

# Government of India Ministry of Earth Sciences India Meteorological Department



Press Release Date: 16<sup>th</sup> November, 2025 Time of Issue: 1250 hours IST

Subject: (i) A low pressure area has formed over Southwest Bay of Bengal off Sri Lanka coast. Under its influence, heavy to very heavy rainfall Tamil Nadu during  $18^{th}$  - $22^{nd}$ , Kerala & Mahe during  $16^{th}$  - $20^{th}$ ; over Coastal Andhra Pradesh & Yanam, Rayalaseema on  $17^{th}$  &  $18^{th}$  and Andaman & Nicobar Islands during  $18^{th}$  - $21^{st}$  November.

(ii) Cold wave to severe cold wave likely to continue over some parts of West Madhya Pradesh on 16th And over isolated parts of East Madhya Pradesh on 16th November.

## Realised weather during past 24 hours ending at 0830 hours IST of today, the 16th November, 2025:

- Cold wave to severe cold wave conditions prevailed over isolated pockets of East Rajasthan, East Madhya Pradesh & Chhattisgarh; cold wave conditions prevailed at isolated pockets of Himachal Pradesh, Uttar Pradesh, Chhattisgarh, West Madhya Pradesh, Haryana Chandigarh & Delhi & Jharkhand.
- ❖ Minimum Temperature are markedly below normal (-5.1°C or less) at isolated places over East Rajasthan, Jharkhand, Chhattisgarh, Odisha, Vidarbha, Madhya Maharashtra, Marathwada, Telangana, Uttar Pradesh, Haryana-Chandigarh-Delhi, Madhya Pradesh. (refer to ANNEXURE IV)
- ❖ **Dense fog (visibility 50-200 m)** reported at isolated pockets of Odisha.

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

- ❖ Yesterday's Low-Pressure area over Southwest Bay of Bengal off Sri Lanka coast persisted over the same region at 0830 hrs IST of today, the 16th November 2025. The associated cyclonic upper air circulation extended upto 7.6 km above mean sea level tilting southwest with height. It is likely to move slowly west-northwestward during next 24 hours.
- **❖** A cyclonic circulation lies over Southeast Arabian Sea and adjoining South Kerala coast in lower tropospheric level.

## Under the influence of these systems, the following weather is likely:

- Light to moderate rainfall/thunderstorm at most/many places with **isolated heavy rainfall** very likely over Tamil Nadu during 18<sup>th</sup> -22<sup>nd</sup>, Kerala & Mahe during 16<sup>th</sup> 20<sup>th</sup>; over Coastal Andhra Pradesh & Yanam, Rayalaseema on 17<sup>th</sup> & 18<sup>th</sup> and Andaman & Nicobar Islands during 18<sup>th</sup> -21<sup>st</sup> November; with isolated **very Heavy rainfall** over Tamil Nadu on 16<sup>th</sup> & 17<sup>th</sup> November.
- ❖ Thunderstorm with lightning very likely over Tamil Nadu, Kerala & Mahe, Coastal Andhra Pradesh & Yanam and Rayalaseema during 16<sup>th</sup> -20<sup>th</sup>; on 16<sup>th</sup>-19<sup>th</sup> with gusty winds (speed reaching 30-40 kmph) likely over Andaman & Nicobar Islands during 16<sup>th</sup> -20<sup>th</sup> November.

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

- ❖ Minimum temperatures are in the range of less than 6°C at many places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad; at a few places over Himachal Pradesh, Uttarakhand; in the range of 7-10°C at many places over Punjab; at a few places over East Rajasthan, Haryana Chandigarh & Delhi, East Madhya Pradesh; at isolated places over north Uttar Pradesh, Madhya Maharashtra West Madhya Pradesh, Chhattisgarh.
- ❖ The lowest minimum temperature of 6.0°C is reported at Rajgarh (West Madhya Pradesh) over the plains of India. (refer to ANNEXURE IV)

#### Forecast of temperature and cold wave and cold day warnings:

- ❖ Cold wave to severe cold wave likely to prevail over some parts of West Madhya Pradesh on 16<sup>th</sup> and over isolated parts of East Madhya Pradesh on 16<sup>th</sup> November; Cold wave conditions very likely to prevail over isolated parts of Madhya Pradesh on 16<sup>th</sup> & 17<sup>th</sup>, West Rajasthan, Madhya Maharashtra and Vidarbha on 16<sup>th</sup> & 17<sup>th</sup>; East Rajasthan and Chhattisgarh during 16<sup>th</sup> -18<sup>th</sup>; Jharkhand on 16<sup>th</sup> November.
- **Shallow to moderate fog conditions** likely over Northeast India during next 3 days.
- ❖ No large change in minimum temperature likely during next seven days.

## **Fisherman Warning:**

Fishermen are advised not to venture into the following areas during 16th November to 21st November:

### **Bay of Bengal:**

Along and off Sri Lanka coast adjoining southwest & westcentral Bay of Bengal on  $16^{th}$  November; along and off Tamil Nadu, south Andhra Pradesh coasts & adjoining sea areas during  $16^{th}$  to  $18^{th}$  November; over Gulf of Mannar & adjoining Comorin area during  $16^{th}$  to  $18^{th}$  November; over Andaman Sea on  $18^{th}$  &  $21^{th}$  November; many parts of southeast and some parts of eastcentral Bay of Bengal on during  $19^{th}$  November.

ii) Weather conditions and forecast over Delhi/NCR during 16th -19th November, 2025 (ANNEXURE III)

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

https://mausam.imd.gov.in/responsive/all india forcast bulletin.php

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

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

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

**Tamil Nadu, Puducherry & Karaikal**: Thirparappu (dist Kanyakumari) 6; Sembanarkoil PWD (dist Mayiladuthurai) 4; Mayiladuthurai AWS (dist Mayiladuthurai), Chidambaram (dist Cuddalore), Parangipettai (dist Cuddalore), Tarangambadi (dist Mayiladuthurai), Vedaranyam (dist Nagapattinam), Velankanni (dist Nagapattinam), Kodiayakarai (dist Nagapattinam) 2 Each;

**Kerala & Mahe**: Konni (dist Pathanamthitta) 5; Varkala (dist Thiruvananthapuram), Konni ARG (dist Pathanamthitta), Venkurinji AWS (dist Pathanamthitta), Ranni AWS (dist Pathanamthitta) 3 Each; Kanjirappally (dist Kottayam), Laha AWS (dist Pathanamthitta), Neyyattinkara (dist Thiruvananthapuram) 2 Each;

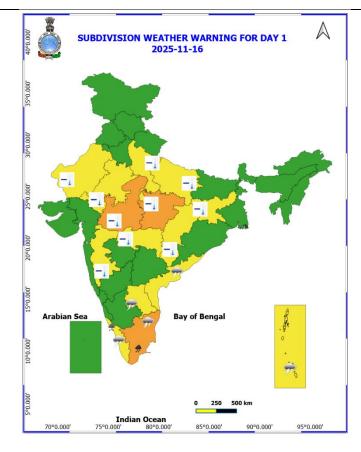
Andaman & Nicobar Islands: Car Nicobar (dist Nicobar) 2.

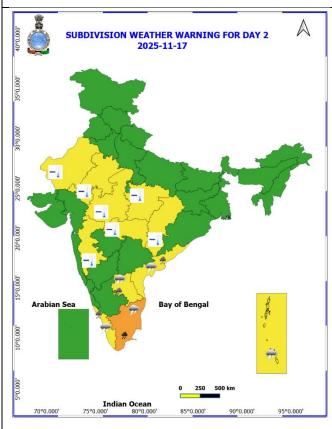
## **ANNEXURE I**

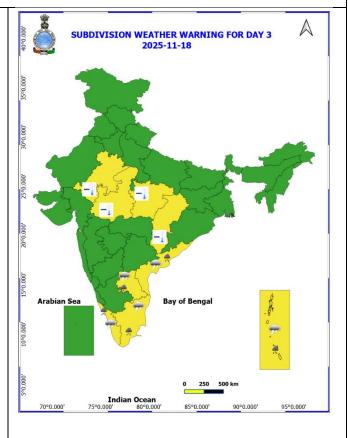
	Table-1											
	7 Days Rainfall Forecast											
S.No.	Subdivision	15- Nov	16- Nov	17- Nov	18- Nov	19- Nov	20- Nov	21- Nov				
		Day 1					Day 6					
1	7 II 127 II II II II 1 II 1 II 1 II 1 II	FWS						WS				
2		DRY						DRY				
3		DRY		DRY			DRY	DRY				
4		DRY		DRY		ISOL	ISOL	ISOL				
5		DRY		DRY				DRY				
6	GANGETIC WEST BENGAL	DRY				DRY	DRY	DRY				
7	ODISHA	DRY		DRY		DRY	DRY	DRY				
8		DRY		DRY		DRY	DRY	DRY				
9		DRY		DRY		DRY	DRY	DRY				
10	EAST UTTAR PRADESH	DRY		DRY	DRY	DRY	DRY	DRY				
11	WEST UTTAR PRADESH	DRY	=	DRY		DRY	DRY	DRY				
12	UTTARAKHAND	DRY		DRY	DRY	DRY	DRY	DRY				
13	HARYANA, CHANDIGARH & DELHI	DRY		DRY		DRY	DRY	DRY				
14	PUNJAB	DRY		DRY		DRY	DRY	DRY				
15	HIMACHAL PRADESH	DRY		DRY	DRY	DRY	DRY	DRY				
16	JAMMU AND KASHMIR AND LADAKH	DRY	ISOL	DRY	DRY	DRY	DRY	DRY				
17	WEST RAJASTHAN	DRY		DRY			DRY	DRY				
18	EAST RAJASTHAN	DRY	DRY	DRY		DRY	DRY	DRY				
19	WEST MADHYA PRADESH	DRY	DRY	DRY		DRY	DRY	DRY				
20	EAST MADHYA PRADESH	DRY										
21	GUJRAT REGION	DRY										
22	SAURASHTRA & KUTCH	DRY	DRY	DRY		DRY	DRY	DRY				
23	KONKAN & GOA	DRY										
24	MADHYA MAHARASHTRA	DRY										
25	MARATHWADA	DRY										
26	VIDARBHA	DRY										
27	CHHATTISGARH	DRY		DRY	DRY	DRY	DRY	DRY				
28	COASTAL ANDHRA PRADESH	DRY		ISOL			ISOL	ISOL				
29	TELANGANA	DRY		DRY			DRY	DRY				
30	RAYALASEEMA	DRY		ISOL	SCT	SCT	ISOL	ISOL				
31	TAMILNADU & PUDUCHERRY	ISOL	ISOL	SCT	SCT	SCT	SCT	SCT				
32	COSTAL KARNATAKA	DRY	DRY	DRY			ISOL	ISOL				
33	NORTH INTERIOR KARNATAKA	DRY										
34	SOUTH INTERIOR KARNATAKA	DRY	DRY	ISOL	ISOL	ISOL	ISOL	ISOL				
35	KERALA AND MAHE	SCT	SCT	FWS	FWS	FWS	SCT	SCT				
36	LAKSHADWEEP	SCT										

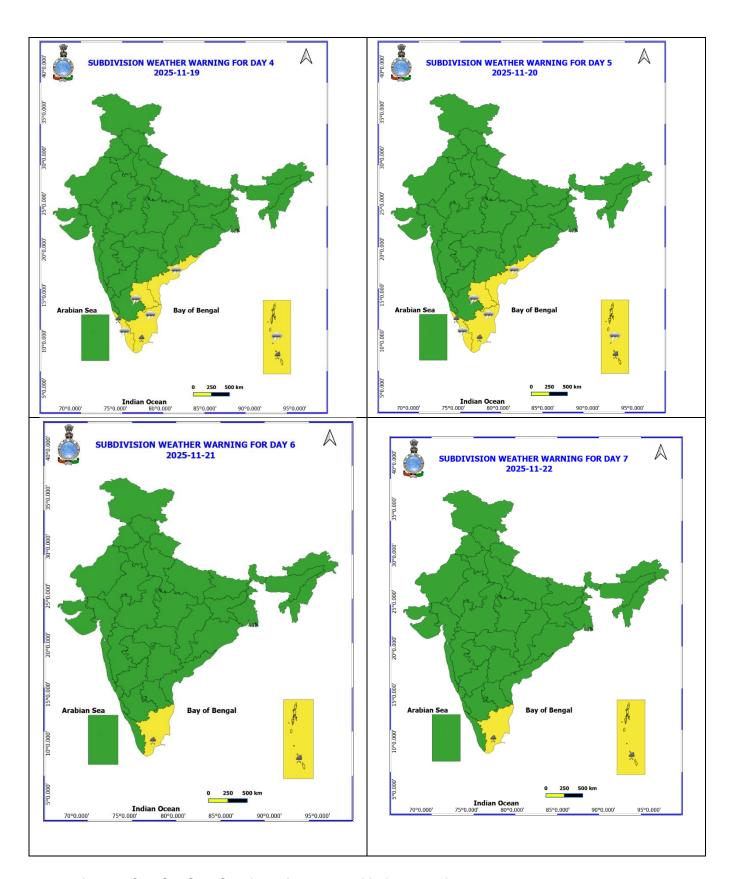
 $\bullet \quad \text{As the lead period increases forecast accuracy decrease.} \\$ 

## **ANNEXURE II**









- 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.

DetaileddistrictwiseMultiHazardweatherwarningfornextfivedaysavailableat <a href="https://mausam.imd.gov.in/responsive/districtWiseWarningGIS.php">https://mausam.imd.gov.in/responsive/districtWiseWarningGIS.php</a>

#### Weather forecast over Delhi/NCR during 16th to 19th November 2025

#### **Past Weather:**

There has been no significant change in minimum and maximum temperatures during past 24 hours over Delhi. The maximum and minimum temperatures over Delhi were around 24 to 26 °C and 09 to 10°C respectively. The minimum temperatures were appreciably below normal (-3.1 to -5.0°C) at many places & markedly below normal (-5.1 & above) at isolated places over Delhi. The maximum temperatures were below normal at many places (-1.6 to -3.0°C) & appreciably below normal (-3.1 to -5.0°C) at isolated places over Delhi. Shallow fog was reported at Palam airport. Palam airport recorded the lowest visibility 800m at 0800 Hrs IST on 16.11.2025 which thereafter improved becoming 900m at 0830 Hrs IST. Mainly clear sky conditions with predominant surface wind from the northwest direction with a wind speed up to 12 kmph prevailed during the past 24 hours. Mainly clear sky conditions with calm wind in early morning hours as gradually increase becoming up to 10 kmph from the southwest direction prevailed over the region in the forenoon today.

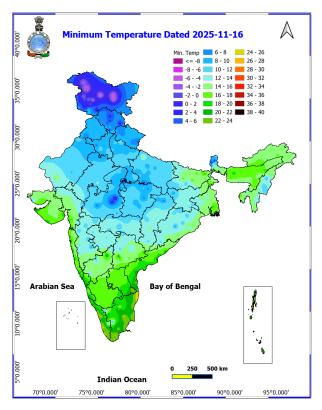
#### **Weather Forecast:**

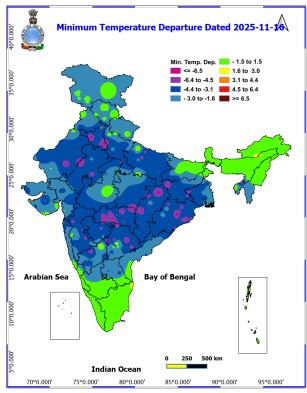
**16.11.2025**: Mainly clear sky. Mist/haze during night. The maximum temperatures were in the range of 25 to 27°C. The maximum temperature will be below normal (-1.6 to -3°C) over most places & appreciably below normal (-3.1 to -5°C) at isolated places. The predominant surface wind will likely to be from the northwest direction with a wind speed of up to 15 kmph during afternoon hours. The wind speed will decrease becoming less than 05 kmph from the west direction during the evening and night.

**17.11.2025**: Mainly clear sky. Smog/shallow fog at most places with moderate fog at isolated places during morning hours. The maximum and minimum temperatures over Delhi are likely to be in the range of 24 to 26°C and 08 to 10°C respectively. The minimum temperatures will be appreciably below normal (-3.1 to -5.0°C) at many places & markedly below normal (-5.1 & above) at isolated places and maximum temperature will be below normal (-1.6 to -3°C) over most places & appreciably below normal (-3.1 to -5°C) at isolated places. The predominant surface wind will likely to be from the northwest direction with calm wind in early morning hours as gradually increase becoming up to 05 kmph during morning hours. The wind speed will gradually increase becoming up to 10 kmph from the north direction in the afternoon. The wind speed will decrease becoming less than 05 kmph from the northeast direction during the evening and night.

**18.11.2025**: Partly cloudy sky. Smog/shallow fog at most places with moderate fog at isolated places during morning hours. The maximum and minimum temperatures over Delhi are likely to be in the range of 23 to 25°C and 09 to 11°C respectively. The minimum temperatures will be appreciably below normal (-3.1 to -5.0°C) at many places & markedly below normal (-5.1 & above) at isolated places and the maximum temperature will be below normal (-1.6 to -3°C) over most places & appreciably below normal (-3.1 to -5°C) at isolated places. The predominant surface wind will likely to be from the northeast direction with calm wind in early morning hours as gradually increase becoming up to 05 kmph during morning hours. The wind speed will increase up to 10 kmph from the north direction in the afternoon. The wind speed will decrease becoming less than 05 kmph from the northeast direction during the evening and night.

**19.11.2025**: Partly cloudy sky. Smog/shallow fog at most places with moderate fog at isolated places during morning hours. The maximum and minimum temperatures over Delhi are likely to be in the range of 24 to 26°C and 08 to 10°C respectively. The minimum temperatures will be appreciably below normal (-3.1 to -5.0°C) at many places & markedly below normal (-5.1 & above) at isolated places and the maximum temperature will be below normal (-1.6 to -3°C) over most places & appreciably below normal (-3.1 to -5°C) at isolated places. The predominant surface wind will likely to be from the northeast direction with calm wind in early morning hours as gradually increase becoming up to 05 kmph during morning hours. The wind speed will increase up to 08 kmph from the northeast direction in the afternoon. The wind speed will decrease becoming less than 05 kmph from the northeast direction during the evening and night.





### Impact & Action Suggested due to

❖ Isolated **very Heavy rainfall** over Tamil Nadu on 16<sup>th</sup> & 17<sup>th</sup> November.

#### **Impact Expected**

- Localized Flooding of roads, water logging in low lying areas and closure of underpasses mainly in urban areas of 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.

# Impact expected due to Cold Day/Severe Cold day conditions:

Cold wave to severe cold wave likely to prevail over some parts of West Madhya Pradesh on 16th and over isolated parts of East Madhya Pradesh on 16th November

#### **Impact Expected:**

- 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 Woolen 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 Heavy Rainfall

#### Agromet advisories for likely impact of Heavy / Heavy to Very Heavy Rainfall / Cold Wave

- ➤ In **Tamil Nadu**, keep the harvested produce of rice and groundnut crops in safe places. Make arrangements to drain out excess water from fields of rice, sugarcane, cotton, black gram, maize and vegetables and plantations of coconut, banana, cinnamon and black pepper to avoid water stagnation. Provide support to banana plants with wooden poles to prevent them from falling.
- In **Kerala**, ensure adequate drainage facilities in fields of rice, vegetables and plantations of banana, coconut, cardamom and black pepper. Carry out propping in banana plants to prevent falling due to heavy rainfall and strong winds.
- In **Andhra Pradesh**, harvest matured crops of rice, groundnut and vegetables and shift the harvested produce to safer places. Make provision for draining out excess water from fields of rice, maize, pigeon pea, cotton, vegetables and plantations of banana.
- In **Andaman and Nicobar Islands**, store the harvested produce of rice in well-covered elevated places to prevent moisture damage. Harvest matured vegetables to avoid damage and provide support to papaya plants with stakes to prevent lodging.
- ➤ In Uttar Pradesh, Rajasthan, Madhya Pradesh, Chhattisgarh, Madhya Maharashtra, Vidarbha and Jharkhand, apply light and frequent irrigation to the standing crops in the evening to protect the crops from low temperature stress or cold injuries. Use mulching and cover vegetable nurseries and young fruit plants with straw / polythene sheets to maintain optimum soil temperature. Cover banana bunches with 6% perforated plastic bags for protection from low temperatures.

#### **Livestock / Poultry / Fishery**

- Keep the animals inside the shed during heavy rainfall and provide them balanced feed.
- > Store feed and fodder in a safe place to prevent spoilage.
- Construct an outlet with proper netting around the ponds to drain out excess water, thereby preventing fish from escaping in case of overflow.
- ➤ Keep cattle inside 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.

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.

### **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.



#### राष्ट्रीय मौसम पूर्वानुमान केन्द्र भारत मौसम विज्ञान विभाग पृथ्वी विज्ञान मंत्रालय

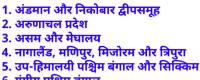


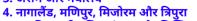
#### **National Weather Forecasting Centre** India Meteorological Department **Ministry of Earth Sciences**

# **LEGENDS**

16

15





6. गंगीय पश्चिम बंगाल



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. आतंरिक उत्तरी कर्नाटक

Sust Raising Winds

- 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. Puniab
- 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

1

- 27. Chhattisgarh
- 28. Coastal Andhra Pradesh & Yanam
- 29. Telangana
- 30. Rayalaseema
- 31. Tamilnadu, Puducherry & Karaikal

> 75

- 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)



Strong Surface Winds





# DEFINITION/CRITERIA

	DEFINITION/CRITERIA					
	Heavy: 64.5 to 115.5 mm/cm *					
Rain/ Snow *	Neavy: 04.5 to 115.5 mm/cm **					
Rain/ Snow	Extremely Heavy: > 204.4 mm/cm *					
	When maximum temperature of a station reaches ≥40° C for plains and ≥30° C for hilly regions (a) Based on Departure from normal					
Heat Wave	Heat Wave: Maximum Temperature Departure from normal 4.5° C to 6.4° C.					
	Severe Heat Wave: Maximum Temperature Departure from normal ≥6.5° C					
	(b). Based on Actual maximum temperature					
	Heat Wave: When actual maximum temperature ≥45°C.					
	Severe Heat Wave: When actual maximum temperature ≥47°C					
	(c). Criteria for heat wave for coastal stations When maximum temperature departure is >4.5°C from normal. Heat Wave may be described provided maximum temperature ≥37°C					
	When maximum temperature remains 40°C					
Warm Night	Warm Night: When minimum temperature departure 4.5 °C to 6.4 °C.					
warm wight	Severe Warm Night: When minimum temperature departure >6.4 °C.					
	The state of the s					
	When minimum temperature of a station ≤10°C for plains and ≤0°C for hilly regions.  (a). Based on departure  Cold Wave: Minimum Temperature Departure from normal -4.5 °C to -6.4 °C.					
	Severe Cold Wave: Minimum Temperature Departure from normal ≤ -6.5 °C					
Cold Wave						
Cold wave	(b) Based on actual Minimum Temperature (for Plains only)					
	Cold Wave : When Minimum Temperature is ≤ 4.0 °C					
	Severe Cold Wave: When Minimum Temperature is ≤ 2.0 °C					
	(c) For Coastal Stations					
	When Minimum Temperature departure is ≤ -4.5 °C & actual Minimum Temperature is ≤ 15 °C					
	When minimum temperature of a station ≤10°C for plains and ≤0°C for hilly regions Based on departure					
Cold Day	Cold Day: Maximum Temperature Departure from normal -4.5 °C to -6.4 °C.					
005,						
	Severe Cold Day: Maximum Temperature Departure from normal ≤ -6.5 °C					
	Phenomenon of small droplets suspended in air and the horizontal visibility < 1km					
	Moderate Fog: When the visibility between 500-200 metres					
Fog	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.					
Froet	Ice deposits on ground					
Frost						
	Air temperature ≤4°C ( over Plains)					
	A strong wind that rises suddenly, lasts for atleast 1 minute.					
	A strong wind that rises suddenly, lasts for atleast 1 minute.  Moderate: Wind speed 52-61 kmph					
Squall	A strong wind that rises suddenly, lasts for atleast 1 minute.					
Squall	A strong wind that rises suddenly, lasts for atleast 1 minute.  Moderate: Wind speed 52-61 kmph					
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					
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  Effect of various waves in the sea over specific area					
<u> </u>	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  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					
Squall Sea State	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  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					
)	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  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					
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)	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  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  Cyclonic Storm: Wind speed 62-87 kmph (34-47 knots)					
Sea State	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  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  Cyclonic Storm: Wind speed 62-87 kmph (34-47 knots) Severe Cyclonic Storm: Wind speed 88-117 kmph (48-63 knots)					
)	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  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  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)					
Sea State	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  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  Cyclonic Storm: Wind speed 62-87 kmph (34-47 knots) Severe Cyclonic Storm: Wind speed 88-117 kmph (48-63 knots)					