



Government of India  
Ministry of Earth Sciences  
India Meteorological Department



Press Release.

Date: 26<sup>th</sup> May, 2024

Time of Issue: 1445 hours IST

**Subject:**

- i. **The Severe Cyclonic Storm “Remal” (pronounced as “Re-Mal”) is very likely to cross Bangladesh & adjoining West Bengal coasts between Sagar Island and Khepupara, close to southwest of Mongla (Bangladesh) by midnight of today, the 26<sup>th</sup> May 2024 as a Severe Cyclonic Storm with maximum sustained wind speed of 110-120 kmph gusting to 135 kmph.**
- ii. **Heat wave to severe heat wave conditions most likely to continue over plains of Northwest India and Heat wave conditions over Western Himalayan Region, Madhya Pradesh, Vidarbha and Chhattisgarh during next 4-5 days.**
- iii. **Southwest Monsoon further advanced into some more parts of Southwest Bay of Bengal, Central Bay of Bengal and Northeast Bay of Bengal on today, the 26<sup>th</sup> May, 2024.**

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

- ❖ **Heat wave to severe heat wave conditions prevailed over many parts of Rajasthan. Heat wave conditions prevailed in isolated pockets of Jammu Kashmir, Himachal Pradesh Haryana, West Uttar Pradesh, West Mahya Pradesh, Vidarbha and Gujarat region. Heat wave conditions have been prevailing over Gujarat region since 15<sup>th</sup> and over Haryana and Rajasthan since 17<sup>th</sup> May, 2024.**
- ❖ **Warm night conditions observed in isolated pockets of Haryana, Rajasthan, Uttar Pradesh and East Madhya Pradesh.**
- ❖ **Yesterday, the highest maximum temperature of 50.0°C was reported at Phalodi (West Rajasthan) over the country.**
- ❖ **Heavy to very heavy rainfall observed at isolated places over Andaman & Nicobar Islands. Heavy rainfall at isolated places over Bihar, Nagaland, Manipur, Mizoram & Tripura.**
- ❖ **Gusty winds/squally winds data reported over the country is attached in Annexure II.**

**Weather Systems and Forecast & Warnings: (Annexure III)**

- ❖ **Further advance of Southwest Monsoon today 26<sup>th</sup> May:** Southwest Monsoon has further advanced into some more parts of Southwest Bay of Bengal, Central Bay of Bengal and Northeast Bay of Bengal today, the 26<sup>th</sup> May, 2024.
- ❖ **The Northern Limit of Monsoon passes through 05°N/60°E, 06°N/70°E, 7°N/75°E, 8°N/80°E, 13°N/84°E, 16°N/87°E, 18.5°N/89.5°E, 21°N/93°E. (Annexure IV).**
- ❖ **There are three cyclonic circulations in lower tropospheric levels, 1<sup>st</sup> over southwest Rajasthan, 2<sup>nd</sup> over northwest Uttar Pradesh and 3<sup>rd</sup> over northeast Assam. Under their influence:**
  - **Fairly widespread to widespread light to moderate rainfall accompanied with thunderstorm, lightning & gusty winds (30-40 kmph) likely over Kerala & Mahe, Lakshadweep during 26<sup>th</sup>-28<sup>th</sup>; Coastal Karnataka on 26<sup>th</sup>; Andaman & Nicobar Islands during 26<sup>th</sup>-30<sup>th</sup>; Sub-Himalayan**

West Bengal & Sikkim on 26<sup>th</sup> & 27<sup>th</sup> May and isolated to scattered light/moderate rainfall accompanied with **thunderstorm, lightning & gusty winds (30-40 kmph)** over Tamil Nadu, Puducherry & Karaikal, Telangana, Rayalaseema, Karnataka on 26<sup>th</sup> & 28<sup>th</sup> May.

- ✓ **Isolated heavy rainfall very likely over Kerala & Mahe on 26<sup>th</sup>, 29<sup>th</sup> & 30<sup>th</sup> May, 2024.**
- ✓ Isolated light rainfall accompanied with **thunderstorm, lightning & gusty winds (30-40 kmph)** very likely over Bihar, Jharkhand Madhya Pradesh, Vidarbha, Chhattisgarh on 26<sup>th</sup>; Uttarakhand during 26<sup>th</sup>-30<sup>th</sup>; Konkan & Goa, Madhya Maharashtra, Marathwada on 26<sup>th</sup> May, 2024.
- ✓ **Strong surface wind** (speed 25-35 kmph) over Gujarat State on during 26<sup>th</sup>-30<sup>th</sup> May, 2024

### **The Severe Cyclonic Storm “Remal” over Eastcentral Bay of Bengal:**

- ❖ Yesterday's **Deep Depression** over Eastcentral Bay of Bengal intensified into **Cyclonic Storm “Remal”** (pronounced as “Re-Mal”) at 1730 IST of 25<sup>th</sup> May and further into **Severe Cyclonic Storm** over north Bay of Bengal at 0530 IST of 26<sup>th</sup> May. It moved nearly northwards, with a speed of 07 kmph during past 06 hours and lay centered at 0830 hrs IST of today, the 26<sup>th</sup> May, 2024 over North Bay of Bengal near latitude 19.8°N and longitude 89.3°E about 260 km south-southwest of Khepupara (Bangladesh), 310 km south of Mongla (Bangladesh), 240 km south-southeast of Sagar Islands (West Bengal) and 280 km south-southeast of Canning (West Bengal). Currently maximum sustained wind speed of 90-100 kmph gusting to 110 kmph prevails around the cyclone centre. It is very likely to continue to move nearly northwards, intensify further and cross Bangladesh and adjoining West Bengal coasts between Sagar Island and Khepupara, close to southwest of Mongla (Bangladesh) by midnight of today, the 26<sup>th</sup> May 2024 as a Severe Cyclonic Storm with maximum sustained wind speed of 110-120 kmph gusting to 135 kmph. **(ANNEXURE VI)**

### **Heavy Rainfall Warning:**

- (a) **West Bengal:** Light to moderate rainfall at most places with **heavy to very heavy rainfall** at a few places is likely over coastal districts of West Bengal and eastern districts of Gangetic West Bengal adjacent to Bangladesh on 26<sup>th</sup> & 27<sup>th</sup> with isolated **extremely heavy rainfall** ( $\geq 20$  cm) over these districts on 26<sup>th</sup> May. The peak rainfall activity is likely during noon of 26<sup>th</sup> to noon of 27<sup>th</sup> May. Light to moderate rainfall at most places with **heavy to very heavy rainfall** at isolated places likely over eastern districts of Sub-Himalayan West Bengal on 27<sup>th</sup> and 28<sup>th</sup> May.
- (b) **Odisha:** Light to moderate rainfall at most places with isolated **heavy rainfall** likely over North Coastal Odisha on 26<sup>th</sup> May.
- (c) **Northeastern States:** Light to moderate rainfall at most places with **heavy to very heavy rainfall** at isolated places is likely over Mizoram, Tripura and South Manipur on 26<sup>th</sup> and over Assam, Meghalaya, Arunachal Pradesh, Nagaland, Mizoram, Manipur & Tripura on 27<sup>th</sup> & 28<sup>th</sup> May. Isolated **extremely heavy rainfall** ( $\geq 20$  cm) is also likely over Assam, Meghalaya on 27<sup>th</sup> & 28<sup>th</sup> May, Arunachal Pradesh on 28<sup>th</sup> May and Mizoram & Tripura on 27<sup>th</sup> May.

### **Wind Warning:**

#### **(a) Bay of Bengal:**

- **Gale wind speed reaching 80-90 kmph gusting to 100 kmph** is likely to prevail over central Bay of Bengal till noon and decrease becoming Squally wind speed reaching 50-60 kmph gusting to 70 kmph till morning of 27<sup>th</sup> May.
- **Gale wind speed reaching 95-105 kmph gusting to 115 kmph** prevailing over North Bay of Bengal is likely to increase becoming **100-120 kmph gusting to 135 kmph** from noon till midnight of 26<sup>th</sup> May. It is likely decrease thereafter becoming 70-80 kmph gusting to 90 kmph by morning on 27<sup>th</sup> May and squally wind speed reaching 45-55 kmph gusting to 65 kmph by evening of 27<sup>th</sup> May.

#### **(b) Along & off Bangladesh and West Bengal coasts:**

- **Squally wind speed reaching 50-60 kmph gusting to 70 kmph** is prevailing along & off Bangladesh and West Bengal & adjoining North Odisha coasts. It is likely to increase becoming **gale wind speed**

**reaching 70-80 kmph gusting to 90 kmph** from afternoon of 26<sup>th</sup> May and **100-120 kmph gusting to 135 kmph** along & off Bangladesh and adjoining West Bengal coasts from evening of 26<sup>th</sup> May till early morning of 27<sup>th</sup> May. It is likely decrease thereafter to become 60-70 kmph gusting to 80 kmph by afternoon and squally wind 50-60 kmph gusting to 70 kmph by night of 27<sup>th</sup> May.

- **Squally wind speed reaching 45-55 kmph gusting to 65 kmph** is likely to commence over Howrah, Hoogly, Kolkata and East Medinipur districts from evening of 26<sup>th</sup> May. It will increase gradually becoming **Gale wind speed reaching 70-80 kmph gusting to 90 kmph** over these districts during night of 26<sup>th</sup> May except East Medinipur where the wind speed may reach up to **60-70 kmph gusting to 80 kmph** during the same period.

**(c) Along & off North Odisha coasts:**

**Squally wind speed reaching 50-60 kmph gusting to 70 kmph** is likely to prevail till 27<sup>th</sup> May morning.

**(d) Northeastern States:**

**Squally wind speed reaching 50-60 kmph gusting to 70 kmph** is likely over Mizoram Tripura & south Manipur on 26<sup>th</sup> & 27<sup>th</sup> May and **40-50 kmph gusting to 60 kmph** is likely over South Assam and Meghalaya on 27<sup>th</sup> May.

**Storm surge warning:**

Storm surge of about 1 meter height above astronomical tide is likely to inundate low lying areas of coastal West Bengal and 3-4 m above astronomical tide likely to inundate low lying areas of coastal Bangladesh around the time of landfall.

**Sea condition warning:**

**(a) Central and North Bay of Bengal:**

Very rough to high sea condition is likely to prevail over central Bay of Bengal on 26<sup>th</sup> May and High to Very High over North Bay of Bengal till 27<sup>th</sup> May morning.

**(b) Along & off Bangladesh and West Bengal coasts**

Very rough sea condition is prevailing along & off Bangladesh and West Bengal coasts. It would become high to very high along & off Bangladesh and West Bengal coasts from 26<sup>th</sup> noon onwards till 27<sup>th</sup> May morning.

**(c) Along & off North Odisha coast:**

Very rough sea condition is likely along & off North Odisha coast till 27<sup>th</sup> May morning.

**Damage Expected over South & North 24 Parganas, Howrah, Hoogly, Kolkata & adjoining East Medinipur districts of west Bengal:**

- Major damage to thatched houses/ huts. Possibilities of damage to vulnerable structure.
- Unattached metal sheets may fly.
- Breaking of tree branches, uprooting of trees. Major damage to banana and papaya trees. Dead limbs may blow off from trees.
- Damage to power and communication lines due to breaking of branches and uprooting of trees.
- Damage to Kutcha and minor damage to Pucca roads due to heavy rain.
- Damage to paddy crops, horticultural crops and orchards.
- Inundation of low-lying areas and localized flooding
- Occasional reduction in visibility due to heavy rainfall.
- Disruption of traffic due to water logging and squally winds

**Action Suggested for South & North 24 Parganas, Howrah, Hoogly, Kolkata & adjoining East Medinipur districts of West Bengal:**

- Total suspension of fishing operations.
- Surface transport and shipping operations need to be regulated
- Onshore & Offshore operation need to be regulated as per guidelines
- Coastal hutment dwellers to move to safer places.
- People in affected areas to remain indoors.
- Avoid going to areas that face the water logging problems often.
- Avoid staying in vulnerable structure.

### **Fishermen Warning (graphics attached):**

Fishermen are advised not to venture into central Bay of Bengal till 26<sup>th</sup> May and North Bay of Bengal till 27<sup>th</sup> May. Fishermen out at sea are advised to return to the coast. **(ANNEXURE V)**

### **Maximum temperature observation and forecast for next 5 days:**

- ❖ **Areas having maximum temperatures greater than 40°C:** Yesterday, maximum temperatures were in the range of 44-49°C in most parts of West Rajasthan; in some parts of East Rajasthan, West Madhya Pradesh, Vidarbha and in isolated pockets of Gujarat Region, Haryana, Telangana, Marathwada; in the range of 40- 44°C in many parts of Punjab, East Madhya Pradesh, Uttar Pradesh; in some parts of Bihar, Chhattisgarh; in isolated pockets of Jharkhand, Gangetic West Bengal, Odisha North Interior Karnataka, Saurashtra & Kutch. These were above normal by 4-6°C over many parts of West Rajasthan; in some parts of Jammu-Kashmir, Bihar and in isolated pockets of Punjab, East Rajasthan, Gujarat state, West Madhya Pradesh, Vidarbha, East Uttar Pradesh, Assam, Nagaland, Manipur, Mizoram & Tripura.
- ❖ No significant change in maximum temperatures very likely over Rajasthan & Madhya Pradesh during next 3 days and fall by about 2°C thereafter.
- ❖ No significant change in maximum temperatures very likely over Maharashtra & Gujarat during next 24 hours and fall by 2-3°C thereafter.
- ❖ Fall in maximum temperatures by 4-5°C very likely over East India during next 24 hours days, no significant change for subsequent 2 days and gradually rise by 2-4°C thereafter.
- ❖ Fall in maximum temperatures by 6-8°C very likely over Northeast India during next 2 days and no significant change thereafter.
- ❖ No significant change in maximum temperatures very likely over rest parts of the country.

### **Heat Wave, Warm Night and Hot & Humid weather warning for next 5 days:**

- ❖ **Heat wave to severe heat wave conditions** very likely in many/most parts of Rajasthan; in some/many parts of Punjab, Haryana-Chandigarh-Delhi; in isolated/some parts of West Uttar Pradesh during 26<sup>th</sup> to 28<sup>th</sup> and gradual reduction thereafter.
- ❖ **Heat wave conditions** very likely in isolated pockets of Jammu division, Himachal Pradesh, East Uttar Pradesh during 26<sup>th</sup>-30<sup>th</sup>; East Madhya Pradesh during 26<sup>th</sup>- 28<sup>th</sup>; Chhattisgarh during 28<sup>th</sup> – 30<sup>th</sup>; West Madhya Pradesh, Vidarbha during 26<sup>th</sup> – 29<sup>th</sup>; Madhya Maharashtra, Marathwada and Gujarat state on 26<sup>th</sup> & 27<sup>th</sup> May, 2024.
- ❖ **Hot and humid weather** very likely to prevail over some parts of Gujarat state during 26<sup>th</sup> & 30<sup>th</sup>; Bihar on 27<sup>th</sup>; Sub-Himalayan West Bengal & Sikkim on 26<sup>th</sup> May, 2024.
- ❖ **Warm night conditions** in isolated pockets very likely to prevail over Haryana-Chandigarh-Delhi during 26<sup>th</sup> – 30<sup>th</sup>; West Rajasthan during 26<sup>th</sup> – 29<sup>th</sup>, Uttar Pradesh and East Rajasthan during 26<sup>th</sup> – 28<sup>th</sup> and West Madhya Pradesh on 26<sup>th</sup> & 27<sup>th</sup> May, 2024.

**For more details, kindly refer:** [https://mausam.imd.gov.in/responsive/all\\_india\\_forcast\\_bulletin.php](https://mausam.imd.gov.in/responsive/all_india_forcast_bulletin.php)

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

- ❖ Light to moderate rainfall accompanied with thunderstorm & lightning observed **at many places** over Kerala & Mahe, Nagaland, Manipur, Mizoram & Tripura; **at a few places** over Lakshadweep, Assam & Meghalaya and **at isolated places** over Konkan & Goa, Madhya Maharashtra, Marathwada, Karnataka, Bihar, Telangana, Uttarakhand, Tamil Nadu, Puducherry & Karaikal, Coastal Andhra Pradesh & Yanam, Rayalaseema, Jharkhand, West Uttar Pradesh, Arunachal Pradesh.

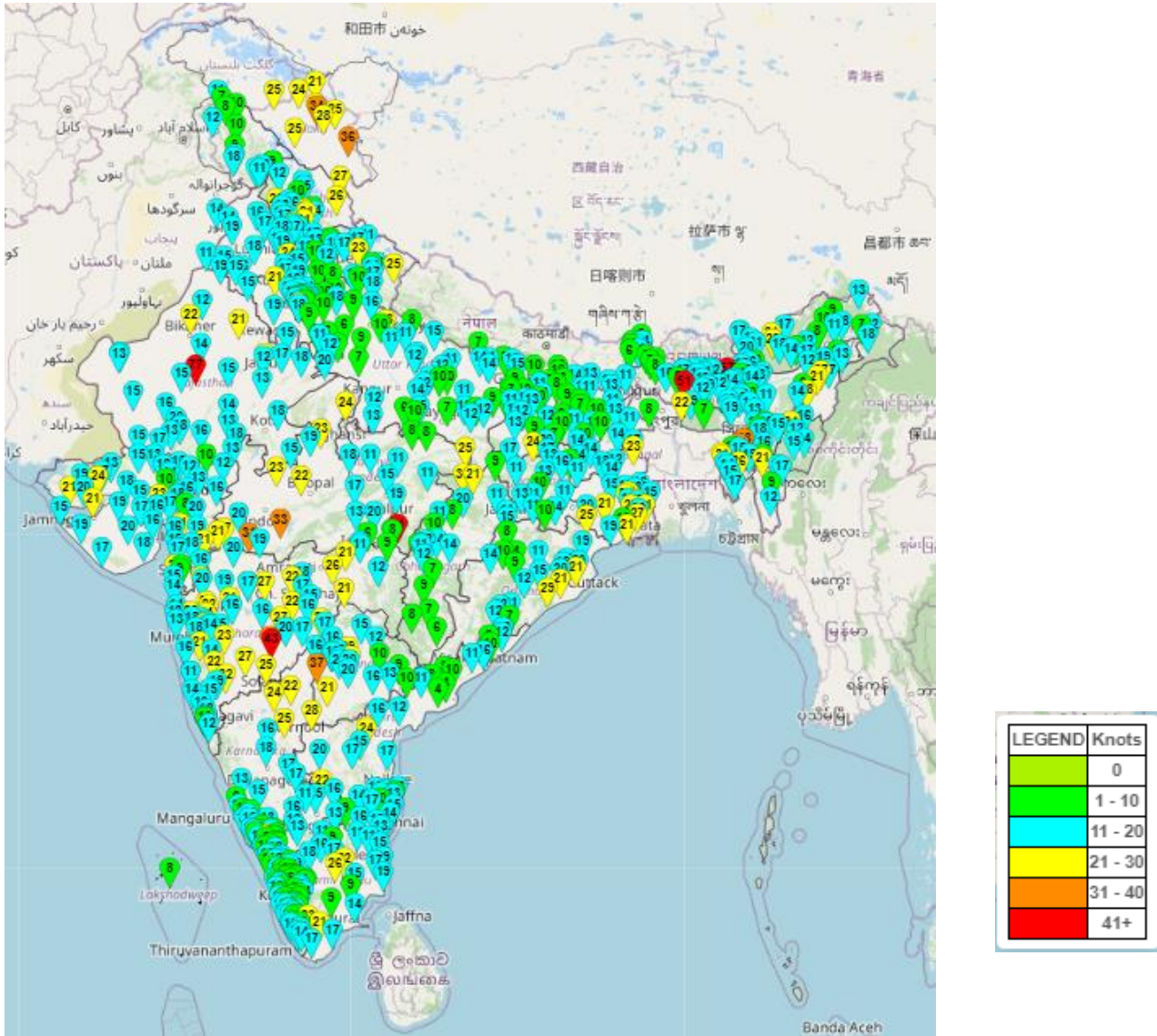
**Significant amount of rainfall (in cm):**

- ❖ Andaman & Nicobar Islands: Mayabandar 13;
- ❖ **Nagaland, Manipur, Mizoram & Tripura:** Manughat CWC (dist Dholai) 8, Secretariat Arg (West Tripura) 7 Saiha (dist Saiha) 6, Lawngtlai (dist Lawngtlai) 5, Dm Office Arg (dist West Tripura) 5, Budhjongnagar Arg (dist West Tripura) 4, Kanchanpur (dist North Tripura) 4, Arundhutinagar (dist West Tripura) 4, Lengpui (dist Aizawl) 3, Agartala Aero (dist West Tripura) 3;
- ❖ **Bihar:** Tribeni/Balmikinagar (dist West Champaran) 7;
- ❖ **Tamil Nadu, Puducherry & Karaikal:** Kuzhithurai (dist Kanniyakumari) 5, Good Will School Villivakkam ARG (dist Tiruvallur) 3;
- ❖ **Assam & Meghalaya:** Dhupdhara Arg (dist Goalpara) 5, Tinsukia\_aws (dist Tinsukia) 3, Williamnagar (dist East Garo Hills) 3, Cherrapunji(rkm) (dist East Khasi Hills) 3,
- ❖ **Kerala & Mahe:** Karumadi Aws (dist Alapuzha) 5, Kanjirappally (dist Kottayam) 4, Chavara Aws (dist Kollam) 4, Paripalli Aws (dist Kollam) 4, Kollam Rly (dist Kollam) 3, Kottayam (dist Kottayam) 3, Alapuzha (dist Alapuzha) 3, Thiruvananthapuram (dist Thiruvananthapuram) 3, Vaikom (dist Kottayam) 3, Vaikkom Aws (dist Kottayam) 3, Haripad (dist Alapuzha) 3, Neyyattinkara (dist Thiruvananthapuram) 3, Airport Chakka Arg (dist Thiruvananthapuram) 3, Venkurinji Aws (dist Pathanamthitta) 3, Peringamala Arg (dist Thiruvananthapuram) 3, Thycauttussery Aws (dist Alapuzha) 3, Palode Aws (dist Thiruvananthapuram) 3;
- ❖ **Coastal Andhra Pradesh & Yanam:** Vijayawada A.p. (dist Ntr District) 5, Vijayawada(arg) (dist Ntr District) 3, Nuzvid (dist Eluru) 3;
- ❖ **Odisha:** Similiguda (Koraput) 5, Kotpad (Koraput) 5, Nandapur (Koraput) 3, Sarasakana (Mayurbhanj) 2, Bahalda (Mayurbhanj) 2,;
- ❖ **West Uttar Pradesh:** Baheri (dist Bareilly) 4, Shahjahanpur Obsy (dist Shahjahanpur) 2;
- ❖ **Nagaland, Manipur, Mizoram & Tripura:** ;
- ❖ **Marathwada:** Tuljapur (dist Dharashiv) 2, Sonpeth (dist Parbhani) 2.

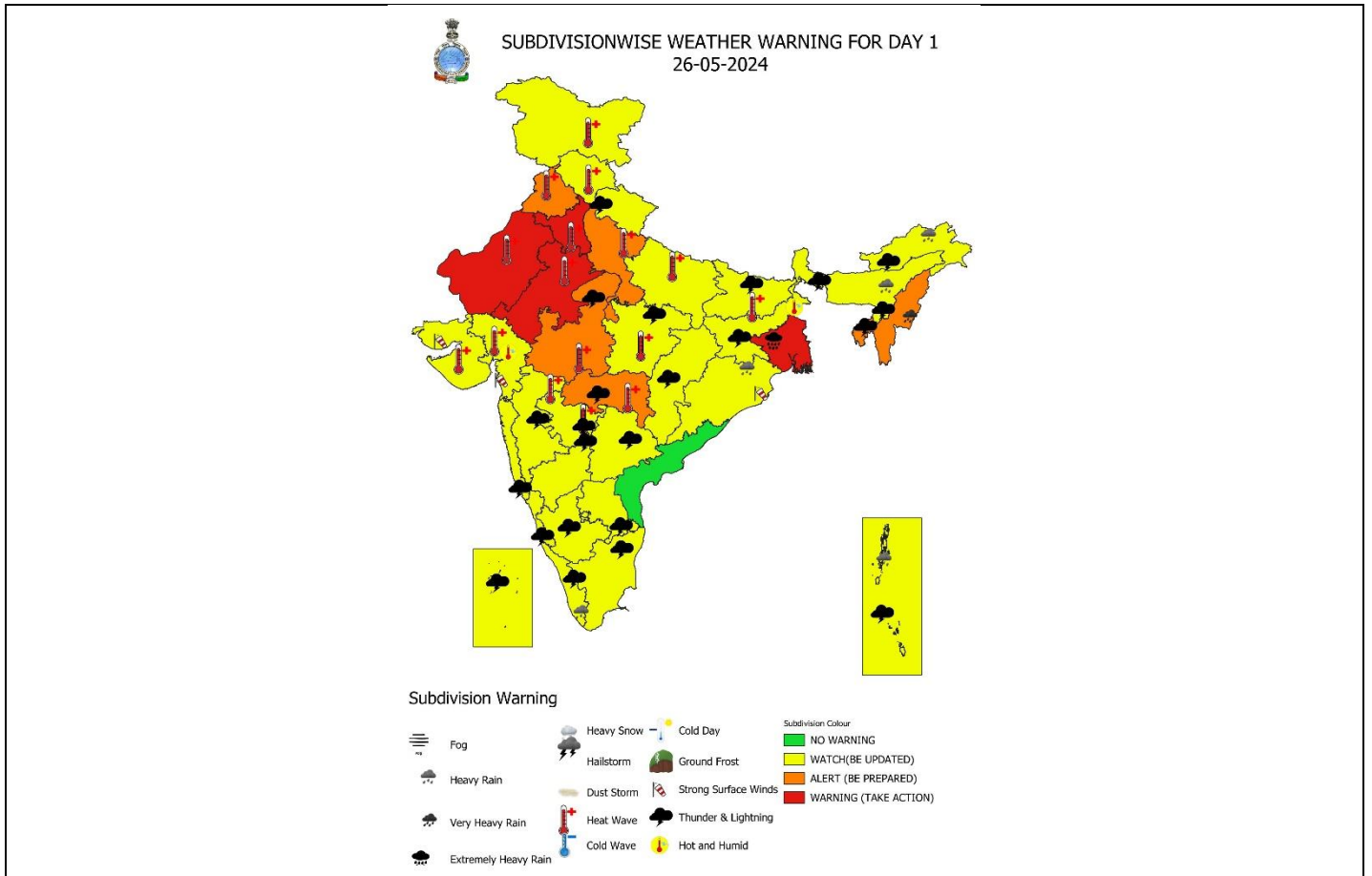
**Reported maximum wind speed (kmph) during past 24 hours till 0830 hours IST of today:**

- ❖ **Madhya Pradesh:** Balaghat 113, Khandwa 61, Khandwa 61, Singrauli 46, Ashoknagar 42, Shore 40, Jalgaon 40, Mandla 36; **Assam:** Dhubri 94, Nalbari 105; **Maharashtra:** Osmanabad 79, Pune 56, Jalna 50, Yavatmal 48, Wardha 39; **Telangana:** Vikarabad 68, Siddipet 54, Ranga Reddy 42; **Jammu & Kashmir:** Leh 63, Kargil 46; **Tripura:** Unakoti 61, Dhalai 48, West Tripura 39; **Odisha:** Puri 54, Mayurbhanj 46, Jagatsinghpur 39 **Gangetic West Bengal:** Howrah 56, South Twenty Four Parganas 50, West Medinipur 39; **Rajasthan:** Jaipur 44, Sikar 39, Bikaner 40; Himachal Pradesh: Kannaur 48, Una 41, Mohali 42; **Uttarakhand:** Pithorgarh 46, Pauri Garhwal 42; **Uttar Pradesh:** Jhansi 44, Shahjahanpur 42; **Haryana:** Gurgaon 52, Kaithal 44, Jind 39.

❖ **Gusty winds reported over the country (in knots, 1 Knot = 1.85 kmph) from 0830 hrs IST of 25.05.2024 to 0830 hrs IST of 26.05.2024**

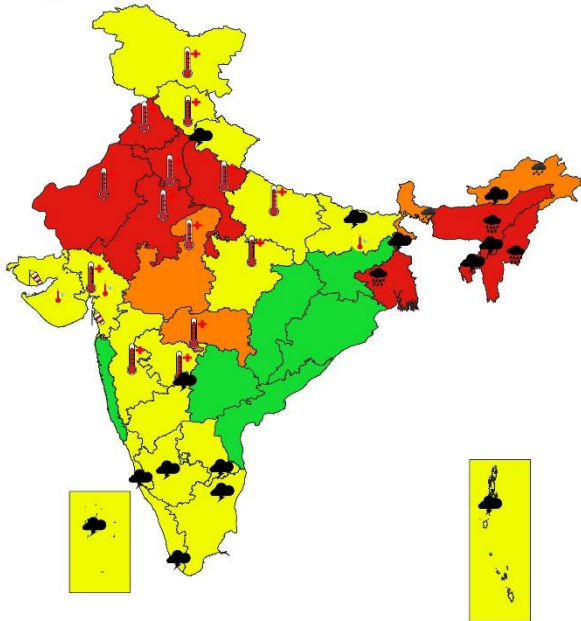


For more details, kindly refer: <http://aws.imd.gov.in:8091/>





**SUBDIVISIONWISE WEATHER WARNING FOR DAY 2**  
27-05-2024

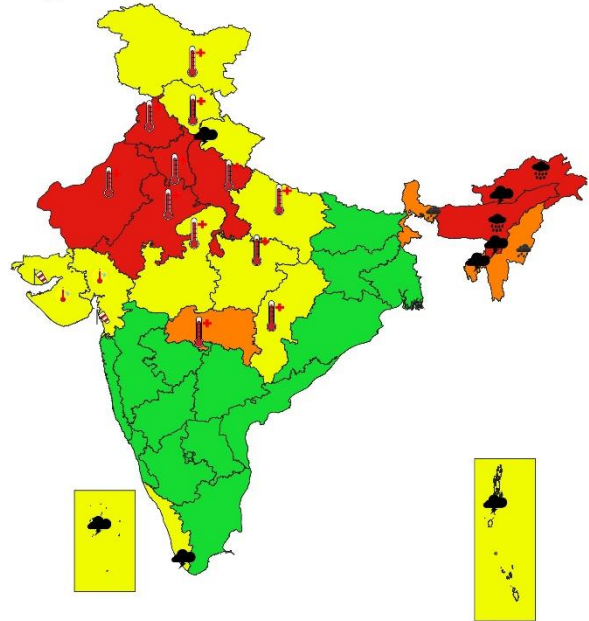


**Subdivision Warning**

- |                      |            |                      |                           |
|----------------------|------------|----------------------|---------------------------|
| Fog                  | Heavy Snow | Cold Day             | <b>Subdivision Colour</b> |
| Heavy Rain           | Hailstorm  | Ground Frost         | NO WARNING                |
| Very Heavy Rain      | Dust Storm | Strong Surface Winds | WATCH(BE UPDATED)         |
| Extremely Heavy Rain | Heat Wave  | Thunder & Lightning  | ALERT (BE PREPARED)       |
|                      | Cold Wave  | Hot and Humid        | WARNING (TAKE ACTION)     |



**SUBDIVISIONWISE WEATHER WARNING FOR DAY 3**  
28-05-2024

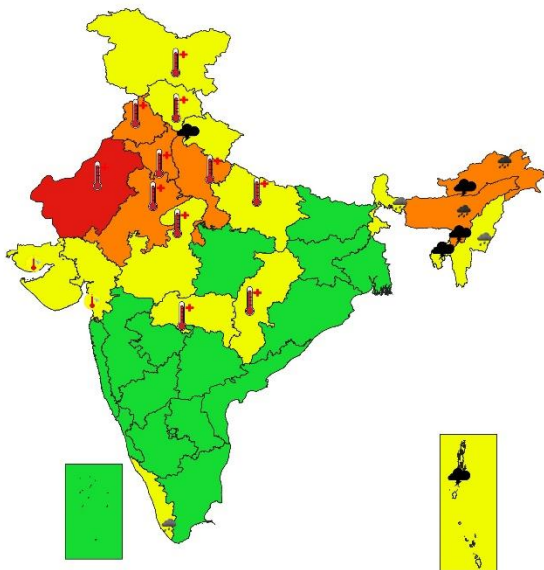


**Subdivision Warning**

- |                      |            |                      |                           |
|----------------------|------------|----------------------|---------------------------|
| Fog                  | Heavy Snow | Cold Day             | <b>Subdivision Colour</b> |
| Heavy Rain           | Hailstorm  | Ground Frost         | NO WARNING                |
| Very Heavy Rain      | Dust Storm | Strong Surface Winds | WATCH(BE UPDATED)         |
| Extremely Heavy Rain | Heat Wave  | Thunder & Lightning  | ALERT (BE PREPARED)       |
|                      | Cold Wave  | Hot and Humid        | WARNING (TAKE ACTION)     |



**SUBDIVISIONWISE WEATHER WARNING FOR DAY 4**  
29-05-2024

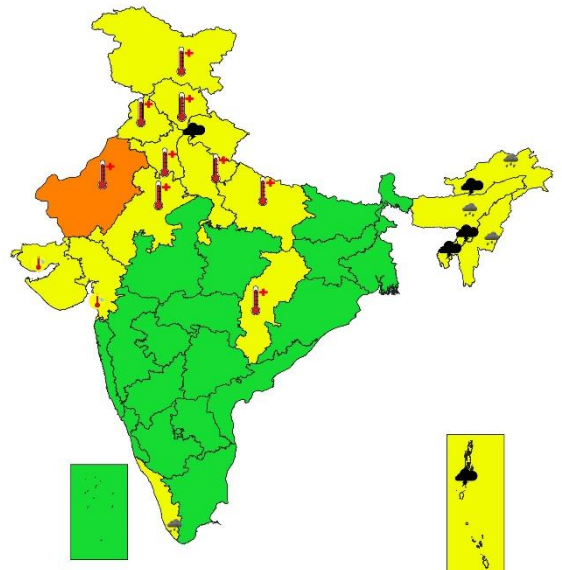


**Subdivision Warning**

- |                      |            |                      |                           |
|----------------------|------------|----------------------|---------------------------|
| Fog                  | Heavy Snow | Cold Day             | <b>Subdivision Colour</b> |
| Heavy Rain           | Hailstorm  | Ground Frost         | NO WARNING                |
| Very Heavy Rain      | Dust Storm | Strong Surface Winds | WATCH(BE UPDATED)         |
| Extremely Heavy Rain | Heat Wave  | Thunder & Lightning  | ALERT (BE PREPARED)       |
|                      | Cold Wave  | Hot and Humid        | WARNING (TAKE ACTION)     |



**SUBDIVISIONWISE WEATHER WARNING FOR DAY 5**  
30-05-2024



**Subdivision Warning**

- |                      |            |                      |                           |
|----------------------|------------|----------------------|---------------------------|
| Fog                  | Heavy Snow | Cold Day             | <b>Subdivision Colour</b> |
| Heavy Rain           | Hailstorm  | Ground Frost         | NO WARNING                |
| Very Heavy Rain      | Dust Storm | Strong Surface Winds | WATCH(BE UPDATED)         |
| Extremely Heavy Rain | Heat Wave  | Thunder & Lightning  | ALERT (BE PREPARED)       |
|                      | Cold Wave  | Hot and Humid        | WARNING (TAKE ACTION)     |



**IMPACT & ACTION SUGGESTED due to very heavy rainfall/extremely falls Gangetic West Bengal on 26<sup>th</sup> & 27<sup>th</sup>; Sub-Himalayan West Bengal & Sikkim 27<sup>th</sup> & 28<sup>th</sup>; Assam, Meghalaya, Arunachal Pradesh during 27<sup>th</sup>-29<sup>th</sup> and Nagaland, Mizoram, Manipur & Tripura during 26<sup>th</sup>- 28<sup>th</sup> May, 2024.**

**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 kutch 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 & ACTION SUGGESTED due to Heat Wave Conditions:**

**Red alert Areas: (Rajasthan, Punjab, Haryana, Chandigarh, Delhi, West Uttar Pradesh)**

- Very high likelihood of developing heat illness and heat stroke in all ages.
- Extreme care needed for vulnerable people.

**Orange alert Areas (Vidarbha, West Madhya Pradesh)**

- 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 (Jammu division, Himachal Pradesh, East Uttar Pradesh, East Madhya Pradesh, Gujarat, Madhya Maharashtra)**

- 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.

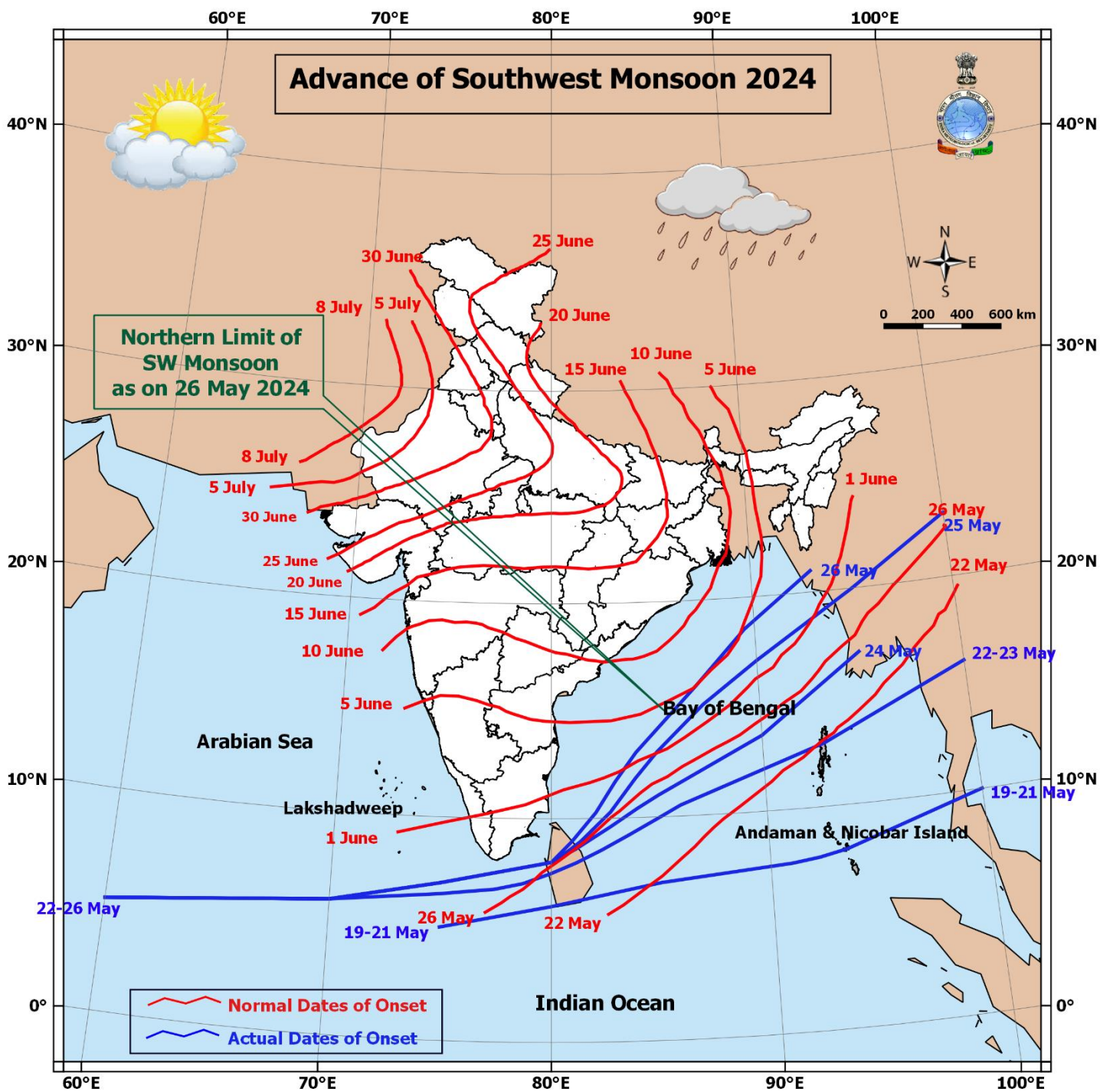
### **Agromet advisories for Heavy Rainfall, Gusty winds and Heat Wave likely over various parts of the country**

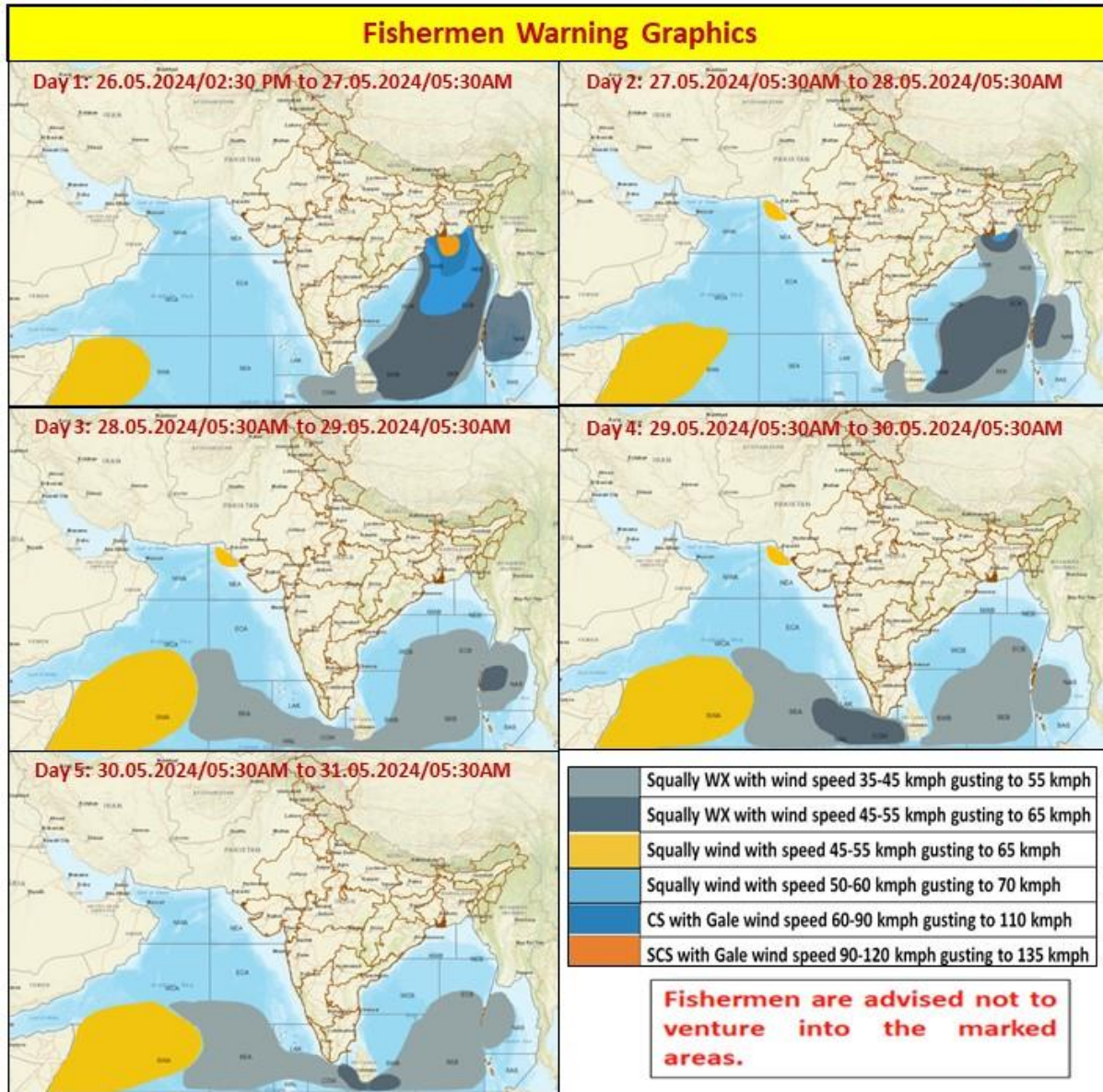
- Drain out excess water from crop fields to avoid water stagnation in Kerala, Andaman & Nicobar Islands, Gangetic West Bengal, Odisha and North-Eastern States.
- Apply light and frequent irrigation to standing crops to avoid heat stress; provide mulching to conserve soil moisture and minimise evaporation in Punjab, Haryana, Uttar Pradesh, Rajasthan, Gujarat, Madhya Pradesh, North Madhya Maharashtra, Marathwada and Vidarbha.
- Provide mechanical support to horticultural crops & staking to vegetables to prevent damage from gusty winds.

### **Agromet advisories in view of Severe Cyclonic Storm “REMAL” over North Bay of Bengal**

- Postpone harvesting of matured crops, fruits and vegetables and store the harvested produce in safer places.
- Drain out excess water to avoid water logging in crop fields.
- Provide staking to vegetables to avoid lodging.
- Postpone sowing of French bean, bhindi & rajmah and transplanting of cole crops and cucurbits in Manipur.
- Postpone sowing of *sali* rice seed in the seed bed in Assam.
- Postpone application of fertilizers and plant protection measures.
- Arrange dry fodder to balance the shortage of green fodder during rainfall period and keep the fodder at a safe place to avoid spoilage.
- Keep the animals inside the shed during heavy rainfall and provide balanced feed with sufficient water.
- Provide proper drainage facilities around the animal sheds to avoid water accumulation inside the sheds. Keep bedding dry and clean and use highly absorbent materials for bedding such as straw or wood shavings.
- Remove old branches of trees around animal shelter to prevent damage. Repair the roof of the animal sheds and poultry house using locally available materials to ensure protection for animals.
- Provide a net around the fish pond to avoid escape of fish. Avoid excessive manuring and feeding which can lead to oxygen depletion during cloudy weather.

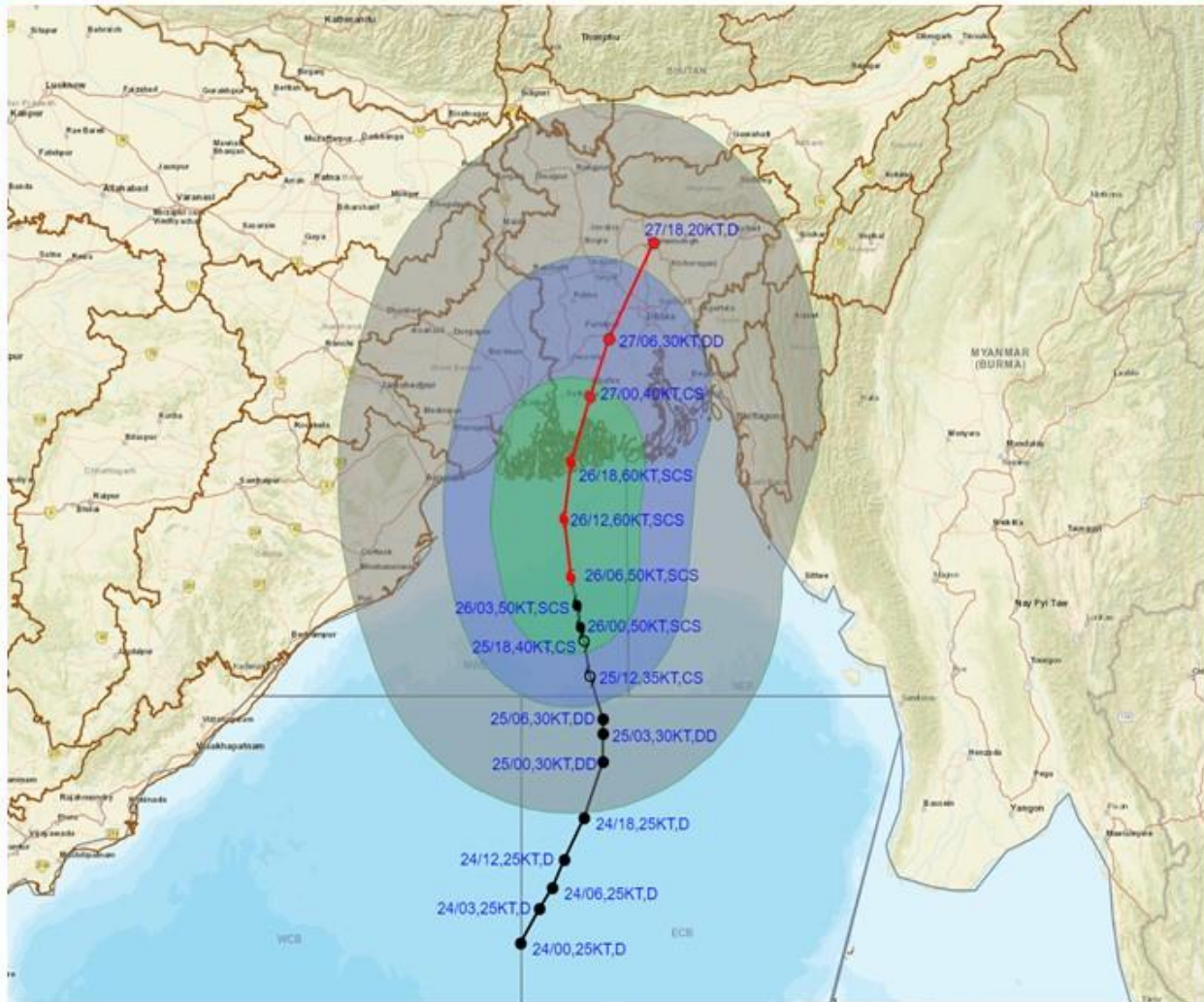
### Advance of Southwest Monsoon 2024







**FORECAST TRACK ALONGWITH QUADRANT WIND DISTRIBUTION IN ASSOCIATION WITH SEVERE CYCLONIC STORM 'REMAL' OVER NORTH BAY OF BENGAL BASED ON 0600 UTC (1130 IST) OF 26TH MAY 2024.**



DATE/TIME IN UTC  
 IST=UTC + 0530  
 L: LOW PRESSURE AREA  
 WML: WELL MARKED LOW PRESSURE AREA  
 D: DEPRESSION (17-27 KT)  
 DD: DEEP DEPRESSION (28-33 KT)  
 CS: CYCLONIC STORM (34-47 KT)  
 SCS: SEVERE CYCLONIC STORM (48-63KT)  
 VSCS: VERY SEVERE CYCLONIC STORM (64-89 KT)  
 ESCS: EXTREMELY SEVERE CYCLONIC STORM (90-119 KT)  
 SuCS: SUPER CYCLONIC STORM (≥ 120 KT)

● LESS THAN 34 KT  
 ○ 34-47 KT  
 ● ≥ 48 KT  
 — OBSERVED TRACK  
 — FORECAST TRACK  
 — CONE OF UNCERTAINTY  
 AREA OF MAXIMUM SUSTAINED WIND SPEED:  
 ■ 28-33 KT (52-61 KMPH)  
 ■ 34-49 KT (62-91 KMPH)  
 ■ 50-63 KT (92-117 KMPH)  
 ■ ≥ 64 KT (≥118 KMPH)

**IMPACT OVER THE SEA**

MSW (knot/kmph)	Impact	Action
28-33 (52-61)	Very rough seas	Total suspension of fishing operations
34-49 (62-91)	High to very high seas	Total suspension of fishing operations
50-63 (92-117)	Very high seas	Total suspension of fishing operations
≥ 64 (≥118)	Phenomenal	Total suspension of fishing operations

**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.

<b>SPATIAL DISTRIBUTION</b> (% 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)

 Fog	 Heavy Snow	 Cold Day	Subdivision Colour  NO WARNING  WATCH(BE UPDATED)  ALERT (BE PREPARED)  WARNING (TAKE ACTION)
 Heavy Rain	 Hailstorm	 Ground Frost	
 Very Heavy Rain	 Dust Storm	 Strong Surface Winds	
 Extremely Heavy Rain	 Heat Wave	 Thunder & Lightning	
	 Cold Wave	 Hot and Humid	

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



## LEGENDS

### WARNING

<b>WARNING (TAKE ACTION)</b>
<b>ALERT ( BE PREPARED)</b>
<b>WATCH (BE UPDATED)</b>
<b>NO WARNING ( NO ACTION)</b>

### 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 $4.5^{\circ}\text{C}$ to $6.4^{\circ}\text{C}$ .
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  $40^{\circ}\text{C}$**

Warm Night: When minimum temperature departure $4.5^{\circ}\text{C}$ to $6.4^{\circ}\text{C}$ .
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 $-4.5^{\circ}\text{C}$ to $-6.4^{\circ}\text{C}$ .
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 $-4.5^{\circ}\text{C}$ to $-6.4^{\circ}\text{C}$ .
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  $< 1\text{km}$**

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



**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)
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**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)