesh, Tamil Nadu, Puducherry & Karaikal, Gujarat state; at isolated places of Rajasthan, Jharkhand, Gangetic West Bengal, Chhattisgarh, Odisha, Telangana, North Interior Karnataka, Kerala & Mahe. Today, the highest maximum temperature of **39.8°C** was reported at **Banda (Uttar Pradesh)**.
- ❖ **Maximum Temperatures/day temperatures** were appreciably above normal (3.1°C to 5.0°C) at isolated places over South East Uttar Pradesh; above normal (1.6°C to 3.0°C) at a few places over East Madhya Pradesh, Konkan & Goa, Vidarbha; at isolated places over Bihar, Jharkhand, Marathwada, West Uttar Pradesh and Near normal over rest parts of the country.
- ❖ **Minimum/night temperatures** were in the range of 14–18°C over Punjab, Haryana, Chandigarh, Delhi, Rajasthan, Uttar Pradesh, Madhya Pradesh, Sub-Himalayan West Bengal, Assam, Mizoram, Odisha, Madhya Maharashtra, Interior Karnataka, Telangana and Kerala & Mahe. They were in the range of 18–25°C over remaining parts of the plains of the country. **Today, the lowest minimum temperature of 12.0°C was observed at Gurdaspur (Punjab) over the plains of India.**
- ❖ **Minimum/night Temperature** were appreciably above normal (3.1°C to 5.0°C) over Gangetic West Bengal, East Uttar Pradesh, Bihar, East Madhya Pradesh, Jharkhand, East Rajasthan; above normal (1.6°C to 3.0°C) over Jammu-Kashmir, Haryana, West Uttar Pradesh, West Madhya Pradesh, Odisha, Gujarat State, north Punjab; below normal

(-3.0°C to -1.6°C) over Telangana, Rayalaseema, Interior Karnataka & Tamil Nadu, Puducherry & Karaikal and near normal over rest parts of the country.

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

- ❖ An **upper air cyclonic circulation** lies over central parts of north Madhya Pradesh in lower tropospheric level.
- ❖ An **upper air cyclonic circulation** lies over East Uttar Pradesh & neighbourhood in lower tropospheric level
- ❖ An **upper air cyclonic circulation** lies over west Rajasthan in lower tropospheric level.
- ❖ An **upper air cyclonic circulation** lies over Northeast Assam & adjoining Arunachal Pradesh lies in lower tropospheric level
- ❖ A **trough** runs above cyclonic circulation over central parts of North Madhya Pradesh to Marathawada across Vidarbha in lower tropospheric level.
- ❖ An **upper air cyclonic circulation** lies over Haryana & neighbourhood in lower tropospheric level.
- ❖ **Subtropical westerly Jet Stream** with core winds of the order of 90 knots at 14.4 km above mean sea level prevails over north east India.
- ❖ An **upper air cyclonic circulation** lies over Coastal Andhra Pradesh & Yanam & neighbourhood in lower tropospheric level
- ❖ The **Western Disturbance** as an upper air cyclonic circulation over north Pakistan & neighbourhood in lower tropospheric level with the trough aloft in upper & middle level westerlies with its axis in middle tropospheric level roughly along Long. 68°E to the north of Lat. 28°N persists.
- ❖ A **trough** from Gulf of Mannar to South Interior Karnataka across Tamil Nadu in lower tropospheric level.
- ❖ An **upper air cyclonic circulation** lies over interior Tamilnadu adjoining Kerala in lower tropospheric level.
- ❖ A **fresh feeble Western Disturbance** is likely to affect northwest India from 22nd March 2026.

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

Northwest India:

- ❖ **Fairly widespread to widespread** light to moderate rainfall/snowfall with isolated thunderstorm, lightning & gusty winds speed reaching (40-50 kmph) likely over Western Himalayan region on 19th & 20th March and reduction in intensity thereafter. **Isolated heavy rainfall/snowfall very likely over Jammu-Kashmir-Ladakh on 19th, Himachal Pradesh and Uttarakhand on 19th & 20th March.**
- ❖ Isolated to Scattered light to moderate rainfall accompanied with isolated thunderstorm, lightning & gusty winds speed reaching (40-50 gusting to 60 kmph) likely over Punjab, Haryana Chandigarh & Delhi, West Uttar Pradesh and East Rajasthan on 19th & 20th East Uttar Pradesh on 20th & 21st and West Rajasthan on 19th March.
- ❖ **Thundersquall (wind speed reaching 50-60 kmph gusting to 70 kmph)** very likely at isolated places over Uttarakhand on 19th & 20th March.
- ❖ Isolated **Hailstorm** activity likely over Himachal Pradesh on 19th; Uttarakhand, Punjab, Haryana, Chandigarh and West Uttar Pradesh on 19th & 20th; East Uttar Pradesh on 20th; Rajasthan on 19th March.

Northeast India:

- ❖ **Scattered to fairly widespread** light to moderate rainfall with **gusty winds speed reaching (30-50 kmph)** likely over Northeast India on 19th & 21st **thunderstorm & lightning** likely over Northeast India during next 5 days.

East & Central India:

- ❖ **Fairly widespread to widespread** light to moderate rainfall with **thunderstorm, lightning & gusty winds speed reaching (30-50 kmph)** likely over Sub-Himalayan West Bengal & Sikkim during 19th-23rd March. Isolated **heavy rainfall** very likely over Sub-Himalayan West Bengal & Sikkim during 19th -21st with isolated **very heavy falls** on 20th March.
- ❖ **Isolated to Scattered** light to moderate rainfall with **thunderstorm, lightning & gusty winds speed reaching (30-50 gusting upto 60 kmph)** likely over Central India during next 3 days & East India during next 5 days.
- ❖ **Thundersquall (wind speed reaching 60-70 kmph gusting to 80 kmph)** very likely at isolated places over Jharkhand on 20th; Gangetic West Bengal on 20th & 21st March.

- ❖ **Thundersquall (wind speed reaching 50-60 kmph gusting to 70 kmph)** at isolated places over Chhattisgarh on 19th; Sub-Himalayan West Bengal & Sikkim on 20th & 21st March.
- ❖ Isolated **Hailstorm** activity likely over Madhya Pradesh & Jharkhand on 19th & 20th; Chhattisgarh on 19th; Sub-Himalayan West Bengal & Sikkim and Gangetic West Bengal & Odisha during 19th -21st; Bihar on 20th March.

South Peninsular India:

- ❖ **Isolated to Scattered** light to moderate rainfall with **thunderstorm, lightning & gusty winds speed reaching (30-50 kmph)** likely over Kerala & Mahe and Interior Karnataka during 19th -21st; Coastal Andhra Pradesh & Yanam, Rayalaseema during 19th-23rd; Telangana on 19th& 20st; **with lightning** over Tamil Nadu, Puducherry & Karaikal on 19th & 20th and Coastal Karnataka during 19th -21st March.
- ❖ **Heavy rainfall** at isolated places over Tamil Nadu, Puducherry & Karaikal, Coastal Andhra Pradesh & Yanam, and Rayalaseema on 19th March.
- ❖ Isolated **Hailstorm** activity likely over Interior Karnataka, Coastal Andhra Pradesh & Yanam and Rayalaseema on 19th March.

West India:

- ❖ **Isolated** light/moderate rainfall with **thunderstorm & lightning & gusty winds speed reaching (30-50 kmph)** likely over Madhya Maharashtra, Marathwada on 20th & 21st; with lightning over Konkan & Goa on 19th March.
- ❖ **Heavy rainfall** at isolated places over Saurashtra & Kutch on 19th March.
- ❖ **Thundersquall (wind speed reaching 50-60 kmph gusting to 70 kmph) with hailstorm activity likely over** Madhya Maharashtra, Marathawada and Gujarat State on 19th March

Forecast of maximum/day temperatures:

- ❖ Gradual fall in maximum temperatures by 3-4°C likely over Northwest India during next 2 days and gradual rise by 3-5°C during subsequent 5 days.
- ❖ No significant change in maximum temperatures likely over Central India during next 3 days; gradual rise by 3-5°C during subsequent 4 days.
- ❖ Gradual fall in maximum temperatures by 3-4°C likely over East India during next 3 days and gradual rise by 3-4°C during subsequent 4 days.
- ❖ No significant change in maximum temperatures likely over Northeast India during next 3 days; gradual rise by 3-4°C during subsequent 2 days and no significant change thereafter.
- ❖ No significant change in maximum temperatures likely over West India during next 24 hours; gradual rise by 3-5°C during subsequent 6 days.
- ❖ No significant change in maximum temperatures likely over South Peninsular India during next 3 days; gradual rise by 2-3°C during subsequent 4 days.

Fisherman Warning:

Fishermen are advised not to venture into the following areas during 19th March to 24th March, 2026:

Bay of Bengal: Along and off north Odisha & West Bengal coasts from 20th March to 22nd March.

Arabian Sea: Along and off north Gujarat adjoining northeast sea areas on 19th March.

Weather conditions and forecast over Delhi/NCR during 19th-22nd March, 2026 (ANNEXURE III)

For more details, kindly refer National Weather Bulletin:

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):

Sub-Himalayan West Bengal & Sikkim:- Oodlabari Tea Estate 22, Damdim Tea Estate 13, Baintgoorie T.E. 12, Anandpur Tea Estate 8, Saraswatipur Tea Estate 8, Gangtok 7,

Coastal Andhra Pradesh & Yanam:- Amaravati 9,

Tamilnadu, Puducherry & Karaikal:- Varattupallam 10, Ammapetta 9, Sankaridurg 8, Edapadi 8, Arcot 8, Bhuvanagiri 7, Mettur Aws 7,

South Interior Karnataka:- Bengaluru Kial Obsy 7,

Kerala & Mahe:- Kanjirappally 7

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

West Uttar Pradesh: Mathura 87, Gautham Buddha Nagar 59, Agra 57, Bulandshahar 56, Hindon 55, Kasganj 52;

Tripura: Agartala 83;

Haryana: Palwal 54; Rohtak 50; Bhiwani & Charkhi Dadri 46; Jind & Gurugram 37;

Gangetic West Bengal: Durgapur 54; Asansol 43;

Madhya Maharashtra: Kolhapur 50, Sangola (Solapur) 41, Khutbav Daund (Pune) 37;

Assam & Meghalaya: Nalbari 50, Jowai 43, Tura 39;

Sub-Himalaya West Bengal & Sikkim: Pundibari 50;

West Madhya Pradesh: Sehore 48, Guma 35, Ashoknagar, Agar, Bhopal 31;

Uttarakhand: Pantnagar 48, Champawat, Ranichauri 35, Maldevta, Mukteshwar, Ranikhet 30;

Jharkhand: Pakur 46;

Jammu-Kashmir: Gulmarg 44, Jammu 30, Samba 28;

Himachal Pradesh: Neri 43, Seobagh 41;

Odisha: Dhankauda 43;

East Madhya Pradesh: Sagar 41, Jabalpur, Satna 31, Sahdol 30;

Punjab: Hoshiarpur 39; Pathankot 37; Mohali 35; Sangrur 33;

Konkan & Goa: Konkan: Karjat (Raigad) 37, Devgad (Sindhudurg) 28;

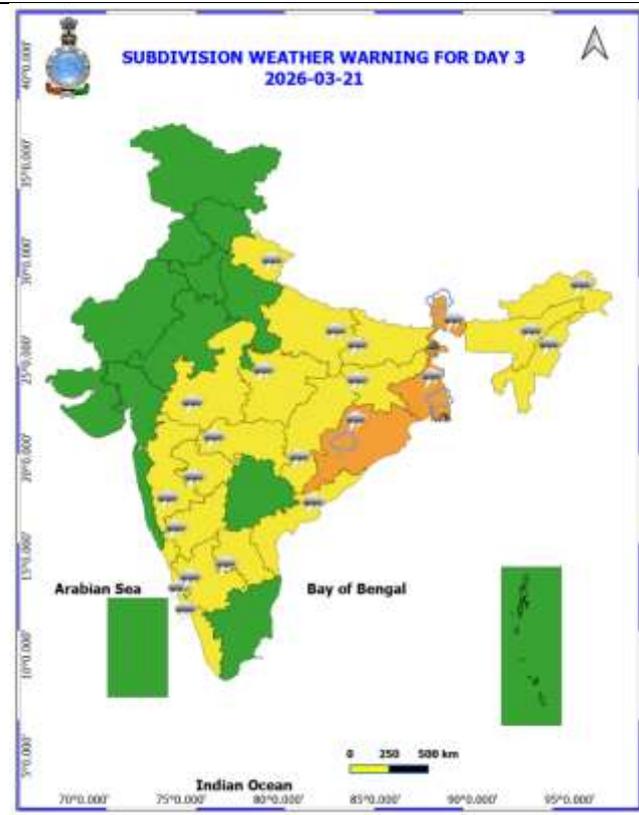
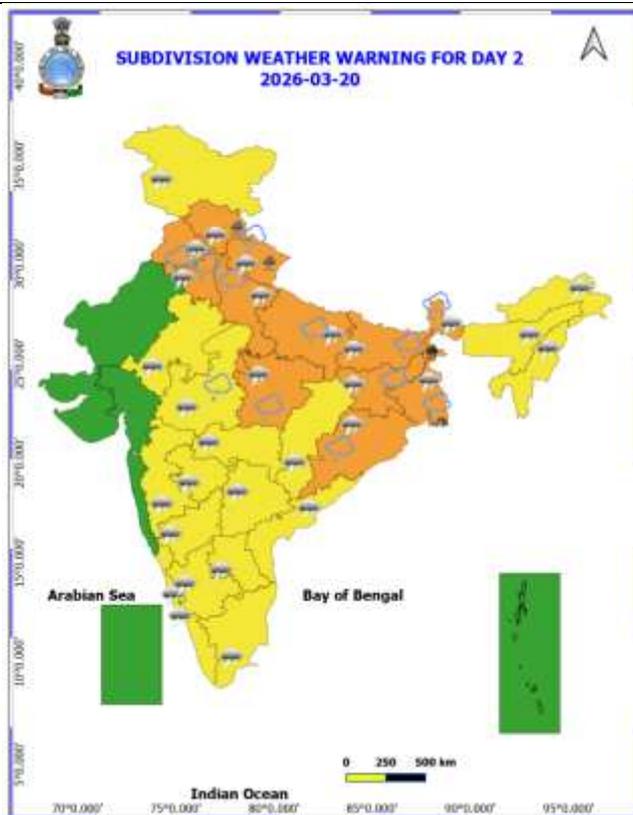
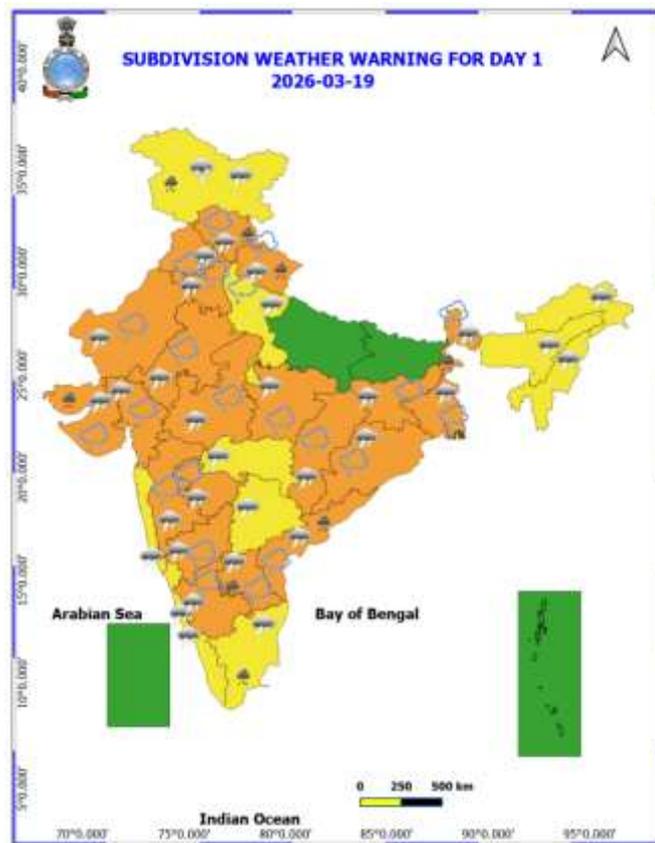
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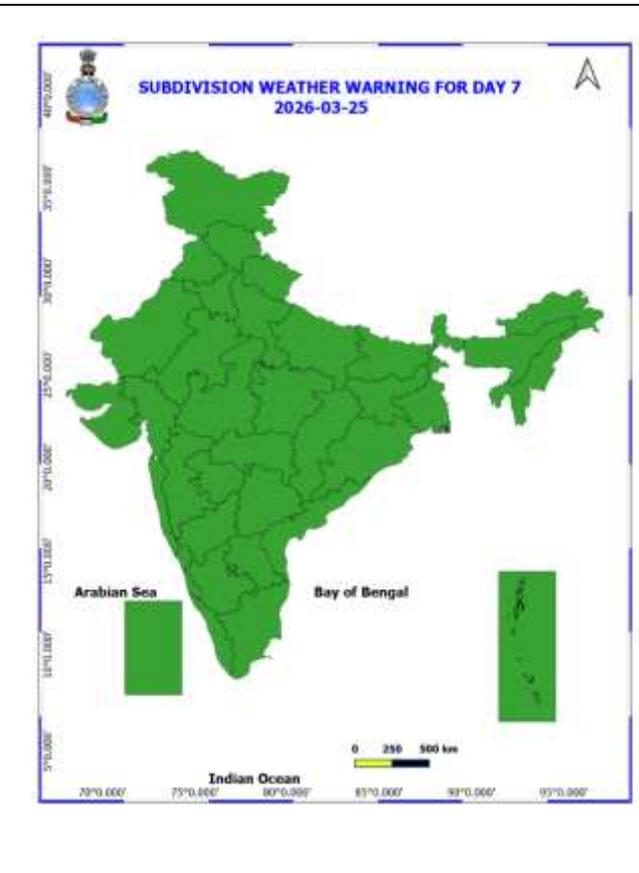
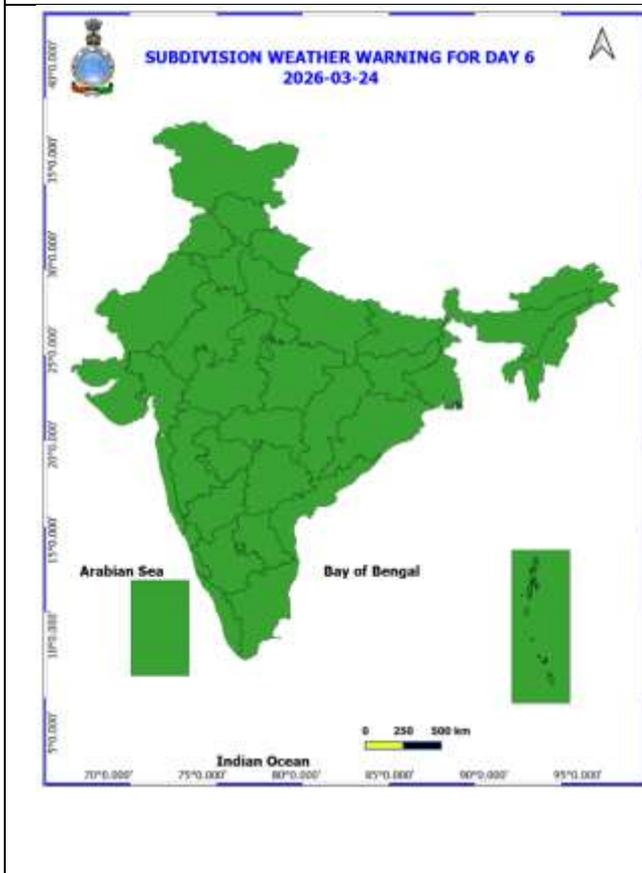
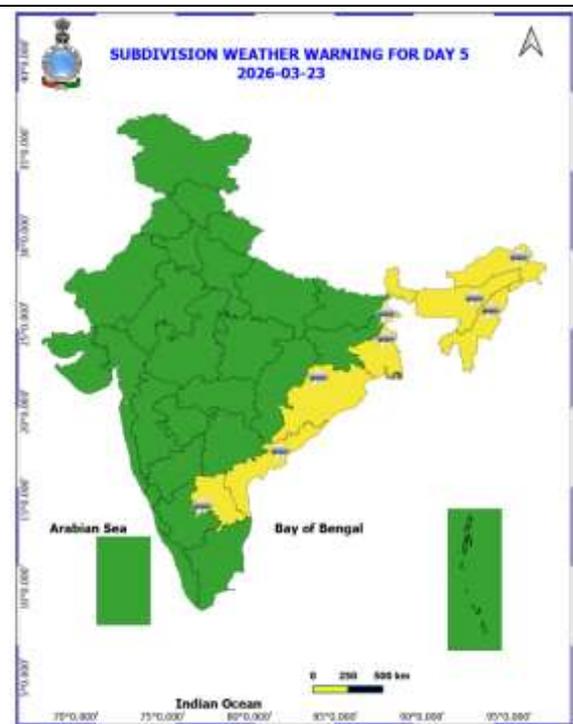
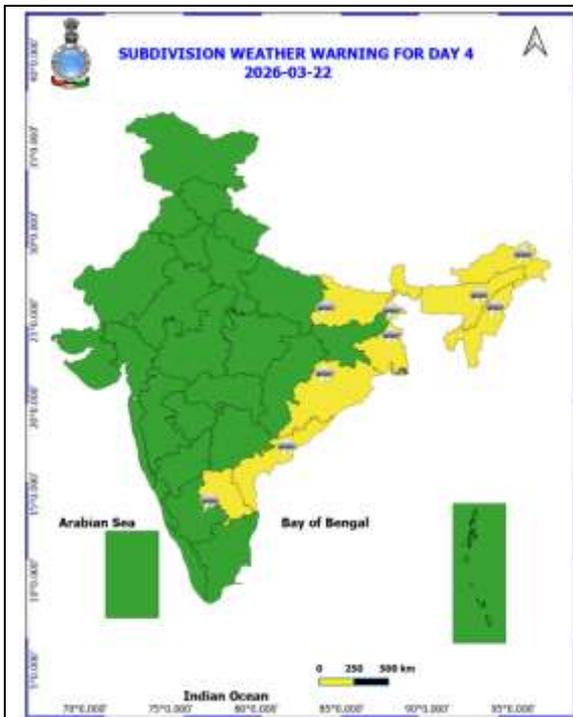
Vidarbha: Akola 35, Wardha 31;

Marathwada: Hingoli 31

Table-1								
7 Days Rainfall Forecast								
S.No.	Subdivision	19- Mar	20- Mar	21- Mar	22- Mar	23- Mar	24- Mar	25- Mar
		Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
1	ANDAMAN & NICOBAR ISLANDS	SCT	DRY	DRY	DRY	DRY	DRY	DRY
2	ARUNACHAL PRADESH	SCT	FWS	FWS	FWS	SCT	SCT	SCT
3	ASSAM & MEHGHALAYA	SCT	FWS	FWS	SCT	SCT	SCT	SCT
4	NAGALAND, MANIPUR, MIZORAM AND TRIPURA	SCT	SCT	SCT	ISOL	ISOL	ISOL	ISOL
5	SUB HIMALAYAN WEST BENGAL & SIKKIM	SCT	WS	WS	SCT	ISOL	SCT	SCT
6	GANGETIC WEST BENGAL	ISOL	FWS	WS	ISOL	ISOL	ISOL	ISOL
7	ODISHA	ISOL	SCT	ISOL	ISOL	ISOL	ISOL	ISOL
8	JHARKHAND	ISOL	SCT	SCT	DRY	DRY	DRY	DRY
9	BIHAR	DRY	ISOL	ISOL	ISOL	DRY	DRY	DRY
10	EAST UTTAR PRADESH	ISOL	SCT	SCT	DRY	DRY	DRY	DRY
11	WEST UTTAR PRADESH	FWS	FWS	ISOL	DRY	DRY	DRY	DRY
12	UTTARAKHAND	WS	WS	ISOL	ISOL	SCT	ISOL	ISOL
13	HARYANA, CHANDIGARH & DELHI	FWS	FWS	DRY	ISOL	DRY	DRY	ISOL
14	PUNJAB	FWS	SCT	DRY	ISOL	DRY	DRY	ISOL
15	HIMACHAL PRADESH	WS	WS	ISOL	ISOL	SCT	ISOL	ISOL
16	JAMMU AND KASHMIR AND LADAKH	WS	WS	ISOL	ISOL	SCT	ISOL	ISOL
17	WEST RAJASTHAN	SCT	ISOL	DRY	ISOL	DRY	DRY	DRY
18	EAST RAJASTHAN	SCT	ISOL	DRY	ISOL	DRY	DRY	DRY
19	WEST MADHYA PRADESH	ISOL	SCT	ISOL	DRY	DRY	DRY	DRY
20	EAST MADHYA PRADESH	ISOL	SCT	ISOL	DRY	DRY	DRY	DRY
21	GUJRAT REGION	SCT	ISOL	DRY	DRY	DRY	DRY	DRY
22	SAURASHTRA & KUTCH	FWS	ISOL	DRY	DRY	DRY	DRY	DRY
23	KONKAN & GOA	ISOL	DRY	ISOL	DRY	DRY	DRY	DRY
24	MADHYA MAHARASHTRA	ISOL	ISOL	ISOL	DRY	DRY	DRY	DRY
25	MARATHWADA	ISOL	ISOL	ISOL	DRY	DRY	DRY	DRY
26	VIDARBHA	ISOL	ISOL	ISOL	DRY	DRY	DRY	DRY
27	CHHATTISGARH	SCT	SCT	ISOL	ISOL	ISOL	DRY	DRY
28	COASTAL ANDHRA PRADESH	FWS	SCT	SCT	ISOL	ISOL	ISOL	ISOL
29	TELANGANA	ISOL	ISOL	DRY	DRY	DRY	DRY	DRY
30	RAYALASEEMA	SCT	SCT	ISOL	ISOL	ISOL	ISOL	ISOL
31	TAMILNADU & PUDUCHERRY	SCT	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
32	COSTAL KARNATAKA	ISOL	ISOL	ISOL	DRY	DRY	ISOL	ISOL
33	NORTH INTERIOR KARNATAKA	SCT	ISOL	ISOL	DRY	DRY	ISOL	ISOL
34	SOUTH INTERIOR KARNATAKA	SCT	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
35	KERALA AND MAHE	SCT	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
36	LAKSHADWEEP	SCT	DRY	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 19th to 22nd March 2026**Past Weather:**

There has been rise in maximum temperatures by 1-2°C and no large change in minimum temperatures during past 24 hours over Delhi. The maximum temperatures are in the range of 32-34°C and minimum temperatures are 17-18°C during past 24 hours over Delhi. The minimum temperatures are above normal (1.6°C to 3.0°C) at a few places and normal (-1.5°C to 1.5°C) over remaining part of Delhi. The maximum temperatures are above normal (1.6°C to 3.0°C) at a few places and normal (-1.5°C to 1.5°C) over remaining parts of Delhi. Generally cloudy sky with wind speed reaching up to 20 kmph to gusting 74 kmph from the east direction prevailed over past 24 hours. During the past 24 hours, light to very light rain was observed at most places across Delhi. Generally cloudy sky and surface wind speed reaching up to 10 kmph from the east direction prevailed over the region in the forenoon today.

Weather Forecast:

19.03.2026: Generally cloudy sky. One or two spells of very light/light rain accompanied with thunderstorm/lightning and strong surface winds 30-40 kmph gusting to 50 kmph in the afternoon to night. The maximum temperatures over Delhi are likely to be in the range of 26°C to 28°C. The maximum temperature will be below normal (-1.6°C to -3.0°C) over Delhi. The predominant surface wind is likely to be from northeast direction with wind reaching up to 15 kmph during the afternoon hours. The wind speed will gradually decrease becoming less than 12 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 morning. One or two spells of light/moderate rain accompanied with thunderstorm/lightning and strong surface winds 30-40 kmph gusting to 50 kmph in the forenoon to evening. The maximum and minimum temperatures over Delhi are likely to be in the range of 25°C to 27°C and 15°C to 17°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) over Delhi. The predominant surface wind is likely to be from the east direction with wind reaching up to 15 kmph during the morning hours. The wind speed will increase becoming up to 18 kmph from northwest direction during the afternoon. The wind speed will gradually decrease becoming less than 12 kmph from the northeast direction during evening and night.

21.03.2026: Partly Cloudy sky. The maximum and minimum temperatures over Delhi are likely to be in the ranges of 28°C to 30°C and 14°C to 16°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) over Delhi. The predominant surface wind is likely to be from the east 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 then decrease becoming less than 10 kmph from the north direction during evening and night.

22.03.2026: Partly cloudy sky. The maximum and minimum temperatures in Delhi are likely to be in the ranges of 29°C to 31°C and 15°C to 17°C respectively. The minimum temperatures will be near normal (-1.5°C to 1.5°C) and 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 northwest direction with wind speed reaching up to 10 kmph during the morning hours. The predominant surface wind will increase reaching up to 15 kmph from the west direction during the afternoon hours. The wind speed will then decrease becoming less than 12 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 19th; Uttarakhand, Punjab, Haryana, Chandigarh and West Uttar Pradesh on 19th & 20th; East Uttar Pradesh on 20th; Rajasthan on 19th; Madhya Pradesh & Jharkhand on 19th & 20th; Chhattisgarh on 19th; Sub-Himalayan West Bengal & Sikkim and Gangetic West Bengal & Odisha during 19th -21st; Bihar on 20th; Interior Karnataka, Coastal Andhra Pradesh & Yanam and Rayalaseema on 19th March.
- ❖ **Thundersquall (wind speed reaching 60-70 kmph gusting to 80 kmph)** very likely at isolated places over Jharkhand on 20th; Gangetic West Bengal on 20th & 21st March.
- ❖ **Thundersquall (wind speed reaching 50-60 kmph gusting to 70 kmph)** very likely at isolated places over Uttarakhand on 19th & 20th; Chhattisgarh on 19th; Sub-Himalayan West Bengal & Sikkim on 20th & 21st; Madhya Maharashtra, Marathwada and Gujarat State on 19th 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.

Impact Expected & Action Suggested due to heavy rainfall over

- ❖ Isolated heavy rainfall/snowfall very likely over Jammu-Kashmir-Ladakh on 19th, Himachal Pradesh and Uttarakhand on 19th & 20th March.
- ❖ Isolated heavy rainfall very likely over Saurashtra & Kutch, Tamil Nadu, Puducherry & Karaikal, Coastal Andhra Pradesh & Yanam, and Rayalaseema on 19th; Sub-Himalayan West Bengal & Sikkim during 19th - 21st with isolated very heavy falls over Sub-Himalayan West Bengal & Sikkim on 20th March.

Impact Expected

- Localized Flooding of roads, water logging in low lying areas and closure of underpasses mainly in urban areas of (**Rajasthan and West Madhya Pradesh**) the above region.
- Occasional reduction in visibility due to heavy rainfall.
- Disruption of traffic in major cities due to water logging in roads leading to increased travel time.
- Minor damage to kutcha roads.
- Possibilities of damage to vulnerable structure.
- Localized Landslides/Mudslides/landslips/mudslips/landsinks/mudsinks.
- Damage to horticulture and standing crops in some areas due to inundation.
- It may lead to riverine flooding in some river catchments (for riverine flooding please visit Web page of CWC)

Action Suggested

- Check for traffic congestion on your route before leaving for your destination.
- Follow any traffic advisories that are issued in this regard.
- Avoid going to areas that face the water logging problems often.

- Avoid staying in vulnerable structure.

Agromet advisories for likely impact of Hailstorms/ Snowfall

- Use hail nets or hail caps in fruit orchards and vegetable plants to protect them from mechanical damage in Himachal Pradesh, Uttarakhand, Punjab, Haryana, Uttar Pradesh, Rajasthan, Madhya Pradesh, Chhattisgarh, West Bengal, Odisha, Jharkhand, Madhya Maharashtra, Marathwada, Gujarat, North Interior Karnataka, South Interior Karnataka and Rayalaseema.
- Shake the fruit bearing trees to remove snow from the branches in Jammu & Kashmir, Himachal Pradesh and Uttarakhand.

Agromet advisories for likely impact of Heavy Rainfall

- 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 necessary arrangements to drain out excess water.
- In **Sub Himalayan West Bengal**, drain out excess water from standing crop fields. Cover the nursery of cucurbits and Dalle khorsani with polyethylene sheets or agro-nets. maintain proper drainage channels in the crop fields.
- In **Tamil Nadu**, drain out excess water from standing crop fields and vegetables.

Agromet advisories for likely impact of Thunderstorm / Gusty 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.
- 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.

Livestock / Poultry

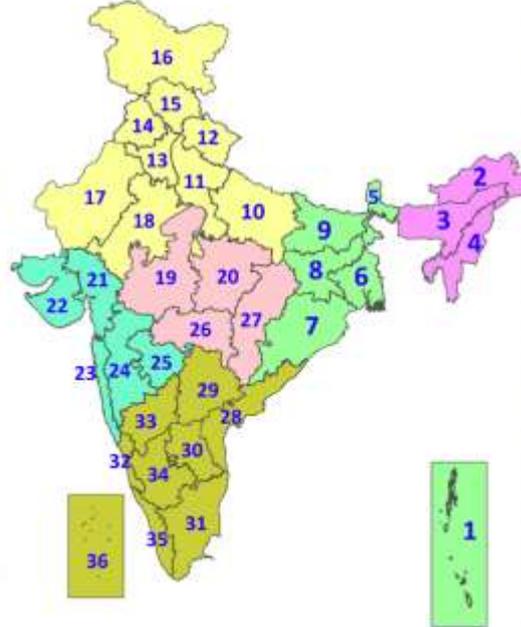
- Keep the animals inside the shed during Heavy Rainfall/Hailstorm period and provide them balanced feed. Store feed and fodder in a safe place to prevent spoilage.
- Provide clean, hygienic and plenty of drinking water to animals.

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. रायलसेमा
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 | Hot Day |
| Thunder & Lightning | Hot & Humid | Strong Surface Winds |
| Hailstorm | | |
| Dust Raising Winds | | |

COLOUR CODED WARNING

- No Warning (No Action)
- Watch (Be Aware)
- Alert (Be Prepared To Take Action)
- Warning (Take Action)

Probabilistic Forecast

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

DEFINITION/CRITERIA

Rain/ Snow *	<p>Heavy: 64.5 to 115.5 mm/cm *</p> <p>Very Heavy: 115.6 to 204.4 mm/cm*</p> <p>Extremely Heavy: > 204.4 mm/cm *</p>
Heat Wave	<p>When maximum temperature of a station reaches $\geq 40^{\circ}\text{C}$ for plains and $\geq 30^{\circ}\text{C}$ for hilly regions</p> <p>(a) Based on Departure from normal</p> <p>Heat Wave: Maximum Temperature Departure from normal 4.5°C to 6.4°C.</p> <p>Severe Heat Wave: Maximum Temperature Departure from normal $\geq 6.5^{\circ}\text{C}$</p> <p>(b). Based on Actual maximum temperature</p> <p>Heat Wave: When actual maximum temperature $\geq 45^{\circ}\text{C}$.</p> <p>Severe Heat Wave: When actual maximum temperature $\geq 47^{\circ}\text{C}$</p> <p>(c). Criteria for heat wave for coastal stations</p> <p>When maximum temperature departure is $>4.5^{\circ}\text{C}$ from normal. Heat Wave may be described provided maximum temperature $\geq 37^{\circ}\text{C}$</p>
Warm Night	<p>When maximum temperature remains 40°C</p> <p>Warm Night: When minimum temperature departure 4.5°C to 6.4°C.</p> <p>Severe Warm Night: When minimum temperature departure $>6.4^{\circ}\text{C}$.</p>
Cold Wave	<p>When minimum temperature of a station $\leq 10^{\circ}\text{C}$ for plains and $\leq 0^{\circ}\text{C}$ for hilly regions.</p> <p>(a). Based on departure</p> <p>Cold Wave: Minimum Temperature Departure from normal -4.5°C to -6.4°C.</p> <p>Severe Cold Wave: Minimum Temperature Departure from normal $\leq -6.5^{\circ}\text{C}$</p> <p>(b) Based on actual Minimum Temperature (for Plains only)</p> <p>Cold Wave : When Minimum Temperature is $\leq 4.0^{\circ}\text{C}$</p> <p>Severe Cold Wave: When Minimum Temperature is $\leq 2.0^{\circ}\text{C}$</p> <p>(c) For Coastal Stations</p> <p>When Minimum Temperature departure is $\leq -4.5^{\circ}\text{C}$ & actual Minimum Temperature is $\leq 15^{\circ}\text{C}$</p>
Cold Day	<p>When minimum temperature of a station $\leq 10^{\circ}\text{C}$ for plains and $\leq 0^{\circ}\text{C}$ for hilly regions</p> <p>Based on departure</p> <p>Cold Day: Maximum Temperature Departure from normal -4.5°C to -6.4°C.</p> <p>Severe Cold Day: Maximum Temperature Departure from normal $\leq -6.5^{\circ}\text{C}$</p>
Fog	<p>Phenomenon of small droplets suspended in air and the horizontal visibility $< 1\text{km}$</p> <p>Moderate Fog: When the visibility between 500-200 metres</p> <p>Dense Fog: when the visibility between 50- 200 metres</p> <p>Very Dense Fog: when the visibility < 50 metres</p>
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	<p>Ice deposits on ground</p> <p>Air temperature $\leq 4^{\circ}\text{C}$ (over Plains)</p>
Squall	<p>A strong wind that rises suddenly, lasts for atleast 1 minute.</p> <p>Moderate: Wind speed 52-61 kmph</p> <p>Severe: Wind speed 62-67 kmph</p> <p>Very Severe: Wind speed >67 kmph</p>
Sea State	<p>Effect of various waves in the sea over specific area</p> <p>Rough to very rough: Wind speed 41-62 kmph (22-33 knots) & Wave height 2.5-6 metre</p> <p>High to very high: Wind speed 63-117 kmph (34-63 knots) & Wave height 6-14 metre</p> <p>Phenomenal: Wind speed >117 kmph (>63 knots) & Wave height >14 metre</p>
Cyclone	<p>Cyclonic Storm: Wind speed 62-67 kmph (34-47 knots)</p> <p>Severe Cyclonic Storm: Wind speed 88-117 kmph (48-63 knots)</p> <p>Very Severe Cyclonic Storm: Wind speed 118-165 kmph (64 - 89 knots)</p> <p>Extremely Severe Cyclonic Storm: Wind speed 166-220 kmph (90 -119 knots)</p> <p>Super Cyclone Storm: Wind speed >220 kmph (>119 knots)</p>

* 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
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