

# Government of India Ministry of Earth Sciences India Meteorological Department



Press Release Date: 07<sup>th</sup> November, 2024

Time of Issue: 1230 hours IST

Subject: Heavy rainfall activity likely to continue over Tamil Nadu and Kerala during 07<sup>th</sup> - 11<sup>th</sup> November 2024.

i) Rainfall Forecast and warning over the country
Realised rainfall during past 24 hours till 0830 hours IST of today (Annexure I)

Heavy rainfall occurred at isolated places over Kerala and Tamil Nadu.

# **Weather Systems:**

- ❖ A **cyclonic circulation** lies over southwest Bay of Bengal in lower tropospheric levels.
- ❖ A **trough** runs from Gulf of Mannar to eastcentral Bay of Bengal across above cyclonic circulation over southwest Bay of Bengal in lower tropospheric levels.

# Forecast & Warnings (upto 7 days) (Annexure II & III):

- ✓ Light to moderate rainfall at a few places accompanied with isolated thunderstorm and lightning very likely over Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe during 07<sup>th</sup> -11<sup>th</sup> November.
- ✓ **Isolated heavy rainfall** very likely over Andaman & Nicobar Islands on 07<sup>th</sup>; Tamil Nadu, Puducherry & Karaikal during 07<sup>th</sup> −13<sup>th</sup>; Kerala & Mahe on 07<sup>th</sup>, 08<sup>th</sup>, 12<sup>th</sup> & 13<sup>th</sup> November.

# i. Temperature conditions and Forecast

# Temperature Conditions during past 24 hours till 0830 hours IST of today

Minimum temperatures has fallen by 2-3°C over most places in West Rajasthan and there is no significant change in remaining parts of the country. Minimum temperatures continue to be above normal by 4-5°C over most places of Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Punjab, Haryana, Rajasthan, Gujarat State, Uttarakhand, Uttar Pradesh, Bihar and by 2-4°C over Madhya Pradesh, Jharkhand, West Bengal, Odisha. There is no significant change in Maximum temperatures over the entire country during last 24 hours. Maximum temperatures are above normal by 2-4°C over most places of Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Rajasthan and Gujarat State.

# **Forecast of temperature**

✓ No significant change in Minimum & Maximum temperatures likely over most parts of the country during next one week.

# ii. Weather forecast over Delhi/NCR during 07th November to 10th November 2024

## **Past Weather:**

There has been slight fall in maximum temperature over Delhi/NCR during past 24hr. The Maximum and Minimum temperature over Delhi is in the range of  $30\text{-}32^{\circ}\text{C}$  and  $15\text{-}19^{\circ}\text{C}$  respectively. The maximum temperature was above normal by  $1\text{-}2^{\circ}\text{C}$  and minimum temperature was above normal by  $4\text{-}5^{\circ}\text{C}$  over some places in the region. Mainly smog condition with predominant surface wind from variable directions with wind speed reaching 04-06 kmph prevailed during daytime and calm winds during night. The mainly smog condition with wind speed upto 04-06 kmph from variable directions over the region prevailed in the forenoon today.

## Weather Forecast:

- **07.11.2024**: Mainly clear sky. The predominant surface wind is likely to be from variable directions with wind speed upto 06 08 kmph till evening. It would decrease thereafter becoming less than 04 kmph from variable directions during night. Smog/ mist is likely in the night.
- **08.11.2024**: Mainly clear sky. The predominant surface wind is likely to be from variable directions with wind speed less than 04 kmph during morning hours. Smog/Shallow fog/mist in the morning. The wind speed will increase thereafter becoming less than 08 kmph from variable directions during afternoon. It will decrease thereafter becoming less than 04 kmph from variable directions during evening and night. Smog/ mist is likely in the night.
- **09.11.2024**: Mainly clear sky. The predominant surface wind is likely to be from variable directions with wind speed less than 04 kmph during morning hours. Smog/Shallow fog/mist in the morning. The wind speed will gradually increase becoming 06- 08 kmph from variable directions during afternoon. It will decrease thereafter becoming less than 06 kmph from variable directions during evening and night. Smog/ mist is likely in the night.
- **10.11.2024**: Mainly clear sky. The predominant surface wind is likely to be from variable directions with wind speed less than 04 kmph during morning hours. Smog/Shallow fog/mist in the morning. The wind speed will increase thereafter becoming 06 10 kmph from variable directions during afternoon. It will gradually decrease becoming 04 06 kmph from variable directions during evening and night. Smog/mist is likely in the night.

For more details, kindly refer National Weather Bulletin:

https://mausam.imd.gov.in/responsive/all\_india\_forcast\_bulletin.php

For District wise warnings refer:

https://mausam.imd.gov.in/responsive/districtWiseWarningGIS.php

For Fishermen warnings, kindly refer:

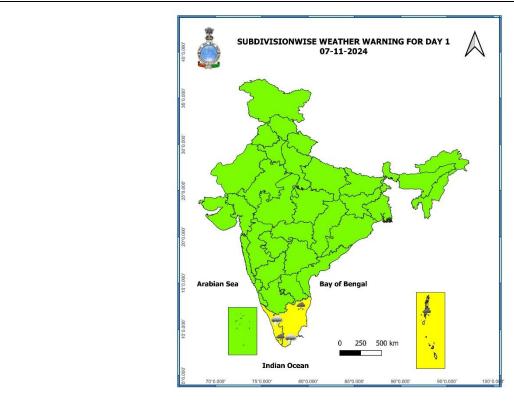
https://rsmcnewdelhi.imd.gov.in/uploads/archive/51/51 bdf575 GRAPHIC.png

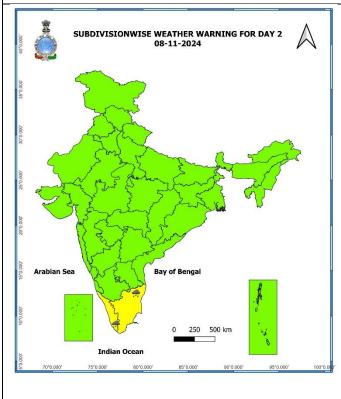
Significant Rainfall recorded during past 24 hours till 0830 hours IST of today 07.11.2024 (in cm):

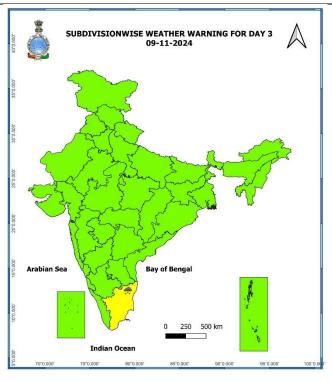
- ❖ Kerala & Mahe: Alappuzha (dist Alappuzha) 11, Mancompu (dist Alappuzha) 9;
- ❖ Tamil Nadu, Puducherry & Karaikal: Ponneri (dist Tiruvallur) 9, Karaikal (dist Karaikal) 7

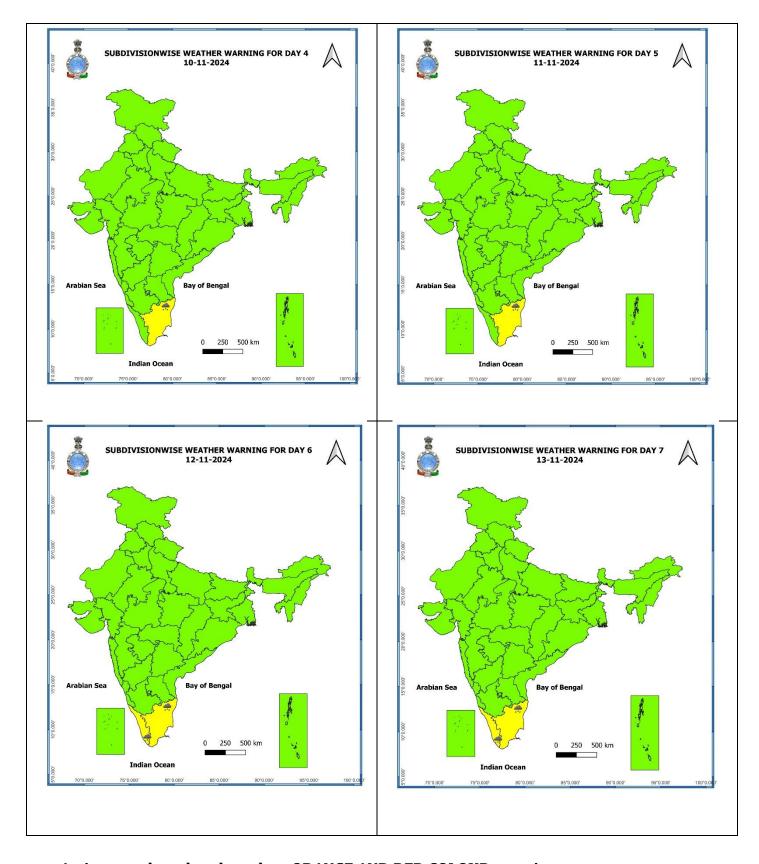
| 7 Days Rainfall Forecast |                                      |            |            |            |            |            |            |            |  |
|--------------------------|--------------------------------------|------------|------------|------------|------------|------------|------------|------------|--|
| S.                       | Subdivision                          | 07-<br>Nov | 08-<br>Nov | 09-<br>Nov | 10-<br>Nov | 11-<br>Nov | 12-<br>Nov | 13-<br>Nov |  |
| No.                      |                                      | Day 1      | Day 2      | Day 3      | Day 4      | Day 5      | Day 6      | Day 7      |  |
| 1                        | ANDAMAN & NICOBAR ISLANDS            | WS         | WS         | FWS        | FWS        | FWS        | FWS        | SCT        |  |
| 2                        | ARUNACHAL PRADESH                    | ISOL       | DRY        | DRY        | DRY        | DRY        | DRY        | DRY        |  |
| 3                        | ASSAM & MEGHALAYA                    | ISOL       | DRY        | DRY        | DRY        | DRY        | ISOL       | DRY        |  |
| 4                        | NAGALAND, MANIPUR, MIZORAM & TRIPURA | SCT        | DRY        | DRY        | DRY        | DRY        | DRY        | DRY        |  |
| 5                        | SUB-HIMALAYAN WEST BENGAL & SIKKIM   | DRY        | DRY        | ISOL       | ISOL       | ISOL       | ISOL       | ISOL       |  |
| 6                        | GANGETIC WEST BENGAL                 | DRY        | DRY        | DRY        | ISOL       | DRY        | DRY        | DRY        |  |
| 7                        | ODISHA                               | ISOL       | DRY        | DRY        | DRY        | DRY        | DRY        | DRY        |  |
| 8                        | JHARKHAND                            | DRY        |  |
| 9                        | BIHAR                                | DRY        |  |
| 10                       | EAST UTTAR PRADESH                   | DRY        |  |
| 11                       | WEST UTTAR PRADESH                   | DRY        |  |
| 12                       | UTTARAKHAND                          | DRY        | ISOL       | DRY        | DRY        | DRY        | DRY        | DRY        |  |
| 13                       | HARYANA CHANDIGARH & DELHI           | DRY        |  |
| 14                       | PUNJAB                               | DRY        |  |
| 15                       | HIMACHAL PRADESH                     | DRY        | DRY        | DRY        | DRY        | ISOL       | DRY        | DRY        |  |
| 16                       | JAMMU & KASHMIR AND LADAKH           | DRY        | DRY        | ISOL       | SCT        | SCT        | DRY        | DRY        |  |
| 17                       | WEST RAJASTHAN                       | DRY        |  |
| 18                       | EAST RAJASTHAN                       | DRY        |  |
| 19                       | WEST MADHYA PRADESH                  | DRY        |  |
| 20                       | EAST MADHYA PRADESH                  | DRY        |  |
| 21                       | GUJARAT REGION                       | DRY        |  |
| 22                       | SAURASHTRA & KUTCH                   | DRY        |  |
| 23                       | KONKAN & GOA                         | DRY        |  |
| 24                       | MADHYA MAHARASHTRA                   | DRY        |  |
| 25                       | MARATHAWADA                          | DRY        |  |
| 26                       | VIDARBHA                             | DRY        |  |
| 27                       | CHHATTISGARH                         | DRY        |  |
| 28                       | COASTAL ANDHRA PRADESH & YANAM       | ISOL       |  |
| 29                       | TELANGANA                            | DRY        | DRY        | DRY        | DRY        | DRY        | ISOL       | ISOL       |  |
| 30                       | RAYALASEEMA                          | ISOL       | ISOL       | ISOL       | ISOL       | ISOL       | SCT        | SCT        |  |
| 31                       | TAMILNADU PUDUCHERRY & KARAIKAL      | SCT        | SCT        | ISOL       | ISOL       | ISOL       | SCT        | SCT        |  |
| 32                       | COASTAL KARNATAKA                    | DRY        | ISOL       | DRY        | DRY        | DRY        | ISOL       | SCT        |  |
| 33                       | NORTH INTERIOR KARNATAKA             | DRY        | DRY        | DRY        | DRY        | DRY        | DRY        | ISOL       |  |
| 34                       | SOUTH INTERIOR KARNATAKA             | ISOL       | ISOL       | DRY        | DRY        | DRY        | ISOL       | SCT        |  |
| 35                       | KERALA & MAHE                        | SCT        | FWS        | SCT        | SCT        | SCT        | FWS        | FWS        |  |
| 36                       | LAKSHADWEEP                          | SCT        |  |

• As the lead period increases forecast accuracy decreases.









- 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.

# Agromet advisories for Heavy Rainfall likely over various parts of the country

- > Drain out excess water from the standing crops in Tamil Nadu, Kerala and Andaman & Nicobar Islands.
- ➤ Keep the harvested produce at safer places.
- > Provide mechanical support to horticultural crops and staking to vegetables.

# **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.
  - **South India:** Coastal Andhra Pradesh & Yanam, Telangana, Rayalaseema, Coastal Karnataka, North Interior Karnataka, South Interior Karnataka, Kerala & Mahe, Tamil Nadu, Puducherry & Karaikal and Lakshadweep.



36. लक्षद्वीप

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

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

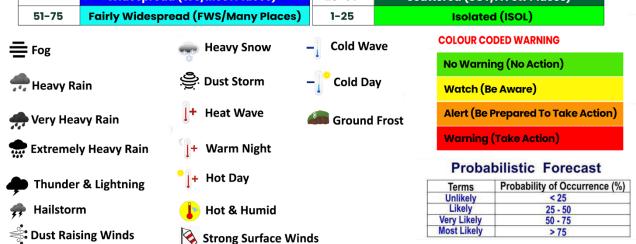
36. Lakshadweep

# **LEGENDS**



# **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)              |  |  |  |  |





Cyclone



#### **DEFINITION/CRITERIA** 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 (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: When minimum temperature departure 4.5 °C to 6.4 °C Warm Night 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 $\leq$ -6.5 °C **Cold 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 When minimum temperature of a station ≤10°C for plains and ≤0°C for hilly regions Based on departure **Cold Day** 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 Phenomenon of small droplets suspended in air and the horizontal visibility < 1km Moderate Fog: When the visibility between 500-200 metres Fog 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) Thunderstorm An ensemble of particles of dust or sand energetically lifted to great heights by a strong and **Dust/Sand** turbulent wind. Ice deposits on ground Frost Air temperature ≤4°C ( over Plains) A strong wind that rises suddenly, lasts for atleast 1 minute. Moderate: Wind speed 52-61 kmph Squall 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 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)

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

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