

राष्ट्रीय मौसम पूर्वानुमान केन्द्र भारत मौसम विज्ञान विभाग पृथ्वी विज्ञान मंत्रालय



National Weather Forecasting Centre India Meteorological Department Ministry of Earth Sciences

## Saturday, October 12, 2024 Time of Issue: 1315 hours IST (MID-DAY)

## ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

<u>Significant Weather Features</u>:

### **On further Withdrawal of Southwest Monsoon**

- ✓ The line of withdrawal of Southwest Monsoon continues to pass through 29°N/86°E, Darbhanga, Hazaribagh, Pendra Road, Narsinghpur, Khargone, Nandurbar, Navsari and 20°N/70°E.
- ✓ Conditions are favourable for further withdrawal of Southwest Monsoon from remaining parts of Gujarat, Madhya Pradesh, Jharkhand, Bihar, some more parts of Maharashtra, Chhattisgarh and some parts of Odisha, West Bengal & Sikkim during next 2 days.

### Weather Systems:

- Yesterday's Well Marked Low pressure area over eastcentral Arabian Sea off Maharashtra coast lay over eastcentral Arabian Sea at 0830 hours IST of today, the 12<sup>th</sup> October 2024. It is likely to move west-northwestwards and intensify into a Depression over central Arabian Sea by morning of 13<sup>th</sup> October.
- A cyclonic circulation lay over southeast Bay of Bengal & adjoining equatorial Indian Ocean extended up to middle tropospheric levels. Under its influence, a low pressure area is likely to form over southwest Bay of Bengal around 14<sup>th</sup> October.
- ✓ An upper air cyclonic circulation over central parts of south Bay of Bengal lay over southwest Bay of Bengal in lower tropospheric levels.

### Forecast & Warnings (upto 7 days):

### South Peninsular India

- ✓ Fairly widespread to widespread light to moderate rainfall very likely over Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe, Lakshadweep, South Interior Karnataka; Scattered to Fairly widespread light to moderate rainfall over Coastal & North Interior Karnataka, Coastal Andhra Pradesh & Yanam, Rayalaseema; Isolated to Scattered light to moderate rainfall very likely over Telangana during the week.
- ✓ **Isolated very heavy rainfall** very likely over Tamil Nadu, Puducherry & Karaikal during 14<sup>th</sup>-16<sup>th</sup> October.
- Isolated heavy rainfall very likely over Kerala & Mahe during the week; Tamil Nadu, Puducherry & Karaikal on 12<sup>th</sup>, 13<sup>th</sup> & 17<sup>th</sup>; Coastal Andhra Pradesh & Yanam, Rayalaseema during 14<sup>th</sup>-17<sup>th</sup>; South Interior Karnataka during 12<sup>th</sup>-16<sup>th</sup> October.

### Northeast & East India

- ✓ Fairly widespread to widespread light to moderate rainfall very likely over Andaman & Nicobar Islands; Fairly widespread to widespread light to moderate rainfall very likely over Arunachal Pradesh during next 2 days & Scattered to Fairly widespread light to moderate rainfall over Assam & Meghalaya & Nagaland, Manipur, Mizoram & Tripura during 2 days; Isolated to Scattered light to moderate rainfall very likely over same region during subsequent 5 days.
- ✓ **Isolated heavy rainfall** very likely over Arunachal Pradesh, Assam & Andaman & Nicobar Islands on 12<sup>th</sup> October.

### West & Central India

- ✓ Scattered to Fairly widespread light to moderate rainfall over Gujarat State during 3 days; Isolated to Scattered light to moderate rainfall very likely over Konkan & Goa, Madhya Maharashtra, Marathwada, East Madhya Pradesh, Vidarbha, Chhattisgarh during the week; West Madhya Pradesh during next 5 days.
- Isolated heavy rainfall very likely over Madhya Maharashtra on 12<sup>th</sup>; Gujarat State on 12<sup>th</sup> & 13<sup>th</sup>; West Madhya Pradesh, Vidarbha on 12<sup>th</sup> October.

### **Northwest India:**

✓ No significant rainfall likely over these regions during the week.





### **Main Weather Observations:**

- Rainfall distribution (from 0830 hours IST of yesterday to 0830 hours IST today): at most places over Arunachal Pradesh and Kerala & Mahe; at many places over Vidarbha, Andaman & Nicobar Islands, Konkan & Goa, Madhya Maharashtra, Tamil Nadu, Puducherry & Karaikal, Lakshadweep, Coastal Andhra Pradesh & Yanam and South Interior Karnataka; at a few places over West Madhya Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Marathwada, Gujarat Region, Telangana and Coastal & South Interior Karnataka; at isolated places over West Uttar Pradesh, East Rajasthan, East Madhya Pradesh, Chhattisgarh, West Bengal & Sikkim, Bihar, Jharkhand, Odisha and Saurashtra & Kutch.
- Heavy rainfall recorded (from 0830 hours IST of yesterday to 0830 hours IST today): Heavy to very Heavy rainfall at isolated places over Kerala & Mahe, Tamil Nadu, Puducherry & Karaikal, North Interior Karnataka; Heavy rainfall at isolated places over Nagaland, Manipur, Mizoram & Tripura, East Madhya Pradesh, Assam & Meghalaya, West Madhya Pradesh, Madhya Maharashtra, Marathwada, Arunachal Pradesh, South Interior Karnataka.
- Significant amount of rainfall (from 0830 hours IST of yesterday to 0830 hours IST today) (in cm): Kerala & Mahe: Vadakara (dist Kozhikode) 18, Alapuzha (dist Alapuzha) 16, Poonjar(dist Kottayam) 11, Trivandrum (dist Thiruvananthapuram) 11, Airport Chakka(dist Thiruvananthapuram) 11, Mancompu (dist Alapuzha) 11, Mahe (dist Mahe) 10, Peringalkuthu(dist Thrissur) 10, Neyyattinkara (dist Thiruvananthapuram) 10, Varkala (dist Thiruvananthapuram) 9, Kanjirapuzha(dist Palakkad) 9, Perumkadavila (dist Thiruvananthapuram) 8; North Interior Karnataka: Haveri Pto (dist Haveri) 17, Ilkal (dist Bagalkote) 7, Kudalasangama (dist Bagalkote) 7; Tamil Nadu, Puducherry & Karaikal: Karaikudi (dist Sivagangai) 15, Tiruchirappalli Airport (dist Thiruchirappalli) 13, Kurunthancode (dist Kanniyakumari) 10, Colachel (dist Kanniyakumari) 9, Neyyoor AWS (dist Kanniyakumari) 9, Erode (dist Erode) 8, Varattupallam (dist Erode) 7; South Interior Karnataka: Shivamogga Pto (dist Shivamogga) 10; Nagaland, Manipur, Mizoram & Tripura: Kadamtala CWC (dist North Tripura) 9, Kailashahar Aero (dist Unakoti) 8; East Madhya Pradesh: Lakhnadon (dist Seoni) 8; Assam & Meghalaya: Silchar (dist Cachar) 8, Beki Mathungari (dist Barpeta) 8; West Madhya Pradesh: Pandhana (dist Khandwa) 7, Bhagwanpura (dist Khargone) 7; Madhya Maharashtra: Bhusawal (dist Jalgaon) 7; Marathwada: Soegaon (dist Chh. Sambhajinagar) 7; Arunachal Pradesh: Roing (dist Lower Dibang Valley) 7.
- Minimum Temperature Departures (as on 12-10-2024): Minimum temperatures are appreciably above normal (3.1°C to 5.0°C) at isolated places over East Rajasthan; above normal (1.6°C to 3.0°C) at many places over Saurashtra & Kutch, Sub-Himalayan West Bengal & Sikkim; at a few places over Gangetic West Bengal, Bihar, Odisha , Jharkhand and Madhya Maharashtra; at isolated places over West Rajasthan, East Uttar Pradesh, Konkan & Goa, Marathwada, Vidarbha, Chhattisgarh, Telangana, and North Interior Karnataka. These are below normal (-1.6°C to -3.0°C) at isolated places over Haryana-Chandigarh-Delhi, Assam & Meghalaya, Arunachal Pradesh. Today, the lowest minimum temperature of 16.0°C is reported at Delhi Ridge (New Delhi) over the plains of the country. (Fig.4)
- Maximum Temperature Departures (as on 11-10-2024): Maximum temperatures were appreciably above normal (3.1°C to 5.0°C) at isolated places over Odisha; above normal (1.6°C to 3.0°C) at many places over Gangetic West Bengal; at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttar Pradesh and Rayalaseema. These were markedly below normal (-5.1°C or less) at a few places over Saurashtra & Kutch; appreciably below normal (-3.1°C to -5.0°C) at isolated places over Gujarat Region, East Rajasthan, Madhya Pradesh and Telangana; below normal (-1.6°C to -3.0°C) at isolated places over Haryana-Chandigarh-Delhi, and Tamil Nadu, Puducherry & Karaikal. Yesterday, the highest Maximum Temperature of 37.6°C was reported at Sri Ganganagar & Jaisalmer (West Rajasthan) over the country. (Fig. 2)





## Meteorological Analysis (Based on 0830 hours IST)

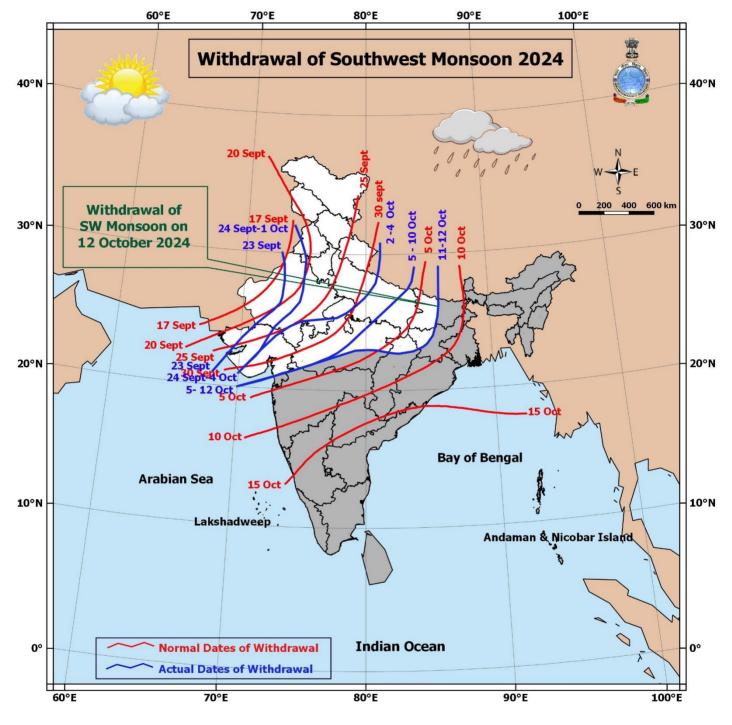
- The line of withdrawal of Southwest Monsoon continues to pass through 29°N/86°E, Darbhanga, Hazaribagh, Pendra Road, Narsinghpur, Khargone, Nandurbar, Navsari and 20°N/70°E.
- Conditions are favourable for further withdrawal of Southwest Monsoon from remaining parts of Gujarat, Madhya Pradesh, Jharkhand, Bihar, some more parts of Maharashtra, Chhattisgarh and some parts of Odisha, West Bengal & Sikkim during next 2 days.
- The Well Marked Low pressure area over eastcentral Arabian Sea with the associated cyclonic circulation extending upto 5.8 km above mean sea level persists over the same region at 0830 hours IST of today, the 12<sup>th</sup> October 2024. It is likely to move west-northwestwards and intensify into a Depression over central Arabian Sea by morning of 13<sup>th</sup> October.
- The trough ran from centre of the Well Marked Low pressure area over eastcentral Arabian sea to north Sri Lanka across Coastal Karnataka, Tamil Nadu and extended upto 1.5 km above mean sea level.
- The upper air cyclonic circulation over south Tamil Nadu coast extending upto 1.5 km above mean sea level merged with the above trough.
- A cyclonic circulation lay over southeast Bay of Bengal & adjoining equatorial Indian Ocean and extended upto 5.8 km above mean sea level. Under its influence, a low pressure area is likely to form over southwest Bay of Bengal around 14<sup>th</sup> October.
- The upper air cyclonic circulation over central parts of south Bay of Bengal lay over southwest Bay of Bengal and extended upto 3.1 km above mean sea level.
- The upper air cyclonic circulation over east Assam & neighbourhood at 0.9 km above mean sea level persists.

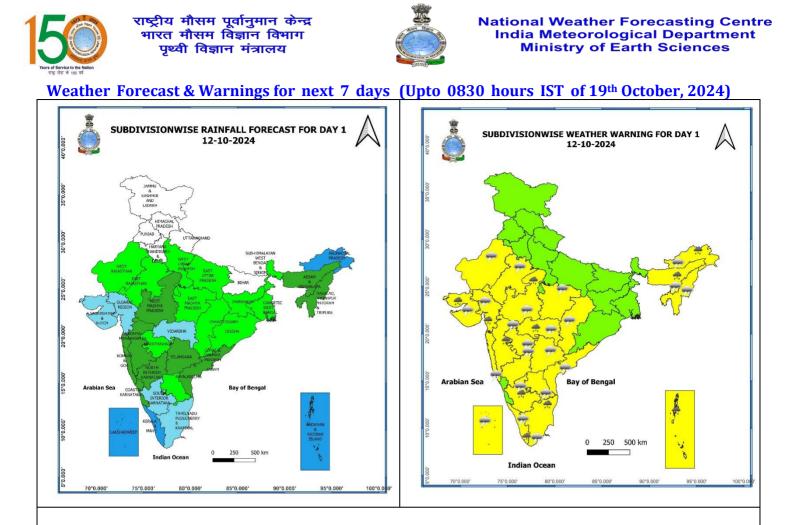






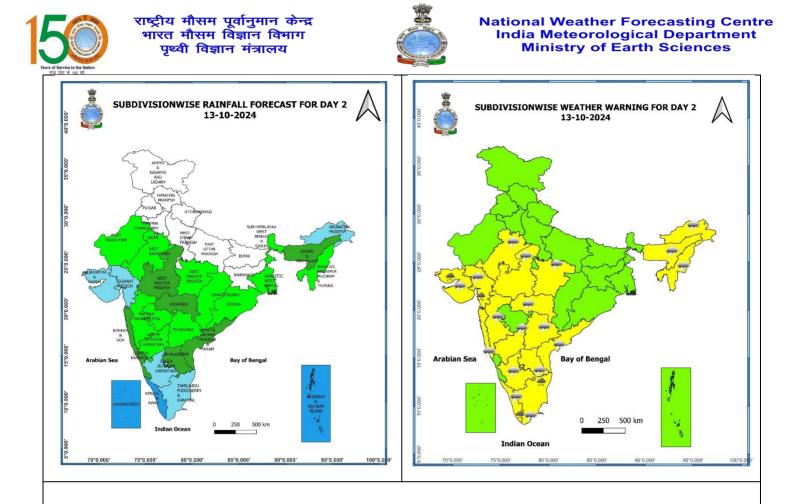
### Withdrawal of Southwest Monsoon 2024





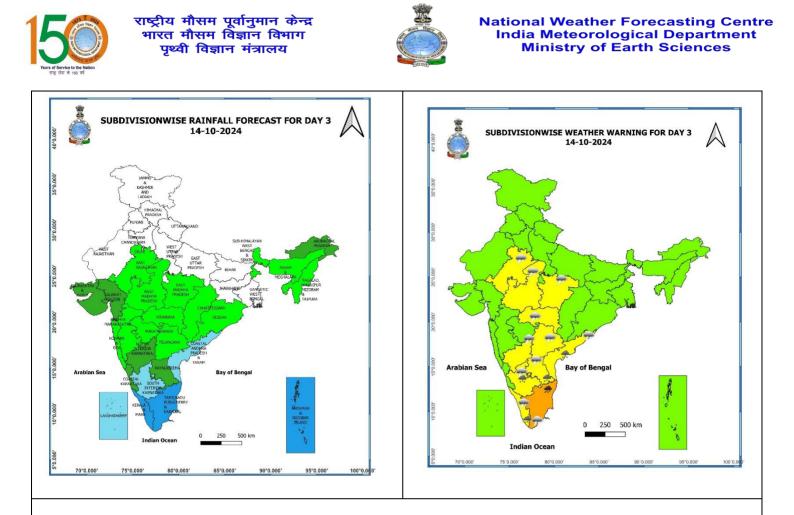
# 12 October (Day 1):

- ✤ Heavy rainfall (≥7cm) very likely at isolated places over West Madhya Pradesh, Vidarbha, Andaman & Nicobar Islands, Arunachal Pradesh, Assam & Meghalaya, Madhya Maharashtra, Gujarat state, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe and South Interior Karnataka.
- Thunderstorm accompanied gusty winds (speed reaching 30-40 kmph) very likely at isolated places over West Madhya Pradesh and Telangana; with lightning very likely at isolated places over Rajasthan, East Madhya Pradesh, Vidarbha, Chhattisgarh, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Konkan & Goa, Madhya Maharashtra, Marathwada, Gujarat state, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe, Lakshadweep, Coastal Andhra Pradesh & Yanam, Rayalaseema and Interior Karnataka.
- Squally weather with wind speed 35 kmph to 45 kmph gusting to 55 kmph very likely to prevail over Maldives, Lakshadweep Comorin areas, southeast Arabian sea and many parts of southwest Arabian sea, along and off Somalia coast, parts of westcentral Arabian sea, most parts of eastcentral Arabian sea, along and off Kerala, Karnataka, north Gujarat coasts, gulf of Mannar, along and off south Sri Lanka coast, most parts of southwest Bay of Bengal and adjoining parts of southeast Bay of Bengal.Fishermen are advised not to venture into these areas.



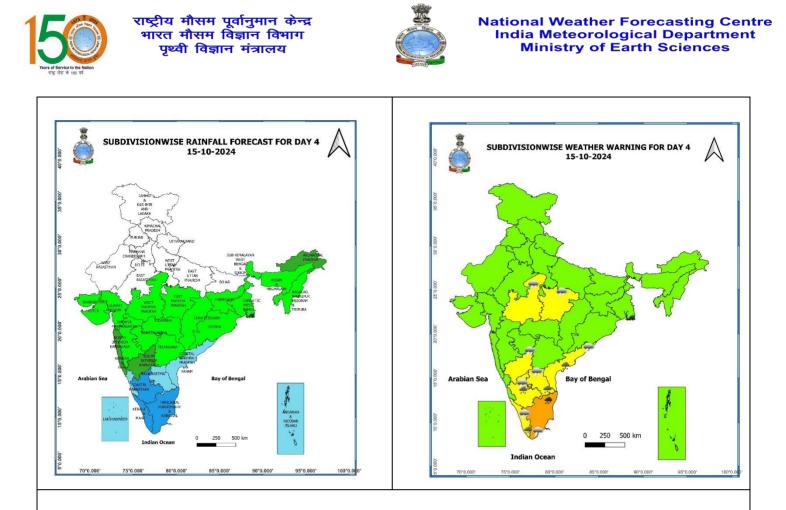
## 13 October (Day 2):

- ✤ Heavy rainfall (≥7cm) very likely at isolated places over Gujarat state, Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe.
- Thunderstorm accompanied gusty winds (speed reaching 30-40 kmph) very likely at isolated places over West Madhya Pradesh and Telangana; with lightning very likely at isolated places over East Rajasthan, East Madhya Pradesh, Vidarbha, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Konkan & Goa, Madhya Maharashtra, Gujarat state, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe, Coastal Andhra Pradesh & Yanam, Rayalaseema and Interior Karnataka.
- Squally weather with wind speed 35 kmph to 45 kmph gusting to 55 kmph very likely to prevail over many parts of west central Arabian sea and adjoining parts of east central and north Arabian sea, many parts of southwest Arabian sea and adjoining parts of southeast Arabian sea, along and off south Kerala coast and adjoining Lakshadweep area, over Comorin area, gulf of Mannar, along and off Sri Lanka coast, Tamil Nadu coast, most parts of southwest Bay of Bengal adjoining parts of southeast and westcentral Bay of Bengal. Fishermen are advised not to venture into these areas.



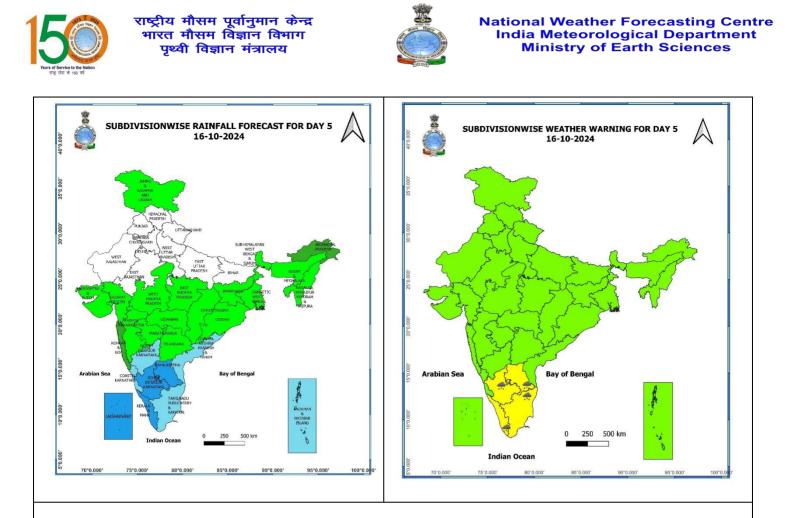
## 14 October (Day 3):

- ♦ Heavy to very Heavy rainfall (≥12 cm) very likely at isolated places over Tamil Nadu, Puducherry; Heavy rainfall (≥7cm) likely at isolated places over Kerala & Mahe, Coastal Andhra Pradesh & Yanam, South Interior Karnataka and Rayalaseema.
- Thunderstorm accompanied gusty winds (speed reaching 30-40 kmph) very likely at isolated places over Telangana; with lightning very likely at isolated places over East Rajasthan, Madhya Pradesh, Vidarbha, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe, Coastal Andhra Pradesh & Yanam, Rayalaseema and Interior Karnataka.
- Squally weather with wind speed 35 kmph to 45 kmph gusting to 55 kmph very likely to prevail over most parts of west central Arabian sea and adjoining parts of east central, many parts of north Arabian sea, many parts of southwest Arabian sea and adjoining parts of southeast Arabian sea, along and off south Kerala coast and adjoining Lakshadweep area, over Comorin area, gulf of Mannar, along and off Sri Lanka coast, along and off Tamil Nadu, south Andhra Pradesh coasts, southwest Bay of Bengal and many parts of southeast Bay of Bengal, southern parts of westcentral Bay of Bengal. Squally weather with wind speed 45 kmph to 55 kmph gusting to 65 kmph is likely to prevail over parts of northwest Arabian sea and adjoining parts of westcentral Arabian sea. Fishermen are advised not to venture into these areas.



# 15 October (Day 4):

- ✤ Heavy to very Heavy rainfall (≥12 cm) likely at isolated places over Tamil Nadu, Puducherry; Heavy rainfall (≥7cm) likely at isolated places over Kerala & Mahe, Coastal Andhra Pradesh & Yanam, South Interior Karnataka and Rayalaseema.
- Thunderstorm accompanied with lightning likely at isolated places over Madhya Pradesh, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe, Coastal Andhra Pradesh & Yanam, Rayalaseema and Interior Karnataka.
- Squally weather with wind speed 35 kmph to 45 kmph gusting to 55 kmph likely to prevail over gulf of Mannar, along and off Sri Lanka coast, along and off Tamil Nadu, Andhra Pradesh coasts, southwest Bay of Bengal and many parts of southeast Bay of Bengal, many parts of westcentral Bay of Bengal and some parts of eastcentral Bay of Bengal. Fishermen are advised not to venture into these areas.



# 16 October (Day 5):

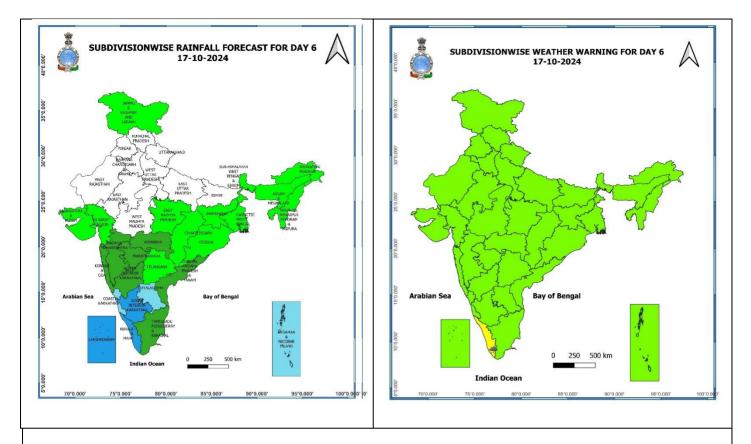
- ♦ Heavy to very Heavy rainfall (≥12 cm) likely at isolated places over Tamil Nadu, Puducherry; Heavy rainfall (≥7cm) likely at isolated places over Kerala & Mahe, Coastal Andhra Pradesh & Yanam, South Interior Karnataka and Rayalaseema.
- Thunderstorm accompanied with lightning likely at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe, Coastal Andhra Pradesh & Yanam, Rayalaseema and Interior Karnataka.
- Squally weather with wind speed 35 kmph to 45 kmph gusting to 55 kmph likely to prevail over gulf of Mannar, along and off Sri Lanka coast, along and off Tamil Nadu, Andhra Pradesh coasts, southwest Bay of Bengal adjoining southeast Bay of Bengal, many parts of westcentral Bay of Bengal. Fishermen are advised not to venture into these areas.



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

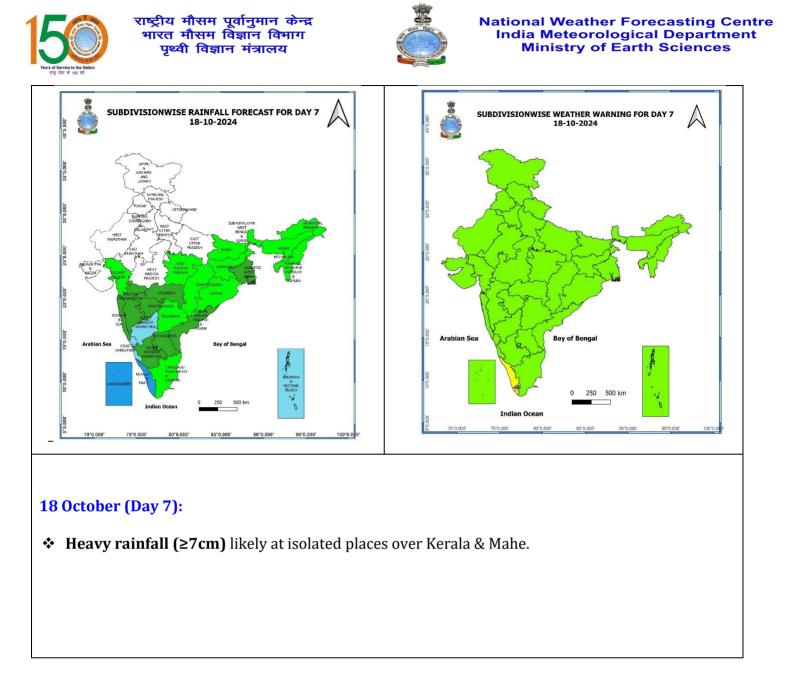


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## 17 October (Day 6):

✤ Heavy rainfall (≥7cm) likely at isolated places over Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe and Rayalaseema.



## Weather Outlook for subsequent 3 days (During 19th October – 21st October, 2024)

- Fairly widespread to widespread rainfall likely over Peninsular and adjoining Central India and Islands.
- ✤ Isolated to Scattered rainfall likely over some parts of East and Northeast India.
- Mainly dry weather will prevail over rest parts of country.
- 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.





## Impact due to

✓ Isolated heavy to very heavy rainfall very likely over Tamil Nadu, Puducherry & Karaikal during 14<sup>th</sup>-16<sup>th</sup> October.

## **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 and roadways 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/land sinks/mud sinks.
- ✓ Damage to horticulture and standing crops in some areas due to inundation and wind.
- ✓ It may lead to riverine flooding in some river catchments (for riverine flooding please visit Web page of CWC)

# **Action Suggested**

- ✓ Judicious regulation of surface transports including railways and roadways.
- ✓ Check for traffic congestion on your route before leaving for your destination.
- ✓ Follow any traffic advisories that are issued in this regard.
- $\checkmark\,$  Avoid going to areas that face the water logging problems often.
- ✓ Avoid staying in vulnerable structure

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

- ✓ In Tamil Nadu, drain out excess water from rice nurseries and fields of rice, maize, pepper and newly planted turmeric. Provide support to banana plantations.
- ✓ Make necessary arrangements for draining out excess water from standing crop fields and fruit orchards to avoid water stagnation in West Madhya Pradesh, Vidarbha, Madhya Maharashtra, Gujarat region, Kerala, South Interior Karnataka, Arunachal Pradesh and Assam.
- ✓ Keep the harvested produce at safer places.
- ✓ Provide mechanical support to horticultural crops & staking to vegetables.



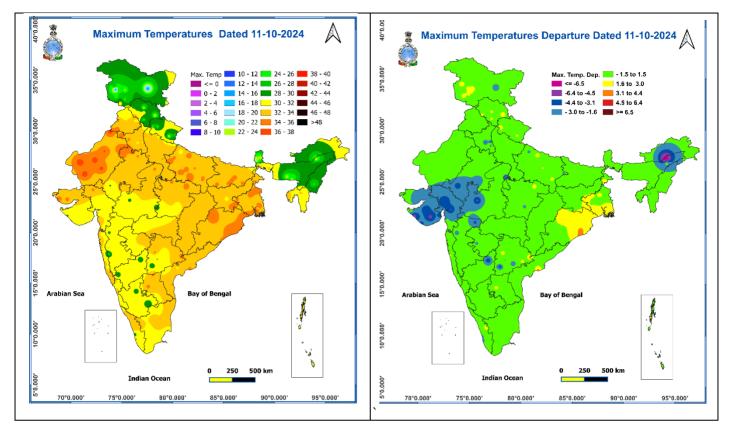
#### राष्ट्रीय मौसम पूर्वानुमान केन्द्र भारत मौसम विज्ञान विभाग पृथ्वी विज्ञान मंत्रालय



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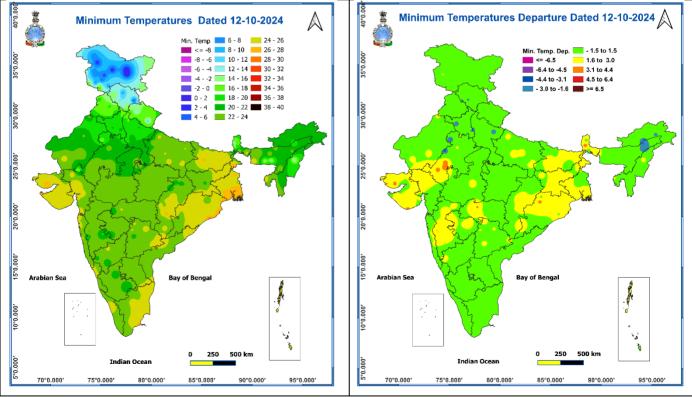
### Fig. 1: Maximum Temperatures

### Fig. 2: Departure of Maximum Temperatures



## Fig. 3: Minimum Temperatures

#### Fig. 4: Departure of Minimum Temperatures

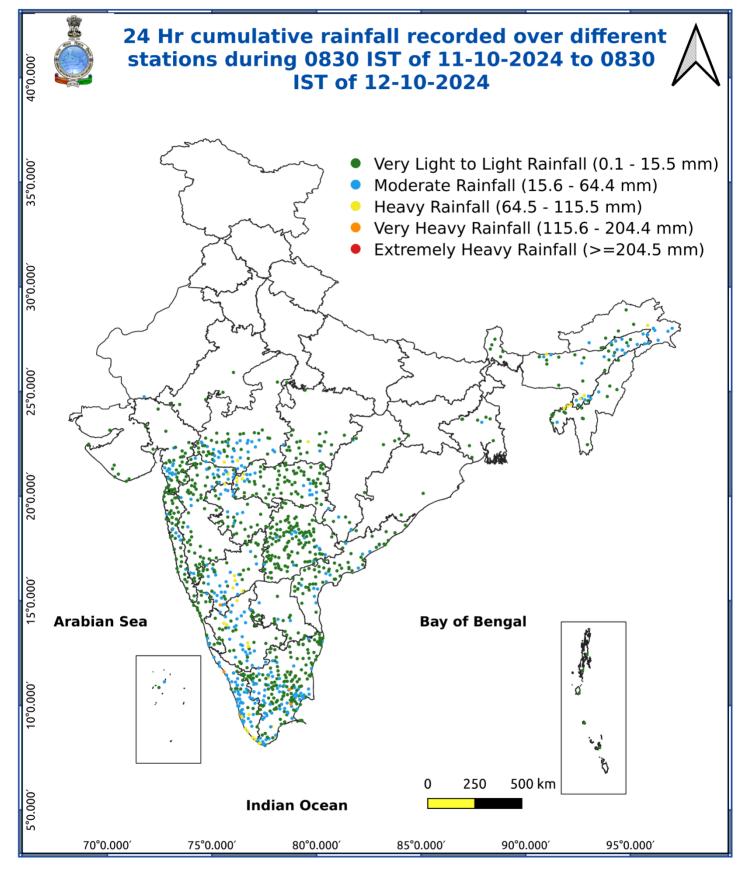


\* Red colour warning does not mean "Red Alert", Red colour warning means "Take Action". Forecast and Warning for any day is valid from 0830 hours IST of day till 0830 hours IST of next day. For more details, kindly visit https://mausam.imd.gov.in or contact: 011-2434-4599 (Service to the Nation since 1875)





## Fig. 5: Accumulated Rainfall (mm) during past 24 hours



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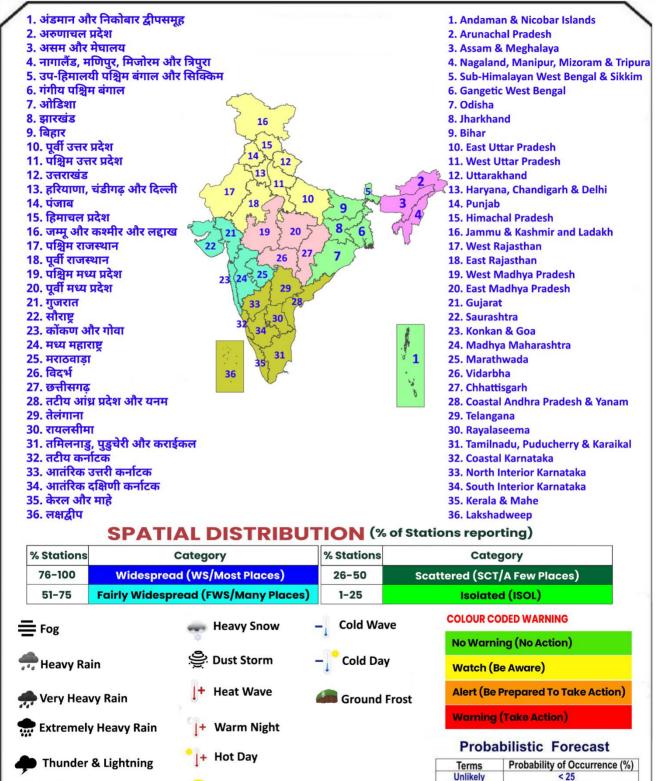
🐢 Hailstorm

Sust Raising Winds



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# **LEGENDS**



Hot & Humid

Strong Surface Winds

Likely

Very Likely

Most Likely

25 - 50

50 - 75

> 75





	Heavy: 64.5 to 115.5 mm/cm *
Rain/ Snow <sup>^</sup>	Very Heavy: 115.6 to 204.4 mm/cm*
	Extremely Heavy: > 204.4 mm/cm *
Heat Wave	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: 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
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 °C.
Cold Wave	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
	(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
Cold Day	When minimum temperature of a station $\leq 10^{\circ}$ C for plains and $\leq 0^{\circ}$ 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 ≤ -6.5 °C
	Phenomenon of small droplets suspended in air and the horizontal visibility < 1km
Fog	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
understorm	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 ≤4°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 43-117 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 02-07 kingir (34-47 kinds) 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)