

during next 24 hours.

# Government of India Ministry of Earth Sciences India Meteorological Department



Press Release Date: 25<sup>th</sup> November, 2024 Time of Issue: 1330 hours IST

Subject: (i) A depression lies over central parts of South Bay of Bengal & adjoining East Equatorial Indian Ocean. It is likely to move northwestwards and intensify into a deep depression

(ii) It is very likely to cause heavy to very heavy rainfall at a few places with isolated extremely heavy rainfall over Coastal Tamil Nadu & Puducherry on 26<sup>th</sup> & 27<sup>th</sup> and isolated heavy to very heavy rainfall on 28<sup>th</sup> November. It is also likely to cause isolated heavy rainfall over south Coastal Andhra Pradesh from 26<sup>th</sup> to 29<sup>th</sup> November, 2024.

- i. Rainfall Forecast and warning over the country:
   Realised weather during past 24 hours till 0830 hours IST of today (Annexure I)
  - **❖** Fog conditions observed (at 0530 & 0830 hours IST of today): Very Dense fog (visibility < 50 m) reported in isolated pockets of Haryana; dense fog (visibility 50-200 m) reported in isolated pockets of Punjab and Meghalaya.
  - ❖ Visibility reported (in m): Haryana: Sirsa IAF 0; Meghalaya: Barapani 50, Punjab: Bhatinda IAF-100, Adampur IAF & Halwara IAF-500 each.

#### **Weather Systems:**

- Yesterday's well marked low pressure area over southeast Bay of Bengal & adjoining East Equatorial Indian Ocean moved west-northwestwards, intensified into a depression and lay centred at 0830 hours IST of today, the 25th November 2024 over central parts of South Bay of Bengal & adjoining East Equatorial Indian Ocean near latitude 5.0°N and longitude 85.3°E, about 600 km southeast of Trincomalee, 880 km southeast of Nagapattinam, 980 km southeast of Puducherry and 1050 km south-southeast of Chennai. It is likely to move northwestwards and intensify into a deep depression during next 24 hours. Thereafter, it is likely to continue to move northwestwards towards Tamil Nadu-Sri Lanka coasts during subsequent 2 days
- ❖ A cyclonic circulation lies over sub-Himalayan west Bengal in lower tropospheric levels.
- ❖ A fresh Western disturbance is likely to affect Western Himalayan Region from 29th November.

#### Forecast & Warnings (upto 7 days) (Annexure II & III):

- ✓ Light to moderate rainfall at a few places accompanied with isolated thunderstorm & lightning very likely over coastal Tamil Nadu & Puducherry during 25<sup>th</sup>-29<sup>th</sup>, Kerala & Mahe during 25<sup>th</sup>-27<sup>th</sup>, south Coastal Andhra Pradesh & Yanam and Rayalaseema during 26<sup>th</sup>-29<sup>th</sup> November.
- ✓ Isolated **heavy to very heavy rainfall** at a few places **with extremely heavy falls** at isolated places very likely over coastal Tamil Nadu & Puducherry on 26<sup>th</sup> & 27<sup>th</sup>, **heavy to very heavy rainfall** at isolated places on 25<sup>th</sup> & 28<sup>th</sup> and **heavy rainfall** at Isolated places on 29<sup>th</sup> & 30<sup>th</sup> November.
- ✓ **Heavy rainfall** at isolated places very likely over Kerala & Mahe during 26<sup>th</sup> 28<sup>th</sup>, south Coastal Andhra Pradesh & Yanam during 26<sup>th</sup> 29<sup>th</sup> November.
- ✓ Light to moderate rainfall at most places likely over Nagaland, Manipur, Mizoram & Tripura on 28<sup>th</sup> & 29<sup>th</sup> November with isolated heavy rainfall on 28<sup>th</sup> November.

✓ **Dense fog conditions** very likely to prevail during early morning hours in isolated pockets of Himachal Pradesh during 26<sup>th</sup>-30<sup>th</sup>, Punjab & Haryana-Chandigarh during 28<sup>th</sup> -30<sup>th</sup> and Uttar Pradesh during 28<sup>th</sup> November-01<sup>st</sup> December.

#### ii. Temperature conditions and Forecast:

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

No significant change in minimum temperature observed over most parts of the country during past 24 hours. Minimum temperatures are appreciably above normal (3°C to 5°C) at isolated places over West Rajasthan, Haryana-Chandigarh-Delhi and Bihar; above normal (1°C to 3°C) at isolated places over Uttar Pradesh, East Madhya Pradesh, Gujarat Region and Tamil Nadu, Puducherry & Karaikal. These are appreciably below normal (3°C to 5°C) at isolated places over West Madhya Pradesh, Gangetic West Bengal and Telangana; below normal (1°C to 3°C) at many places over Coastal Karnataka; at a few places Chhattisgarh; over Konkan Goa, Madhya Maharashtra and at isolated places Rajasthan, Marathwada, Vidarbha, Saurashtra & Kutch and near normal over rest parts of the country. Today, the lowest minimum temperature of 10.2°C is reported at Sarsawa IAF (West Uttar **Pradesh)** over the plains of the country.

## **Forecast of temperature:**

- ❖ Gradual fall in minimum temperatures by 2-3°C very likely over northwest India during next 5 days (except over Rajasthan).
- ❖ Gradual fall in minimum temperatures by 2-3°C very likely over Maharashtra during next 4 days.
- ❖ No significant change in minimum temperatures over rest parts of the country during next 5 days.

#### iii. Weather forecast over Delhi/NCR during 25th Nov. to 28th Nov. 2024

#### **Past Weather:**

There has been no significance change in maximum temperature and a rise upto 2°C in minimum temperature over Delhi/NCR during past 24hr. The Maximum and Minimum temperature over Delhi is in the range of 27 to 29°C and 11 to 14°C respectively. The maximum temperature was above normal by 02 to 03°C and the minimum temperature was above normal by 01 to 03°C most places over the region. Mainly smog/shallow fog condition with predominant surface wind from west direction with wind speed reaching 06 to 12 kmph prevailed during daytime and calm wind during night time on 24.11.2024. Shallow fog reported at Palam airport during early morning today. Palam airport recorded lowest visibility 800 m during 0900 hours to 1130 hours IST. Shallow fog reported at Safdarjung airport during early morning today. Safdarjung airport recorded lowest visibility 900 m during 0700 hours to 1130 hours IST. Mainly smog condition with wind speed less than 12 kmph west direction prevailed over the region in the forenoon today.

#### **Weather Forecast:**

**25.11.2024**: Mainly clear sky. The predominant surface wind is likely to be northwest direction with wind speed upto 08-12 kmph till evening. It would decrease thereafter becoming less than 08 kmph from northwest direction during night. Smog/shallow fog is likely in the evening/night.

**26.11.2024**: Mainly clear sky. The predominant surface wind is likely to be from northwest direction with speed less than 08 kmph during morning hours. Smog/ shallow to moderate fog is likely in the morning. The wind speed will increase thereafter becoming less than 12 kmph from northwest direction during afternoon. It will decrease thereafter becoming less than 08 kmph from northwest direction during evening and night. Smog/ shallow fog is likely in the evening/night.

**27.11.2024**: Mainly clear sky. The predominant surface wind is likely to be from variable direction with speed less than 04 kmph during morning hours. Smog/ moderate fog is likely in the morning. The wind speed will gradually increase becoming 04-06 kmph from north direction during afternoon. It will decrease thereafter becoming less than 04 kmph from variable direction during evening and night. Smog/ shallow to moderate fog is likely in the evening/night.

**28.11.2024**: Mainly clear sky. The predominant surface wind is likely to be from variable direction with wind speed less than 04 kmph during morning hours. Smog/ moderate to dense fog in the morning. The wind speed will increase thereafter becoming 04-06 kmph from variable direction during afternoon. It will gradually decrease becoming less than 04 kmph from variable direction during evening and night. Smog/ shallow to moderate fog is likely in the evening/night.

#### iv. Fishermen & Wind Warnings (Annexure IV):

- Fishermen are advised not venture into
  - ✓ southeast Bay of Bengal & east Equatorial Indian Ocean on 25th November, 2024.
  - ✓ southwest Bay of Bengal and along & off Sri Lanka coast till 29th November, 2024.
  - ✓ Westcentral Bay of Bengal during 26th-29th November 2024.
  - ✓ and along & off Tamil Nadu Puducherry coasts till 29th November and along & off south Andhra Pradesh coast during 26th to 29th November 2024.
- Fishermen out at sea are advised to return to coasts today, the 25th November, 2024.

#### **Wind Warnings**

- ✓ Squally wind speed reaching 40-50 kmph gusting to 60 kmph is very likely to prevail over southwest Bay of Bengal, adjoining southeast Bay of Bengal and along & off Sri Lanka coast on 25<sup>th</sup> November. Squally weather with wind speed reaching 35-45 kmph gusting to 55 kmph along & off Tamil Nadu Puducherry coasts.
- ✓ Squally wind speed reaching 50-60 kmph gusting to 70 kmph is very likely to prevail over southwest Bay of Bengal and adjoining westcentral Bay of Bengal and along & off Tamil Nadu Puducherry and south Andhra Pradesh coasts on 26<sup>th</sup> and likely to increase becoming 55- 65 kmph gusting to 75 kmph during 27<sup>th</sup> to 29<sup>th</sup> November over the same region.

#### 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 warnings & National bulletin for depression over Bay of Bengal, kindly refer:

https://rsmcnewdelhi.imd.gov.in/uploads/archive/51/51 bdf575 GRAPHIC.png https://rsmcnewdelhi.imd.gov.in/uploads/archive/1/1 72e1e7 1.%20National%20Bulletin%20No%201-25Nov2024 0830IST.pdf

**ANNEXURE I** 

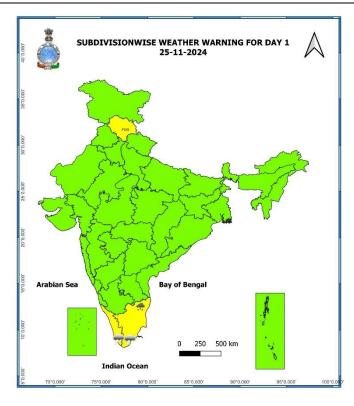
Significant Rainfall recorded during past 24 hours till 0830 hours IST of today 25.11.2024 (in cm):

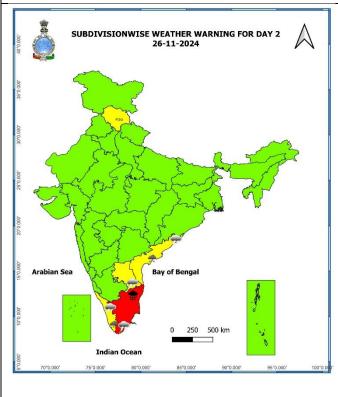
❖ Andaman & Nicobar Islands: Car Nicobar (dist Nicobar) 3, Iaf Carnicobar (dist Nicobar) 3, Nancowry (dist Nicobar) 2, Hut Bay (dist South Andaman) 1

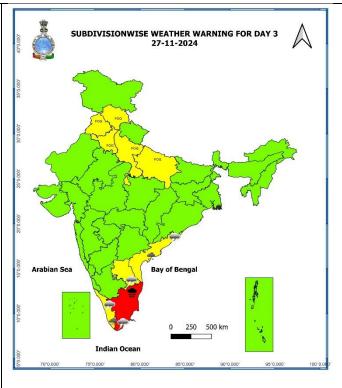
## **ANNEXURE II**

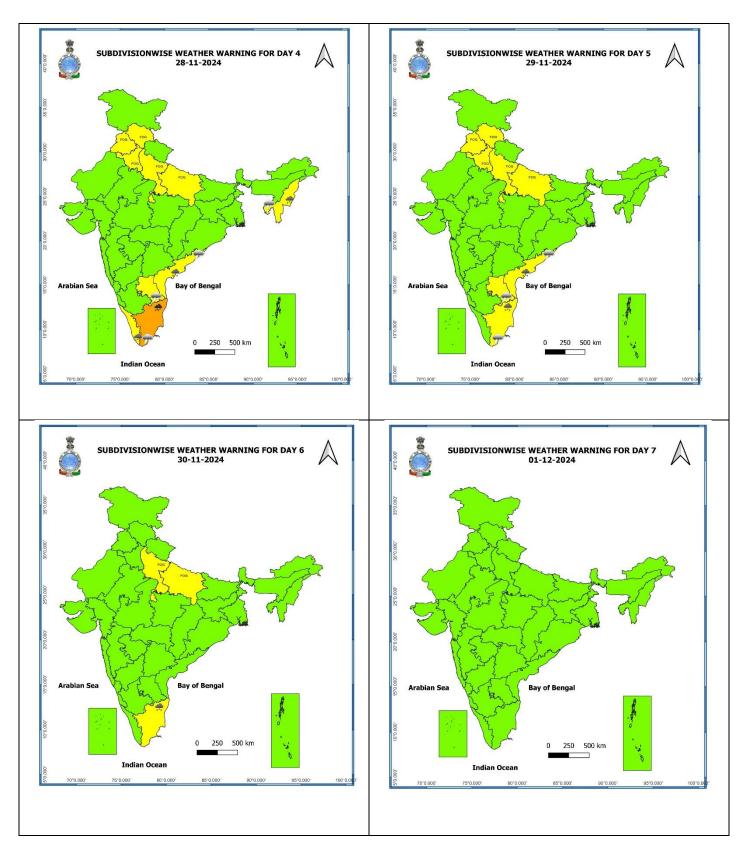
7 Days Rainfall Forecast									
		25-	26-	27-	28-	29-	30-	01-	
S.	Subdivision	Nov	Nov	Nov	Nov	Nov	Nov	Dec	
No.	Subdivision	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	
1	ANDAMAN & NICOBAR ISLANDS	WS	WS	FWS	FWS	FWS	FWS	FWS	
2	ARUNACHAL PRADESH	ISOL	ISOL	ISOL	DRY	DRY	DRY	ISOL	
3	ASSAM & MEGHALAYA	ISOL	DRY	DRY	ISOL	ISOL	ISOL	ISOL	
4	NAGALAND, MANIPUR, MIZORAM & TRIPURA	DRY	DRY	ISOL	WS	WS	SCT	ISOL	
5	SUB-HIMALAYAN WEST BENGAL & SIKKIM	ISOL	ISOL	ISOL	DRY	DRY	DRY	DRY	
6	GANGETIC WEST BENGAL	DRY	DRY	DRY	DRY	ISOL	ISOL	ISOL	
7	ODISHA	DRY	DRY	DRY	ISOL	ISOL	ISOL	ISOL	
8	JHARKHAND	DRY							
9	BIHAR	DRY							
10	EAST UTTAR PRADESH	DRY							
11	WEST UTTAR PRADESH	DRY							
12	UTTARAKHAND	DRY							
13	HARYANA CHANDIGARH & DELHI	DRY							
14	PUNJAB	DRY							
15	HIMACHAL PRADESH	DRY	DRY	DRY	DRY	DRY	ISOL	DRY	
16	JAMMU & KASHMIR AND LADAKH	DRY	DRY	DRY	DRY	ISOL	DRY	DRY	
17	WEST RAJASTHAN	DRY							
18	EAST RAJASTHAN	DRY							
19	WEST MADHYA PRADESH	DRY							
20	EAST MADHYA PRADESH	DRY							
21	GUJARAT REGION	DRY							
22	SAURASHTRA & KUTCH	DRY							
23	KONKAN & GOA	DRY							
24	MADHYA MAHARASHTRA	DRY							
25	MARATHAWADA	DRY							
26	VIDARBHA	DRY							
27	CHHATTISGARH	DRY							
28	COASTAL ANDHRA PRADESH & YANAM	ISOL	ISOL	SCT	SCT	FWS	FWS	FWS	
29	TELANGANA	DRY	DRY	DRY	DRY	DRY	DRY	ISOL	
30	RAYALASEEMA	ISOL	ISOL	SCT	SCT	FWS	FWS	FWS	
31	TAMILNADU PUDUCHERRY & KARAIKAL	ISOL	FWS	FWS	SCT	SCT	SCT	SCT	
32	COASTAL KARNATAKA	DRY							
33	NORTH INTERIOR KARNATAKA	DRY							
34	SOUTH INTERIOR KARNATAKA	DRY	DRY	DRY	DRY	DRY	ISOL	ISOL	
35	KERALA & MAHE	SCT	WS	FWS	SCT	SCT	FWS	FWS	
36	LAKSHADWEEP	DRY	SCT	SCT	SCT	SCT	SCT	SCT	

• As the lead period increases forecast accuracy decreases.





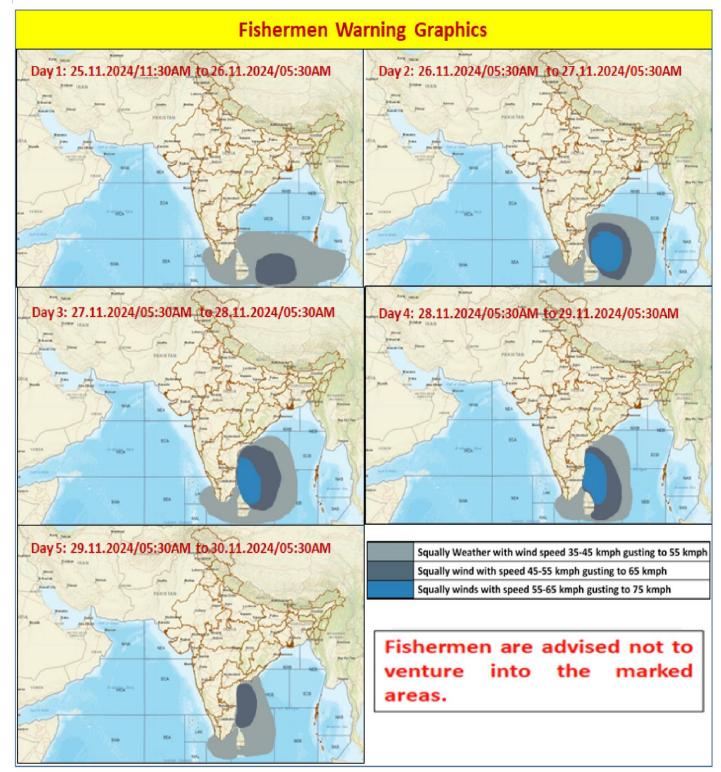




- Action may be taken based on ORANGE AND RED COLOUR warnings.
- Vulnerable regions likely urban and hilly areas action may be initiated for heavy rainfall warning.
- As the lead period increases forecast accuracy decreases.







✓ Impact & Action Suggested due to isolated extremely heavy rainfall very likely over coastal Tamil Nadu & Puducherry on 26<sup>th</sup> & 27<sup>th</sup> November and isolated heavy to very heavy rainfall over coastal Tamil Nadu & Puducherry on 25<sup>th</sup> & 28<sup>th</sup> November.

#### A. 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
- ❖ 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).

## **B. 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 dense fog in the night /morning hour:

- **❖** 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.

## Agromet advisories for Heavy Rainfall likely over various parts of the country

- ➤ Provide adequate drainage facilities for the removal of excess water from rice, cotton, sugarcane, turmeric and vegetable fields, coconut and banana orchards. Undertake propping in sugarcane. Provide mechanical support to banana plants to prevent lodging.
- Make arrangements to drain out excess water from the standing crop fields and fruit orchards in Kerala and Coastal Andhra Pradesh.
- ➤ Harvest the matured crops and keep it in safe place.
- Provide mechanical support to horticultural crops and staking to vegetables.

## **Legends & abbreviations:**

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



35. केरल और माहे

36. लक्षद्वीप

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

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

35. Kerala & Mahe

36. Lakshadweep

# **LEGENDS**



# **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)





Sea State

Cyclone



#### **DEFINITION/CRITERIA** Heavy: 64.5 to 115.5 mm/cm \* Very Heavy: 115.6 to 204.4 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: 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** 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: When minimum temperature departure 4.5 °C to 6.4 °C Warm Night Severe Warm Night: When minimum temperature departure >6.4 °C 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 $\leq$ -6.5 °C **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. Severe Cold Day: Maximum Temperature Departure from normal $\leq$ -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 when the visibility between 50- 200 metres Dense Fog: v Very Dense Fog: when the visibility < 50 metres Sudden electrical discharges manifested by a flash of light (Lightning) and a sharp rumbling sound (thunder) Thunderstorm Dust/Sand An ensemble of particles of dust or sand energetically lifted to great heights by a strong and turbulent wind. Ice deposits on ground Frost Air temperature ≤4°C ( over Plains) A strong wind that rises suddenly, lasts for atleast 1 minute. Moderate: Wind speed 52-61 kmph Squall 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

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

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

Cyclonic Storm: Wind speed 62-87 kmph (34-47 knots)
Severe Cyclonic Storm: Wind speed 88-117 kmph (48-63 knots)

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