

Monday, October 21, 2024
Time of Issue: 0800 hours IST
(MORNING)

ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

Significant Weather Features:

Weather Systems:

- ❖ Under the influence of yesterday's **upper air cyclonic circulation** over North Andaman Sea and adjoining eastcentral & southeast Bay of Bengal, a **Low Pressure Area** formed over Eastcentral Bay of Bengal and adjoining north Andaman Sea in the early morning (0530 hours IST) of today, the 21st October 2024. It is very likely to move west-northwestwards and intensify into a **depression** by 22nd October morning and into a **cyclonic storm** by 23rd October, 2024 over eastcentral Bay of Bengal. Thereafter, it is very likely to move northwestwards and reach northwest Bay of Bengal off Odisha-West Bengal coasts by 24th October morning.
- ❖ The **Low pressure area** over westcentral Arabian Sea with the associated cyclonic circulation extending upto 5.8 km above mean sea levels persisted over the same region. It is likely to move west-northwestwards away from Indian coast and weaken further during next 12 hours.
- ❖ The **upper air cyclonic circulation** over southwest & adjoining westcentral Bay of Bengal off north Tamil Nadu & south Andhra Pradesh coast extending upto 5.8 km above mean sea level tilting southwestwards with height persisted.

Forecast & Warnings (upto 7 days):

East India

- ✓ Light to moderate rainfall at most places with **heavy to very heavy rainfall** at isolated places very likely over Andaman & Nicobar Islands on 21st October.
- ✓ Light to moderate rainfall at most places with **heavy rainfall** at isolated places very likely over Odisha on 23rd & **heavy to very heavy rainfall** at a few places with **extremely heavy rainfall** at isolated places on 24th & 25th October.
- ✓ **Light to moderate rainfall at most places with heavy rainfall** at isolated places very likely over Gangetic West Bengal on 23rd **heavy to very heavy rainfall** on 24th & 25th October.

South Peninsular India

- ✓ Light to moderate rainfall at many places accompanied with isolated thunderstorm and lightning very likely over Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe, Lakshadweep, Coastal & South Interior Karnataka; light to moderate rainfall at Isolated places very likely over rest of the region during the week.
- ✓ **Isolated very heavy rainfall** very likely over Coastal Andhra Pradesh & Yanam on 25th October.
- ✓ **Isolated heavy rainfall** very likely over Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe, South Interior Karnataka during 21th-23th; Coastal Andhra Pradesh & Yanam on 24th; Coastal & North Interior Karnataka on 21st October.

West & Central India

- ✓ Light to moderate rainfall at many places accompanied with isolated thunderstorm and lightning very likely over Konkan & Goa, Madhya Maharashtra; light to moderate rainfall at Isolated places very likely over rest of the region during next 4 days and where dry weather is likely to prevail subsequent 3 days.
- ✓ **Isolated heavy rainfall** very likely over Madhya Maharashtra on 21st and over Chhattisgarh during 25th - 27th October.

Northeast & Northwest India

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

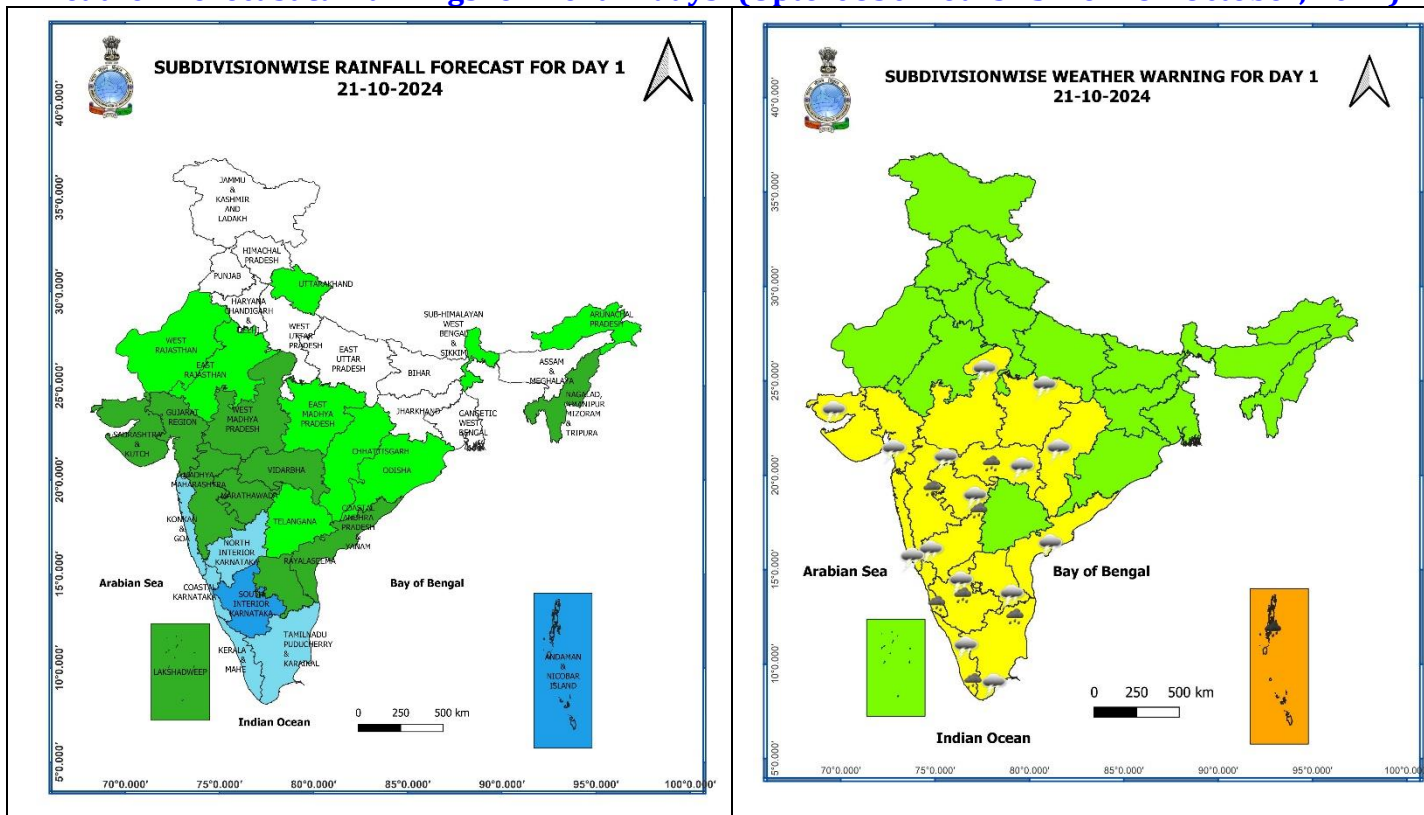
Main Weather Observations:

- ❖ **Rainfall distribution** (from 0830 hours IST to 1730 hours IST of today): **at many places** over Saurashtra & Kutch; **at a few places over** Tamil Nadu, Puducherry & Karaikal, Coastal Andhra Pradesh & Yanam; **at isolated places** over West Madhya Pradesh, Chhattisgarh, Odisha, Sub-Himalayan West Bengal & Sikkim, Konkan & Goa, Madhya Maharashtra, Karnataka.
- ❖ **Heavy rainfall recorded** (from 0830 hours IST to 1730 hours IST of today): **Heavy to very heavy rainfall** at isolated places over Saurashtra & Kutch.
- ❖ **Significant amount of rainfall** (from 0830 hours IST to 1730 hours IST of today) (in cm): **Saurashtra & Kutch:** Rajkot-12, Junagadh-9, Amreli-8, Dwarka-6, Keshod-7, Surendranagar & Botad-4 each, Bhuj-3; **Tamil Nadu, Puducherry & Karaikal:** Valparai-5; **Odisha:** Puri-3; **Chhattisgarh:** Mana (Raipur)-2.
- ❖ **Minimum Temperature Departures (as on 20-10-2024):** Minimum temperatures were **markedly above normal (5.1°C or more)** at isolated places over West Madhya Pradesh; **appreciably above normal (3.1°C to 5.0°C)** at a few places over Saurashtra & Kutch, West Rajasthan; at isolated places over Gujarat Region, East Rajasthan, Punjab, East Uttar Pradesh, East Madhya Pradesh, Haryana-Chandigarh-Delhi, Jharkhand, Chhattisgarh, Vidarbha, Madhya Maharashtra; **above normal (1.6°C to 3.0°C)** at many place over Kerala & Mahe; at a few places over Odisha; at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Assam & Meghalaya, Tamil Nadu, Puducherry & Karaikal, Rayalaseema, North Interior Karnataka. Yesterday, **the lowest minimum temperature of 16.9°C** was reported at **Hissar (Haryana)** over the plains of the country. (Fig.4)
- ❖ **Maximum Temperature Departures (as on 20-10-2024):** Maximum temperatures were **appreciably above normal (3.1°C to 5.0°C)** at isolated places over Haryana-Chandigarh-Delhi, East Rajasthan, East Uttar Pradesh; **above normal (1.6°C to 3.0°C)** at isolated places over West Rajasthan, Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand, West Uttar Pradesh, Bihar, Jharkhand, Assam & Meghalaya, Madhya Pradesh, Odisha, Telangana, Kerala & Mahe, Tamil Nadu, Puducherry & Karaikal. These were **appreciably below normal (-3.1°C to -5.0°C)** at a few places over Vidarbha; at isolated places over Madhya Maharashtra; **below normal (-1.6°C to -3.0°C)** at many places over Saurashtra & Kutch; at isolated places over Gujarat Region, Marathwada. Yesterday, **the highest Maximum Temperature of 39.0°C** was reported at **Jaisalmer & Bikaner (West Rajasthan)** over the country. (Fig. 2)

Meteorological Analysis (Based on 0530 hours IST)

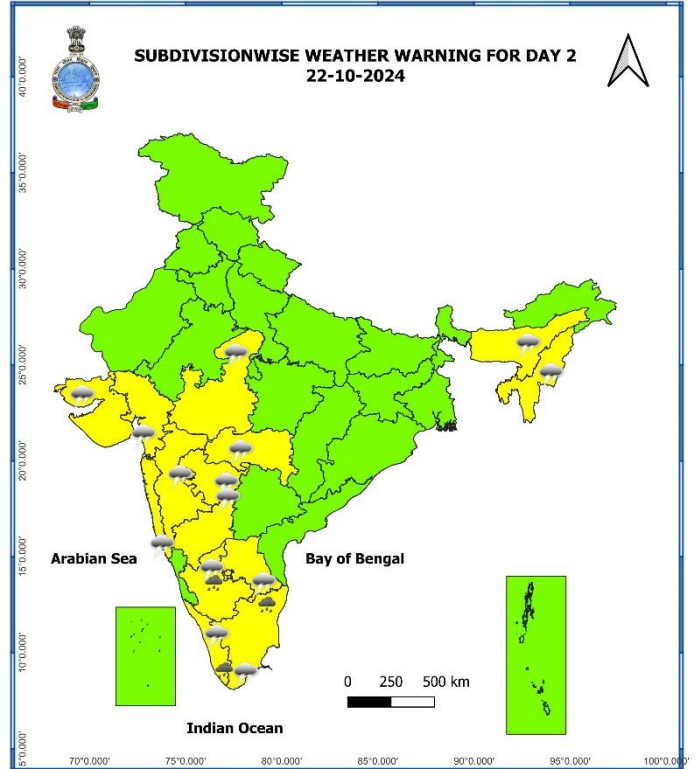
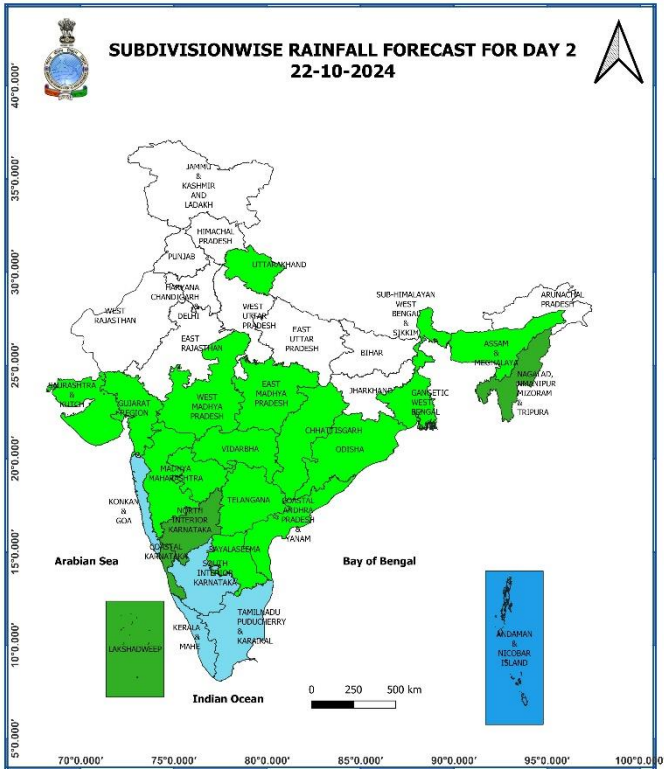
- ❖ Under the influence of yesterday's **upper air cyclonic circulation** over North Andaman Sea and adjoining eastcentral & southeast Bay of Bengal, a **Low Pressure Area** formed over Eastcentral Bay of Bengal and adjoining north Andaman Sea in the early morning (0530 hours IST) of today, the 21st October 2024. It is very likely to move west-northwestwards and intensify into a **depression** by 22nd October morning and into a **cyclonic storm** by 23rd October, 2024 over eastcentral Bay of Bengal. Thereafter, it is very likely to move northwestwards and reach northwest Bay of Bengal off Odisha-West Bengal coasts by 24th October morning.
- ❖ The **Low pressure area** over westcentral Arabian Sea with the associated cyclonic circulation extending upto 5.8 km above mean sea levels persisted over the same region. It is likely to move west-northwestwards away from Indian coast and weaken further during next 12 hours.
- ❖ The **upper air cyclonic circulation** over southwest & adjoining westcentral Bay of Bengal off north Tamil Nadu & south Andhra Pradesh coast extending upto 5.8 km above mean sea level tilting southwestwards with height persisted.
- ❖ The **trough** aloft over central Assam and neighbourhood at 3.1 km above mean sea level roughly along Long. 93°E & north of Lat. 24°N persisted.

Weather Forecast & Warnings for next 7 days (Upto 0830 hours IST of 28th October, 2024)



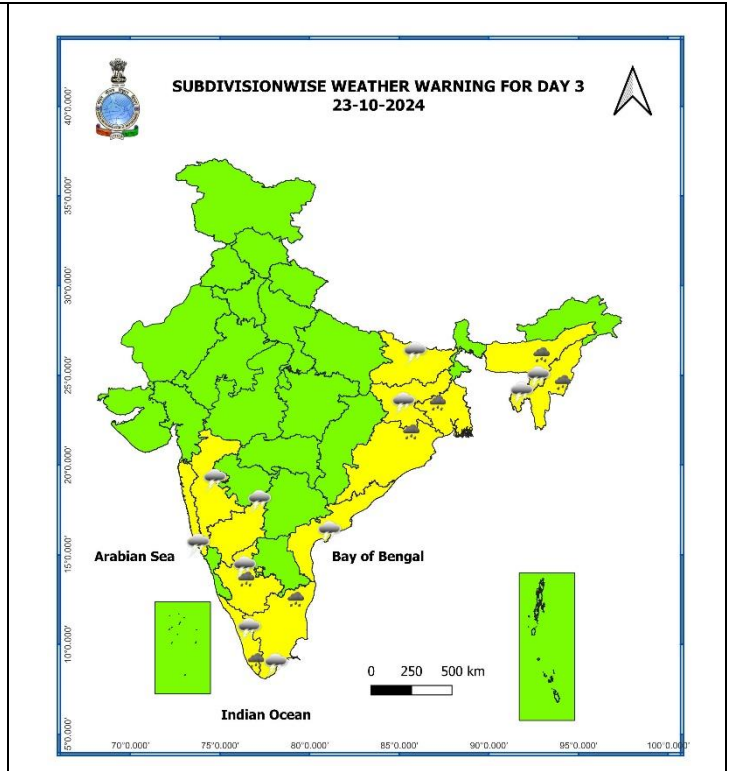
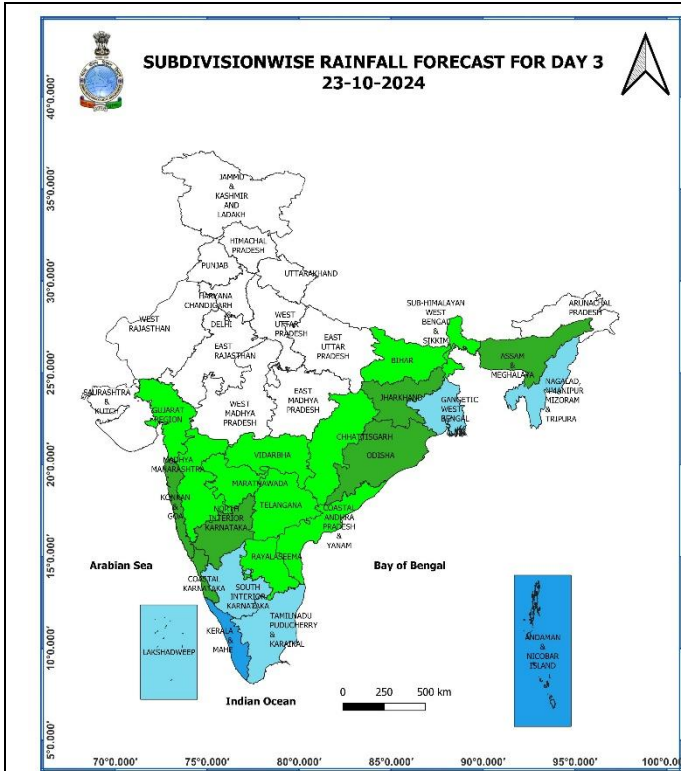
21 October (Day 1):

- ❖ **Heavy to very heavy rainfall ($\geq 12\text{cm}$)** very likely at isolated places over Andaman & Nicobar Islands; **Heavy rainfall ($\geq 7\text{cm}$)** very likely at isolated places over Vidarbha, Madhya Maharashtra, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe, Karnataka.
- ❖ **Thunderstorm accompanied with lightning** very likely at isolated places over Madhya Pradesh, Vidarbha, Chhattisgarh, Konkan & Goa, Madhya Maharashtra, Marathwada, Gujarat state, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe, Coastal Andhra Pradesh & Yanam, Rayalaseema, Interior Karnataka.
- ❖ **Squally weather with wind speed 35 kmph to 45 kmph gusting to 55 kmph** very likely to prevail over central parts of central Arabian sea, over Andaman sea, eastcentral and adjoining southeast Bay of Bengal. **Squally wind speed reaching 40-50 gusting to 60 kmph** very likely over Eastcentral Bay of Bengal. Fishermen are advised not to venture into these areas.



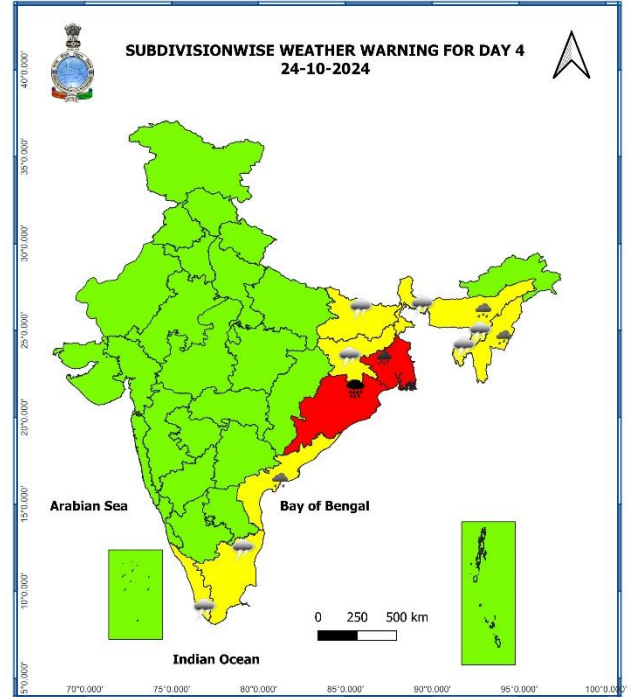
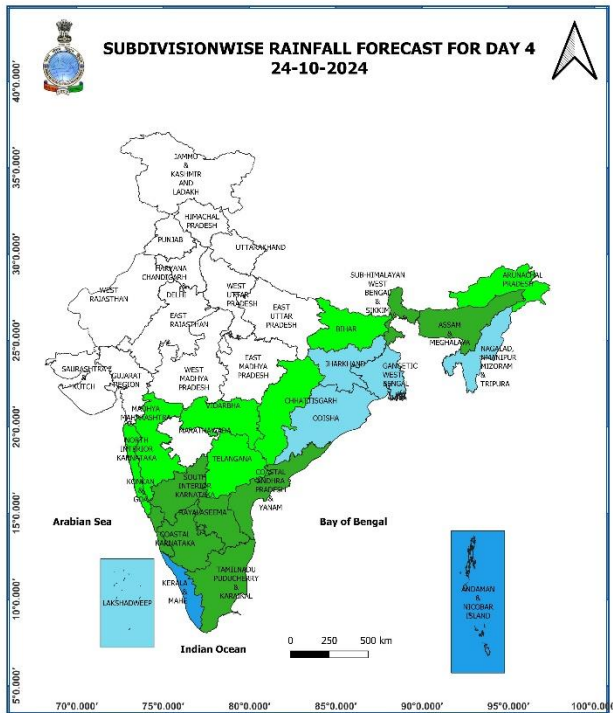
22 October (Day 2):

- ❖ **Heavy rainfall ($\geq 7\text{cm}$)** very likely at isolated places over Kerala & Mahe, Tamil Nadu, Puducherry & Karaikal, South Interior Karnataka.
- ❖ **Thunderstorm accompanied with lightning** very likely at isolated places over West Madhya Pradesh, Vidarbha, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Konkan & Goa, Madhya Maharashtra, Marathwada, Gujarat state, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe, Rayalaseema, Interior Karnataka.
- ❖ **Squally weather with wind speed 35 kmph to 45 kmph gusting to 55 kmph** very likely to prevail over Andaman sea, central Bay of Bengal and northern parts of south Bay of Bengal. **Squally weather with wind speed 55 kmph to 65 kmph gusting to 75 kmph** likely to prevail over many parts of eastcentral & adjoining westcentral Bay of Bengal. Fishermen are advised not to venture into these areas.



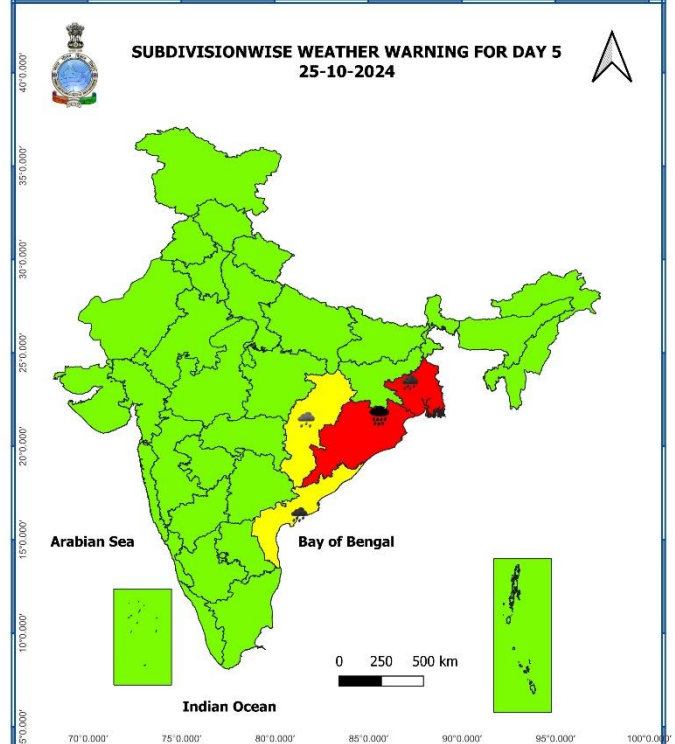
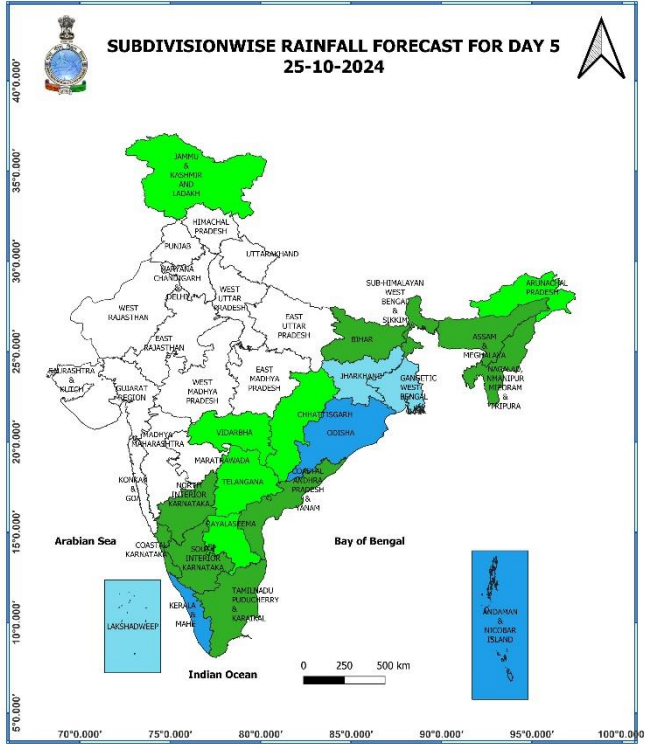
23 October (Day 3):

- ❖ **Heavy rainfall ($\geq 7\text{cm}$)** likely at isolated places over Gangetic West Bengal, Odisha, Kerala & Mahe, South Interior Karnataka, Tamil Nadu, Puducherry & Karaikal, Nagaland, Manipur, Mizoram & Tripura, Assam & Meghalaya.
- ❖ **Thunderstorm accompanied with lightning** likely at isolated places over Bihar, Jharkhand, Odisha, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Konkan & Goa, Madhya Maharashtra, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe, Coastal Andhra Pradesh & Yanam, Interior Karnataka.
- ❖ **Squally weather with wind speed 35 kmph to 45 kmph gusting to 55 kmph** likely to prevail over Andaman sea, most parts of central Bay of Bengal, northern parts of south Bay of Bengal and northwest and adjoining northeast Bay of Bengal, along and off Andhra Pradesh, Odisha & west Bengal coasts. **Squally weather with wind speed 70 kmph to 90 kmph gusting to 100 kmph** is likely to prevail over parts of Eastcentral Bay of Bengal. **Squally wind speed reaching 45-55 gusting to 65 kmph** is very likely over Eastcentral & adjoining areas of Westcentral Bay of Bengal. **Gale winds with speed 65 kmph to 75 kmph gusting to 85 kmph** is likely to prevail over many parts of eastcentral & adjoining westcentral Bay of Bengal. Fishermen are advised not to venture into these areas.



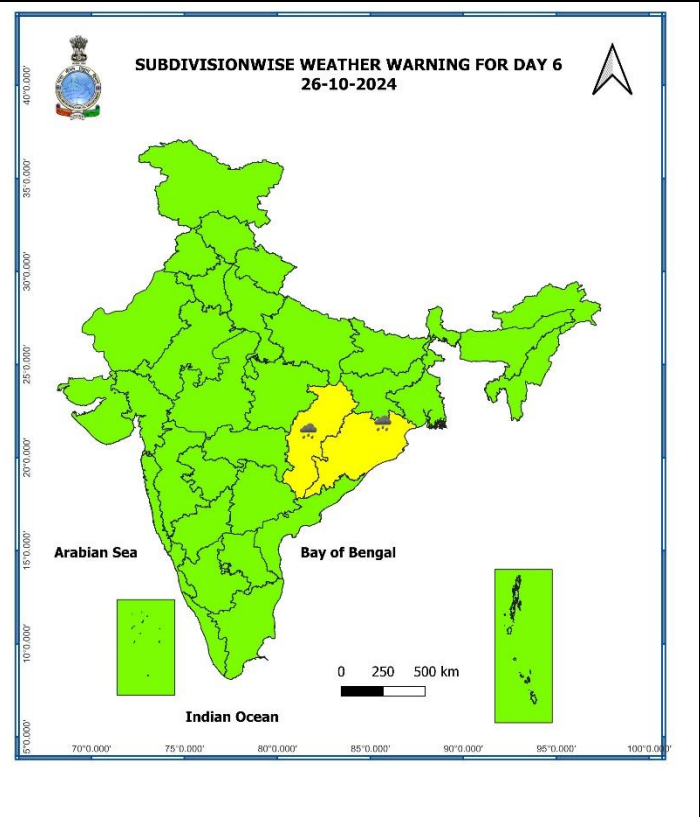
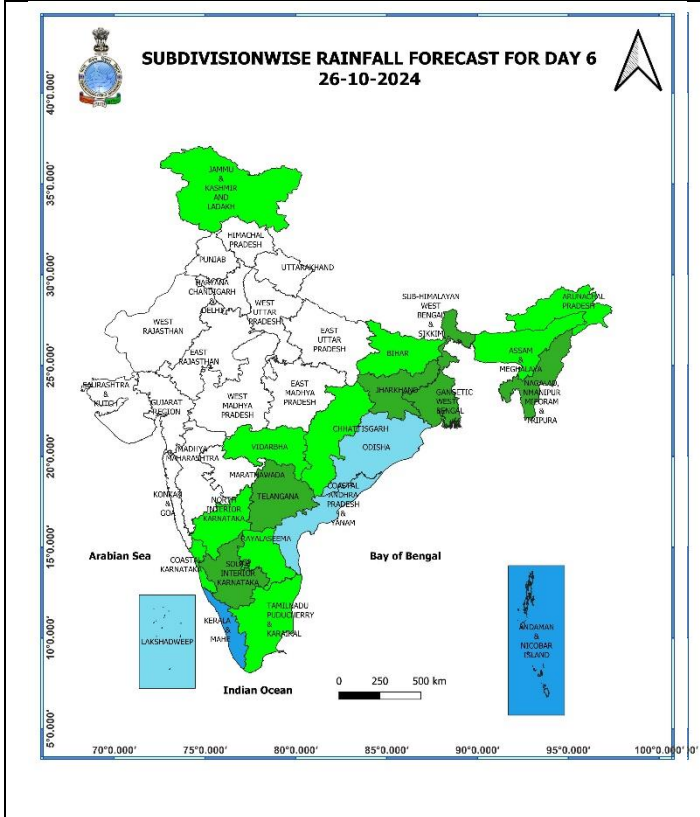
24 October (Day 4):

- ❖ **Heavy to very heavy rainfall at a few places with extremely heavy falls (≥ 20 cm)** likely at isolated places over Odisha, Gangetic West Bengal; **Heavy rainfall (≥ 7 cm)** likely at isolated places over Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Coastal Andhra Pradesh & Yanam.
- ❖ **Thunderstorm accompanied with lightning** likely at isolated places over Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe, Coastal Andhra Pradesh & Yanam, Sub-Himalayan West Bengal & Sikkim, Bihar, Jharkhand, Odisha.
- ❖ **Squally weather with wind speed 35 kmph to 45 kmph gusting to 55 kmph** likely to prevail over most parts of central, north Bay of Bengal, many parts of south Bay of Bengal, along and off Andhra Pradesh, Odisha, west Bengal coasts. **Squally weather with wind speed 45 kmph to 55 kmph gusting to 65 kmph** is likely to prevail over many parts of westcentral & northwest Bay of Bengal and adjoining parts of eastcentral & northeast Bay of Bengal, along and off Odisha, west Bengal coasts. **Gale winds with speed 100 kmph to 110 kmph gusting to 120 kmph** is likely to prevail over many parts of westcentral & northwest Bay of Bengal and adjoining parts of eastcentral & northeast Bay of Bengal, off Odisha, west Bengal coasts. **Gale winds with speed 90 kmph to 110 kmph gusting to 120 kmph** is likely to prevail over northwest & adjoining westcentral bay of Bengal.



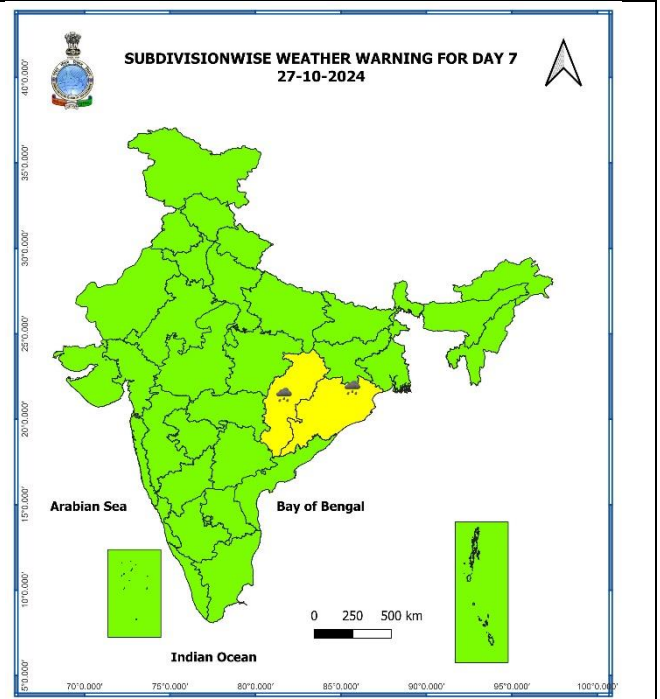
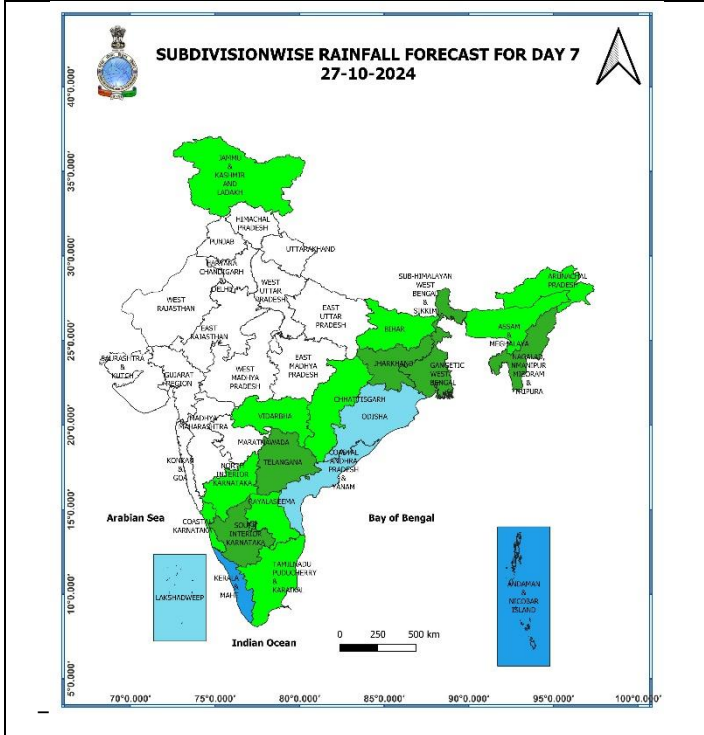
25 October (Day 5):

- ❖ **Heavy to very heavy rainfall at a few places with extremely heavy falls (≥ 20 cm) likely at isolated places over Odisha, Gangetic West Bengal; Heavy to very heavy rainfall (≥ 12 cm) likely at isolated places over Coastal Andhra Pradesh & Yanam; Heavy rainfall (≥ 7 cm) likely at isolated places over Chhattisgarh.**



26 October (Day 6):

❖ **Heavy rainfall ($\geq 12\text{cm}$)** likely at isolated places over Odisha and Chhattisgarh.



27 October (Day 7):

❖ Heavy rainfall ($\geq 12\text{cm}$) likely at isolated places over Odisha and Chhattisgarh.

Weather Outlook for subsequent 3 days (During 28th October – 30th October, 2024)

- ❖ Fairly widespread to widespread rainfall likely over East India and Islands.
- ❖ Isolated to Scattered rainfall likely over some parts of South Peninsular, Northeast India and Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad.
- ❖ 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 extremely heavy rainfall** very likely over Odisha on 24th & 25th October.
- ✓ **Isolated heavy to very heavy rainfall** very likely over Gangetic West Bengal on 24th & 25th; Coastal Andhra Pradesh & Yanam on 25th 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.
- ✓ 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. Undertake detrashing and propping of more than five-month-old sugarcane to avoid lodging. Provide support to banana plantations.
- ✓ In **Andaman and Nicobar Islands**, carry out harvesting of matured rice to avoid shattering loss and keep the harvested produce in safe places. To avoid water stagnation, provide adequate drainage in the rice fields (near physiological maturity).
- ✓ In **Madhya Maharashtra**, continue picking of fully opened and matured bolls of cotton and harvesting of matured soybean, maize, pearl millet, groundnut, papaya and banana and keep the harvested produce at safer places.
- ✓ In **Odisha**, undertake harvesting of rice crop if 85% of grains are matured in a panicle and store them at safer places. Immediately harvest matured maize, black gram, green gram, groundnut, and vegetables and shift them to safe places.
- ✓ Make necessary arrangements to drain out excess water from standing crop fields and fruit orchards to avoid water stagnation in Kerala, Karnataka, Andhra Pradesh, and Gujarat.
- ✓ Keep the harvested produce at safer places.
- ✓ Provide mechanical support to horticultural crops & staking to vegetables.

Fig. 1: Maximum Temperatures

Fig. 2: Departure of Maximum Temperatures

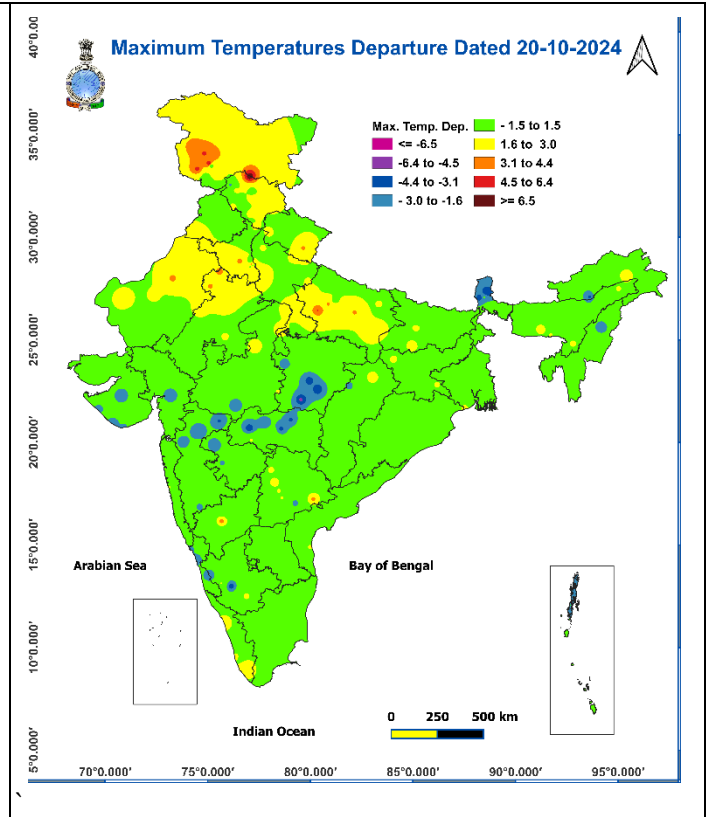
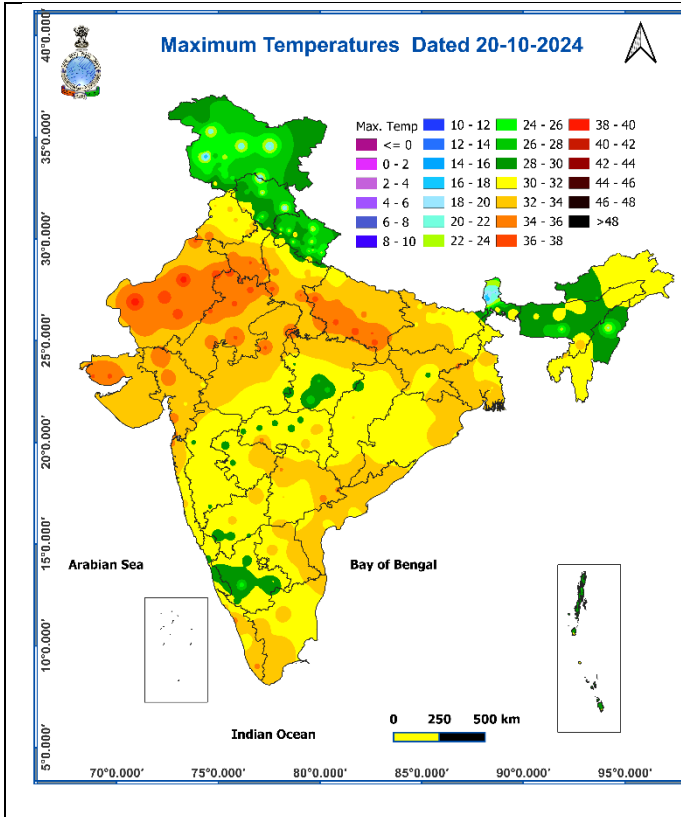


Fig. 3: Minimum Temperatures

Fig. 4: Departure of Minimum Temperatures

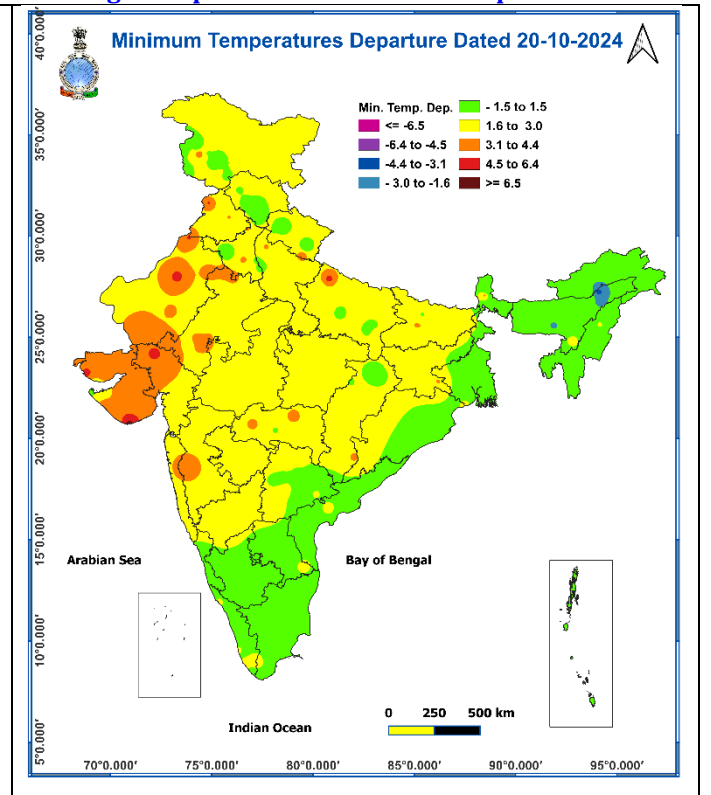
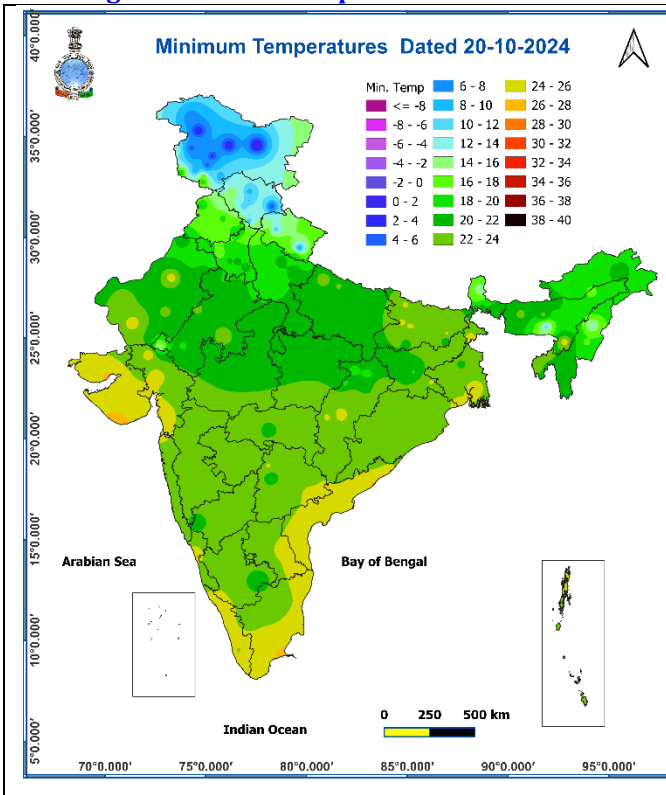
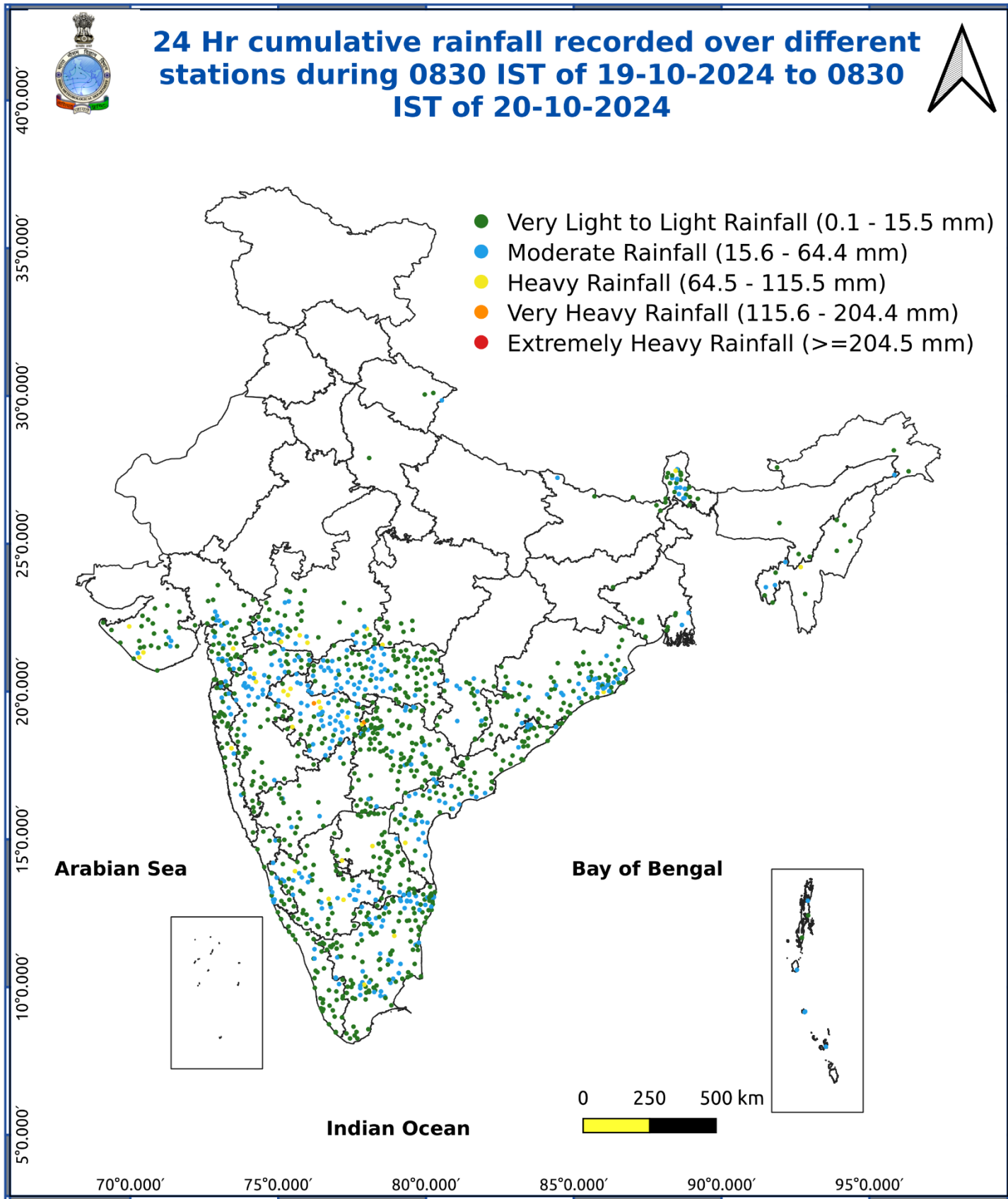


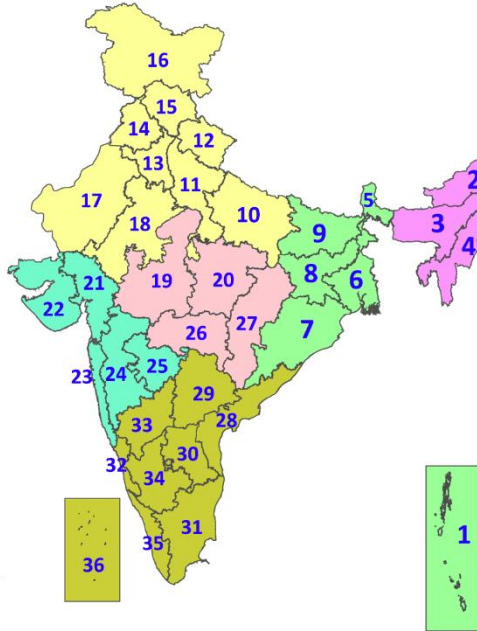
Fig. 5: Accumulated Rainfall (mm) during past 24 hours



* 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)

LEGENDS

1. अंडमान और निकोबार द्वीपसमूह
2. अरुणाचल प्रदेश
3. असम और मेघालय
4. नागालैंड, मणिपुर, मिजोरम और त्रिपुरा
5. उप-हिमालयी पश्चिम बंगाल और सिक्किम
6. गंगीय पश्चिम बंगाल
7. ओडिशा
8. झारखंड
9. बिहार
10. पूर्वी उत्तर प्रदेश
11. पश्चिम उत्तर प्रदेश
12. उत्तराखंड
13. हरियाणा, चंडीगढ़ और दिल्ली
14. पंजाब
15. हिमाचल प्रदेश
16. जम्मू और कश्मीर और लद्दाख
17. पश्चिम राजस्थान
18. पूर्वी राजस्थान
19. पश्चिम मध्य प्रदेश
20. पूर्वी मध्य प्रदेश
21. गुजरात
22. सौराष्ट्र
23. कोंकण और गोवा
24. मध्य महाराष्ट्र
25. मराठवाड़ा
26. विदर्भ
27. छत्तीसगढ़
28. तटीय आंध्र प्रदेश और यनम
29. तेलंगाना
30. रायलसीमा
31. तमिलनाडु, पुडुचेरी और कराईकल
32. तटीय कर्नाटक
33. आंतरिक उत्तरी कर्नाटक
34. आंतरिक दक्षिणी कर्नाटक
35. केरल और माहे
36. लक्षद्वीप



1. Andaman & Nicobar Islands
2. Arunachal Pradesh
3. Assam & Meghalaya
4. Nagaland, Manipur, Mizoram & Tripura
5. Sub-Himalayan West Bengal & Sikkim
6. Gangetic West Bengal
7. Odisha
8. Jharkhand
9. Bihar
10. East Uttar Pradesh
11. West Uttar Pradesh
12. Uttarakhand
13. Haryana, Chandigarh & Delhi
14. Punjab
15. Himachal Pradesh
16. Jammu & Kashmir and Ladakh
17. West Rajasthan
18. East Rajasthan
19. West Madhya Pradesh
20. East Madhya Pradesh
21. Gujarat
22. Saurashtra
23. Konkan & Goa
24. Madhya Maharashtra
25. Marathwada
26. Vidarbha
27. Chhattisgarh
28. Coastal Andhra Pradesh & Yanam
29. Telangana
30. Rayalaseema
31. Tamilnadu, Puducherry & Karaikal
32. Coastal Karnataka
33. North Interior Karnataka
34. South Interior Karnataka
35. Kerala & Mahe
36. Lakshadweep

SPATIAL DISTRIBUTION (% of Stations reporting)

% Stations	Category	% Stations	Category
76-100	Widespread (WS/Most Places)	26-50	Scattered (SCT/A Few Places)
51-75	Fairly Widespread (FWS/Many Places)	1-25	Isolated (ISOL)

- | | | |
|----------------------|----------------------|--------------|
| Fog | Heavy Snow | Cold Wave |
| Heavy Rain | Dust Storm | Cold Day |
| Very Heavy Rain | Heat Wave | Ground Frost |
| Extremely Heavy Rain | Warm Night | |
| Thunder & Lightning | Hot Day | |
| Hailstorm | Hot & Humid | |
| Dust Raising Winds | Strong Surface Winds | |

COLOUR CODED WARNING

No Warning (No Action)
Watch (Be Aware)
Alert (Be Prepared To Take Action)
Warning (Take Action)

Probabilistic Forecast

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

DEFINITION/CRITERIA

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°C to 6.4°C .
Severe Heat Wave: Maximum Temperature Departure from normal $\geq 6.5^\circ\text{C}$

(b). Based on Actual maximum temperature

Heat Wave: When actual maximum temperature $\geq 45^\circ\text{C}$.
Severe Heat Wave: When actual maximum temperature $\geq 47^\circ\text{C}$

(c) Criteria for heat wave for coastal stations

When maximum temperature departure is $>4.5^\circ\text{C}$ from normal. Heat Wave may be described provided maximum temperature $\geq 37^\circ\text{C}$

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

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°C to -6.4°C .
Severe Cold Wave: Minimum Temperature Departure from normal $\leq -6.5^\circ\text{C}$

(b) Based on actual Minimum Temperature (for Plains only)

Cold Wave : When Minimum Temperature is $\leq 4.0^\circ\text{C}$
Severe Cold Wave: When Minimum Temperature is $\leq 2.0^\circ\text{C}$

(c) For Coastal Stations

When Minimum Temperature departure is $\leq -4.5^\circ\text{C}$ & actual Minimum Temperature is $\leq 15^\circ\text{C}$

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°C to -6.4°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)

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