



Government of India
Ministry of Earth Sciences
India Meteorological Department



Press Release

Date: 25th June, 2024

Time of Issue: 1400 hours IST

- Subject: 1) Heavy to very heavy rainfall very likely along the West Coast and over Northeast India during next 4-5 days.**
- 2) Conditions are likely to become favourable for further advance of Southwest Monsoon into remaining parts of West, Central & East India and some parts of Northwest India during next 3-4 days.**

Realised weather during past 24 hours till 0830 hours IST of today: (details in Annexure I)

- ❖ *Yesterday, Maximum temperatures were in the range of 40-43°C over many parts of Punjab and West Rajasthan; in some parts of Haryana and in isolated pockets of Haryana-Chandigarh-Delhi, East Rajasthan, East Uttar Pradesh and Bihar and in the range of 38-40°C over few parts of West Uttar Pradesh and in isolated pockets of Saurashtra & Kutch.*
- ❖ *Yesterday, Heat wave conditions observed in isolated pockets of Punjab and Bihar.*
- ❖ *Yesterday, the highest Maximum Temperature of 45.0°C was reported at Jaisalmer (West Rajasthan) over the country.*
- ❖ *Heavy to very heavy rainfall with extremely heavy falls occurred at isolated places over Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh; Heavy to very heavy rainfall at isolated places over Gujarat Region, Assam & Meghalaya, Andaman & Nicobar Islands; heavy rainfall at isolated places over West Madhya Pradesh, Uttar Pradesh, Bihar, East Rajasthan, Saurashtra & Kutch, Tamil Nadu, Kerala, Coastal Karnataka, South Interior Karnataka.*
- ❖ *Gusty winds/squally winds data reported over the country is attached in Annexure II.*

Advance of Southwest Monsoon:

- ❖ The Southwest Monsoon has further advanced into some more parts of North Arabian Sea, Gujarat State and Madhya Pradesh; some parts of southeast Rajasthan and southern parts of West Uttar Pradesh.
- ❖ The Northern Limit of Monsoon now passes through 23°N/60°E, 23°N/65°E, Mundra, Mehsana, Udaipur, Shivpuri, Siddhi, Chaibasa, Haldia, Pakur, Sahibganj and Raxaul.
- ❖ Conditions are likely to become favourable for further advance of Southwest Monsoon into remaining parts of North Arabian Sea, Gujarat State, Madhya Pradesh; some more parts of Rajasthan; remaining parts of Chhattisgarh, West Bengal, Jharkhand and Bihar; most parts of East Uttar Pradesh; some more parts of West Uttar Pradesh; some parts of Uttarakhand, Himachal Pradesh, Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, northern parts of Punjab and northern parts of Haryana during next 3-4 days.

Weather Systems and Forecast & Warnings:

- ❖ A trough at mean sea level runs off Maharashtra-Kerala coasts. A cyclonic circulation lies over central Gujarat in lower & middle tropospheric levels and a trough runs from this cyclonic circulation to northwest Bihar in lower tropospheric levels. Under their influence:
 - Fairly widespread to widespread light to moderate rainfall accompanied with **thunderstorm, lightning & gusty winds (40-50 kmph)** very likely over Konkan & Goa, Madhya Maharashtra, Marathwada, Karnataka, Kerala & Mahe, Lakshadweep, Gujarat state, Madhya Pradesh, Vidarbha, Chhattisgarh; scattered to fairly widespread light to moderate rainfall over Coastal Andhra Pradesh & Yanam, Rayalaseema, Telangana, Tamil Nadu, Puducherry & Karaikal during next 5 days.
 - Isolated **heavy rainfall** very likely over Saurashtra & Kutch during 25th-27th; Gujarat Region during 25th-29th; Coastal Karnataka during 25th-29th; Tamil Nadu during 25th-27th; North Interior Karnataka on 27th; Telangana on 27th & 28th and over Coastal Andhra Pradesh during 25th-28th June, 2024.

- Isolated **heavy rainfall** very likely over West Madhya Pradesh on 25th, 27th & 28th; Vidarbha on 27th & 28th; East Madhya Pradesh during 25th-29th and over Chhattisgarh during 26th-29th June.
- **Isolated very heavy rainfall very likely over Konkan & Goa during next 5 days; Coastal Karnataka, South Interior Karnataka, Kerala & Mahe during 25th-27th; Tamil Nadu on 25th & 26th; over Gujarat Region on 25th June.**
- ❖ Strong southerly/southwesterly winds prevail in the lower tropospheric levels from the Bay of Bengal into east & northeast India. Under its influence;
 - Fairly widespread to widespread light to moderate rainfall accompanied with thunderstorm, lightning likely over Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura during next 5 days.
 - **Isolated heavy to very heavy rainfall** very likely over Sub-Himalayan West Bengal & Sikkim, Assam & Meghalaya, Arunachal Pradesh during 25th -29th and isolated **heavy rainfall** over Nagaland, Manipur, Mizoram & Tripura during 26th-29th June.
 - **Isolated extremely heavy rainfall** also likely over Sub-Himalayan West Bengal & Sikkim today.
- ❖ A cyclonic circulation lies over southwest Madhya Pradesh and a trough runs from this cyclonic circulation to northeast Assam in the lower tropospheric levels. Under the influence of these systems;
 - Scattered to fairly widespread light to moderate rainfall accompanied with **thunderstorm, lightning & gusty winds (30-40 kmph)** very likely over Gangetic West Bengal, Uttar Pradesh, East Rajasthan, Bihar, Jharkhand, Odisha during next 5 days.
 - Isolated **heavy to very heavy rainfall** very likely over Andaman & Nicobar Islands, Bihar on 25th & 26th and isolated **heavy rainfall** over Bihar during 27th-29th; Jharkhand on 26th, 28th & 29th; Odisha during 26th-29th June.
 - Fairly widespread light to moderate rainfall accompanied with **thunderstorm, lightning & gusty winds (30-40 kmph)** with isolated **heavy rainfall** very likely over Uttarakhand, East Rajasthan during 25th-29th; East Uttar Pradesh during 26th-29th; West Uttar Pradesh during 27th-29th, Haryana on 28th & 29th and Punjab on 29th June.
 - **Isolated very heavy rainfall very likely over Uttarakhand on 28th & 29th June, 2024.**

Maximum temperature forecast for next 5 days:

- ❖ No significant change in maximum temperatures very likely over Northwest & Central India during next 2 days and fall by 2-4°C thereafter.
- ❖ No significant change in maximum temperatures very likely over rest parts of the country.

Heat Wave warning for next 5 days:

- ❖ **Heat wave conditions** very likely in isolated pockets of Jammu division during 25th-27th; Punjab & West Rajasthan on 25th & 26th; Bihar on 25th June and **abate thereafter**.

For more details, kindly refer: https://mausam.imd.gov.in/responsive/all_india_forecast_bulletin.php

Realised Rainfall during past 24 hours till 0830 hours IST of today:

- ❖ Light to moderate rainfall accompanied with thunderstorm & lightning observed **at most places** over Andaman & Nicobar Islands, Arunachal Pradesh, Assam & Meghalaya, Sub-Himalayan West Bengal & Sikkim, Coastal Karnataka, Kerala & Mahe, Lakshadweep; **at many places** over Uttarakhand, East Rajasthan, Gujarat State, Vidarbha, Chhattisgarh, Konkan & Goa.; **at a few places** over Nagaland, Manipur, Mizoram & Tripura, Uttar Pradesh, Haryana-Chandigarh-Delhi, Himachal Pradesh, West Madhya Pradesh, Madhya Maharashtra, Interior Karnataka; **at isolated places** over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Punjab, West Rajasthan, emp, Marathwada, Rayalaseema, Coastal Andhra Pradesh & Yanam, Telangana and Tamil Nadu, Puducherry & Karaikal.

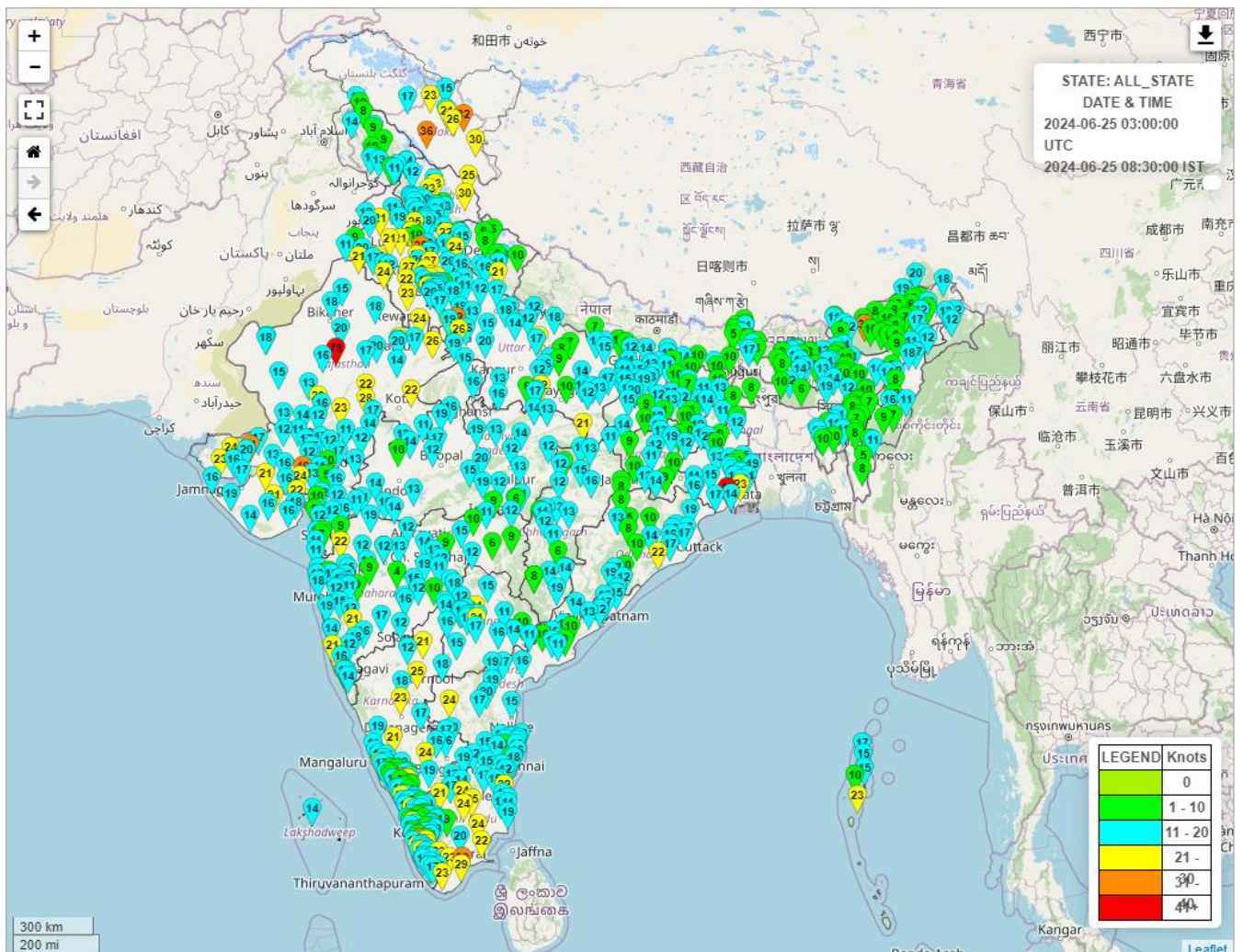
Realised Rainfall during past 24 hours till 0830 hours IST of today (in cm):

- ❖ **Sub-Himalayan West Bengal & Sikkim:** Hasimara (dist Alipurduar) 22, Barobhisha (dist Alipurduar) 19, Jalpaiguri (dist Jalpaiguri) 17, Champasari (dist Darjeeling) 14, Siliguri Pto (dist Darjeeling) 13, Nh31 Bridge (dist Jalpaiguri) 12, Neora (dist Jalpaiguri) 11, Gajoldoba (dist Jalpaiguri) 11, Yuksom (dist Gyalshing) 10, Dhupguri (dist Jalpaiguri) 9, Alipurduar (pto) (dist Alipurduar) 9, Murti (dist Jalpaiguri) 8, Domohani (dist Jalpaiguri) 8,
- ❖ **Arunachal Pradesh:** Basar (dist West Siang) 21, Kamba Aws (dist West Siang) 11, Anini_aws (dist Dibang Valley) 9, Bhalukpong (dist West Kameng) 8, Naharlagun_ Aws (dist Papumpara) 7,
- ❖ **Assam & Meghalaya:** Barpathar (dist Golaghat) 12, Dhemaji (dist Dhemaji) 7,
- ❖ **Andaman & Nicobar Islands:** Long Island (dist North & Middle Andaman) 12, Port Blair (dist South Andaman) 6,
- ❖ **Gujarat Region:** Matar (dist Kheda) 12, Abad City (dist Ahmedabad) 10, Kalol (dist Panchmahal) 9, Kalol(g) (dist Gandhinagar) 9, Mahemdavad (dist Kheda) 8, Dhandhuka (dist Ahmedabad) 7, V.vidyanagar Sr (dist Anand) 7,
- ❖ **Kerala:** Mahe (dist Mahe) 10, Vadakara (dist Kozhikode) 9, Peermade To (dist Idukki) 9, Cherthala (dist Alapuzha) 8, Konni (dist Pathanamthitta) 8, Tellichery (dist Cannur) 7, Vaikom(dist Kottayam) 7, Ottapalam (dist Palakkad) 7, Pattermbi (dist Palakkad) 7, Thennala Aws (distMalappuram) 7,
- ❖ **West Uttar Pradesh:** Aligarh (dist Aligarh) 10, Nagina (dist Bijnor) 5, Etah (dist Etah) 4,
- ❖ **Saurashtra & Kutch:** Chuda (dist Surendranagar) 9, Lalpur (dist Jamnagar) 7,
- ❖ **West Madhya Pradesh:** Niwali (dist Barwani) 9, Sanjeet (dist Mandsaur) 8, Garoth (dist Mandsaur) 7, Sailana (dist Ratlam) 7,
- ❖ **Tamil Nadu:** Chinnakalar (dist Coimbatore) 8,Oothu (dist Tirunelveli), Nalumukku (dist Tirunelveli) 7 each,Valparai
- ❖ **Coastal Karnataka:** Kundapur (dist Udupi) 8, Udupi (dist Udupi) 6,
- ❖ **South Interior Karnataka:** Agumbe Emo (dist Shivamogga) 7, Koppa (dist Chikkamagaluru) 5,
- ❖ **Bihar:** Bajpatti (dist Sitamarhi) 7, Rajpur (dist Buxar) 5, Raxual (dist East Champaran) 5,
- ❖ **East Uttar Pradesh:** Mukhlispur (dist Gorakhpur) 7, Dabri Fmo (dist Farrukhabad) 7,
- ❖ **East Rajasthan:** Bari-sadri (dist Chittorgarh) 6, Pachpahar Sr (dist Jhalawar) 6, Nimbahera (dist Chittorgarh) 6, Raipur (dist Bhilwara) 6,

Reported maximum wind speed (in kmph) during past 24 hours till 0830 hours IST of today:

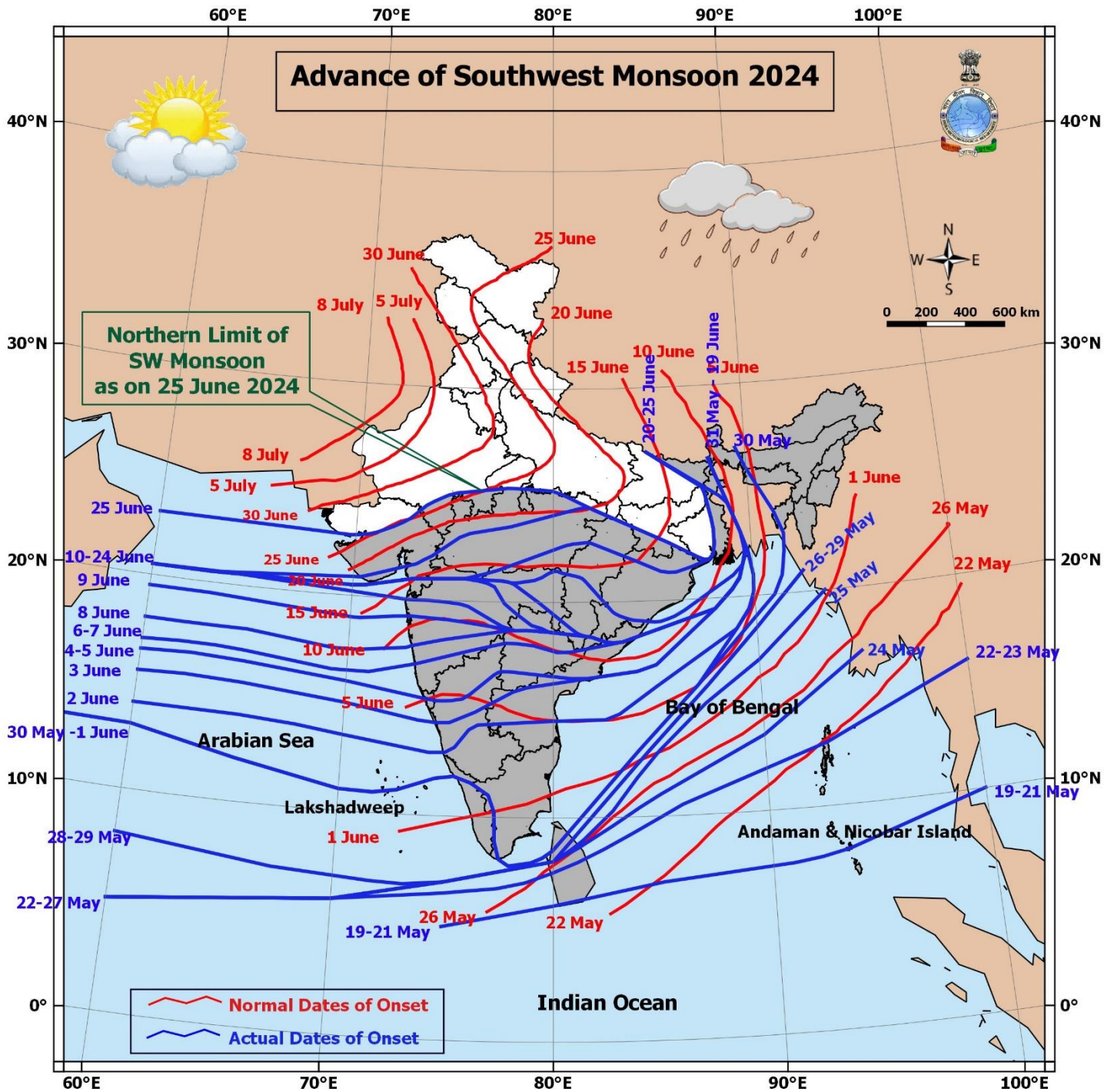
- ❖ **Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad:** Kargil 69, Leh 59;
- ❖ **Himachal Pradesh:** Kinnaur 56, Lahaul_And_Spiti 46, Mandi, Kullu 43;
- ❖ **Punjab:** Patiala 46, Fatehgarh_Sahib 46, Sangrur, Barnala, Moga 39;
- ❖ **Haryana-Chandigarh-Delhi:** Kaithal 70, Mewat 54, Panipat 50, Sirsa 46, South_West_Delhi 44, Mahendragarh 43;
- ❖ **Uttar Pradesh:** Hathras 60, Agra 48, Lucknow 44, Chitrakoot 41;
- ❖ **Gangetic West Bengal:** Jhargram 80, South_Twenty_Four_parganas 43;
- ❖ **Rajasthan:** Chittaurgarh 52, Karauli 48, Jaipur, Alwar 44, Udaipur, Sirohi 43, Bhilwara 41;
- ❖ **Gujarat State:** Ahmedabad 74, Kachchh 57, Ahmedabad 44;
- ❖ **Madhya Maharashtra:** Nashik 41;
- ❖ **Karnataka:** Koppal 46, Mandya 44, Davanagere 43;
- ❖ **Royalaseema:** Anantapur 44;
- ❖ **Tamil Nadu, Puducherry & Karaikal:** Thoothukudi 72, Tiruchirappalli 46, Karur, Namakkal 44, Tirunelveli, Tenkasi, Kanyakumari 43, Cuddalore 41;
- ❖ **Kerala & Mahe:** Wayanad 63, Pathanmthitta 57, Malappuram, Kottayam 46, Pathanamthitta 44;

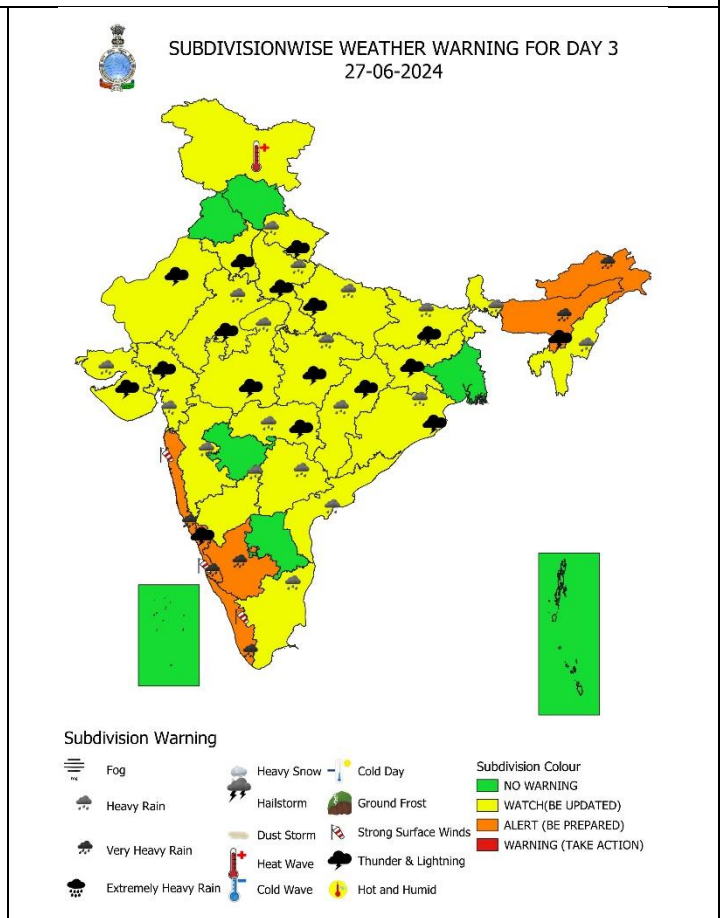
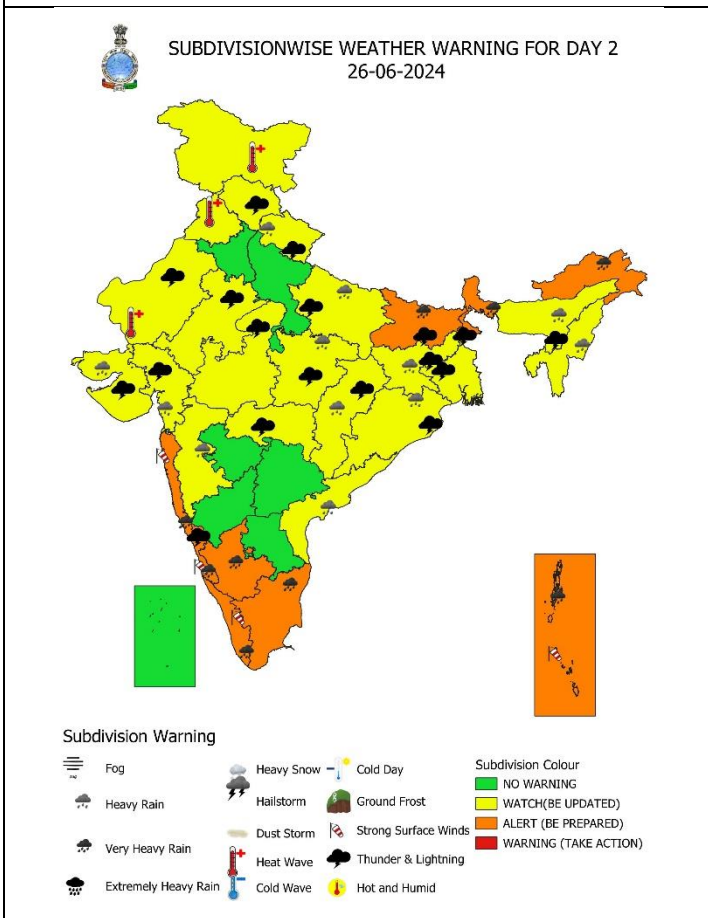
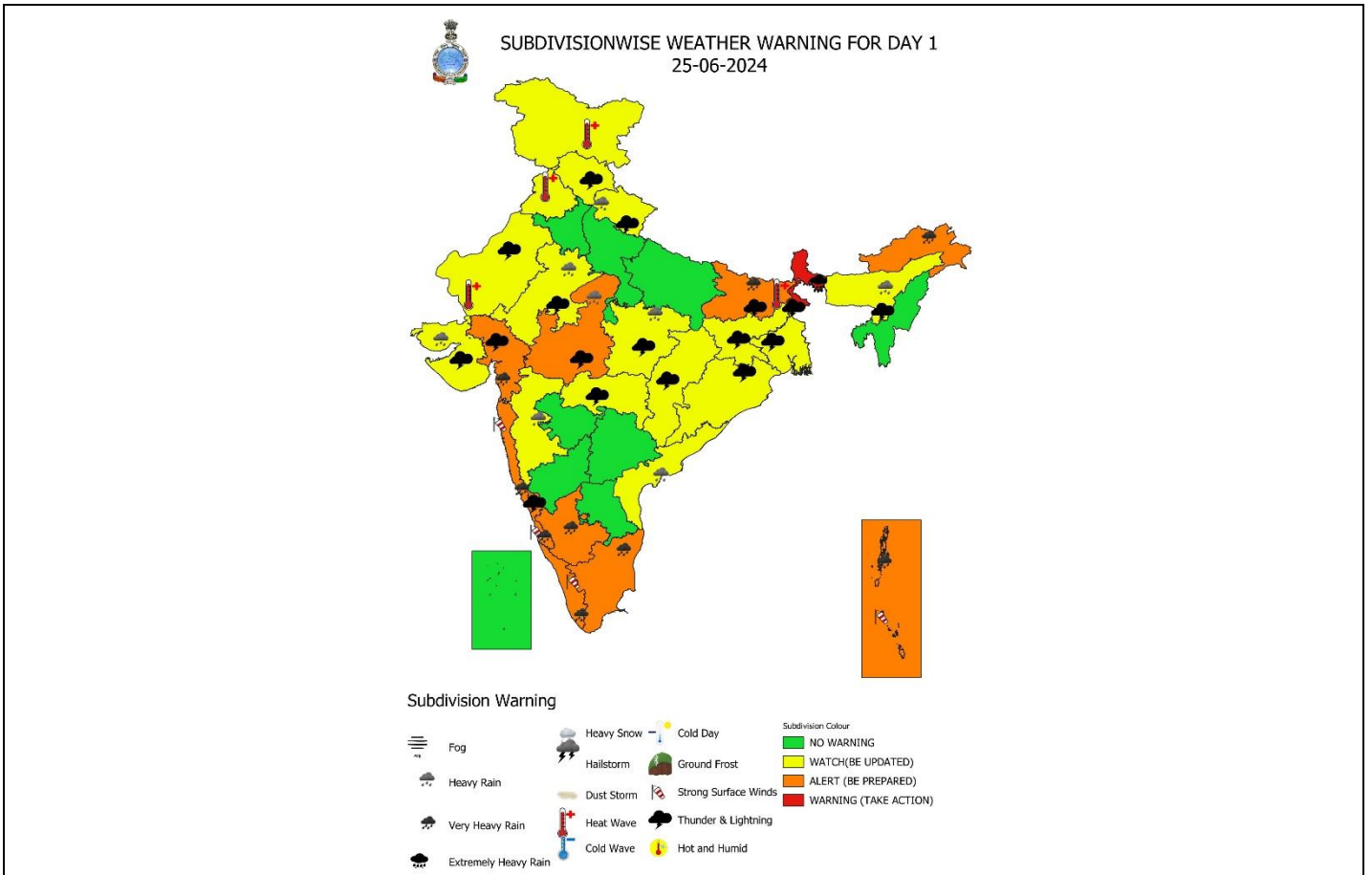
Fig.: Gusty winds reported over the country (in knots, 1 Knot = 1.85 kmph) from 0830 hrs IST of 24.06.2024 to 0830 hrs IST of 25.06.2024

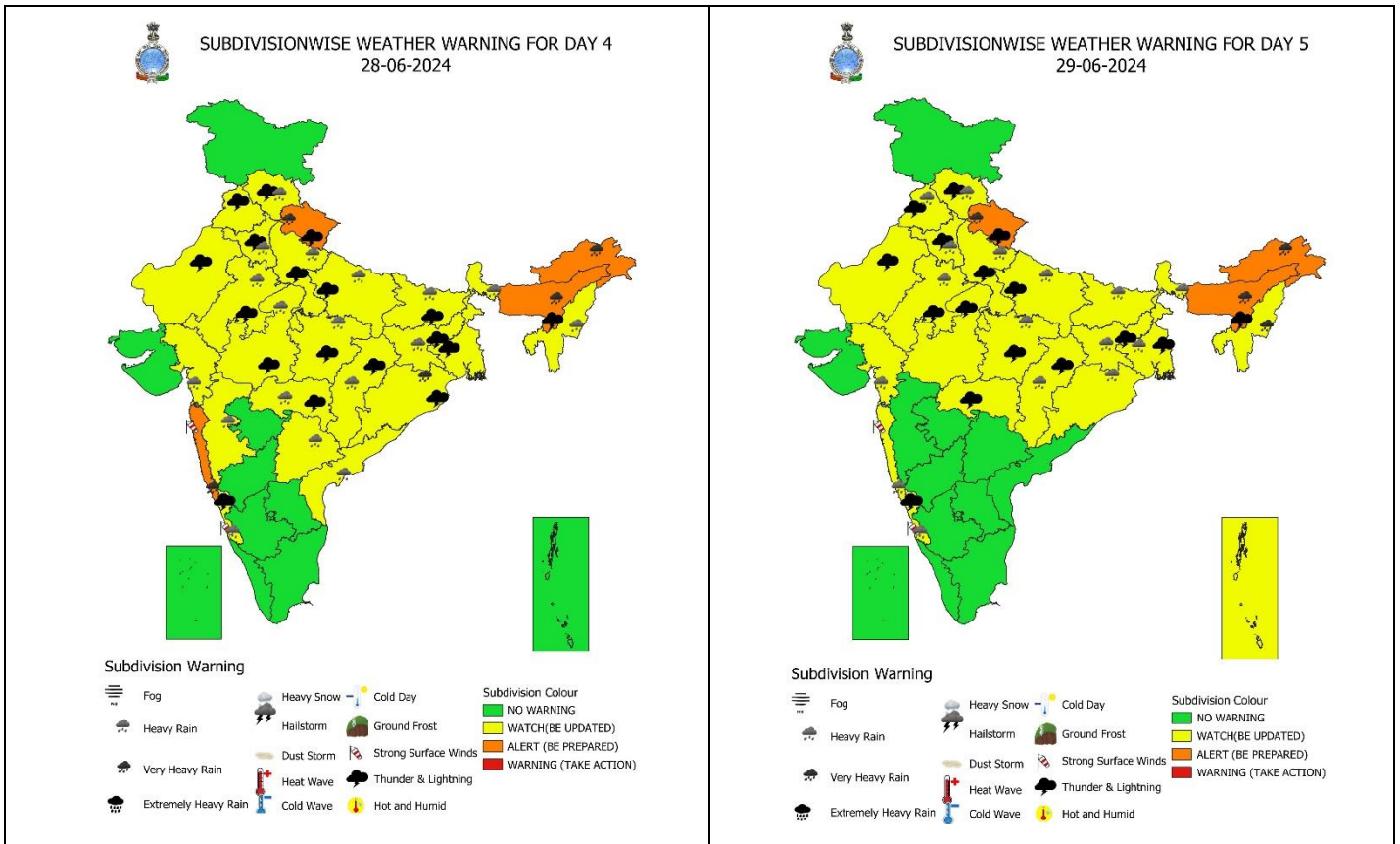


For more details, kindly refer: <http://aws.imd.gov.in:8091/>

Advance of Southwest Monsoon 2024







IMPACT & ACTION SUGGESTED due to very heavy/extremely heavy rainfall over Andaman & Nicobar Islands, Sub-Himalayan West Bengal & Sikkim on 25th & 26th; Coastal & South Interior Karnataka, Kerala & Mahe during 25th-27th; Konkan & Goa and Arunachal Pradesh during next 5 days.

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/mud slips/landsinks/mudsinks.
- Damage to horticulture and standing crops in some areas due to inundation.
- It may lead to riverine flooding in some river catchments (for riverine flooding please visit Web page of CWC)

Action Suggested

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

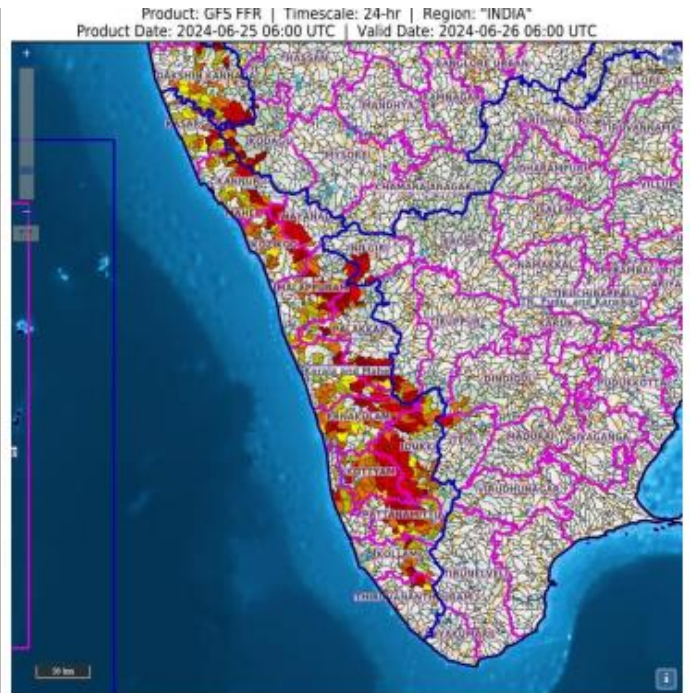
Agromet advisories for Heavy Rainfall, Gusty winds and Heat Wave likely over various parts of the country:

- Make provision for draining out excess water from crop fields to avoid water stagnation in Arunachal Pradesh, Assam & Meghalaya, Andaman & Nicobar Islands, Sub Himalayan West Bengal & Sikkim, Uttarakhand, Madhya Pradesh, Vidarbha, Konkan & Goa, Madhya Maharashtra, Gujarat State, Tamil Nadu, Kerala, Coastal and South Interior Karnataka and Coastal Andhra Pradesh.
- Apply light and frequent irrigation to standing crops to avoid heat stress; provide mulching to conserve soil moisture and minimise evaporation in Jammu, Punjab and West Rajasthan.
- Provide mechanical support to horticultural crops & staking to vegetables.

24 hours Outlook for the Flash Flood Risk (FFR) till 1130 IST of 26-06-2024 :

Low to Moderate flash flood risk likely over few watersheds & neighbourhoods of **Kerala & Mahe Met** Sub-divisions during next 24 hours.

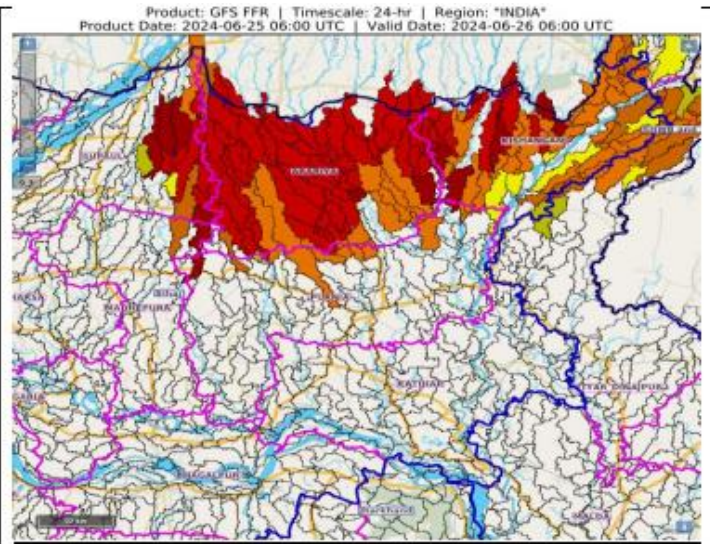
Surface runoff/ Inundation may occur at some fully saturated soils & low-lying areas over AoC as shown in map due to expected rainfall occurrence in next 24 hours.



24 hours Outlook for the Flash Flood Risk (FFR) till 1130 IST of 26-06-2024 :

Low to Moderate flash flood risk likely over few watersheds & neighbourhoods of **North-Eastern parts of Bihar** Met Sub-divisions during next 24 hours.

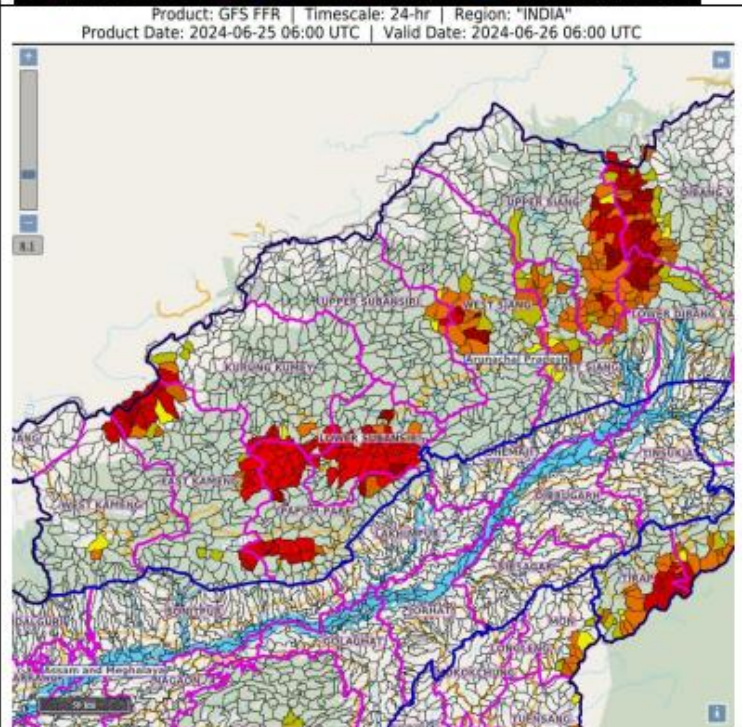
Surface runoff/ Inundation may occur at some fully saturated soils & low-lying areas over AoC as shown in map due to expected rainfall occurrence in next 24 hours.



24 hours Outlook for the Flash Flood Risk (FFR) till 1130 IST of 26-06-2024 :

Low to Moderate flash flood risk likely over few watersheds & neighbourhoods of some **parts of Arunachal Pradesh** Met Sub-divisions during next 24 hours.

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; **dist:** District; **NH:** National Highway; **KVK:** Krishi Vigyan Kendra; **DVC:** Damodar Valley Corporation; **PTO:** Part Time Office.
- ❖ **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.

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)



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

LEGENDS

WARNING

WARNING (TAKE ACTION)
ALERT (BE PREPARED)
WATCH (BE UPDATED)
NO WARNING (NO ACTION)

Probabilistic Forecast

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



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 *



Heat Wave

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°C to 6.4°C .
 Severe Heat Wave: Maximum Temperature Departure from normal $\geq 6.5^{\circ}\text{C}$

(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°C

Warm Night: When minimum temperature departure 4.5°C to 6.4°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°C to -6.4°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°C to -6.4°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 < 1km

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 Storm: Wind speed >220 kmph (>119 knots)