

## Government of India Ministry of Earth Sciences India Meteorological Department



Press Release Date: 20<sup>th</sup> May, 2024

Time of Issue: 1345 hours IST

## **Subject:**

- i. Heat wave to severe heat wave conditions most likely to continue over plains of Northwest India and Heat wave conditions over north Madhya Pradesh & Gujarat State during next 5 days.
- ii. Isolated heavy to very heavy rainfall very likely over south Peninsular India till 23<sup>rd</sup> May with possibility of extremely heavy falls over Kerala during 20<sup>th</sup>-22<sup>nd</sup> May, 2024.
- iii. A Low Pressure Area is likely to form over Southwest Bay of Bengal around 22<sup>nd</sup> May. It is likely to move initially northeastwards and concentrate into a Depression over central parts of Bay of Bengal by morning of 24<sup>th</sup> May.

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

- ❖ Heat wave to severe heat wave conditions observed in most parts of Haryana-Chandigarh-Delhi; in many parts of Punjab and in isolated/some pockets of West Uttar Pradesh, Bihar, Gujarat and northwest Madhya Pradesh. Heat wave conditions observed in many parts of West Rajasthan; in some parts of Himachal Pradesh & East Rajasthan; in isolated pockets of East Uttar Pradesh, northeast Madhya Pradesh. Heat wave conditions have been prevailing over Gujarat region since 15th; Saurashtra & Kutch since 16th and over Punjab, Haryana-Chandigarh-Delhi, Uttar Pradesh and Rajasthan since 17th May, 2024.
- ❖ Warm night conditions observed in some parts of Rajasthan.
- ❖ Yesterday, the highest maximum temperature of 47.8°C was reported at Najafgarh (Delhi) followed by Agra 47.7°C (West Uttar Pradesh) over the country. This is the highest Maximum Temperature of this summer season.
- \* Heavy to very heavy rainfall observed at isolated places over Kerala, Tamil Nadu, Assam; Heavy rainfall at isolated places over south Goa, Coastal Karnataka, South Interior Karnataka, Rayalaseema, Telangana, Lakshadweep and Sub-Himalayan West Bengal & Sikkim.
- **Hailstorm** observed at isolated places over Madhya Pradesh, Jharkhand and Vidarbha.
- **Gusty winds** data reported over the country is attached in **Annexure II**.

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

- **❖** The Northern Limit of Monsoon continues to pass through 05°N/75°E, 06°N/80°E, 07°N/85°E, Nancowry and 10°N/100°E (**Annexure IV**).
- ❖ A cyclonic circulation lies over south coastal Tamil Nadu & neighbourhood and a trough runs from this cyclonic circulation to Marathawada in lower tropospheric levels. Another cyclonic circulation lies over north Kerala & neighbourhood in lower & middle tropospheric levels. Under their influence:
  - Fairly widespread to widespread light to moderate rainfall accompanied with **thunderstorm**, **lightning** & gusty winds (30-40 kmph) likely over Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe, Lakshadweep, Karnataka and Isolated to scattered light/moderate rainfall accompanied with thunderstorm, lightning & gusty winds (30-40 kmph) over Coastal Andhra Pradesh & Yanam, Telangana and Rayalaseema during next 5 days.

- > Isolated heavy rainfall very likely over Coastal & South Interior Karnataka during 21<sup>st</sup>-23<sup>rd</sup>; Lakshadweep during 20<sup>th</sup>-24<sup>th</sup>, Tamil Nadu, Puducherry & Karaikal during 22<sup>nd</sup>-24<sup>th</sup>; North Interior Karnataka on 20<sup>th</sup> May, 2024.
- > Isolated heavy to very heavy rainfall very likely over Tamil Nadu, Puducherry & Karaikal on 20<sup>th</sup> & 21<sup>st</sup>; Kerala & Mahe on 23<sup>rd</sup> &24<sup>th</sup>; Coastal and South Interior Karnataka on 20<sup>th</sup> May, 2024.
- ➤ Isolated extremely heavy rainfall also very likely over Kerala during 20th-22nd May, 2024.
- ➤ Widespread light to moderate rainfall very likely over Andaman & Nicobar Islands during next 7 days. Isolated heavy rainfall very likely over Andaman & Nicobar Islands during 20<sup>th</sup>-24<sup>th</sup> May, 2024.
- ➤ Isolated light to moderate rainfall accompanied with **thunderstorm**, **lightning & gusty winds (30-40 kmph)** very likely over Konkan & Goa, Madhya Maharashtra, Marathawada during 20<sup>th</sup>-22<sup>nd</sup>; Vidarbha & Chhattisgarh during 20<sup>th</sup>-24<sup>th</sup> and Madhya Pradesh on 20<sup>th</sup> & 21<sup>st</sup> May, 2024. **Isolated heavy rainfall very likely over Goa today**.
- ❖ A trough runs from northwest Uttar Pradesh to east Bangladesh in lower tropospheric levels. Under its influence:
  - Scattered to fairly widespread light to moderate rainfall accompanied with thunderstorm, lightning & gusty winds (30-40 kmph) very likely over Gangetic West Bengal during next 7 days. Isolated to scattered light to moderate rainfall over Odisha, Bihar and Jharkhand during 20<sup>th</sup>-24<sup>th</sup> May and increase thereafter with scattered to fairly widespread light to moderate rainfall accompanied with thunderstorm, lightning & gusty winds (30-40 kmph) over East India during 25<sup>th</sup>-28<sup>th</sup> May.
  - > Isolated heavy to very heavy rainfall very likely over north Odisha and Gangetic West Bengal on 24th & 25th May, 2024.
  - Fairly widespread to widespread light to moderate rainfall accompanied with **thunderstorm**, **lightning & gusty winds (30-40 kmph)** very likely over Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh, Assam, Meghalaya, Nagaland, Manipur, Mizoram and Tripura during next 5 days.
  - > Isolated heavy rainfall likely over Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh and Assam & Meghalaya on 20<sup>th</sup> & 21<sup>st</sup> May, 2024. Isolated very heavy rainfall also likely over Meghalaya on 20<sup>th</sup> May, 2024.
- ❖ A Western Disturbance as a trough aloft in middle tropospheric westerlies roughly along long. 65°E to the north of lat. 30°N. Under its influence; isolated light rainfall with **thunderstorm, lightning** very likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad and Himachal Pradesh on 20<sup>th</sup> & 21<sup>st</sup> May and Uttarakhand during next 7 days.
- ❖ Strong and gusty surface winds speed reaching 25-35 kmph very likely to prevail over Uttar Pradesh, Haryana, Chandigarh & Delhi and Rajasthan during 20th-24th May, 2024.

#### **Fishermen warning:**

- ❖ Fishermen are advised not to venture into Central Bay of Bengal from 23<sup>rd</sup> May and into North Bay of Bengal from 24<sup>th</sup> May onwards; Gulf of Mannar, Comorin & Maldives areas during 20<sup>th</sup>-24<sup>th</sup> May, 2024. Fishermen out at sea are advised to return to the coast before 23<sup>rd</sup> May, 2024.
- ❖ Fishermen are advised not to venture along & off Konkan & Goa coast on 20<sup>th</sup>; Karnataka, Tamil Nadu, Puducherry & Karaikal and Lakshadweep coasts during 20<sup>th</sup>-23<sup>rd</sup> and Kerala and Andaman & Nicobar Islands coasts during 20<sup>th</sup>-24<sup>th</sup> May, 2024.

#### 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 43-47°C in most places over Haryana-Chandigarh-Delhi & Rajasthan; in many parts of Punjab, Uttar Pradesh & West Madhya Pradesh; in some places over East Madhya Pradesh & Gujarat state; in the range of 40- 42°C in many parts of Vidarbha; in isolated pockets of Bihar, Chhattisgarh, Madhya Maharashtra and plains of Himachal Pradesh & Uttarakhand. These were above normal by 2-4°C over many parts

- of Punjab, Haryana-Chandigarh-Delhi & Uttar Pradesh; in some parts of Saurashtra & Kutch and in isolated pockets of Rajasthan.
- ❖ Gradual rise by about 2-3°C in maximum temperatures very likely over many parts of Northwest & Central India during next 5 days.
- ❖ No significant change in maximum temperatures very likely over rest parts of the country.

#### Heat Wave and Hot & Humid weather warning for next 5 days:

- ❖ Heat wave to severe heat wave conditions very likely in many/most pockets over Punjab, Haryana-Chandigarh-Delhi, West Rajasthan; in some parts of West Uttar Pradesh, East Rajasthan & northwest Madhya Pradesh during 20th-24th and East Uttar Pradesh on 20th May, 2024.
- ❖ Heat wave conditions very likely in isolated pockets of East Uttar Pradesh on 21<sup>st</sup> & 22<sup>nd</sup>; Himachal Pradesh, Gujarat state and northeast Madhya Pradesh during 20<sup>th</sup>-24<sup>th</sup>; Uttarakhand, Bihar on 20<sup>th</sup>; Odisha during 21<sup>st</sup>-23<sup>rd</sup> May, 2024.
- **♦ Hot and humid weather** very likely to prevail over Konkan & Goa, Bihar, Jharkhand on 20<sup>th</sup> & 21<sup>st</sup>; Gangetic West Bengal and Odisha on 20<sup>th</sup> May, 2024.
- **❖ Warm night conditions** very likely to prevail over West Uttar Pradesh, Gujarat State and Rajasthan during 20th-24th May, 2024.

For more details, kindly refer: 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 most places over Assam & Meghalaya, Sub-Himalayan West Bengal & Sikkim, Kerala & Mahe, Lakshadweep, South Interior Karnataka; at many places over Andaman & Nicobar Islands, Nagaland, Manipur, Mizoram & Tripura, Tamil Nadu, Puducherry & Karaikal, North Interior Karnataka; at a few places over Uttarakhand, Arunachal Pradesh, Coastal Andhra Pradesh & Yanam, Rayalaseema, Coastal Karnataka and at isolated places over Jammu-Kashmir, Himachal Pradesh, Uttar Pradesh, East Rajasthan, Madhya Pradesh, Vidarbha, Chhattisgarh, Gangetic West Bengal, Bihar, Jharkhand, Odisha, Konkan & Goa, Madhya Maharashtra, Marathwada and Telangana.

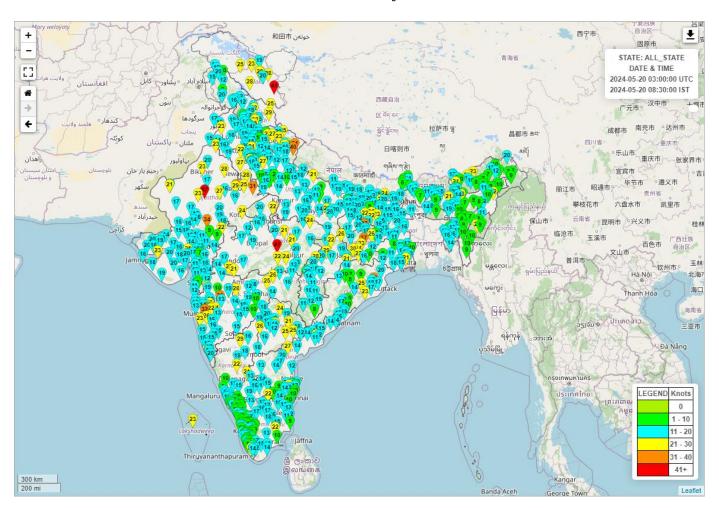
### Significant amount of rainfall (in cm):

- Kerala & Mahe: Kozhikode & Karumadi AWS (Alapuzha district) 12 each, Mancompu (Alappuzha district), Ottappalam & Ottapalam AWS (both in Palakkaddistrict) & Chimoni ARG (Thrissur district) 11 each, Peechi AWS (Thrissur district) 10, Thiruvananthapuram, Alappuzha & Keerampara ARG (Ernakulam district) 9 each, Vadakkancherry (Thrissur district), Pattambi & Thrithala (both in Palakkad district) 8 each, Vellanikkara (Thrissur district), Kayamkulam (Alappuzha district), Alathur (Palakkad district) & Urumi AWS (Kozhikode district) 7 each.
- ❖ Tamil Nadu: Kamudhi (dist Ramanathapuram) 12, Tallakulam (dist Madurai) 11, Pullambadi (dist Thiruchirappalli) 10, Tirumayam (dist Pudukkottai), Suthamalli Dam (dist Ariyalur) 8 each, Vettikadu (dist Thanjavur), Karaikudi (dist Sivagangai), Kumarapalayam (dist Namakkal), Thalavadi (dist Erode), Kariyakovil Dam (dist Salem), Budalur (dist Thanjavur), Sehu Bhasakar Agri College AWS (dist Sivaganga), Vedasandur (dist Dindigul), Nandhiyar Head (dist Thiruchirappalli) 7 each,
- ❖ Assam & Meghalaya: Goalpara\_pto (dist Goalpara) 13, Goalpara \_aws (dist Goalpara) 13, Dudhnoi Arg (dist Goalpara) 9, Resubelpara (dist North Garo Hills) 6, Dhupdhara Arg (dist Goalpara) 6, Bhaghmara (dist South Garo Hills) 5, Guwahati Ap (dist Kamrup Metropolitan) 4,
- ❖ Lakshadweep: Amini (dist Lakshadweep) 8, Minicoy (dist Lakshadweep) 2, Agathi (dist Lakshadweep) 1
- ❖ Coastal Karnataka: Yellapur (dist Uttara Kannada) 10, Gersoppa (dist Uttara Kannada) 7, Kiravatti (dist Uttara Kannada) 5, Mangaluru (dist Dakshina Kannada) 5,
- ❖ South Interior Karnataka: M M Hills (dist Chamarajanagar) 8, H D Kote (dist Mysuru) 7, Kollegal (dist Chamarajanagar) 7, Sira (dist Tumakuru) 7, Yagati (distChikkamagaluru) 7, Devanahalli (dist Bengaluru Rural) 6, Sravanabelagola (distHassan) 6, Bhagamandala (dist Kodagu) 6, Hagaribommanahalli (dist Vijayanagara) 5, C R Patna (dist Hassan) 5, Hosadurga (dist Chitradurga) 5,
- \* Rayalaseema: Amarapuram (dist Sri Sathyasai District) 8, Atmakur (dist Anantapuramu) 5, Kunurpi (dist Anantapuramu) 5,
- ❖ Telangana: Narsampet (dist Warangal) 7, Nallabelly (dist Warangal) 6, Kowdipalle (dist Medak) 5, Jogipet (dist Sangareddy) 5, Perur(arg) (dist J. Bhupalpally) 4,
- ❖ Goa: Mormugao Pmo Imd (dist South Goa) 7, Panjim Imd Obsy (dist North Goa) 5, Sangameshwar Devrukh (dist Ratnagiri) 5, Valpoi (dist North Goa) 4,
- ❖ Sub-Himalayan West Bengal & Sikkim: Sevoke (dist Darjeeling) 8, Yuksom (dist West Sikkim) 6, Raiganj (pto) (dist North Dinajpur) 5, Amfu Majhian (dist South Dinajpur) 4, Gyalsing (pto) (dist West Sikkim) 4,

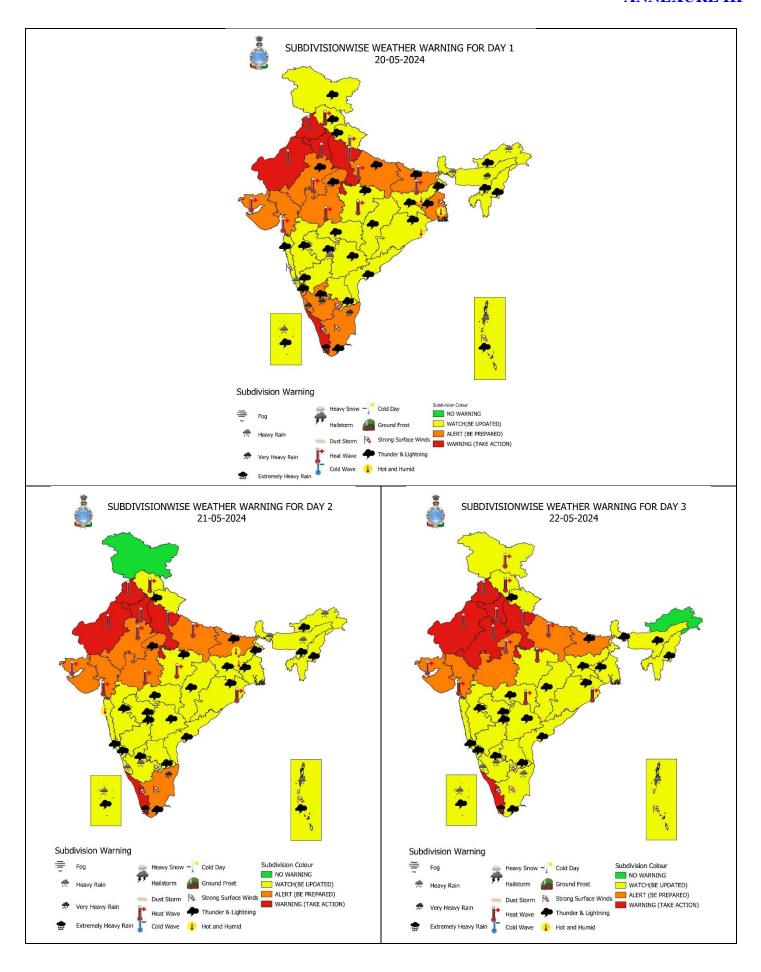
### Reported maximum wind speed (kmph) during past 24 hours till 0830 hours IST of today:

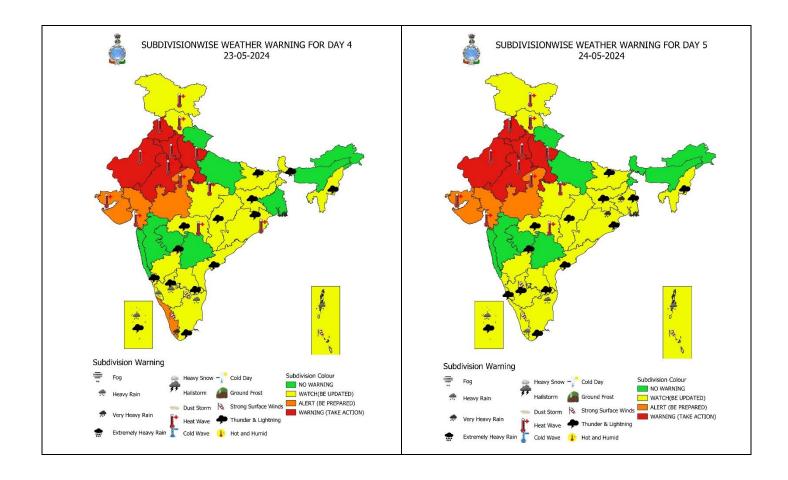
- **❖ East Madhya Pradesh:** Chhindwada 76, Seoni 45, Rewa 45, Damoh, Jabalpur 39, Mandla, Sagar 37, Singrauli, Chhatarpur 35, Katni 32, Satna, Shahdol 30;
- ❖ Rajasthan: Jaipur 70, Udaipur 63, Karauli 57, Alwar & Sikar 52 each;
- **Uttarakhand:** Champawat 74, Pithoragarh 57, Tehri Garhwal 50;
- ❖ Jharkhand: Ranchi & (Barhi) Hazaribagh 68, Simdega 56;
- **❖ Maharashtra:** Rahuri (Ahmednagar) 61, Pune 59, Jalna 52;
- ❖ West Madhya Pradesh: Datia 41, Shivpuri 37, Gwalior, Neemuch 33, Ashoknagar, Guna 30.

Gusty winds reported over the country (in knots, 1 Knot = 1.85 kmph) from 0830 hrs IST of 19.05.2024 to 0830 hrs IST of 20.05.2024



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





IMPACT & ACTION SUGGESTED due to very heavy rainfall/extremely falls over Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe during 20<sup>th</sup>-24<sup>th</sup>; Coastal & South Interior Karnataka on 20<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 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 & 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 (East Uttar Pradesh, Gujarat State, 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 (East Madhya Pradesh, Bihar, Vidarbha, Odisha, Uttarakhand, Himachal Pradesh, Jammu division)

- ✓ 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:

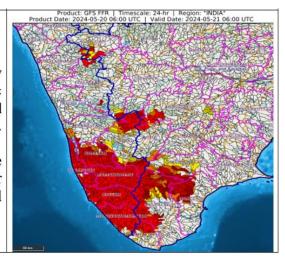
- ➤ Make provision for draining out excess water from crop fields to avoid water stagnation in Tamil Nadu, Kerala, Lakshadweep, Karnataka, Goa, Arunachal Pradesh, Assam & Meghalaya, Sub Himalayan West Bengal & Sikkim and Andaman & Nicobar Islands.
- Apply light and frequent irrigation to standing crops to avoid heat stress; provide mulching to conserve soil moisture and minimise evaporation in Himachal Pradesh, Uttarakhand, Punjab, Haryana, Uttar Pradesh, Rajasthan, Bihar, Gujarat and Madhya Pradesh.
- ➤ Provide mechanical support to horticultural crops & staking to vegetables to prevent damage from gusty winds.

#### Flash Flood Guidance:

## 24 hours Outlook for the Flash Flood Risk (FFR) till 1130 IST of 21-05-2024:

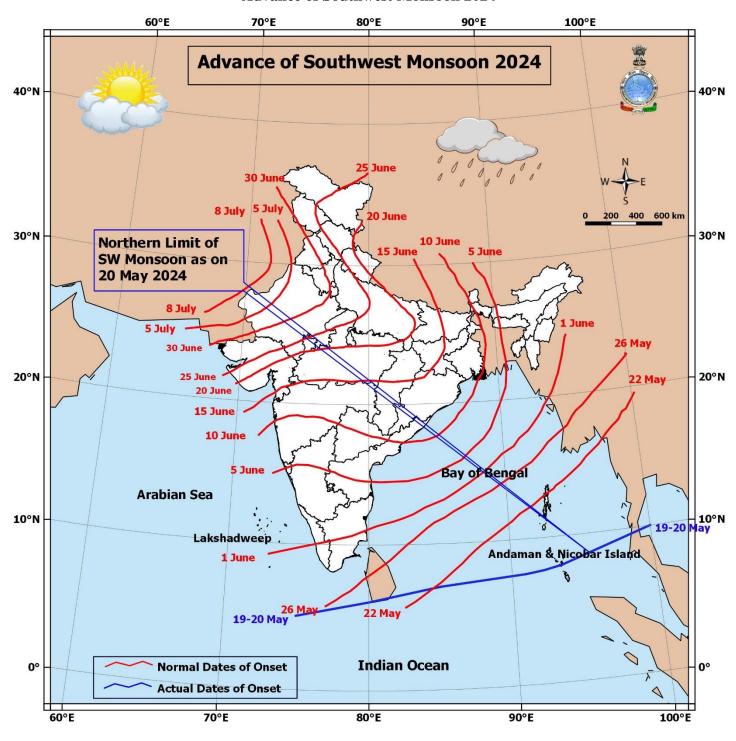
Moderate flash flood risk likely over few watersheds & neighbourhoods of Kerala & Mahe and Tamil Nadu - Pudu & Karaikal Met Sub-divisions during next 24 hours.

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.



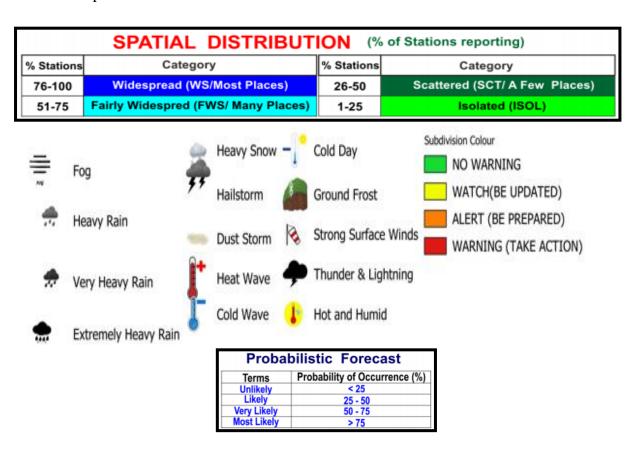
#### **ANNEXURE IV**

#### **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.



#### **LEGENDS Probabilistic Forecast** WARNING WARNING (TAKE ACTION) Probability of Occurrence (%) Terms Unlikely Likely Very Likely ALERT ( BE PREPARED) 25 - 50 50 - 75 WATCH (BE UPDATED) NO WARNING ( NO ACTION) **Most Likely** > 75 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 1+ (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 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 ≤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 ≤ -6.5 °C 1-(b) Based on actual Minimum Temperature (for Plains only) **Cold Wave** 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 $\leq$ -4.5 °C & actual Minimum Temperature is $\leq$ 15 °C When minimum temperature of a station ≤10°C for plains and ≤0°C for hilly regions Based on departure 1-Cold Day: Maximum Temperature Departure from normal -4.5 °C to -6.4 °C. Cold Day Severe Cold Day: Maximum Temperature Departure from normal ≤ -6.5 °C Phenomenon of small droplets suspended in air and the horizontal visibility < 1km 0 Moderate Fog: When the visibility between 500-200 metres Dense Fog: when the visibility between 50-200 metres Fog Very Dense Fog: when the visibility < 50 metres 44 Sudden electrical discharges manifested by a flash of light (Lightning) and a sharp rumbling sound (thunder) Thunderstorm An ensemble of particles of dust or sand energetically lifted to great heights by a strong and turbulent wind. **Dust/Sand** Storm 55 Frost Ice deposits on ground Air temperature ≤4°C (over Plains) A strong wind that rises suddenly, lasts for atleast 1 minute. Moderate: Wind speed 52-61 kmph 4 Severe: Wind speed 62-87 kmph Squall 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 Sea State 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 Strom: Wind speed >220 kmph (>119 knots)

9

Cyclone