

Thursday, October 17, 2024  
Time of Issue: 0745 hours IST  
(MORNING)

## ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

### Significant Weather Features:

#### Weather Systems:

- ✓ The **depression** over westcentral and adjoining southwest Bay of Bengal moved west-northwestwards with a speed of 14 kmph during past 6 hours and crossed north Tamil Nadu - South Andhra Pradesh coasts between Puducherry and Nellore, close to north of Chennai, near latitude 13.5°N and longitude 80.2°E around 0430 hrs IST of today, the 17<sup>th</sup> October. Subsequently, it weakened into a **well marked low pressure area** and lay over South coastal Andhra Pradesh and adjoining North coastal Tamil Nadu at 0530 hrs IST of today, the 17<sup>th</sup> October, 2024. It is likely to continue to move west-northwestwards and weaken further into a low pressure area during next 12 hours.

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

##### South Peninsular India:

- ✓ **South Andhra Pradesh & Rayalaseema:** Light to moderate rainfall over most places with heavy rainfall at isolated places is likely on 17<sup>th</sup> October.
- ✓ **Kerala & south Interior Karnataka:** Light to moderate rainfall over most places with heavy rainfall at isolated places is likely over Kerala 17<sup>th</sup> October and south Interior Karnataka on 17<sup>th</sup> & 18<sup>th</sup> October.
- ✓ **Tamil Nadu & Puducherry:** Light to moderate rainfall over many places with isolated heavy rainfall over Tamil Nadu, Puducherry & Karaikal on 17<sup>th</sup> & 18<sup>th</sup> October.

##### Fishermen Warning:

- ✓ Fishermen are advised not to venture into Southwest and adjoining westcentral Bay of Bengal till 17<sup>th</sup> October. Fishermen out at sea are advised to return to coasts.

##### West India:

- ✓ Scattered to Fairly widespread light to moderate rainfall very likely over Konkan & Goa, Madhya Maharashtra, Marathwada during next 5 days and isolated to scattered light to moderate rainfall during subsequent 2 days over the same region; Isolated light to moderate rainfall over Gujarat Region during the week; Isolated light to moderate rainfall over Saurashtra & Kutch during next 2 days and dry weather likely during the subsequent 5 days.
- ✓ **Isolated heavy rainfall** very likely over Konkan & Goa and Madhya Maharashtra on 17<sup>th</sup> October.

##### East India:

- ✓ Fairly widespread to widespread light to moderate rainfall very likely over Andaman & Nicobar Islands; isolated light to moderate rainfall likely over the remaining region during the week.
- ✓ **Isolated heavy rainfall** very likely Andaman & Nicobar Islands during 19<sup>th</sup>-21<sup>st</sup> October.

##### Northwest, Central & Northeast India:

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

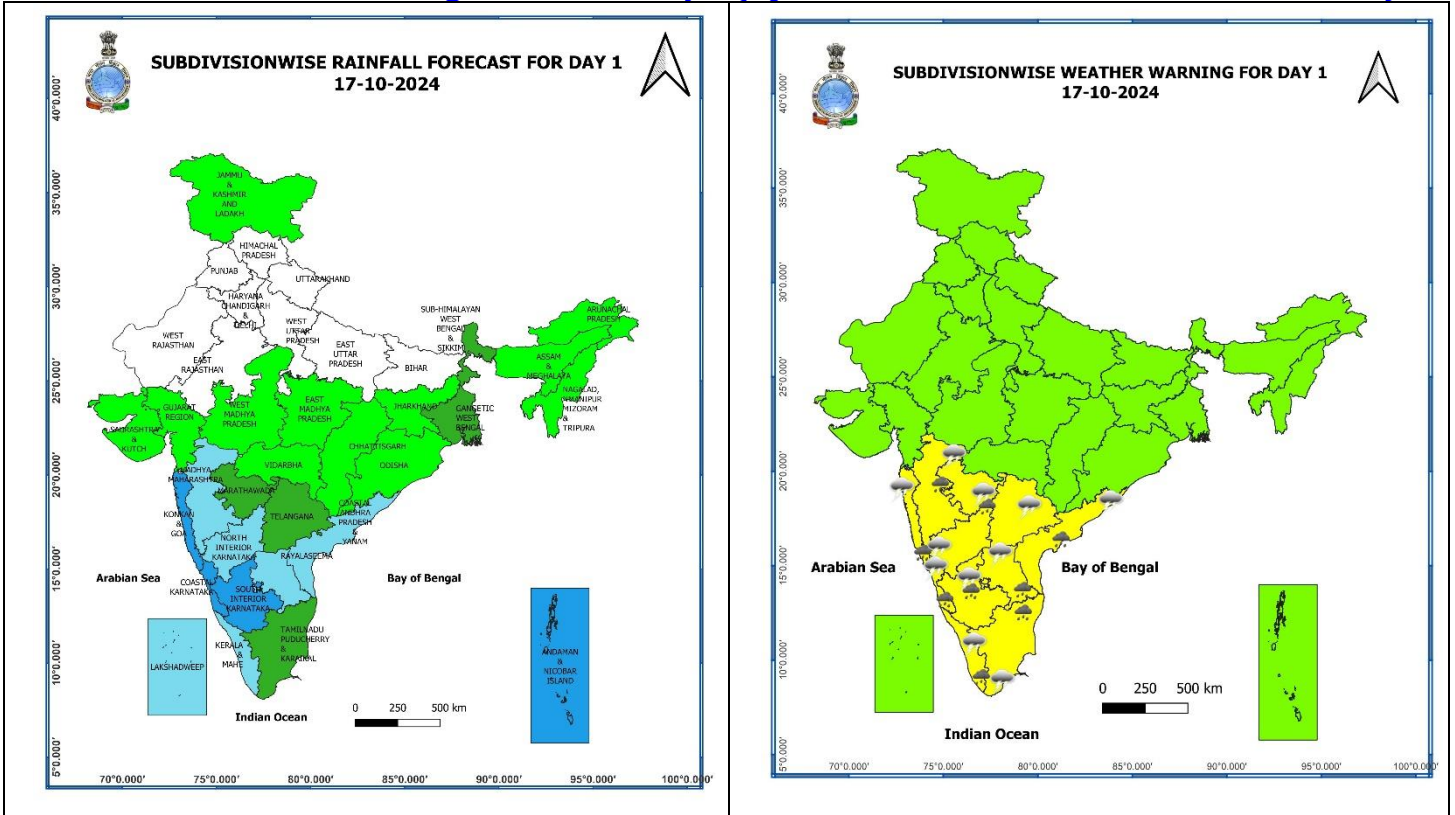
## Main Weather Observations:

- ❖ **Rainfall distribution** (from 0830 hours IST of to 1730 hours IST of yesterday): **at many places** over Kerala & Mahe; **at a few places** over Tamil Nadu, Puducherry & Karaikal, Coastal Andhra Pradesh & Yanam; **at isolated places** over Gujarat state, Konkan & Goa, Madhya Maharashtra, Karnataka, Rayalaseema, Telangana, Gangetic West Bengal, Assam & Meghalaya, Chhattisgarh, Jharkhand, Odisha.
- ❖ **Heavy rainfall recorded** (from 0830 hours IST to 1730 hours IST of yesterday): **Nil**
- ❖ **Significant amount of rainfall** (from 0830 hours IST to 1730 hours IST of yesterday) (in cm): **Coastal Andhra Pradesh & Yanam:** Nellore 6, Kavali 4, Narsapur 4, Ongole 2; **Coastal Karnataka:** Mangalore 6; **Kerala & Mahe:** Kozhikode 5, Kannur 3, Cochin Airport 2; **Gangetic West Bengal:** Diamond Harbour 3, Kolkata Dum Dum 3; **Assam & Meghalaya:** Dhubri 3; **Rayalaseema:** Anantapur 2, Arogyavaram 2; **Konkan & Goa:** Ratnagiri 2.
- ❖ **Minimum Temperature Departures (as on 16-10-2024):** Minimum temperatures were **markedly above normal (5.1°C or above)** at isolated places over East Madhya Pradesh and West Rajasthan; **appreciably above normal (3.1°C to 5.0°C)** at many places over Saurashtra & Kutch; at a few places over Gujarat Region, Madhya Maharashtra and West Madhya Pradesh; at isolated places over East Uttar Pradesh, Madhya Maharashtra, Vidarbha and Odisha; **above normal (1.6°C to 3.0°C)** at isolated places over Punjab, Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Bihar, Jharkhand, Chhattisgarh, West Bengal & Sikkim, Konkan & Goa, Marathwada, Telangana and Coastal Andhra Pradesh & Yanam. These were **appreciably below normal (-3.1°C to -5.0°C)** at isolated places over Tamil Nadu, Puducherry & Karaikal; **below normal (-1.6°C to -3.0°C)** at isolated places over East Rajasthan, Haryana-Delhi and Assam & Meghalaya. Yesterday, **the lowest minimum temperature of 15.6°C** was reported at **Delhi ridge (New Delhi)** over the plains of the country. (Fig.4)
- ❖ **Maximum Temperature Departures (as on 16-10-2024):** Maximum temperatures were **appreciably above normal (3.1°C to 5.0°C)** at isolated places over Odisha, Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad; **above normal (1.6°C to 3.0°C)** at a few places over Rajasthan, Vidarbha; at isolated places over Himachal Pradesh, East Uttar Pradesh, Chhattisgarh, Madhya Pradesh, Telangana, Tamil Nadu, Puducherry & Karaikal. These were **appreciably below normal (-3.1°C to -5.0°C)** at isolated places over Coastal Andhra Pradesh & Yanam, Rayalaseema; **below normal (-1.6°C to -3.0°C)** at a few places over Kerala & Mahe; at isolated places over Interior Karnataka, Konkan & Goa, Saurashtra & Kutch, Assam & Meghalaya. Yesterday, **the highest Maximum Temperature of 39.6°C** was reported at **Sri Ganganagar (West Rajasthan)** over the country. (Fig. 2)

## Meteorological Analysis (Based on 0530 hours IST)

- ❖ The **depression** over westcentral and adjoining southwest Bay of Bengal moved west-northwestwards with a speed of 14 kmph during past 6 hours and crossed north Tamil Nadu - South Andhra Pradesh coasts between Puducherry and Nellore, close to north of Chennai, near latitude 13.5°N and longitude 80.2°E around 0430 hrs IST of today, the 17<sup>th</sup> October. Subsequently, it weakened into a well marked low pressure area and lay over South coastal Andhra Pradesh and adjoining North coastal Tamil Nadu at 0530 hrs IST of today, the 17<sup>th</sup> October, 2024. It is likely to continue to move west-northwestwards and weaken further into a low pressure area during next 12 hours.
- ❖ The **cyclonic circulation** over north Bangladesh and adjoining Sub-Himalayan West Bengal at 0.9 km above mean sea level persists.
- ❖ The **cyclonic circulation** over east Assam & neighbourhood at 1.5 km above mean sea level persists.

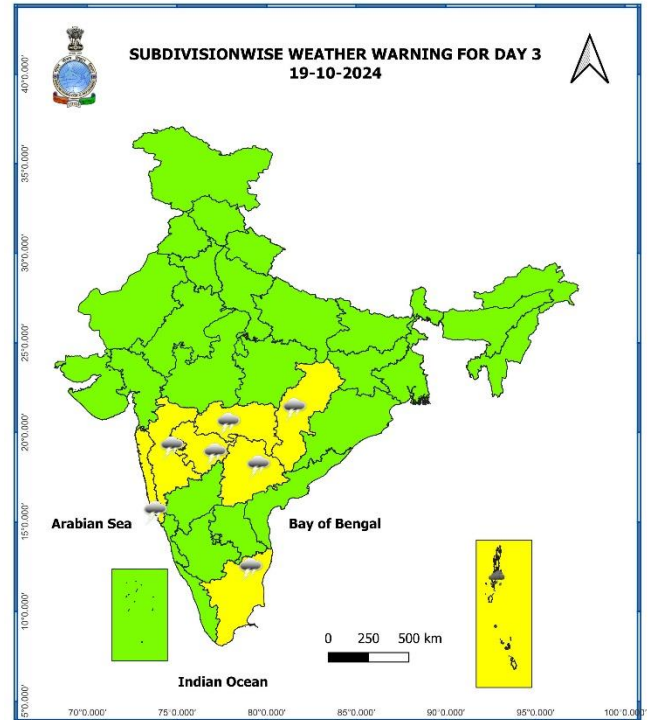
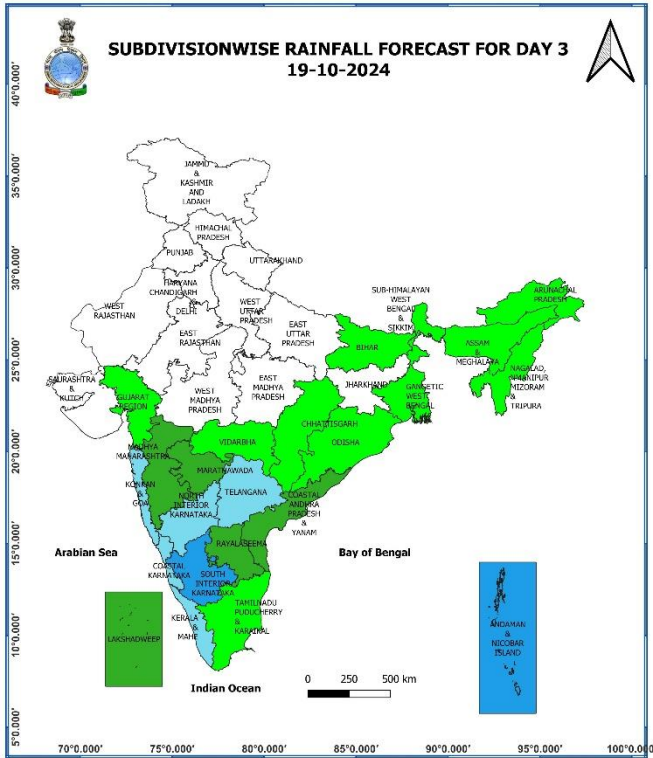
Weather Forecast & Warnings for next 7 days (Upto 0830 hours IST of 24<sup>th</sup> October, 2024)



17 October (Day 1):

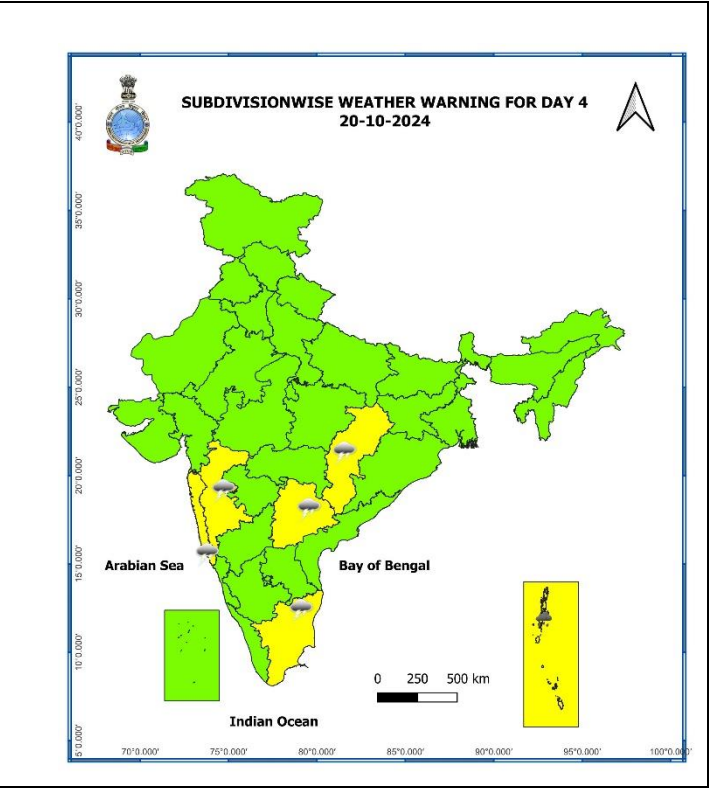
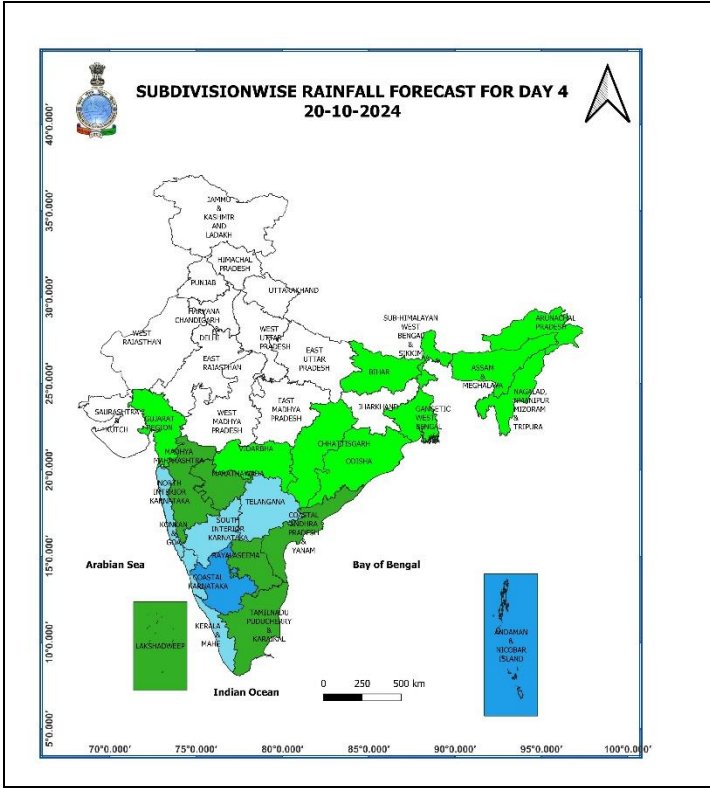
- ❖ **Heavy rainfall ( $\geq 7\text{cm}$ )** very likely at isolated places over Konkan & Goa, Madhya Maharashtra, Kerala & Mahe, Coastal Andhra Pradesh & Yanam, Rayalaseema, Karnataka and Tamil Nadu, Puducherry & Karaikal.
- ❖ **Thunderstorm accompanied with lightning & gusty winds (30-40 kmph)** very likely at isolated places over Telangana, Coastal Andhra Pradesh & Yanam, Rayalaseema; **with lightning** very likely at isolated places over Konkan & Goa, Madhya Maharashtra, Marathwada, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe, Karnataka.
- ❖ **Squally weather with wind speed 35 kmph to 45 kmph gusting to 55 kmph** very likely to prevail over along and off Kerala, Karnataka coasts and adjoining Lakshadweep area, over Comorin area, gulf of Mannar, along and off Sri Lanka coast, along and off Tamil Nadu, Andhra Pradesh coasts, many parts of southwest Bay of Bengal and westcentral Bay of Bengal. **Squally weather with wind speed 40 kmph to 50 kmph gusting to 60 kmph** is likely to prevail over along and off north Tamil Nadu and adjoining south Andhra Pradesh coasts and parts of southwest and westcentral Bay of Bengal. Fishermen are advised not to venture into these areas.





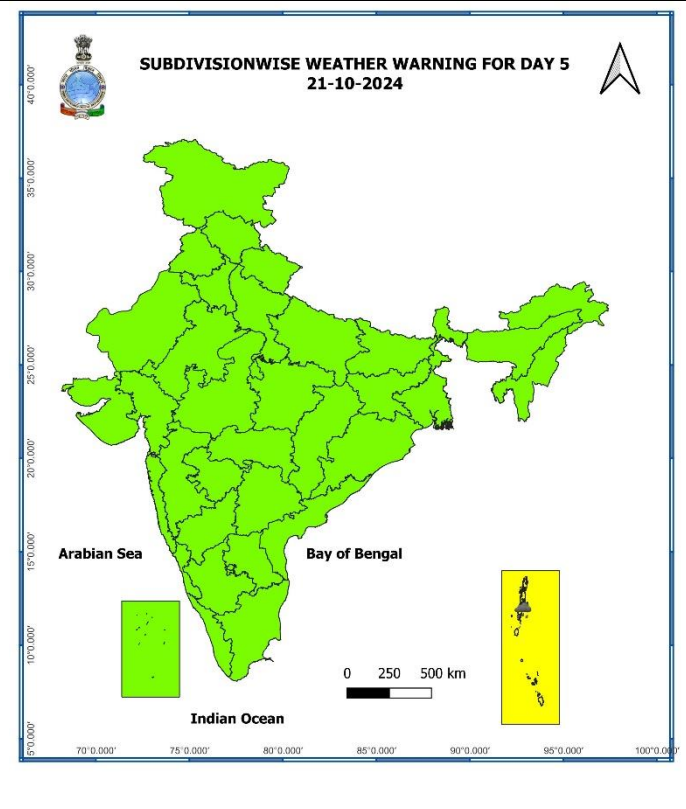
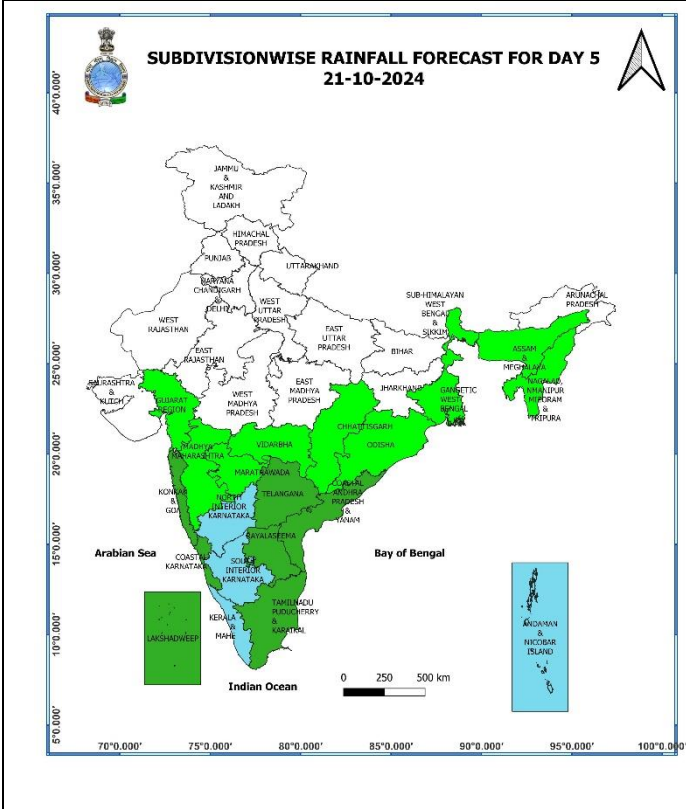
### 19 October (Day 3):

- ❖ Heavy rainfall ( $\geq 7\text{cm}$ ) very likely at isolated places over Andaman & Nicobar Islands.
- ❖ Thunderstorm accompanied with lightning & gusty winds (30-40 kmph) very likely at isolated places over Telangana; with lightning very likely at isolated places over Vidarbha, Chhattisgarh, Konkan & Goa, Madhya Maharashtra, Marathwada, Tamil Nadu, Puducherry & Karaikal.
- ❖ Squally weather with wind speed 35 kmph to 45 kmph gusting to 55 kmph very likely to prevail over gulf of Mannar. Fishermen are advised not to venture into this area.



### 20 October (Day 4):

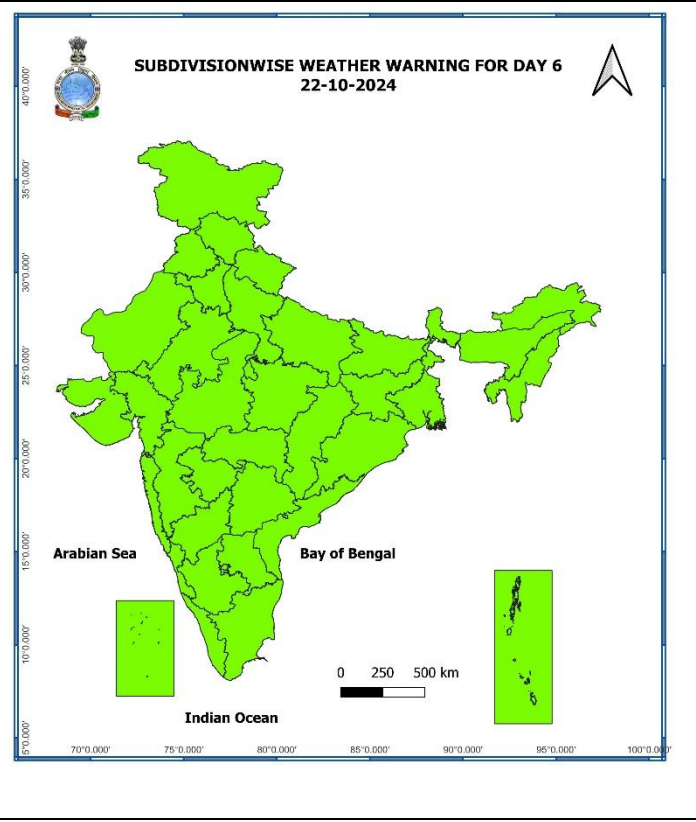
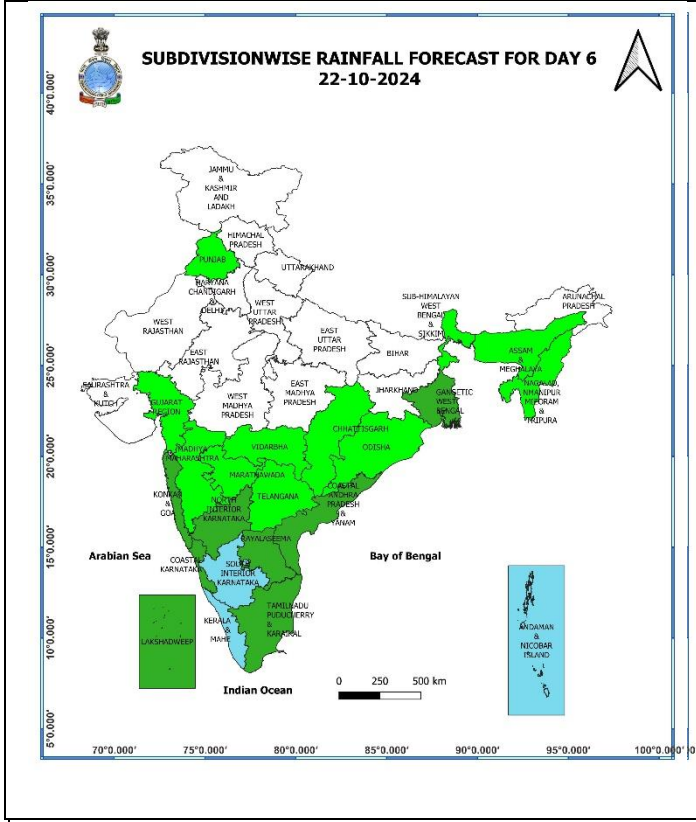
- ❖ **Heavy rainfall (≥7cm)** likely at isolated places over Andaman & Nicobar Islands.
- ❖ **Thunderstorm with lightning & gusty winds (30-40 kmph)** likely at isolated places over Telangana; **with lightning** very likely at isolated places over Chhattisgarh, Konkan & Goa, Madhya Maharashtra, Tamil Nadu, Puducherry & Karaikal.
- ❖ **Squally weather with wind speed 35 kmph to 45 kmph gusting to 55 kmph** likely to prevail over gulf of Mannar. Fishermen are advised not to venture into this area.



**21 October (Day 5):**

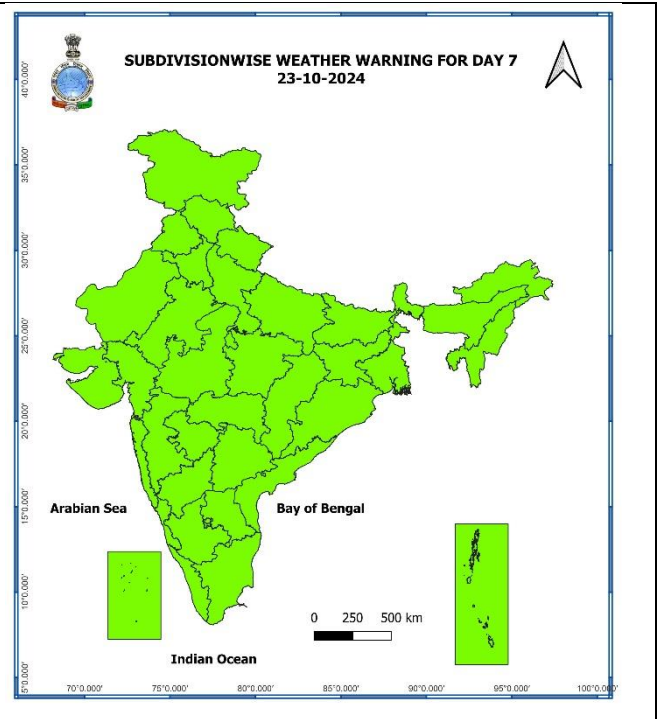
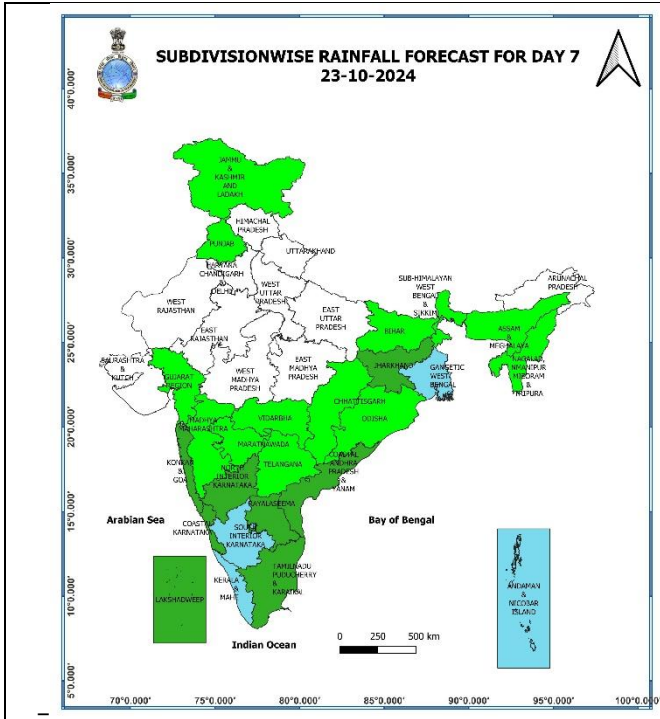
- ❖ Heavy rainfall ( $\geq 7\text{cm}$ ) likely at isolated places over Andaman & Nicobar Islands.





**22 October (Day 6):**

❖ **No weather warning.**



**23 October (Day 7):**

❖ **No weather warning.**

**Weather Outlook for subsequent 3 days (During 24<sup>th</sup> October- 26<sup>th</sup> October, 2024)**

- ❖ Fairly widespread to widespread rainfall likely over South Peninsular 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.

\* 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)

## Impact due to

- ✓ **Low to Moderate flash flood likely over** few watersheds & neighbourhoods of Rayalaseema, South Interior Karnataka on 17<sup>th</sup> & 18<sup>th</sup> October. (**Annexure I**)

## 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 **south Coastal Andhra Pradesh**, drain out excess water from cotton, pulses, maize and rice fields and postpone sowing of *rabi* pulses. Shift the harvested rice at safer places. In **north Coastal Andhra Pradesh**, postpone harvesting of groundnut and maize.
- ✓ In **Rayalaseema**, protect the harvested groundnut produce. Withhold sowing of *rabi* Bengal gram and groundnut.
- ✓ Drain out excess water from rice nurseries and fields of rice, maize, pepper, and newly planted turmeric in **Tamil Nadu** as well as from rice and other standing crops and vegetable fields in **Kerala**.
- ✓ Keep the harvested produce at safer places.
- ✓ Provide mechanical support to horticultural crops & staking to vegetables.

## Flash Flood Risk

## Annexure I

### 24 hours Outlook for the Flash Flood Risk (FFR) till 0530 IST of 18-10-2024:

**Low to Moderate flash flood risk** likely over few watersheds & neighbourhoods of following Met Sub-division during next 24 hours.

**Rayalaseema** - Chittoor and Kadapa districts.  
**South Interior Karnataka** - Chitradurga and Davangere districts.

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.

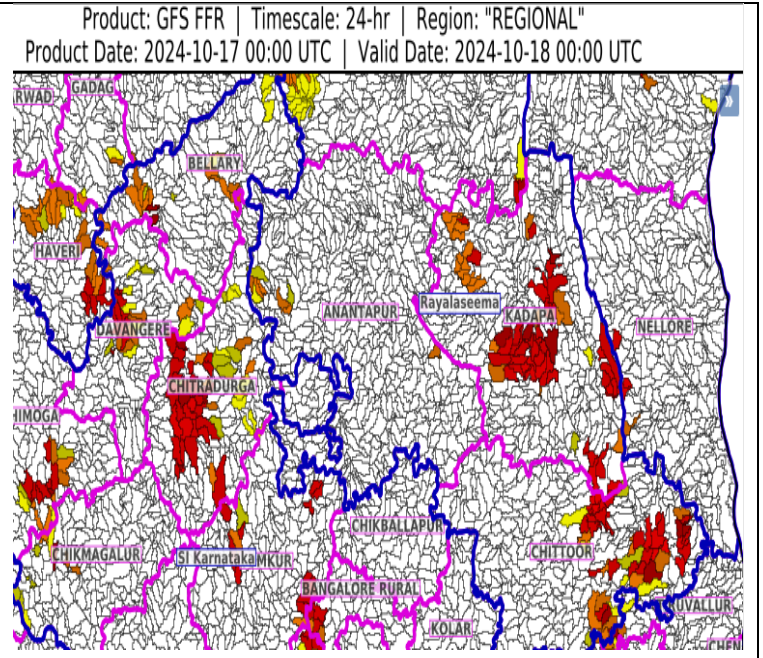


Fig. 1: Maximum Temperatures

Fig. 2: Departure of Maximum Temperatures

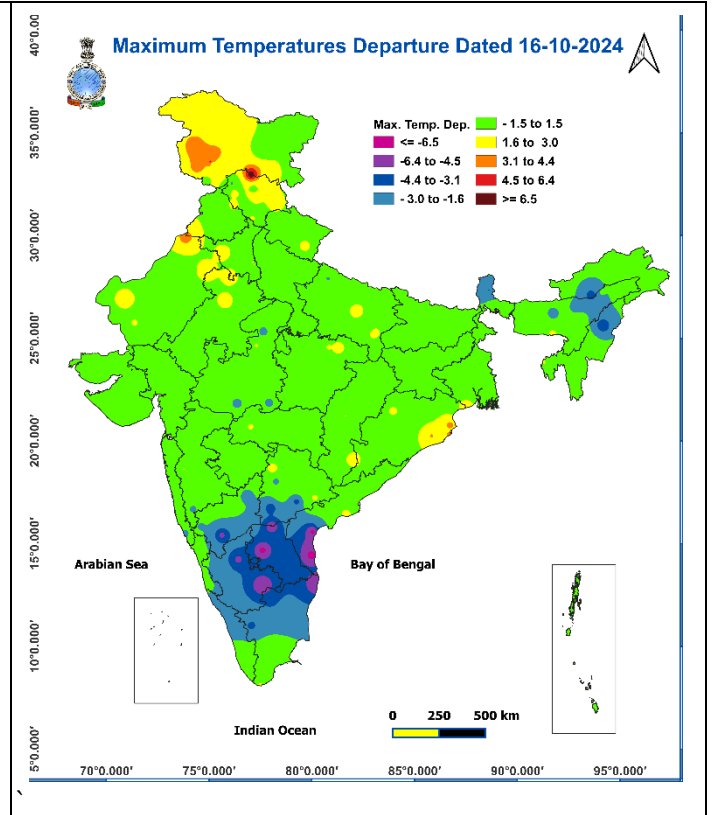
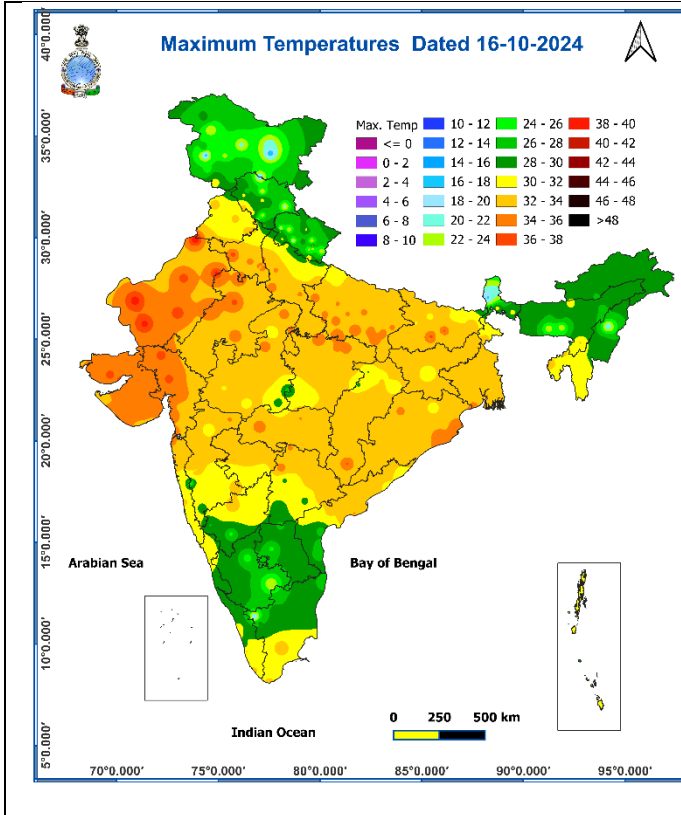


Fig. 3: Minimum Temperatures

Fig. 4: Departure of Minimum Temperatures

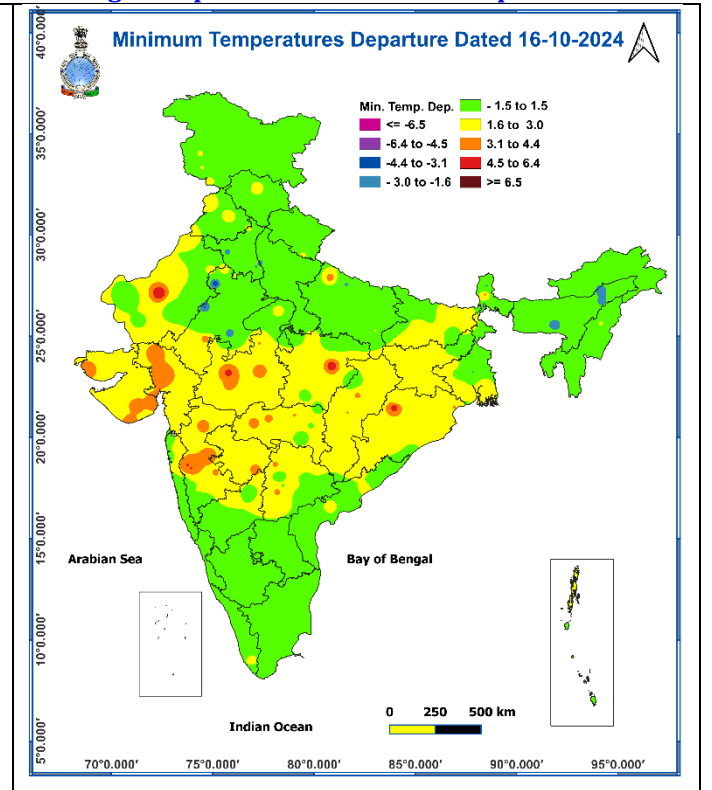
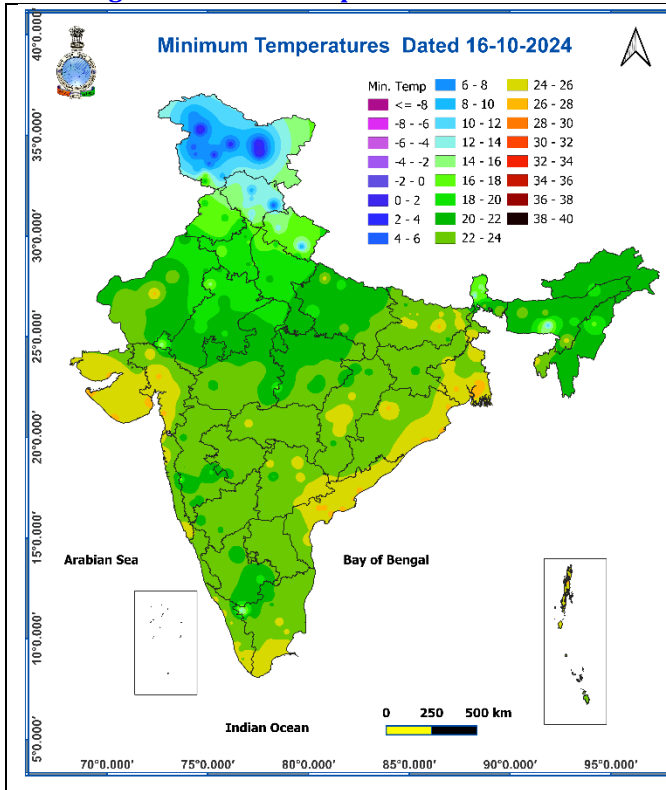
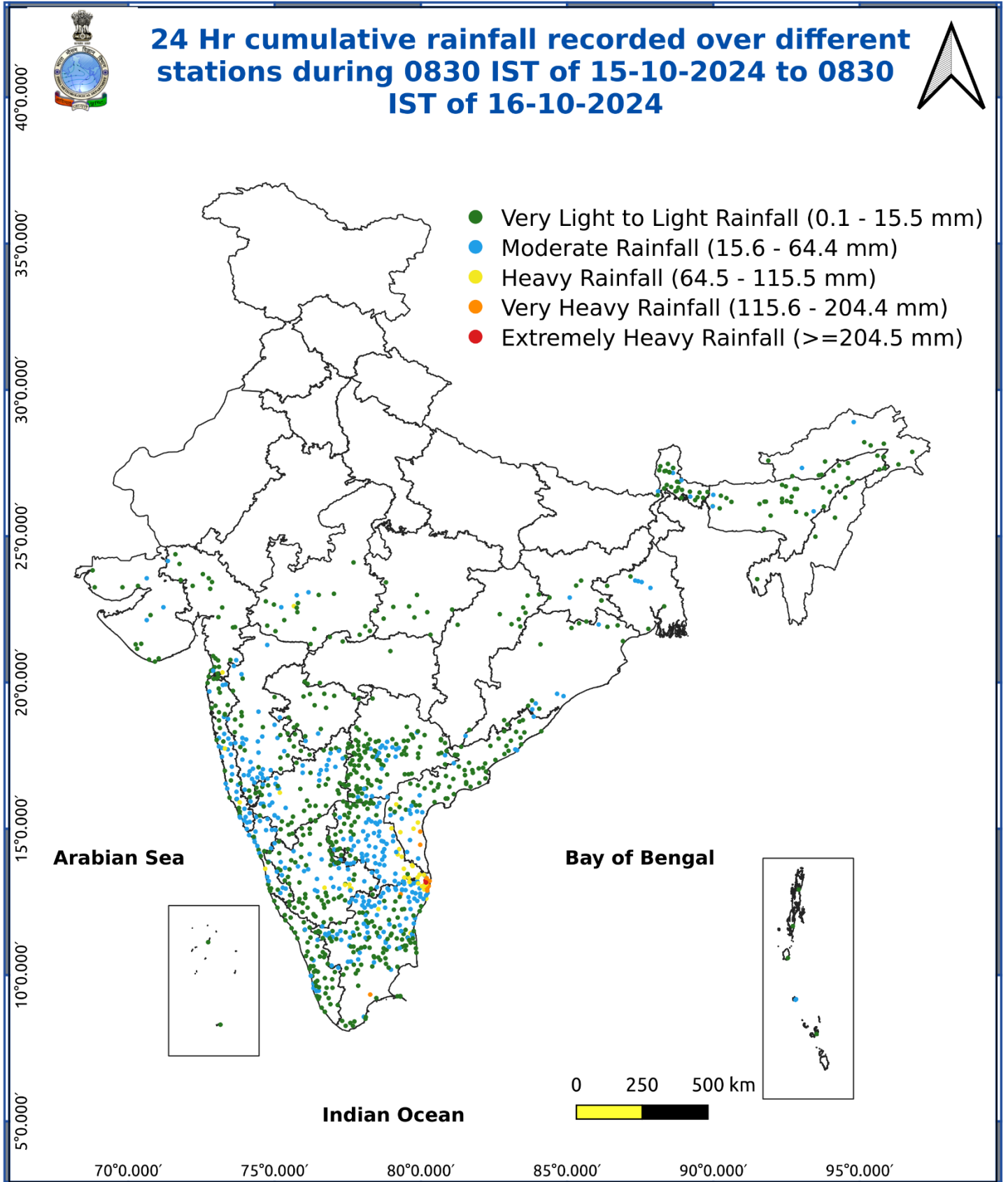


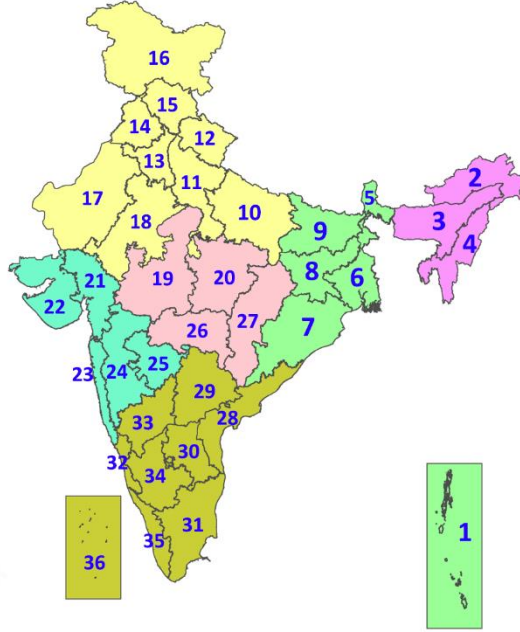
Fig. 5: Accumulated Rainfall (mm) during past 24 hours



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## 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

<b>Rain/ Snow *</b>	<p><b>Heavy:</b> 64.5 to 115.5 mm/cm *</p> <p><b>Very Heavy:</b> 115.6 to 204.4 mm/cm*</p> <p><b>Extremely Heavy:</b> &gt; 204.4 mm/cm *</p>
<b>Heat Wave</b>	<p><b>When maximum temperature of a station reaches <math>\geq 40^\circ\text{C}</math> for plains and <math>\geq 30^\circ\text{C}</math> for hilly regions</b></p> <p><b>(a) Based on Departure from normal</b></p> <p><b>Heat Wave:</b> Maximum Temperature Departure from normal <math>4.5^\circ\text{C}</math> to <math>6.4^\circ\text{C}</math>.</p> <p><b>Severe Heat Wave:</b> Maximum Temperature Departure from normal <math>\geq 6.5^\circ\text{C}</math></p> <p><b>(b). Based on Actual maximum temperature</b></p> <p><b>Heat Wave:</b> When actual maximum temperature <math>\geq 45^\circ\text{C}</math>.</p> <p><b>Severe Heat Wave:</b> When actual maximum temperature <math>\geq 47^\circ\text{C}</math></p> <p><b>( c). Criteria for heat wave for coastal stations</b></p> <p>When maximum temperature departure is <math>&gt;4.5^\circ\text{C}</math> from normal. Heat Wave may be described provided maximum temperature <math>\geq 37^\circ\text{C}</math></p>
<b>Warm Night</b>	<p><b>When maximum temperature remains <math>40^\circ\text{C}</math></b></p> <p><b>Warm Night:</b> When minimum temperature departure <math>4.5^\circ\text{C}</math> to <math>6.4^\circ\text{C}</math>.</p> <p><b>Severe Warm Night:</b> When minimum temperature departure <math>&gt;6.4^\circ\text{C}</math>.</p>
<b>Cold Wave</b>	<p><b>When minimum temperature of a station <math>\leq 10^\circ\text{C}</math> for plains and <math>\leq 0^\circ\text{C}</math> for hilly regions.</b></p> <p><b>(a). Based on departure</b></p> <p><b>Cold Wave:</b> Minimum Temperature Departure from normal <math>-4.5^\circ\text{C}</math> to <math>-6.4^\circ\text{C}</math>.</p> <p><b>Severe Cold Wave:</b> Minimum Temperature Departure from normal <math>\leq -6.5^\circ\text{C}</math></p> <p><b>(b) Based on actual Minimum Temperature (for Plains only)</b></p> <p><b>Cold Wave :</b> When Minimum Temperature is <math>\leq 4.0^\circ\text{C}</math></p> <p><b>Severe Cold Wave:</b> When Minimum Temperature is <math>\leq 2.0^\circ\text{C}</math></p> <p><b>( c) For Coastal Stations</b></p> <p>When Minimum Temperature departure is <math>\leq -4.5^\circ\text{C}</math> &amp; actual Minimum Temperature is <math>\leq 15^\circ\text{C}</math></p>
<b>Cold Day</b>	<p><b>When minimum temperature of a station <math>\leq 10^\circ\text{C}</math> for plains and <math>\leq 0^\circ\text{C}</math> for hilly regions</b></p> <p><b>Based on departure</b></p> <p><b>Cold Day:</b> Maximum Temperature Departure from normal <math>-4.5^\circ\text{C}</math> to <math>-6.4^\circ\text{C}</math>.</p> <p><b>Severe Cold Day:</b> Maximum Temperature Departure from normal <math>\leq -6.5^\circ\text{C}</math></p>
<b>Fog</b>	<p><b>Phenomenon of small droplets suspended in air and the horizontal visibility <math>&lt; 1\text{km}</math></b></p> <p><b>Moderate Fog:</b> When the visibility between 500-200 metres</p> <p><b>Dense Fog:</b> when the visibility between 50- 200 metres</p> <p><b>Very Dense Fog:</b> when the visibility <math>&lt; 50</math> metres</p>
<b>Thunderstorm</b>	<p><b>Sudden electrical discharges manifested by a flash of light (Lightning) and a sharp rumbling sound (thunder)</b></p>
<b>Dust/Sand Storm</b>	<p><b>An ensemble of particles of dust or sand energetically lifted to great heights by a strong and turbulent wind.</b></p>
<b>Frost</b>	<p><b>Ice deposits on ground</b></p> <p>Air temperature <math>\leq 4^\circ\text{C}</math> ( over Plains)</p>
<b>Squall</b>	<p><b>A strong wind that rises suddenly, lasts for atleast 1 minute.</b></p> <p><b>Moderate:</b> Wind speed 52-61 kmph</p> <p><b>Severe:</b> Wind speed 62-87 kmph</p> <p><b>Very Severe:</b> Wind speed <math>&gt;87</math> kmph</p>
<b>Sea State</b>	<p><b>Effect of various waves in the sea over specific area</b></p> <p><b>Rough to very rough:</b> Wind speed 41-62 kmph (22-33 knots) &amp; Wave height 2.5-6 metre</p> <p><b>High to very high:</b> Wind speed 63-117 kmph ( 34-63 knots) &amp; Wave height 6-14 metre</p> <p><b>Phenomenal:</b> Wind speed <math>&gt;117</math> kmph (<math>&gt;63</math> knots) &amp; Wave height <math>&gt;14</math> metre</p>
<b>Cyclone</b>	<p><b>Cyclonic Storm:</b> Wind speed 62-87 kmph (34-47 knots)</p> <p><b>Severe Cyclonic Storm:</b> Wind speed 88-117 kmph (48-63 knots)</p> <p><b>Very Severe Cyclonic Storm:</b> Wind speed 118-165 kmph (64 - 89 knots)</p> <p><b>Extremely Severe Cyclonic Storm:</b> Wind speed 166-220 kmph (90 -119 knots)</p> <p><b>Super Cyclone Strom:</b> Wind speed <math>&gt;220</math> kmph (<math>&gt;119</math> knots)</p>