

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; **at a few places** over Nagaland, Manipur, Mizoram & Tripura and **at isolated places** over Konkan & Goa, Madhya Pradesh, Vidarbha, Chhattisgarh, Tamil Nadu, Puducherry & Karaikal, Karnataka, Odisha, Bihar, Uttar Pradesh, Uttarakhand, Punjab, Haryana, Delhi, Himachal Pradesh and Jammu-Kashmir.

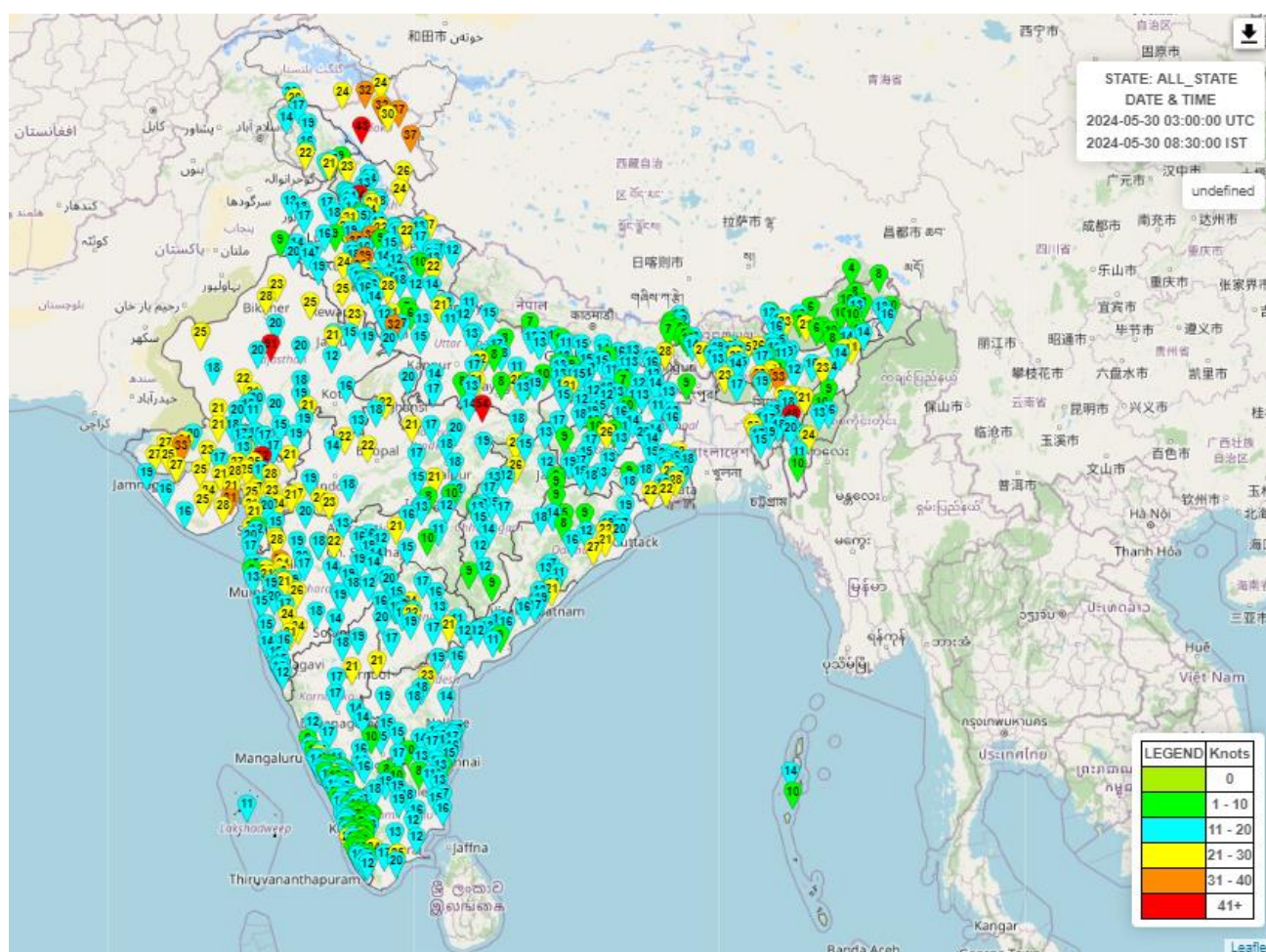
Significant amount of rainfall (in cm):

- ❖ **Assam & Meghalaya:** Mawsynram (dist East Khasi Hills) 66, Cherrapunji(rkm) (dist East Khasi Hills) 66, Cherrapunji (dist East Khasi Hills) 63, Khliehriat (dist East Jaintia Hills) 33, Jowai_aws (dist West Jaintia Hills) 31, Mawphlang (dist East Khasi Hills) 21, Mawkyrwat (dist South West Khasi Hills) 20, Mawkyrwat_arg (dist South West Khasi Hills) 19, Halflong (dist N. C. Hills) 13, Fakiragram Arg (dist Kokrajhar) 12, Aie Nh Xing (dist Bongaigaon) 12, Lakhipur (dist Cachar) 11, Lakhipur Arg (dist Cachar) 10, Silchar (dist Cachar) 9, Silchar_aws (dist Cachar) 9, Manash Nh Xing (dist Barpeta) 9, A P Ghat (dist Cachar) 8, Gossaigaon (dist Kokrajhar) 8, Karimganj (dist Karimganj) 8, B P Ghat (dist Karimganj) 7, Beky Rly.bridge (dist Barpeta) 7, Dudhnoi Arg (dist Goalpara) 7, Harinagar Arg (dist Karimganj) 7, Kokrajhar (dist Kokrajhar) 7,
- ❖ **KERALA & MAHE:** Mancompu (dist Alapuzha) 19, Karumadi (dist Alapuzha), KALAMASSERYAWS (ERNAKULAM) 15, Kodungallur (dist Thrissur) 14, Mavelikara (dist Alapuzha) 10, Choondy (dist Ernakulam) 10, Ulanad Aws (dist Pathanamthitta) 10, Cheruvanchery Aws(dist Cannur) 9, Thiruvananthapuram (dist Thiruvananthapuram) 9, Nooranad Aws (distAlapuzha) 9, Ponnani (dist Malappuram) 9, Piravam (dist Ernakulam) 8, Thiruvalla Aws (distPathanamthitta) 8, Irinjalakuda (dist Thrissur) 8, Airport Chakka Arg (dist Thiruvananthapuram)7, Cherthala (dist Alapuzha) 7, Enamakal (dist Thrissur) 7, Trivandrum Aero (distThiruvananthapuram) 7, Vaikom (dist Kottayam) 7, Kayamkulam (dist Alapuzha) 7, Haripad(dist Alapuzha) 6,
- ❖ **Nagaland, Manipur, Mizoram & Tripura:** Jiribam_ Aws (dist Imphal East) 11, Tening Nsdma_aws (dist Peren) 10, Tamenglong (dist Tamenglong) 7, Ukhrul (dist Ukhrul) 6, Kolasib Agri (dist Kolasib) 4, Paren Nsdma_aws (dist Peren) 4, Kadamtala Arg (dist North Tripura) 4,
- ❖ **LAKSHADWEEP:** Minicoy (dist Lakshadweep) 8, Amini (dist Lakshadweep) 3, Agathi (distLakshadweep) 2
- ❖ **Arunachal Pradesh:** Naharlagun Aws (dist Papumpara) 7, Pasighat Aero (dist East Siang) 3,
- ❖ **TAMILNADU:** Mullanginavillai (dist Kanniyakumari) 4,Valparai PTO (dist Coimbatore), UPASI_Tea_Research_Foundation AWS (distCoimbatore) 3 each.Cincona (dist Coimbatore), Sholayar (dist Coimbatore), Valparai PAP (distCoimbatore) 2 each,
- ❖ **COASTAL KARNATAKA:** Mangaluru Ap Obsy (dist Dakshina Kannada) 3, Dharmasthala (dist DakshinaKannada) 2,
- ❖ **Sub-Himalayan West Bengal & Sikkim:** Cooch Behar (dist Cooch Behar) 5, Bagrakote (dist Darjeeling) 5, Ranipool (dist East Sikkim) 4, Hasimara (dist Jalpaiguri) 4, Jalpaiguri (dist Jalpaiguri) 4, Domohani (dist Jalpaiguri) 3, Kabi (dist North Sikkim) 3, Chengmari/diana (dist Jalpaiguri) 3, Chepan (dist Jalpaiguri) 2,

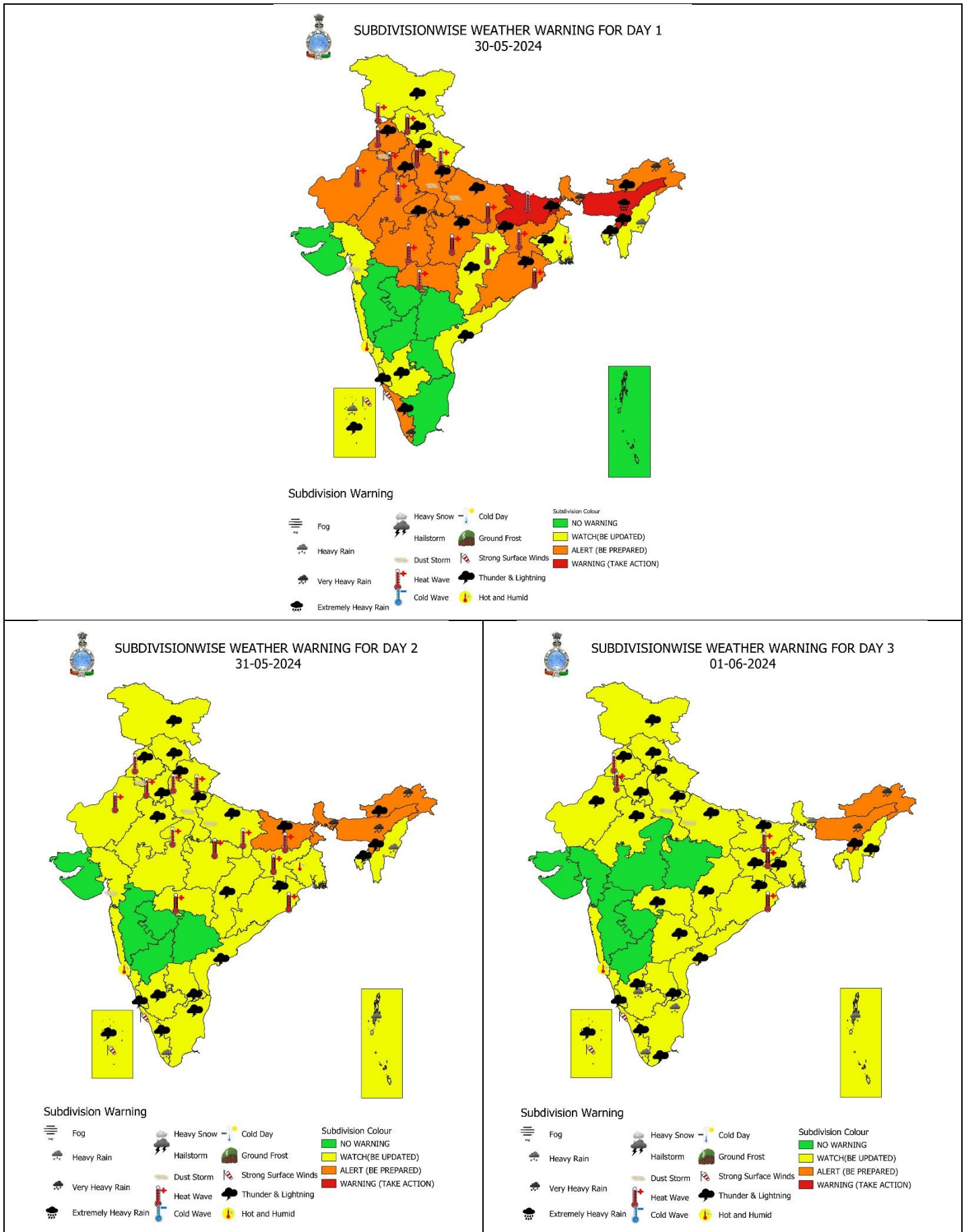
Reported maximum wind speed (kmph) during past 24 hours till 0830 hours IST of today:

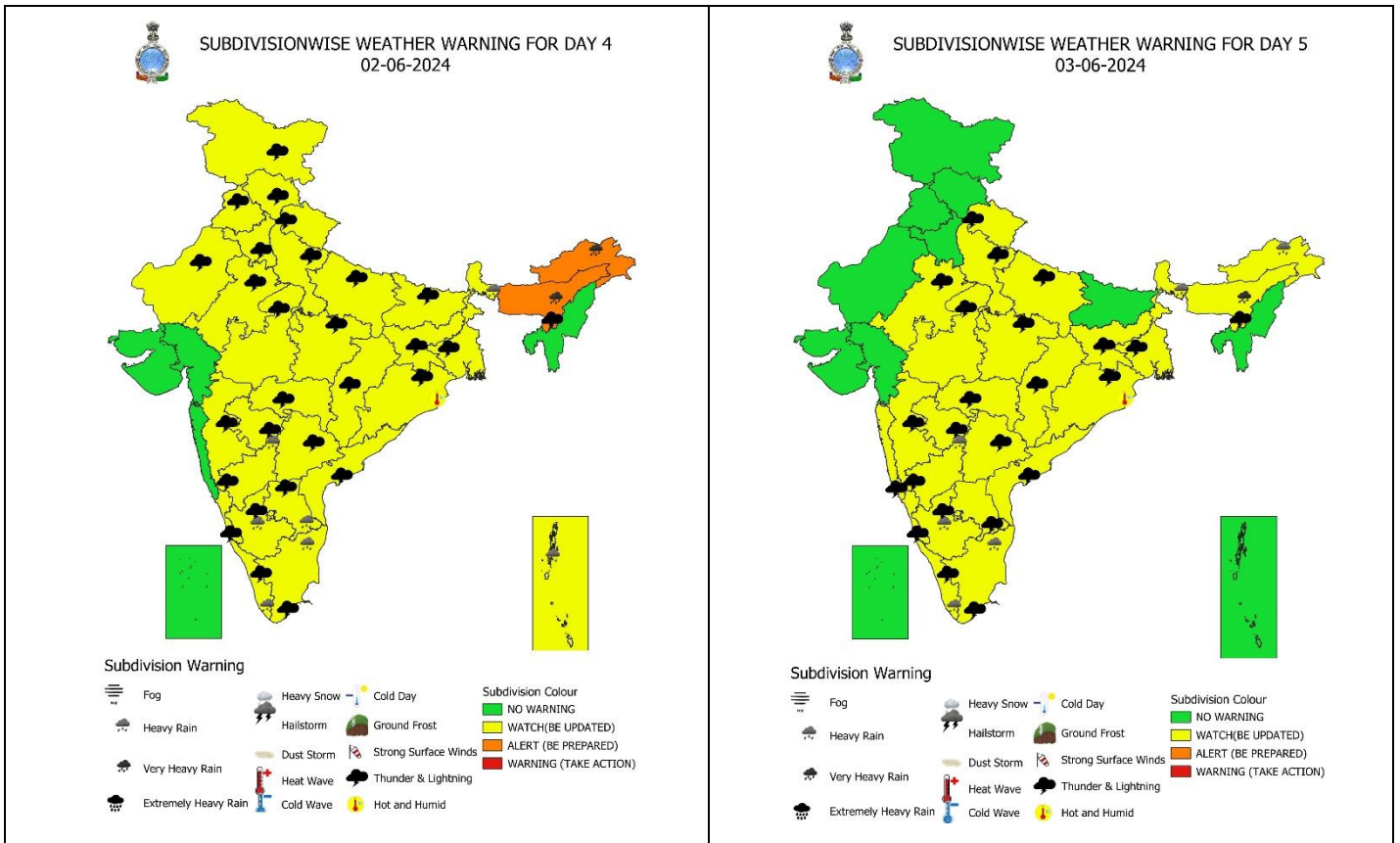
- ❖ **Gujarat State:** Panchmahal-96, Kachchh-61, Bhavnagar-57, Ahmedabad-52, Bharuch-50;
- ❖ **Telangana:** Hyderabad-85, Ranga Reddy-41;
- ❖ **Himachal Pradesh:** Bilaspur-81, Lahaul & Spiti-48, Shimla-46, Kinnaur, Solan-44 each;
- ❖ **Haryana:** Panipat-72, Kaithal-70, Sonipat-67, Yamunanagar-57, Mahendragarh, Mewat-46 each;
- ❖ **Assam & Meghalaya:** Jaintia_Hills-61, South_West_Khasi_Hills-57, Barpeta-50, Nalbari-48;
- ❖ **Madhya Maharashtra:** Pune-65, Nashik-52;
- ❖ **Uttar Pradesh:** Agra-59, Bulandshahar 52, Bhadohi- 46, Jalaun-41;
- ❖ **Delhi:** East Delhi-54, Central Delhi-52,
- ❖ **Bihar:** Krishnaganj-52;
- ❖ **Gangetic West Bengal:** South_Twenty_Four_Parganas-52;
- ❖ **Uttarakhand:** Chamoli-50, Tehri Garhwal-40;
- ❖ **Kerala:** Pathanamthitta-46;
- ❖ **Andhra Pradesh:** Prakasam-42, Kurnool-39;

Fig.: Gusty winds reported over the country (in knots, 1 Knot = 1.85 kmph) from 0830 hrs IST of 29.05.2024 to 0830 hrs IST of 30.05.2024



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





IMPACT & ACTION SUGGESTED due to very heavy rainfall/extremely falls over Kerala & Mahe on 30th; Sub-Himalayan West Bengal & Sikkim on 30th & 31st May; Assam, Meghalaya, Arunachal Pradesh during 30th May-02nd June, 2024.

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)

A. 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 & ACTION SUGGESTED due to Heat Wave Conditions:

Orange alert Areas:

- High temperature & increased likelihood of heat illness symptoms in people who are either exposed to sun for a prolonged period or doing heavy work.
- High health concern for vulnerable people e.g. infants, elderly, people with chronic diseases.
- Avoid heat exposure– keep cool. Avoid dehydration.
- Drink sufficient water- even if not thirsty.
- Use ORS, homemade drinks like lassi, torani (rice water), lemon water, buttermilk, etc. to keep yourself hydrated.

Yellow alert Areas:

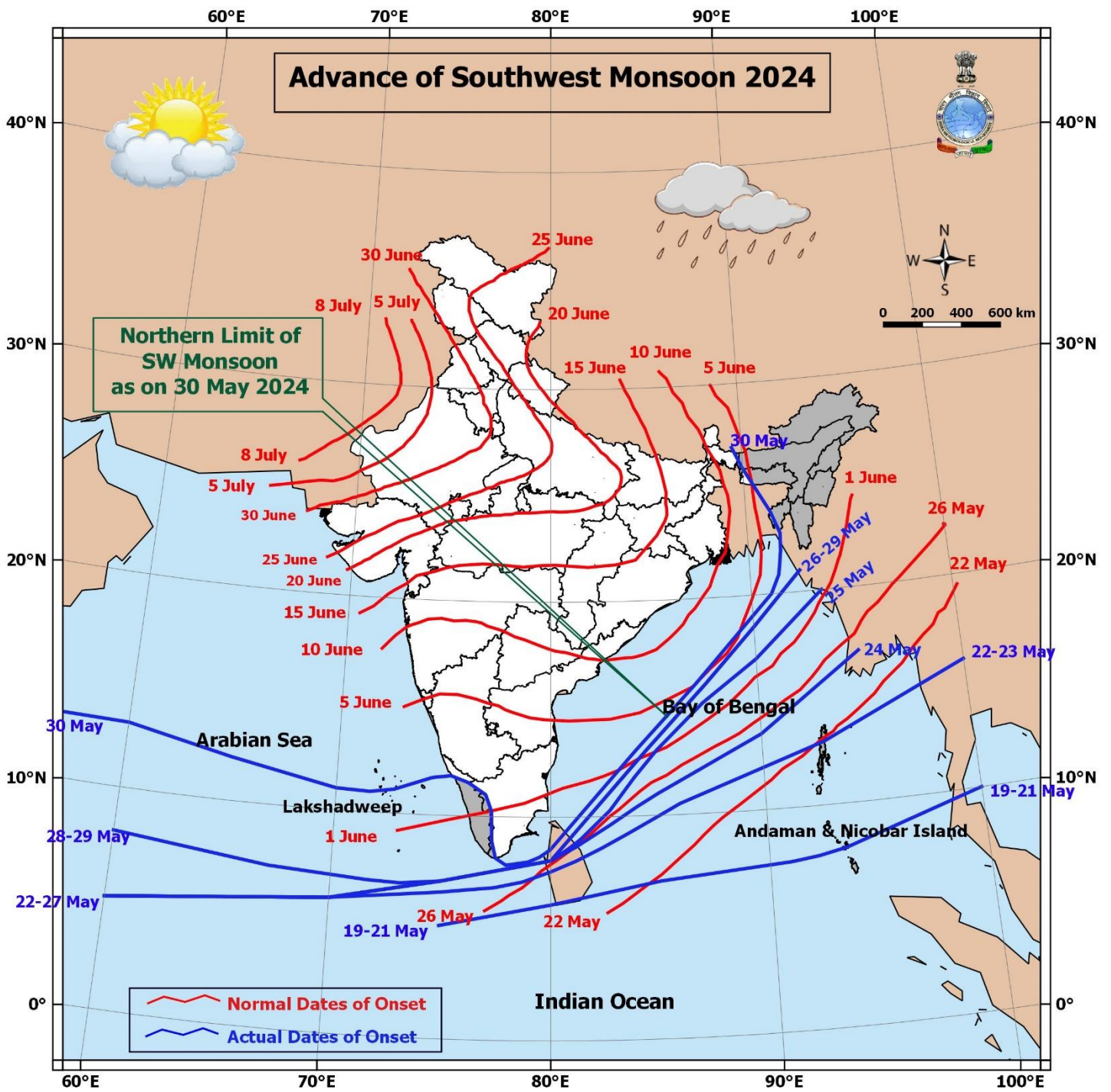
- Moderate temperature & heat is tolerable for general public but moderate health concern likely for vulnerable people e.g. infants, elderly, people with chronic diseases.
- Avoid heat exposure.
- Wear lightweight, light colour, loose, cotton clothes.
- Cover your head, use a cloth, hat or umbrella.

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

(Based on the IBF and advisories issued by different AMFUs)

- Drain out excess water from crop fields to avoid water stagnation in Kerala, Lakshadweep, Sub-Himalayan West Bengal & Sikkim and North-Eastern States.
- Apply light and frequent irrigation to standing crops to avoid heat stress; provide mulching to conserve soil moisture and minimise evaporation in Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Punjab, Haryana, Uttar Pradesh, Rajasthan, Bihar, Jharkhand, Odisha, Madhya Pradesh, Vidarbha and Chhattisgarh.
- Provide mechanical support to horticultural crops & staking to vegetables to prevent damage from gusty winds.

Advance of Southwest Monsoon 2024



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 *



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 $\geq 37^{\circ}\text{C}$



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 $>6.4^{\circ}\text{C}$.



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 $\leq 15^{\circ}\text{C}$



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 $\leq -6.5^{\circ}\text{C}$



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



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



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



Ice deposits on ground

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



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)

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

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