

Government of India Ministry of Earth Sciences India Meteorological Department



Press Release Date: 18<sup>th</sup> August, 2024 Time of Issue: 1330 hours IST

Subject: (i) Low Pressure Area over south Bangladesh likely to cause heavy to very heavy rainfall over East India during next 3 days.

(ii) Isolated heavy to very heavy rainfall very likely over Kerala, Tamil Nadu and Lakshadweep during next 2-3 days.

# Realised weather during past 24 hours till 0830 hours IST of today (Annexure I)

**Heavy to very heavy rainfall** at isolated places over Bihar, Andaman & Nicobar Islands; **Heavy rainfall** at isolated places over East Uttar Pradesh, Tamil Nadu, Chhattisgarh, Coastal Andhra Pradesh & Yanam, East Madhya Pradesh, West Rajasthan, Telangana, South Interior Karnataka, Madhya Maharashtra, Marathwada, Nagaland, Manipur, Mizoram & Tripura.

### Weather Systems:

- ✓ The Low Pressure area over south Bangladesh & neighbourhood persists over the same region at 0830 hrs IST of today. It is likely to move slowly north-northwestwards and become a Well-marked Low Pressure area over Bangladesh & adjoining Gangetic West Bengal by 19th August. Thereafter, it is likely to move west-northwestwards across Gangetic West Bengal, Jharkhand & adjoining Bihar and Uttar Pradesh & adjoining Madhya Pradesh during subsequent 3-4 days.
- ✓ The **monsoon trough** lies near its normal position at mean sea level.
- ✓ A cyclonic circulation over Southwest Pakistan & neighbourhood in lower tropospheric levels.
- ✓ The cyclonic circulation over North Interior Karnataka & adjoining Telangana in lower tropospheric levels. A trough runs from above cyclonic circulation over North Interior Karnataka & adjoining Telangana to Southeast Arabian Sea across Kerala extending upto 1.5 km above mean sea level.

#### Forecast & Warnings (upto 7 days):

#### Northwest India

- ✓ Fairly widespread to widespread light/moderate rainfall very likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand, East Uttar Pradesh; scattered to fairly widespread rainfall over West Uttar Pradesh; isolated to scattered rainfall over Punjab, Haryana-Chandigarh-Delhi, Rajasthan during the week.
- Isolated heavy rainfall very likely over Jammu division on 18<sup>th</sup> & 19<sup>th</sup>; Himachal Pradesh and West Uttar Pradesh during 18<sup>th</sup>-21<sup>st</sup>; Uttarakhand during 18<sup>th</sup>-24<sup>th</sup>; Punjab, Haryana-Chandigarh on 20<sup>th</sup> & 21<sup>st</sup>; East Uttar Pradesh during 21<sup>st</sup>-24<sup>th</sup>; East Rajasthan during 22<sup>nd</sup>-24<sup>th</sup> August.

✓ Isolated very heavy rainfall also very likely over East Uttar Pradesh during 18<sup>th</sup> -20<sup>th</sup>; Uttarakhand on 20<sup>th</sup> & 21<sup>st</sup> August.

#### \* West & Central India

- ✓ Fairly widespread to widespread light/moderate rainfall very likely over central India; scattered to fairly widespread rainfall over West India during the week.
- ✓ Isolated Heavy rainfall very likely over Madhya Pradesh during the week; Vidarbha on 18<sup>th</sup> & 24<sup>th</sup>; Chhattisgarh during 18<sup>th</sup>-20<sup>th</sup>, 23<sup>rd</sup> & 24<sup>th</sup>; Madhya Maharashtra, Marathwada on 18<sup>th</sup> & 19<sup>th</sup>; Konkan & Goa during 19<sup>th</sup>-22<sup>nd</sup> and Gujarat Region on 21<sup>st</sup> & 22<sup>nd</sup> August.

## East & Northeast India

- ✓ Fairly widespread to widespread light/moderate rainfall very likely over east India and scattered to fairly widespread rainfall over northeast during the week.
- ✓ Isolated heavy rainfall very likely over Bihar during 18<sup>th</sup>-23<sup>rd</sup>; Jharkhand during 18<sup>th</sup>-21<sup>st</sup>; Odisha during 18<sup>th</sup>-20<sup>th</sup>, 23<sup>rd</sup> & 24<sup>th</sup>; Sub-Himalayan West Bengal & Sikkim during 19<sup>th</sup>-21<sup>st</sup>; Gangetic West Bengal on 21<sup>st</sup>; Assam & Meghalaya during next 7 days; Nagaland, Manipur, Mizoram & Tripura during 18<sup>th</sup>-23<sup>rd</sup>; Arunachal Pradesh during 21<sup>st</sup>-24<sup>th</sup> August.
- ✓ Isolated very heavy rainfall also very likely over Bihar during 21<sup>st</sup> -22<sup>nd</sup>; Gangetic West Bengal during 18<sup>th</sup>-20<sup>th</sup>; Nagaland, Manipur, Mizoram & Tripura on 18<sup>th</sup> & 19<sup>th</sup>; Jharkhand on 19<sup>th</sup> & 20<sup>th</sup> August.

### **\*** South Peninsular India:

- Fairly widespread to widespread light/moderate rainfall very likely over Kerala & Mahe, Lakshadweep; scattered to fairly widespread rainfall over Tamil Nadu, Puducherry & Karaikal, Karnataka; isolated to scattered rainfall over Telangana, Coastal Andhra Pradesh & Yanam, Rayalaseema during the week.
- Isolated heavy rainfall very likely over Tamil Nadu, Puducherry & Karaikal and Telangana on 18<sup>th</sup> & 20<sup>th</sup>; Kerala & Mahe, Lakshadweep, Rayalaseema on 18<sup>th</sup>; Coastal Andhra Pradesh & Yanam on 18<sup>th</sup> & 19<sup>th</sup>; Coastal Karnataka during 19<sup>th</sup>-21<sup>st</sup>; South Interior Karnataka on 19<sup>th</sup> & 20<sup>th</sup>August.
- ✓ Isolated very heavy rainfall also very likely over Tamil Nadu, Puducherry & Karaikal on 19<sup>th</sup>; Kerala & Mahe and Lakshadweep on 19<sup>th</sup> & 20<sup>th</sup> August.

For more details, kindly refer: https://mausam.imd.gov.in/responsive/all\_india\_forcast\_bulletin.php

# Significant Rainfall recorded during past 24 hours till 0830 hours IST of today 18.08.2024 (in cm):

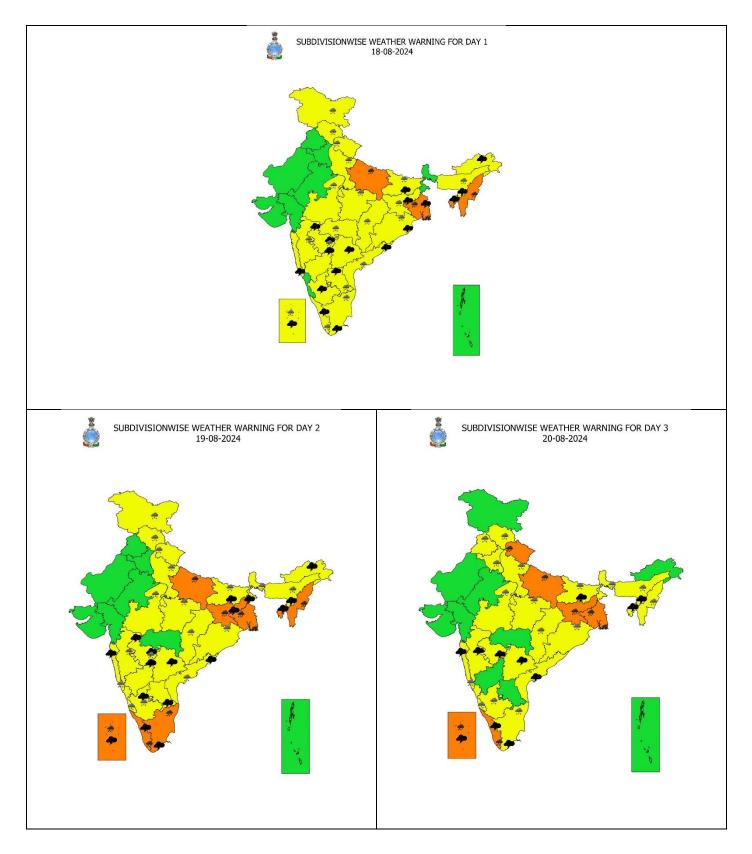
- Bihar: Ramnagar (dist West Champaran) 15, Koilwar (dist Bhojpur) 14, Silao (dist Nalanda) 13, Tribeni/balmikinagar (dist West Champaran) 12, Giriyak (dist Nalanda) 11, Rajgir (dist Nalanda) 11, Kaler (dist Arwal) 10, Nawada (dist Nawada) 9, Hilsa (dist Nalanda) 9, Chanpatia (dist West Champaran) 9, Noorsarai (dist Nalanda) 9, Parbalpur (dist Nalanda) 9,Dhanarua (dist Patna) 9, Ben (dist Nalanda) 8, Raghunathpur (dist Siwan) 8, Katra (dist Muzaffarpur) 8, Bettiah (dist West Champaran) 8, Buxar (dist Buxar) 7, Ghanharia (dist Madhepura) 7, Bihta (dist Patna) 7, Chakki (dist Buxar) 7, Hisua (dist Nawada) 7, Simri (dist Buxar) 7, Gaunaha (dist West Champaran) 7, Sattar Kataiya (dist Saharsa) 7, Adapur (dist East Champaran) 7, Nardiganj (dist Nawada) 7, Sikta (dist West Champaran) 7, Saraigarh Bhaptiyahi (dist Supaul) 7,
- \* Andaman & Nicobar Islands: Hut Bay (dist South Andaman) 10
- East Uttar Pradesh: Sultanpur 9, Ballia 9, Ghazipur 7,
- \* Marathwada: Ashti (dist Beed) 9,
- \* Tamil Nadu: Perambalur (dist Perambalur) 9, Tirumayam (dist Pudukkottai) 8,
- Chhattisgarh: Rajpur (dist Balrampur) 9,
- Coastal Andhra Pradesh & Yanam: Komarada (dist Parvathipuram Manyam) 8, Markapur (dist Prakasam) 8,
- East Madhya Pradesh: Mohkheda (dist Chindwara) 7, Shahdole(sohagpur) (dist Shahdol) 7, Channodi (dist Shahdol) 7,
- \* West Rajasthan: Bhopalgarh (Jodhpur) 8, Sum (Jaisalmer) 7,
- Telangana: Jagadevpur (dist Siddipet) 7,
- South Interior Karnataka: Bargur (dist Tumakuru) 7,
- \* Madhya Maharashtra: Satara Imd Obsy (dist Satara) 8, Karad (dist Satara) 7,
- \* Nagaland, Manipur, Mizoram & Tripura: Bishnupur (dist Bishnupur) 7,

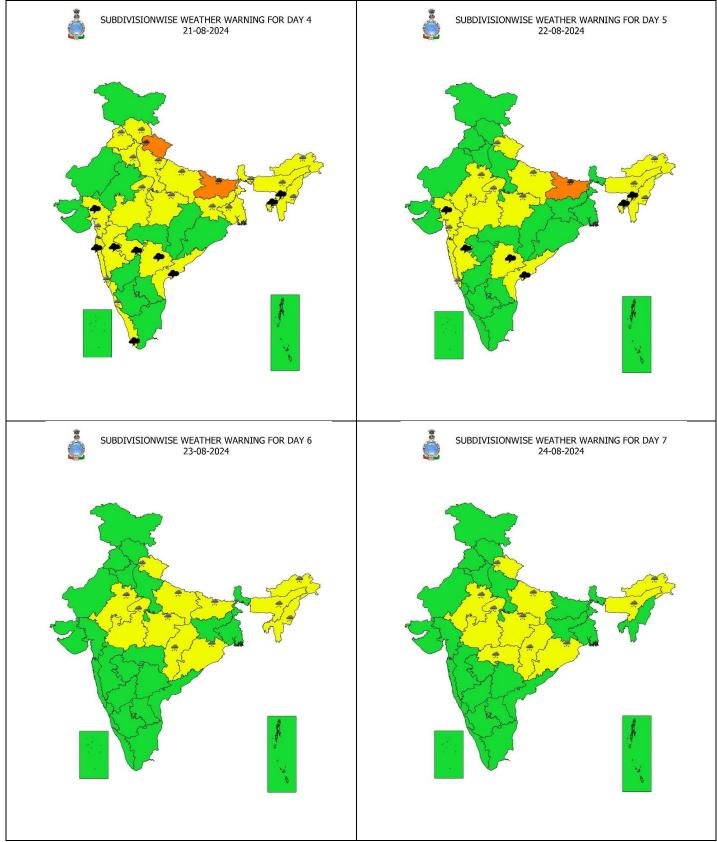
# **Annexure II**

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

• As the lead period increases forecast accuracy decreases.

### **ANNEXURE III**





- 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 due to

- Very heavy rainfall at isolated over East Uttar Pradesh during 18<sup>th</sup> -20<sup>th</sup>; Uttarakhand on 20<sup>th</sup> & 21<sup>st</sup>; Bihar during 21<sup>st</sup> -22<sup>nd</sup>; Gangetic West Bengal during 18<sup>th</sup>-20<sup>th</sup>; Nagaland, Manipur, Mizoram & Tripura on 18<sup>th</sup> & 19<sup>th</sup>; Jharkhand on 19<sup>th</sup> & 20<sup>th</sup>; Tamil Nadu, Puducherry & Karaikal on 19<sup>th</sup>; Kerala & Mahe and Lakshadweep on 19<sup>th</sup> & 20<sup>th</sup> August.
- Low to Moderate flash flood risk likely over few watersheds & neighbourhoods of south Gangetic West Bengal on 18<sup>th</sup> & 19<sup>th</sup> August. (ANNEXURE IV)
- ✓ 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/mud slips/land sinks/mud sinks.
- ✓ 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 Heavy Rainfall likely over various parts of the country

- Drain out excess water from field crops and horticultural crops in Assam & Meghalaya, NMMT, Jammu & Kashmir, Himachal Pradesh, Uttarakhand, East Uttar Pradesh, West Rajasthan, Chhattisgarh, Odisha, Jharkhand, Tamil Nadu, Kerala, Lakshadweep, Karnataka, Andhra Pradesh and Telangana.
- Make provision for draining out excess water from standing crop fields and fruit orchards to avoid water stagnation in Gangetic West Bengal, Punjab, East Madhya Pradesh, Vidarbha, Konkan & Goa, Madhya Maharashtra.
- In Himachal Pradesh and Uttarakhand, harvest the matured apples and vegetable immediately during the clear weather and store them at safe places.
- > Provide mechanical support to horticultural crops & staking to vegetables.

#### **ANNEXURE IV**

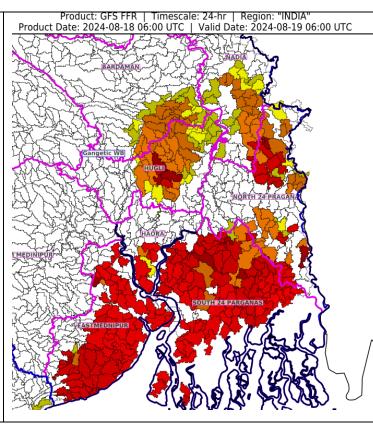
#### **Flash Flood Guidance:**

24 hours Outlook for the Flash Flood Risk (FFR) till 1130 IST of 19-08-2024 :

Low to Moderate flash flood risk likely over few watersheds & neighborhoods of following Met Subdivisions during next 24 hours.

South Gangetic West Bengal – East Mednipur, Haora,Hugli, Bardaman, Nadia, North 24 Paraganas and South24Paraganasdistricts.

Surface runoff/ Inundation may occur at some fully saturated soils & low-lying areas over AoC as shown in map due to expected rainfall occurrence in next 24 hours.



# Legends & abbreviations:

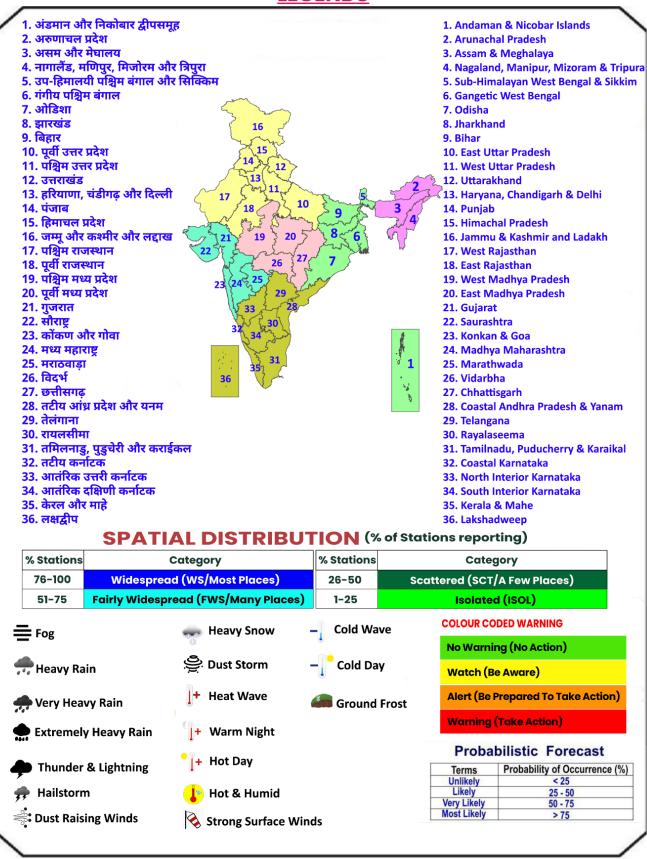
- ✤ Heavy Rain:64.5-115.5mm; Very Heavy Rain:115.6-204.4mm; Extremely Heavy Rain: >204.4mm.
- Obsy: Observatory; AWS: Automatic Weather Station; ARG: Automatic Rain Gauge; dist: District: NH: National Highway; KVK: Krishi Vigyan Kendra; DVC: Damodar Valley Corporation; PTO: Part Time Office, Aero: Aerodrome, 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.



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



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



\* 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)





National Weather Forecasting Centre India Meteorological Department Ministry of Earth Sciences

ain/ 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 ≥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.
leat Wave	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
arm Night	Warm Night: When minimum temperature departure 4.5 °C to 6.4 °C.
	Severe Warm Night: When minimum temperature departure >6.4 °C.
	When minimum temperature of a station $\leq 10^{\circ}$ C for plains and $\leq 0^{\circ}$ 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
old 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
Cold Day	When minimum temperature of a station ≤10°C for plains and ≤0°C for hilly regions         Based on departure         Cold Day: Maximum Temperature Departure from normal -4.5 °C to -6.4 °C.
	Severe Cold Day: Maximum Temperature Departure from normal ≤ -6.5 °C
Fog	Phenomenon of small droplets suspended in air and the horizontal visibility < 1km
	Very Dense Fog: when the visibility < 50 metres
understorm	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.
	Ice deposits on ground
Frost	Air temperature ≤4°C ( over Plains)
	A strong wind that rises suddenly, lasts for atleast 1 minute.
Squall	Moderate: Wind speed 52-61 kmph Severe: Wind speed 62-87 kmph
- quant	Very Severe: Wind speed >87 kmph
	Effect of various waves in the sea over specific area
Sea State	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 (>+05 kinds) & Wave height >14 metre
	Cyclonic Storm: Wind speed 62-87 kmph (34-47 knots)
Cuclone	Severe Cyclonic Storm: Wind speed 88-117 kmph (48-63 knots) Very Severe Cyclonic Storm: Wind speed 118-165 kmph (64 - 89 knots)
Cyclone	Extremely Severe Cyclonic Storm: Wind speed 162-05 kmph (94 - 95 kHots) Super Cyclone Strom: Wind speed 220 kmph (90 - 119 knots)

st and Warning for any day is valid from 0830 hours IST of day till 0830 hours IST of ne For more details, kindly visit https://mausam.imd.gov.in or contact: 011-2434-4599 (Service to the Nation since 1875)