



Government of India  
Ministry of Earth Sciences  
India Meteorological Department



Press Release

Date: 19<sup>th</sup> January 2026

Time of Issue: 1315 hours IST

**Subject:** (i) Under the influence of three Western Disturbances in quick succession, wet spell likely over Western Himalayan region during next 7 days with possibility of isolated heavy rainfall/snowfall over Kashmir valley on 22<sup>nd</sup> & 23<sup>rd</sup> and Himachal Pradesh on 23<sup>rd</sup> January.  
(ii) Isolated to scattered rainfall likely over adjoining plains of northwest India during 22<sup>nd</sup> -25<sup>th</sup> January.  
(iii) Dense to very dense fog conditions very likely to continue over Punjab, Haryana, Chandigarh, Uttar Pradesh and Bihar during next 2-3 days.  
(iv) The Northeast Monsoon rains have ceased over southeast peninsular India from today, the 19<sup>th</sup> January, 2026.

**Realised weather during past 24 hours ending at 0830 hours IST of today, the 19<sup>th</sup> January, 2026:**

- ❖ **Very Dense fog (visibility <50 m) conditions** prevailed in some parts of Punjab, East Uttar Pradesh; in isolated pockets of Haryana & West Uttar Pradesh and **dense fog (visibility 50-199 m)** conditions prevailed in isolated pockets of East Rajasthan, Bihar and Meghalaya.
- ❖ **Visibility reported (in meters ≤200 m): Punjab:** Amritsar 0m; **East Uttar Pradesh:** AMS Ayodhya, AMS Fursatganj & Lucknow (AP)-0m each, Fursatganj 20m, Bahraich 25m, Ballia 40m, AMS Kushinagar 50m, Gorakhpur (IAF) 100m; **West Uttar Pradesh:** AMS Moradabad & AMS Aligarh 0m each, Meerut 20m; **Haryana:** Bhiwani 10m; **Meghalaya:** Barapani 50m; **East Rajasthan:** Vanasthali < 200m.
- ❖ **Cold wave to severe cold wave conditions** prevailed in some parts of Himachal Pradesh and cold wave conditions in isolated pockets over Punjab.
- ❖ **Ground frost conditions** have been recorded in isolated pockets of Uttarakhand.

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

- ❖ **Minimum temperatures** were 1-4°C at many places over Himachal Pradesh; at isolated places over Jammu & Kashmir and Ladakh, northwest Punjab and Uttarakhand; 5°-9°C at many places over remaining parts of Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh & Bihar; at some places over Madhya Pradesh and at isolated places over Rajasthan, Jharkhand, north Chhattisgarh, Odisha, Sikkim and Assam & Meghalaya. It is 10°C and above for remaining parts of the country except higher reaches of Western Himalayan region where it was less than 0°C.
- ❖ **Minimum Temperatures** were above normal by (2°C to 5°C) over Central India and adjoining western India, Haryana, East Uttar Pradesh, Bihar, Assam & Meghalaya and below normal (-2°C to -4°C) at isolated places over Jharkhand, Chhattisgarh, Odisha, Telangana, Rayalaseema, Tamil Nadu and near normal over rest parts of the country. ([refer to ANNEXURE IV](#))
- ❖ The **lowest minimum temperature** of 2.9°C was observed at Amritsar (**Punjab**) over the plains of India.

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

- ❖ **Cessation of Northeast Monsoon rains over South Peninsular India today, the 19<sup>th</sup> January 2026:** No significant rainfall activity occurred over southeast peninsular India during past 2 days. In the lower levels, dry winds from northern India are prevailing over the region. Thus, the Northeast Monsoon rains have ceased over southeast peninsular India from today, the 19th January, 2026. Dry weather likely to prevail over southeast peninsular India during next 2 days.

- ❖ The **Western Disturbance** as a cyclonic circulation lies over north Punjab & neighbourhood in lower tropospheric levels with the trough aloft in middle and upper tropospheric westerlies runs roughly along Long. 73°E to the north of Lat. 30°N.
- ❖ An **induced cyclonic circulation** lies over northeast Rajasthan & neighbourhood in lower tropospheric levels.
- ❖ Another fresh **Western Disturbance** seen as a trough in middle tropospheric westerlies with its axis at 5.8 km above mean sea level runs roughly along Long. 62°E to the north of Lat. 32°N.
- ❖ Thereafter, an intense **Western disturbance** likely to affect Northwest India from 21<sup>st</sup> January, 2026 night onwards.
- ❖ **Subtropical westerly Jet Stream** with core winds of the order of 125 knots at 12.6 km above mean sea level prevails over Northeast India.

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

- ❖ Isolated to scattered light to moderate rainfall/snowfall likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad during 19<sup>th</sup> -21<sup>st</sup>; Himachal Pradesh on 19<sup>th</sup> January and Fairly widespread to widespread rainfall/snowfall over Western Himalayan Region during 22<sup>nd</sup> -24<sup>th</sup> with reduce in intensity on 25<sup>th</sup> January; with **isolated heavy falls over Kashmir valley on 22<sup>nd</sup> & 23<sup>rd</sup> and higher reaches of Himachal Pradesh on 23<sup>rd</sup> January**.
- ❖ Scattered to Fairly widespread light to moderate rainfall likely over Punjab during 22<sup>nd</sup>-25<sup>th</sup>; Isolated to scattered light to moderate rainfall over Haryana, Chandigarh, West Uttar Pradesh during 22<sup>nd</sup> - 25<sup>th</sup>; East Uttar Pradesh on 23<sup>rd</sup> & 24<sup>th</sup> and Rajasthan on 22<sup>nd</sup> & 23<sup>rd</sup> January.
- ❖ Thunderstorm activity accompanied with **lightning & gusty winds (speed 40-50 kmph)** likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad on 23<sup>rd</sup>; with **gusty winds (speed 30-40 kmph)** over Punjab, Haryana, Chandigarh, Uttar Pradesh and Rajasthan on 22<sup>nd</sup> & 23<sup>rd</sup>; with **lightning** over Himachal Pradesh on 22<sup>nd</sup> & 23<sup>rd</sup>; Uttarakhand on 23<sup>rd</sup> January.

#### **Forecast of minimum temperatures:**

- ❖ No significant change in minimum temperatures likely over Northwest India during next 3 days; gradual rise by 2-4°C during subsequent 2 days and gradual fall by 2-3°C during subsequent 2 days.
- ❖ Gradual rise in minimum temperatures by 2-4°C likely over Maharashtra during next 3 days and no significant change during subsequent 4 days.
- ❖ No significant change in minimum temperatures likely over rest parts of the country.

#### **Dense Fog & Cold wave Warnings:**

- ❖ **Dense to very dense fog** conditions very likely to prevail in morning/night hours in isolated pockets over Punjab till 20<sup>th</sup> and **Dense fog** in isolated pockets on 21<sup>st</sup> January 2026.
- ❖ **Dense fog** conditions also likely during morning/night hours in isolated pockets over Haryana, Chandigarh & Bihar till 21<sup>st</sup>; Uttar Pradesh till 20<sup>th</sup> January.
- ❖ **Cold wave conditions** very likely in isolated pockets of Himachal Pradesh on 20<sup>th</sup> & 21<sup>st</sup> January.

**Weather conditions and forecast over Delhi/NCR during 19<sup>th</sup> -22<sup>nd</sup> January, 2026 (ANNEXURE III) For more details, kindly refer National Weather Bulletin:**

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

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

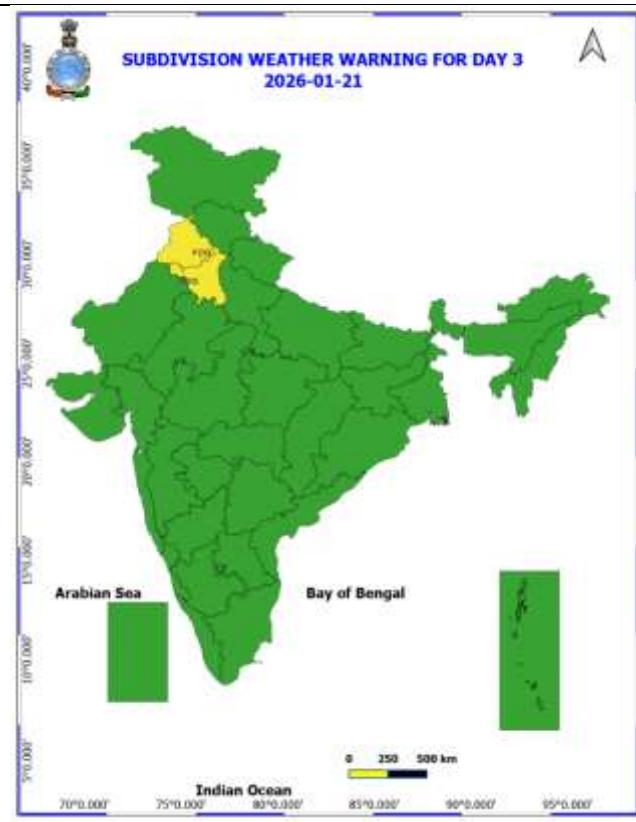
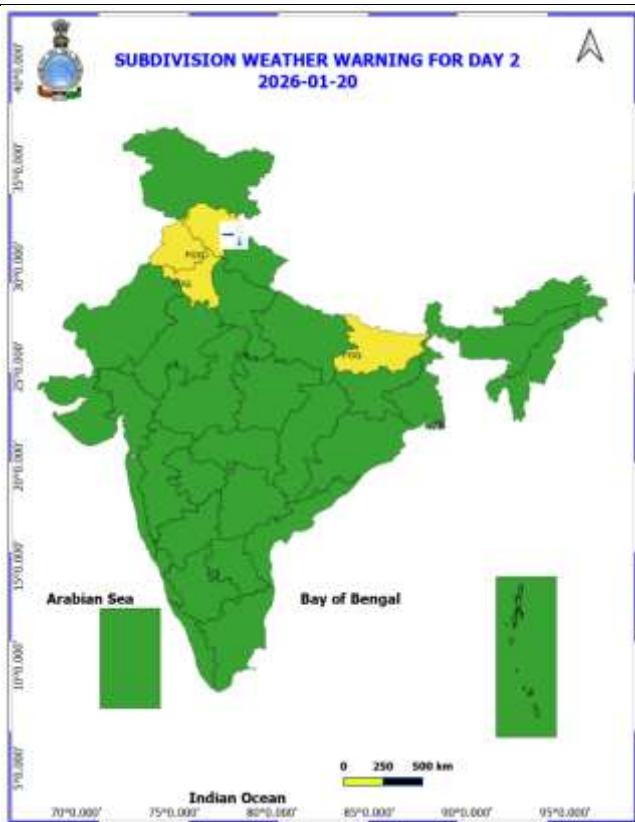
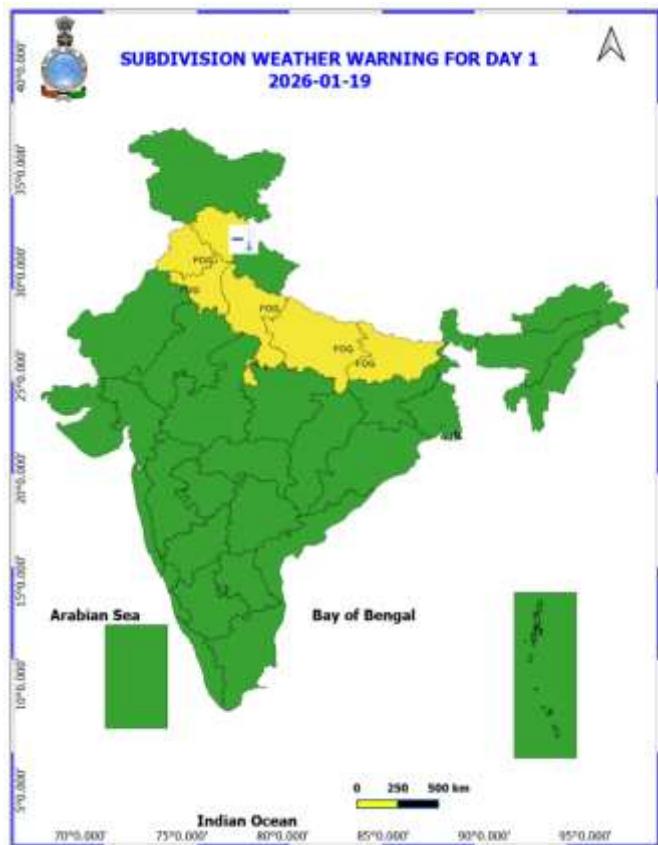
For Fishermen warning refer <https://rsmcnewdelhi.imd.gov.in/fishermen-warning.php>

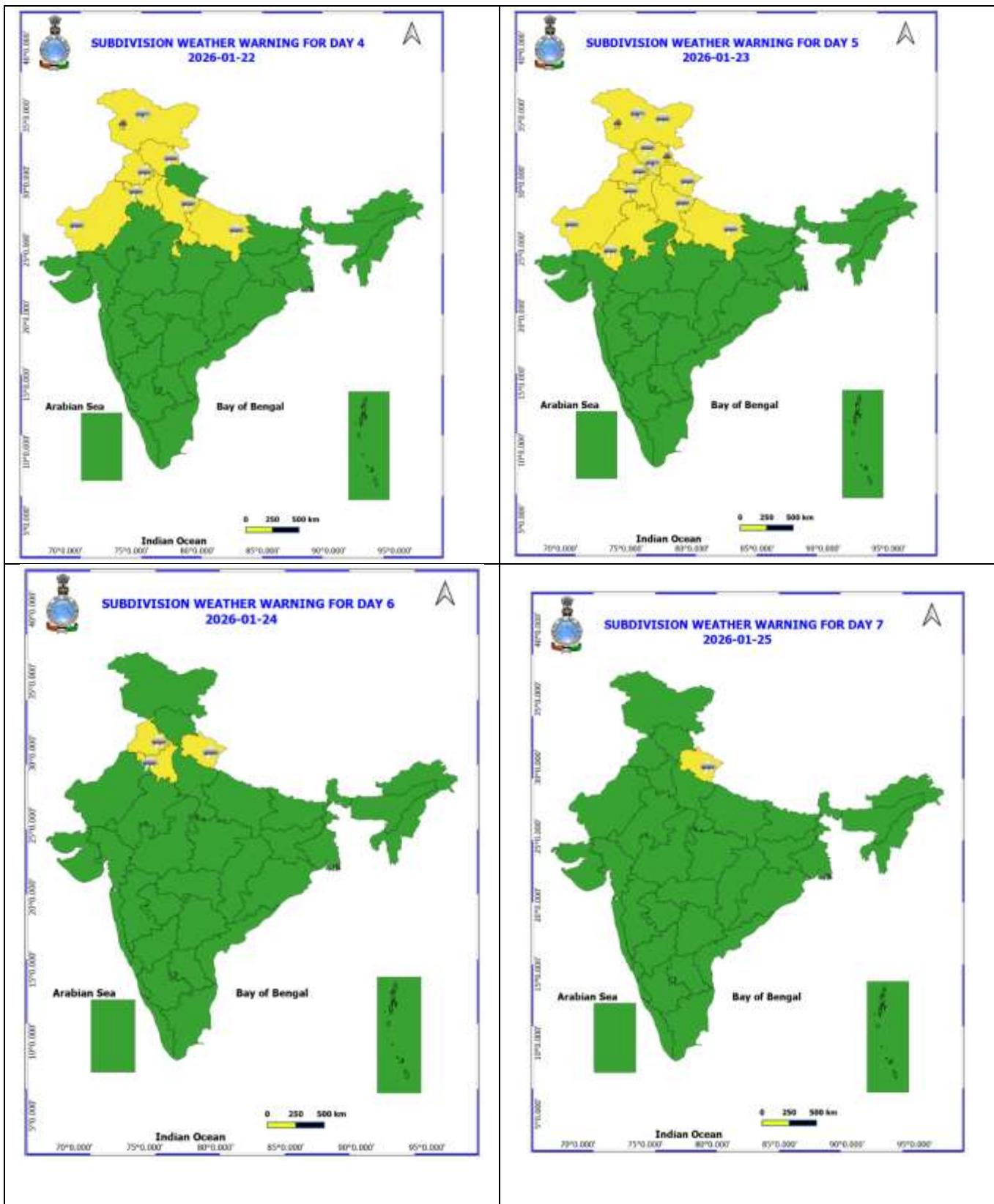
Table-1

7 Days Rainfall Forecast

S.No.	Subdivision	19- Jan	20- Jan	21- Jan	22- Jan	23- Jan	24- Jan	25- Jan
		Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
1	ANDAMAN & NICOBAR ISLANDS	ISOL	ISOL	ISOL	ISOL	ISOL	DRY	DRY
2	ARUNACHAL PRADESH	ISOL	ISOL	ISOL	DRY	DRY	DRY	DRY
3	ASSAM & MEHGHALAYA	DRY						
4	NAGALAND, MANIPUR, MIZORAM AND TRIPURA	DRY	DRY	DRY	DRY	ISOL	ISOL	ISOL
5	SUB HIMALAYAN WEST BENGAL & SIKKIM	DRY	DRY	DRY	DRY	ISOL	ISOL	ISOL
6	GANGETIC WEST BENGAL	DRY						
7	ODISHA	DRY						
8	JHARKHAND	DRY						
9	BIHAR	DRY						
10	EAST UTTAR PRADESH	DRY	DRY	DRY	ISOL	ISOL	ISOL	DRY
11	WEST UTTAR PRADESH	DRY	DRY	DRY	ISOL	SCT	ISOL	ISOL
12	UTTARAKHAND	DRY	DRY	ISOL	ISOL	FWS	SCT	SCT
13	HARYANA, CHANDIGARH & DELHI	DRY	DRY	DRY	ISOL	SCT	SCT	ISOL
14	PUNJAB	DRY	DRY	DRY	SCT	FWS	SCT	ISOL
15	HIMACHAL PRADESH	DRY	DRY	DRY	SCT	W	SCT	ISOL
16	JAMMU AND KASHMIR AND LADAKH	ISOL	ISOL	ISOL	FWS	W	W	ISOL
17	WEST RAJASTHAN	DRY	DRY	DRY	ISOL	ISOL	DRY	DRY
18	EAST RAJASTHAN	DRY	DRY	DRY	ISOL	ISOL	DRY	DRY
19	WEST MADHYA PRADESH	DRY						
20	EAST MADHYA PRADESH	DRY						
21	GUJRAT REGION	DRY						
22	SAURASHTRA & KUTCH	DRY						
23	KONKAN & GOA	DRY						
24	MADHYA MAHARASHTRA	DRY						
25	MARATHWADA	DRY						
26	VIDARBHA	DRY						
27	CHHATTISGARH	DRY						
28	COASTAL ANDHRA PRADESH	DRY						
29	TELANGANA	DRY						
30	RAYALASEEMA	DRY						
31	TAMILNADU & PUDUCHERRY	DRY	DRY	DRY	DRY	ISOL	ISOL	ISOL
32	COSTAL KARNATAKA	DRY						
33	NORTH INTERIOR KARNATAKA	DRY						
34	SOUTH INTERIOR KARNATAKA	DRY						
35	KERALA AND MAHE	ISOL	DRY	DRY	DRY	DRY	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 Multi Hazard weather warning for next five days available at  
<https://mausam.imd.gov.in/responsive/districtWiseWarningGIS.php>

## Weather forecast over Delhi/NCR during 19<sup>th</sup> to 22<sup>nd</sup> January 2026

### Past Weather:

There has been rise in minimum temperature up to 1-2°C and fall in maximum temperatures up to 1-2°C during the past 24 hours over Delhi. The maximum and minimum temperatures over Delhi were around 21°C to 23°C and 07°C to 10°C respectively. The minimum temperatures were normal (-1.5 to 1.5°C) over Delhi. The maximum temperatures were appreciably above normal (3.1 to 5.0) at isolated places and above normal (1.6 to 3.0°C) at a few places over Delhi. Safdarjung reported lowest visibility 200m at 0430 IST, which thereafter improved to 300m at 0530 IST of today, 19.01.2026. Palam reported lowest visibility 700m from 0730 IST to 1000 IST, which thereafter improved to 800m at 1030 IST of today, 19.01.2026. Mainly clear sky with moderate fog, predominant surface wind from the variable direction with a wind speed up to 12 kmph prevailed during the past 24 hours. Partly cloudy sky with wind speed reaching up to 08 kmph from the east direction prevailed over the region in the forenoon today.

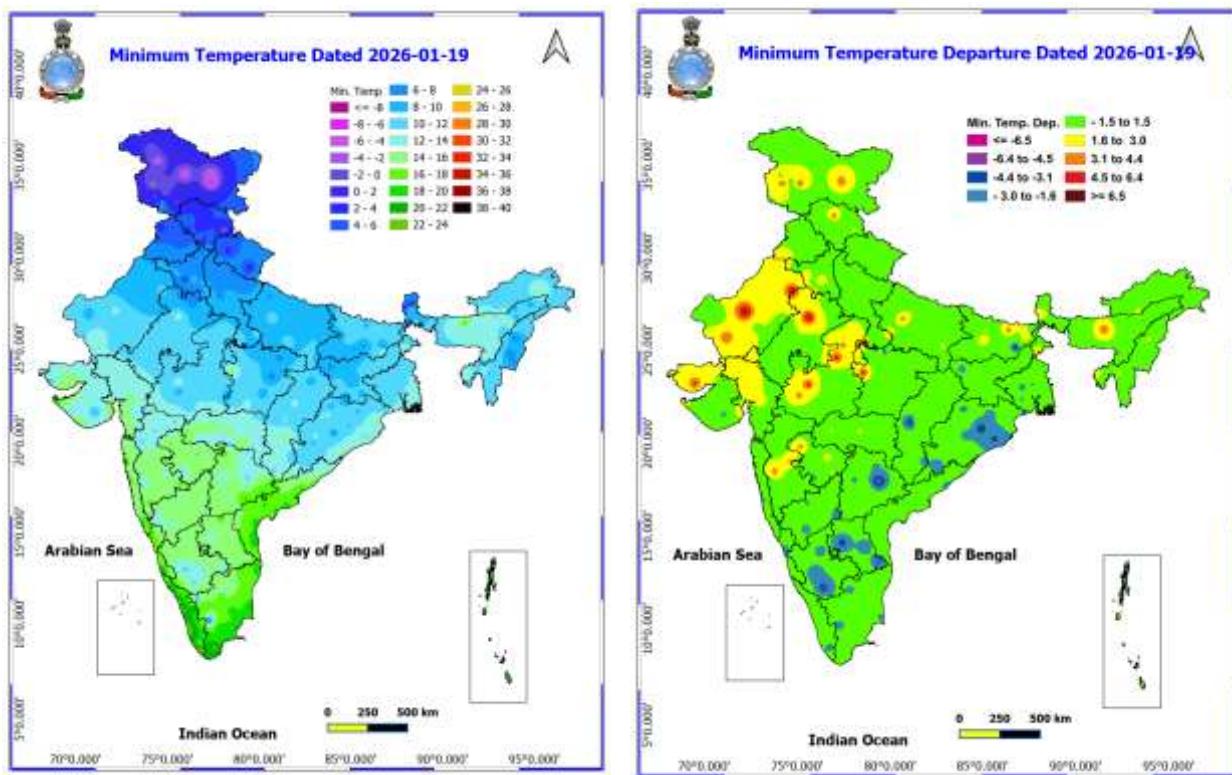
### Weather Forecast:

**19.01.2026:** Partly cloudy sky. Mist during night. The maximum temperatures are likely to be in the range of 23°C to 25°C. Maximum temperatures will be above normal (1.6 to 3.0) over Delhi. The predominant surface wind is likely to be from the east direction with wind speeds less than 10kmph during the afternoon hours. The wind speed will gradually decrease and then reaching upto 05 kmph from the northwest direction during the evening and night.

**20.01.2026:** Partly cloudy sky. Shallow to moderate fog during morning hours. The maximum and minimum temperatures in Delhi are likely to be in the ranges of 23°C to 25°C and 07°C to 09°C respectively. The minimum temperature will be near normal and the maximum temperatures will be above normal (1.6 to 3.0) over Delhi. The predominant surface wind is likely to northwest direction with wind speed reaching upto 10 kmph during the morning hours. The wind speed will increase up to 15kmph from the northwest direction in the afternoon hours. The wind speed will decrease becoming upto 08 kmph from the north direction during the evening and night.

**21.01.2025:** Partly cloudy sky. Shallow to moderate fog during morning hours. The maximum and minimum temperatures in Delhi are likely to be in the ranges of 22°C to 24°C and 06°C to 08°C respectively. The minimum temperatures will be near normal and the maximum temperatures will be above normal (1.6 to 3.0) over Delhi. The predominant surface wind is likely to northwest direction with wind speed reaching upto 10 kmph during the morning hours. The wind speed will then increase becoming 15 kmph from the northwest direction in the afternoon. The wind speed will decrease up to 08 kmph from northwest direction during the evening and night.

**22.01.2026:** Partly cloudy sky becoming generally cloudy sky towards afternoon/evening. Shallow to moderate fog during morning hours. The maximum and minimum temperatures in Delhi are likely to be in the ranges of 22°C to 24°C and 06°C to 08°C respectively. The minimum temperatures will be near normal and the maximum temperatures will be above normal (1.6°C to 3.0°C) over Delhi. The predominant surface wind is likely to be from the west direction associated with calm wind reaching up to 05 kmph during morning hours. The wind speed will then increase becoming 10 kmph from the southwest direction in the afternoon. The wind speed will increase up to 15 kmph from southeast direction during the evening and night.



**Reported minimum temperature ( $\leq 5^{\circ}\text{C}$ ) at 0830 hrs IST of the 19th January 2026.**

Station	State	Temperature	Departure
AMRITSAR	PUNJAB	2.9	-1
LUDHIANA	PUNJAB	4.6	-1.4

**Impact expected due to dense/very dense fog in the morning hours:** Dense to very dense fog conditions very likely over Punjab, Haryana, Chandigarh, Uttar Pradesh and Bihar during next 2-3 days.

❖ **Transport and Aviation:**

- May affect some airports, highways and railway routes in the areas of met- sub-division.
- Difficult driving conditions with slower journey times.
- Unless taken precautionary measures, it may lead to some road traffic collisions.

❖ **Power Sector:**

- Chances of Tripping of Power lines in the very dense fog routes.

❖ **Human Health:**

- Lung related health impacts: Dense fog contains particulate matter and other pollutants and in case exposed it gets lodged in the lungs, clogging them and decreasing their functional capacity which increases episodes of wheezing, coughing and shortness of breath.
- Impact on people having asthma bronchitis: Long time exposure to dense fog may cause respiratory problem for people having asthma bronchitis and other lung related health problems.
- Eye Irritation: Dense fog contains pollutions of various types and these Pollutants in the air if exposed may tend to irritate the membranes of the eye causing various infections leading to redness or swelling of the eye.

**Action suggested:**

❖ **Transport and Aviation:**

- Be careful while driving or outing through any transport.
- Use fog lights during driving.
- Be in touch with airlines, railways and state transport for schedule of your journey.

❖ **Power Sector:**

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

#### **Impact expected due to Cold Wave conditions:**

- ❖ **Cold wave conditions** very likely in isolated pockets of Himachal Pradesh on 20<sup>th</sup> & 21<sup>st</sup> January.

- ❖ An increased likelihood of various illnesses like flu, running/ stuffy nose or nosebleed, which usually set in or get aggravated due to prolonged exposure to cold.
- ❖ Do not ignore shivering. It is the first sign that the body is losing heat. Get Indoors.
- ❖ Frostbite can occur due to prolonged exposure to cold. The skin turns pale, hard and numb and eventually black blisters appear on exposed body parts such as fingers, toes, nose and or earlobes. Severe frostbite needs immediate medical attention and treatment.
- ❖ Impact on agriculture, crop, livestock, water supply, transport and power sector at some places.

#### **Action suggested:**

- ❖ Wear several layers of loose fitting, light weight; warm woollen clothing.
- ❖ Cover your head, neck, hands and toes adequately as majority of heat loss occurs through these body parts. Wear several layers of loose fitting, light weight; warm woollen clothing rather than one layer of heavy cloth.
- ❖ Eat vitamin-C rich fruits & vegetable and drink sufficient fluids preferably warm fluids to maintain adequate immunity.
- ❖ Avoid or limit outdoor activities.
- ❖ Keep dry, if wet, change cloths immediately to prevent loss of body heat. Wear insulated/waterproof shoes.
- ❖ Warm the affected area of the body slowly with lukewarm water; do not rub the skin vigorously.
- ❖ If the affected skin area turns black, immediately consult a doctor.
- ❖ Maintain ventilation while using Heaters to avoid inhaling toxic fumes.
- ❖ Take safety measures while using electrical and gas heating devices.
- ❖ Extreme care needed for vulnerable people.
- ❖ Seek medical attention as soon as possible for someone suffering from frostbite/ Hypothermia.
- ❖ Protect livestock from cold weather.

#### **Agromet advisories for likely impact of Cold Waves/ Low Temperatures**

- In **Himachal Pradesh**, apply light and frequent irrigation to the standing crops in the evening hours to protect crops from low temperature stress or cold injury. Use mulching and cover the vegetable nurseries and young fruit plants with straw / polythene sheets to maintain optimum soil temperature.

#### **Livestock / Poultry**

- Keep the cattle in the sheds during night and provide dry bedding to protect them from cold.
- Keep the chicks warm by providing artificial light in the poultry sheds.

#### **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. झारखण्ड

9. बिहार

10. पूर्वी उत्तर प्रदेश

11. पश्चिम उत्तर प्रदेश

12. उत्तराखण्ड

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. कोकण और गोवा

24. मध्य महाराष्ट्र

25. मराठवाड़ा

26. विदर्भ

27. छत्तीसगढ़

28. तटीय आंध्र प्रदेश और यनम

29. तेलंगाना

30. रायलसीमा

31. तमिलनाडु, पुदुचेरी और कराईकल

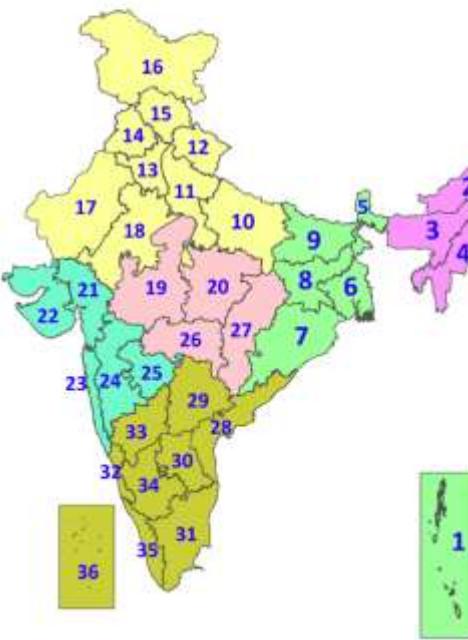
32. तटीय कर्नाटक

33. आतंरिक उत्तरी कर्नाटक

34. आतंरिक 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

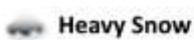
34. South Interior Karnataka

35. Kerala & Mahe

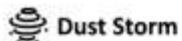
36. Lakshadweep

## SPATIAL DISTRIBUTION (% of Stations reporting)

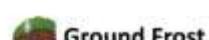
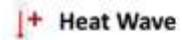
% Stations	Category	% Stations	Category
76-100	Widespread (WS/Most Places)		
51-75	Fairly Widespread (FWS/Many Places)		
26-50	Scattered (SCT/A Few Places)		
1-25	Isolated (ISOL)		



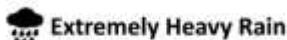
### COLOUR CODED WARNING



No Warning (No Action)



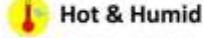
Watch (Be Aware)



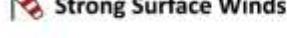
Alert (Be Prepared To Take Action)



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 \*

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  $\geq 6.5^{\circ}\text{C}$

### Heat Wave

(b). Based on Actual maximum temperature

**Heat Wave:** When actual maximum temperature  $\geq 45^{\circ}\text{C}$ .

**Severe Heat Wave:** When actual maximum temperature  $\geq 47^{\circ}\text{C}$

(c). Criteria for heat wave for coastal stations

When maximum temperature departure is  $>4.5^{\circ}\text{C}$  from normal. Heat Wave may be described provided maximum temperature  $\geq 37^{\circ}\text{C}$

### Warm Night

When maximum temperature remains  $40^{\circ}\text{C}$

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

**Severe Warm Night:** When minimum temperature departure  $>6.4^{\circ}\text{C}$

### Cold Wave

When minimum temperature of a station  $\leq 10^{\circ}\text{C}$  for plains and  $\leq 0^{\circ}\text{C}$  for hilly regions.

(a). Based on departure

**Cold Wave:** Minimum Temperature Departure from normal  $-4.5^{\circ}\text{C}$  to  $-6.4^{\circ}\text{C}$ .

**Severe Cold Wave:** Minimum Temperature Departure from normal  $\leq -6.5^{\circ}\text{C}$

(b) Based on actual Minimum Temperature (for Plains only)

**Cold Wave :** When Minimum Temperature is  $\leq 4.0^{\circ}\text{C}$

**Severe Cold Wave:** When Minimum Temperature is  $\leq 2.0^{\circ}\text{C}$

(c) For Coastal Stations

When Minimum Temperature departure is  $\leq -4.5^{\circ}\text{C}$  & actual Minimum Temperature is  $\leq 15^{\circ}\text{C}$

### Cold Day

When minimum temperature of a station  $\leq 10^{\circ}\text{C}$  for plains and  $\leq 0^{\circ}\text{C}$  for hilly regions

Based on departure

**Cold Day:** Maximum Temperature Departure from normal  $-4.5^{\circ}\text{C}$  to  $-6.4^{\circ}\text{C}$ .

**Severe Cold Day:** Maximum Temperature Departure from normal  $\leq -6.5^{\circ}\text{C}$

### Fog

Phenomenon of small droplets suspended in air and the horizontal visibility  $< 1\text{ km}$

**Moderate Fog:** When the visibility between 500-200 metres

**Dense Fog:** when the visibility between 50- 200 metres

**Very Dense Fog:** when the visibility  $< 50$  metres

### Thunderstorm

Sudden electrical discharges manifested by a flash of light (Lightning) and a sharp rumbling sound (thunder)

### Dust/Sand Storm

An ensemble of particles of dust or sand energetically lifted to great heights by a strong and turbulent wind.

### Frost

Ice deposits on ground

Air temperature  $\leq 4^{\circ}\text{C}$  ( over Plains)

### Squall

A strong wind that rises suddenly, lasts for atleast 1 minute.

**Moderate:** Wind speed 52-61 kmph

**Severe:** Wind speed 62-87 kmph

**Very Severe:** Wind speed  $>87$  kmph

### Sea State

Effect of various waves in the sea over specific area

**Rough to very rough:** Wind speed 41-62 kmph (22-33 knots) & Wave height 2.5-6 metre

**High to very high:** Wind speed 63-117 kmph ( 34-63 knots) & Wave height 6-14 metre

**Phenomenal:** Wind speed  $>117$  kmph ( $>63$  knots) & Wave height  $>14$  metre

### Cyclone

**Cyclonic Storm:** Wind speed 62-87 kmph (34-47 knots)

**Severe Cyclonic Storm:** Wind speed 88-117 kmph (48-63 knots)

**Very Severe Cyclonic Storm:** Wind speed 118-165 kmph (64 - 89 knots)

**Extremely Severe Cyclonic Storm:** Wind speed 166-220 kmph (90 - 119 knots)

**Super Cyclone Strom:** Wind speed  $>220$  kmph ( $>119$  knots)

\* 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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