

Tuesday, October 15, 2024
Time of Issue: 1345 hours IST
(MID-DAY)

ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

Significant Weather Features:

Commencement of Northeast Monsoon rainfall activity over southeast peninsular India:

- ❖ Southwest monsoon has withdrawn from the entire country today, the 15th October 2024. Simultaneously, the Northeast Monsoon rainfall activity has commenced over the southeast peninsular India today, the 15th October, in association with following features:
 - (a) A **well marked low pressure area** lies over central part of south Bay of Bengal.
 - (b) Easterly & northeasterly winds set-in over southern peninsular India, south & adjoining central Bay of Bengal and extends upto middle tropospheric levels,
 - (c) Fairly widespread to widespread light to moderate rainfall occurred over southeast peninsula with isolated Heavy to very Heavy rainfall observed over Tamil Nadu & Puducherry, Coastal Andhra Pradesh, Rayalaseema and Kerala.

Weather Systems:

- ❖ The **well marked low pressure area** over the central part of south Bay of Bengal persisted over the same region at 0830 hours IST of today, the 15th October 2024. It is likely to move west-northwestwards and intensify into a depression over southwest Bay of Bengal during next 24 hours. It is likely to continue to move west-northwestwards towards north Tamil Nadu, Puducherry and adjoining south Andhra Pradesh coasts during subsequent 24 hours.
- ❖ Yesterday's **Depression** over westcentral Arabian Sea off Oman coast moved northwestwards with a speed of 18 kmph during past 6 hours, and lay centred at 0830 hours IST of today, the 15th October, 2024 over the same region near latitude 16.8°N and longitude 60.5°E, about 460 km south-southeast of Masirah (Oman), 680 km east of Salalah (Oman) and 900 km east of Al Ghaidah (Yemen). It is likely to move nearly westwards towards Oman coast and weaken gradually into a well-marked low pressure area during next 06 hours.
- ❖ A **cyclonic circulation** lies over westcentral Bay of Bengal off south coastal Andhra Pradesh and extends upto middle tropospheric levels tilting southwestwards with height.

Forecast & Warnings (upto 7 days):

South Peninsular India:

- ✓ Fairly widespread to widespread light to moderate rainfall very likely over Kerala & Mahe, Karnataka during the week; Scattered to Fairly widespread light to moderate rainfall very likely over Lakshadweep, Rayalaseema, Coastal Andhra Pradesh & Yanam, Telangana, Tamil Nadu, Puducherry & Karaikal during the week.
- ✓ **Isolated extremely heavy rainfall** very likely over Tamil Nadu, Puducherry & Karaikal on 15th & 16th; Rayalaseema, Coastal Andhra Pradesh & Yanam on 16th October.
- ✓ **Isolated very heavy rainfall** very likely over Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe, South Interior Karnataka during 15th -17th; Rayalaseema, Coastal Andhra Pradesh & Yanam on 15th & 16th; Coastal Karnataka on 16th October.
- ✓ **Isolated heavy rainfall** very likely over Kerala & Mahe, Tamil Nadu, Puducherry & Karaikal, Coastal Andhra Pradesh & Yanam, Rayalaseema, South Interior Karnataka during 15th -17th; Coastal Karnataka during 15th-18th; North Interior Karnataka during 16th & 17th October.

West India:

- ✓ Scattered to Fairly widespread light to moderate rainfall very likely over Konkan & Goa; Isolated to Scattered light to moderate rainfall over remaining regions of West India except Saurashtra & Kutch where Dry weather is likely to prevail from 17th-21st during the week.
- ✓ **Isolated heavy rainfall** very likely Konkan & Goa during 15th-17th October.

Northwest, Central, Northeast & East India:

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

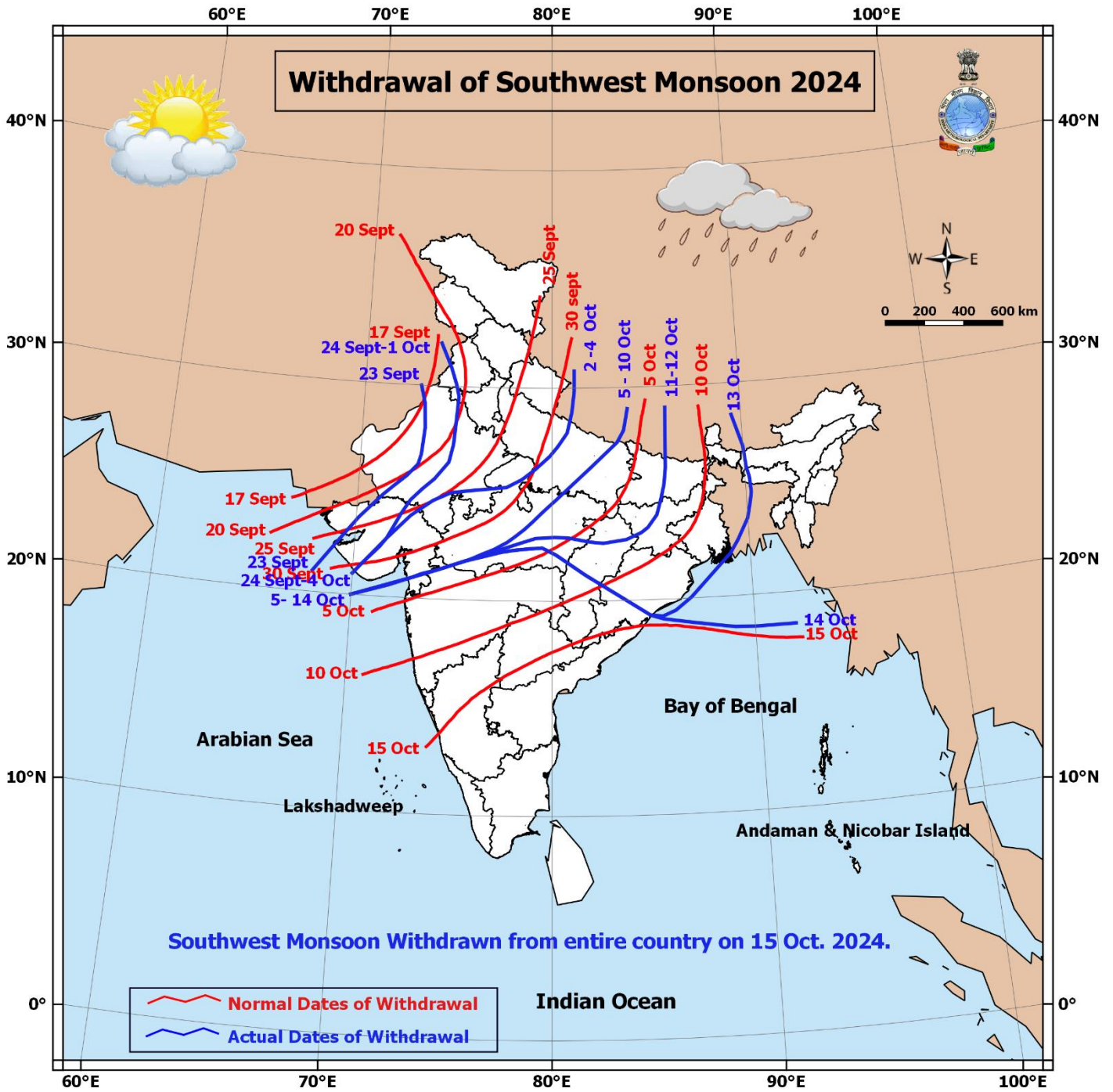
Main Weather Observations:

- ❖ **Rainfall distribution** (from 0830 hours IST of yesterday to 0830 hours IST of today): **at most places** over Konkan & Goa, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe, Rayalaseema; **at many places** over Andaman & Nicobar Islands, Coastal Andhra Pradesh & Yanam, Coastal Karnataka, South Interior Karnataka; **at a few places** over Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh, Madhya Maharashtra, Saurashtra & Kutch, Lakshadweep, Telangana, North Interior Karnataka; **at isolated places** over Madhya Pradesh, Vidarbha, Chhattisgarh, Gangetic West Bengal, Bihar, Jharkhand, Odisha, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Marathwada, Gujarat Region.
- ❖ **Heavy rainfall recorded** (from 0830 hours IST of yesterday to 0830 hours IST of today): **Heavy to very Heavy rainfall** at isolated places over Coastal Andhra Pradesh & Yanam, East Madhya Pradesh, Tamil Nadu, Puducherry & Karaikal; **Heavy rainfall** at isolated places over West Madhya Pradesh, Madhya Maharashtra, Rayalaseema, Saurashtra & Kutch, Kerala & Mahe.
- ❖ **Significant amount of rainfall** (from 0830 hours IST of yesterday to 0830 hours IST of today) (in cm): **Coastal Andhra Pradesh & Yanam:** Kavali (dist Spsr Nellore) 15, Addanki (dist Bapatla) 14, Kandukur (dist Spsr Nellore) 12, Yanam (dist Yanam) 9, Atmakur (dist Spsr Nellore) 8, Podili (dist Prakasam) 8, Nellore (dist Spsr Nellore) 8; **Tamil Nadu, Puducherry & Karaikal:** Kudimiyamalai (dist Pudukkottai) 13, Gummidipoondi (dist Tiruvallur), Ennore AWS (dist Chennai) 10 each, Zone 02 D15, Manali (dist Chennai), Zone 08 Malar Colony (dist Chennai), Zone 06 D65 Kolathur (dist, Chennai), Zone 06 T.V.K Nagar (dist Chennai), Ponneri (dist Tiruvallur), Zone 05 Royapuram (dist Chennai) 9 each, Chennai Collector Office (dist Chennai), Zone 10 Kodambakkam (dist Chennai), Good Will School Villivakkam ARG (dist Tiruvallur), Zone 07 Ambattur (dist Chennai), Sholinganallur (dist Chennai), Zone 02 Manali (dist Chennai), Zone 09 Teynampet (dist Chennai) 8 each; **East Madhya Pradesh:** Bilhari (dist Katni) 12; **Rayalaseema:** Kodur (dist Ysr District) 10, Sullurpeta (dist Tirupati) 7; **Kerala & Mahe:** Tellichery (dist Cannur) 8; **Saurashtra & Kutch:** Bagasra (dist Amreli) 8; **West Madhya Pradesh:** Sardarpur (dist Dhar) 7; **Madhya Maharashtra:** Ambegaon Ghodegaon (dist Pune) 7.
- ❖ **Minimum Temperature Departures (as on 15-10-2024):** Minimum temperatures are **markedly above normal (5.1°C or above)** at isolated places over East Rajasthan; **appreciably above normal (3.1°C to 5.0°C)** at a few places over Vidarbha, Madhya Maharashtra; at isolated places over West Rajasthan, Gujarat State, Madhya Pradesh, Odisha; **above normal (1.6°C to 3.0°C)** at most places over Marathwada, Chhattisgarh; at many places over Bihar, Jharkhand, Sub-Himalayan West Bengal & Sikkim, Telangana; at a few places over Gangetic West Bengal, North Interior Karnataka; at isolated places over Himachal Pradesh, Punjab, Uttar Pradesh, Konkan & Goa, Coastal Andhra Pradesh & Yanam. These are **below normal (-1.6°C to -3.0°C)** at isolated places over Haryana-Delhi, Tamil Nadu, Puducherry & Karaikal. Today, **the lowest minimum temperature of 15.4°C** is reported at **Delhi ridge (New Delhi)** over the plains of the country. (Fig.4)
- ❖ **Maximum Temperature Departures (as on 14-10-2024):** Maximum temperatures were **appreciably above normal (3.1°C to 5.0°C)** at few places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad; **above normal (1.6°C to 3.0°C)** at a few places over Himachal Pradesh; at isolated places over Uttarakhand, Punjab, West Rajasthan, Chhattisgarh, Odisha, Gangetic West Bengal, Vidarbha, Madhya Maharashtra, Marathwada, Nagaland, Manipur, Mizoram & Tripura. These were **markedly below normal (-5.1°C or less)** at isolated places over Tamil Nadu, Puducherry & Karaikal; **appreciably below normal (-3.1°C to -5.0°C)** at isolated places over East Rajasthan, West Madhya Pradesh, Rayalaseema, Telangana; **below normal (-1.6°C to -3.0°C)** at isolated places over Gujarat state, East Uttar Pradesh, Bihar, Sub-Himalayan West Bengal & Sikkim, South Interior Karnataka, Kerala & Mahe, Coastal Andhra Pradesh & Yanam. Yesterday, **the highest Maximum Temperature of 38.0°C** was reported at **Sri Ganganagar (West Rajasthan)** over the country. (Fig. 2)

Meteorological Analysis (Based on 0830 hours IST)

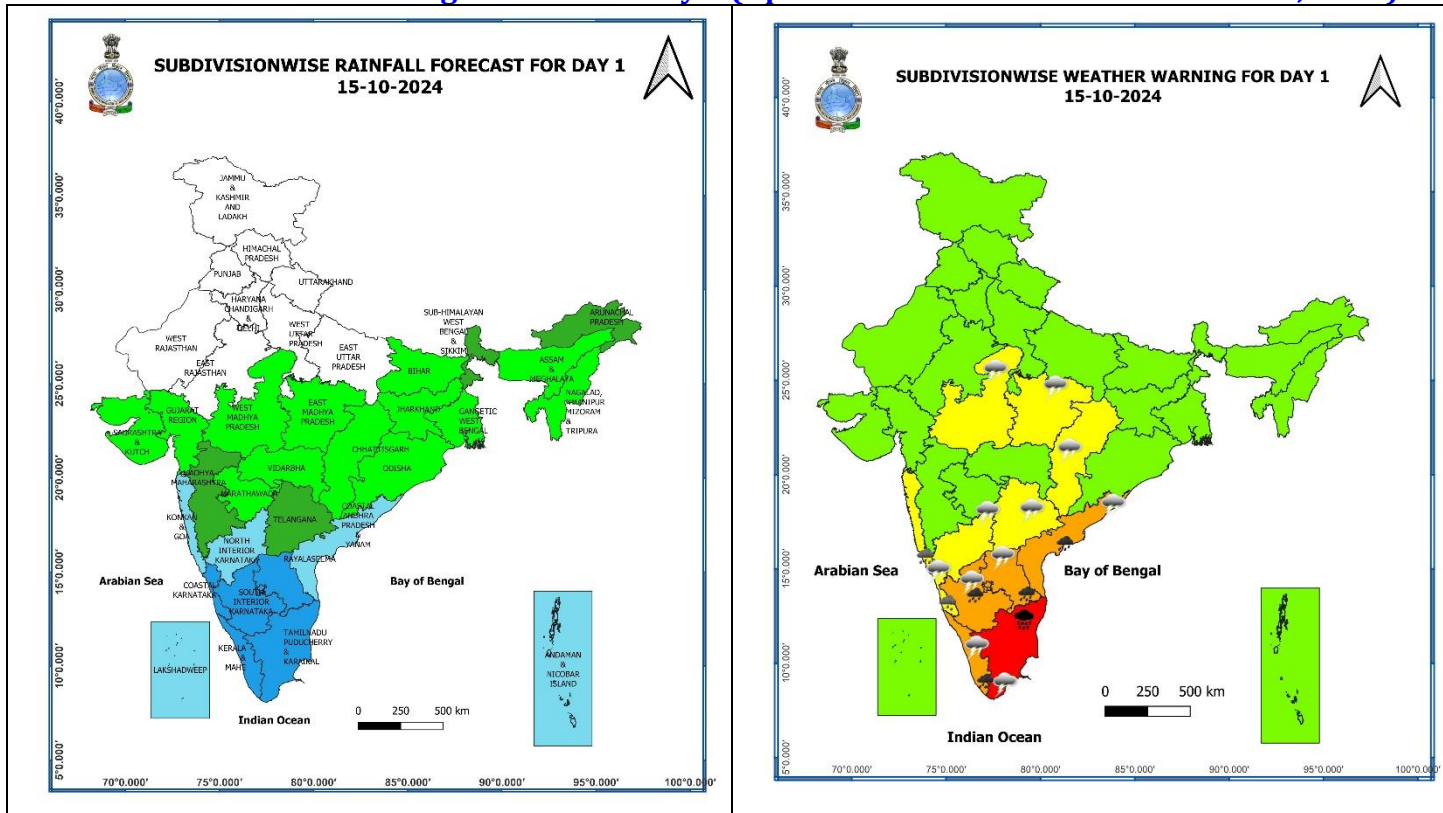
- ❖ Southwest monsoon has withdrawn from the entire country today, the 15th October 2024. Simultaneously, the Northeast Monsoon rainfall activity has commenced over the southeast peninsular India today, the 15th October, in association with following features:
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- ❖ The **well marked low pressure area** over the central part of south Bay of Bengal persisted over the same region at 0830 hours IST of today, the 15th October 2024. It is likely to move west-northwestwards and intensify into a depression over southwest Bay of Bengal during next 24 hours. It is likely to continue to move west-northwestwards towards north Tamil Nadu, Puducherry and adjoining south Andhra Pradesh coasts during subsequent 24 hours.
- ❖ The **cyclonic circulation** over westcentral Bay of Bengal off south Andhra Pradesh coast extending upto 5.8 km above mean sea level tilting southwestwards with height persists.
- ❖ The **Depression** over westcentral Arabian Sea off Oman coast moved northwestwards with a speed of 18 kmph during past 6 hours, and lay centred at 0830 hours IST of today, the 15th October, 2024 over the same region near latitude 16.8°N and longitude 60.5°E, about 460 km south-southeast of Masirah (Oman), 680 km east of Salalah (Oman) and 900 km east of Al Ghaidah (Yemen). It is likely to move nearly westwards towards Oman coast and weaken gradually into a well-marked low pressure area during next 06 hours.
- ❖ A **cyclonic circulation** lies over northeast Bangladesh at 0.9 km above mean sea level.
- ❖ A **cyclonic circulation** lies over Sub-Himalayan West Bengal & Sikkim at 0.9 km above mean sea level.
- ❖ The **trough** from centre of the **Depression** over westcentral Arabian Sea off Oman coast to Comorin area across south Kerala between 3.1 km & 5.8 km above mean sea level has become less marked.
- ❖ The upper air **cyclonic circulation** over south Assam between 1.5 and 3.1 km above mean sea level has become less marked.

Withdrawal of Southwest Monsoon 2024



* 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)

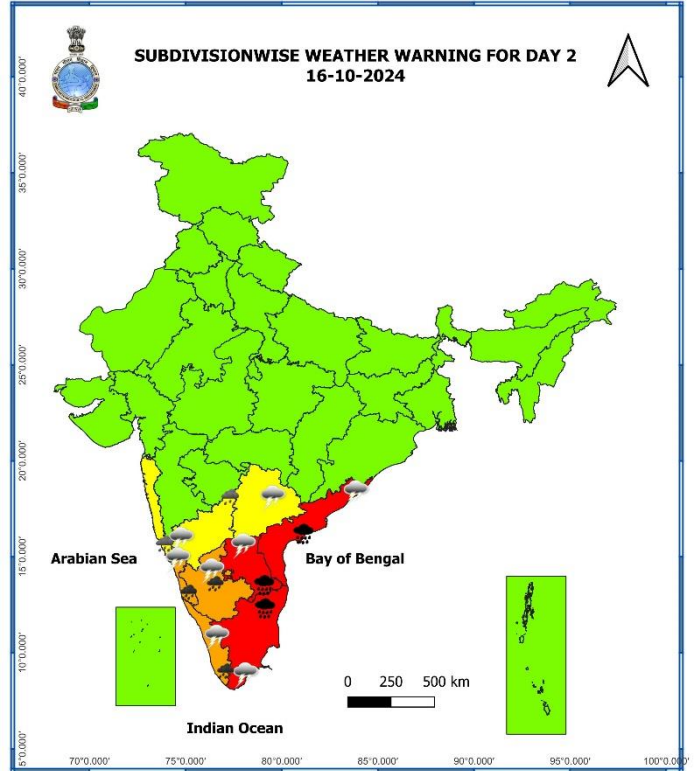
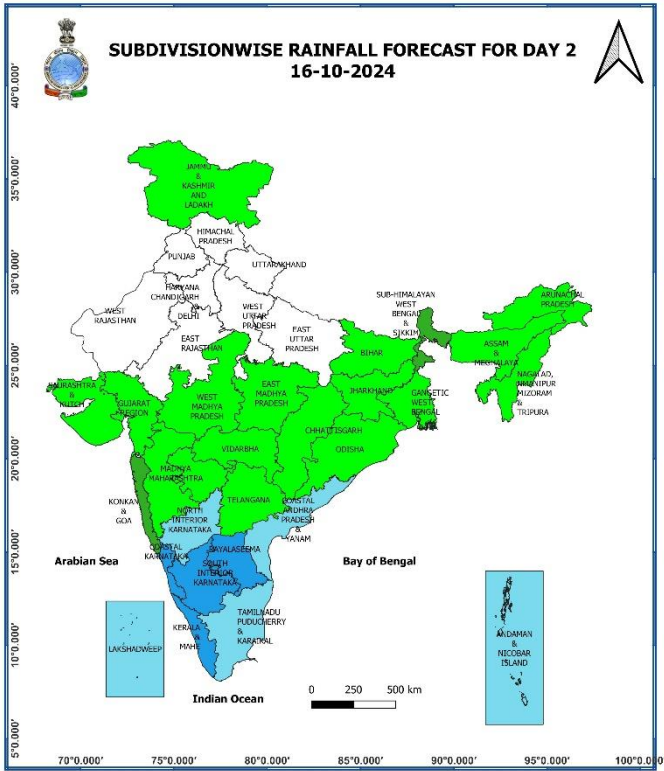
Weather Forecast & Warnings for next 7 days (Upto 0830 hours IST of 22nd October, 2024)



15 October (Day 1):

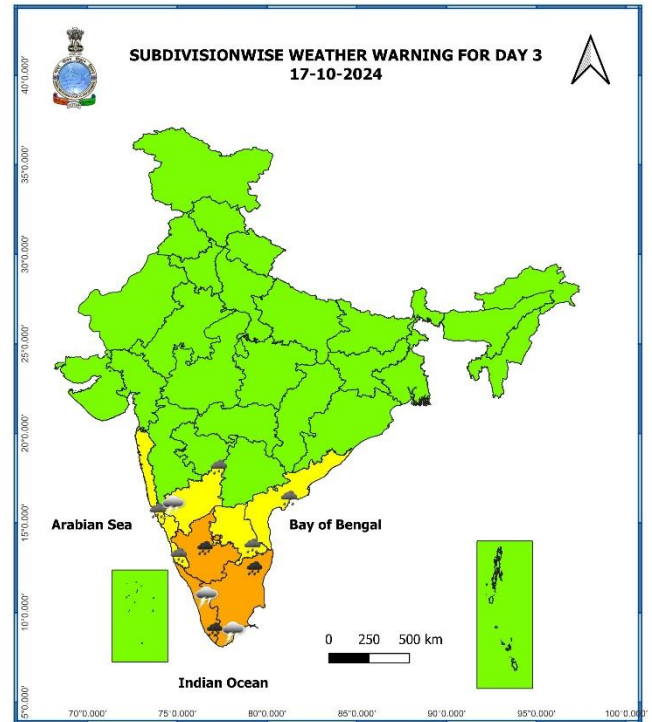
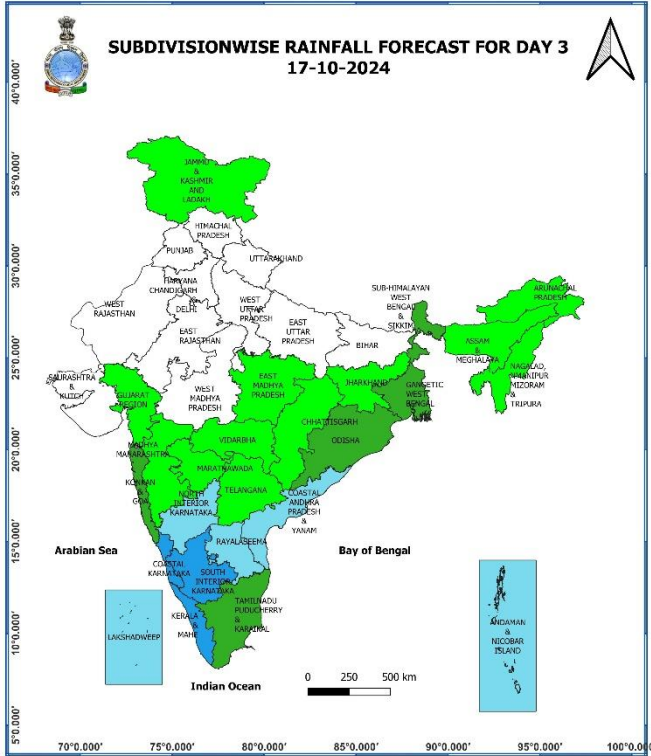
- ❖ **Heavy to very heavy rainfall with extremely heavy falls (> 20 cm)** very likely at isolated places over Tamil Nadu, Puducherry & Karaikal; **Heavy to very Heavy rainfall (≥12 cm)** likely at isolated places over Coastal Andhra Pradesh & Yanam, Kerala & Mahe, Rayalaseema, South Interior Karnataka; **Heavy rainfall (≥7cm)** at isolated places over Konkan & Goa, Coastal Karnataka.
- ❖ **Thunderstorm accompanied with lightning** very likely at isolated places over Madhya Pradesh, Chhattisgarh, Konkan & Goa, Madhya Maharashtra, Gujarat state, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe, Coastal Andhra Pradesh & Yanam, Rayalaseema, Telangana, Karnataka.
- ❖ **Squally weather with wind speed 35 kmph to 45 kmph gusting to 55 kmph** very likely to prevail over many parts of westcentral Arabian sea and adjoining northwest and adjoining eastcentral Arabian sea, along and off Kerala coast and adjoining Lakshadweep and Comorin areas, over gulf of Mannar, along and off Sri Lanka coast, along and off Tamil Nadu, Andhra Pradesh coasts, most parts of south Bay of Bengal, many parts of westcentral Bay of Bengal, few parts of eastcentral Bay of Bengal. **Squally weather with wind speed 40 kmph to 50 kmph gusting to 60 kmph** is likely to prevail over parts of southeast and southwest Bay of Bengal. Fishermen are advised not to venture into these areas.

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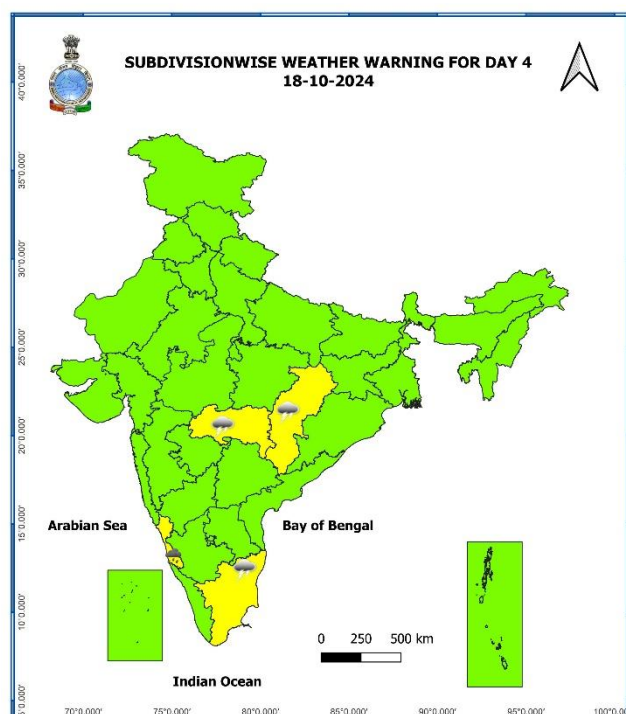
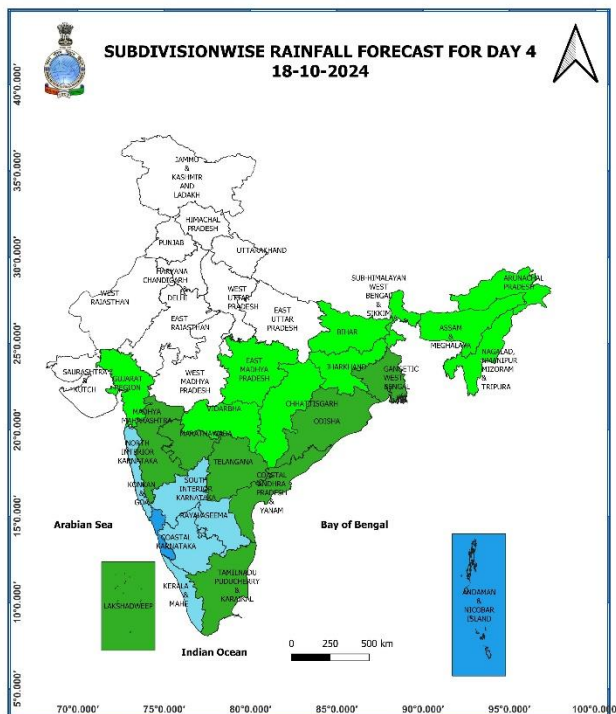
16 October (Day 2):

- ❖ **Heavy to very heavy rainfall with extremely heavy falls (> 20 cm)** very likely at isolated places over Coastal Andhra Pradesh & Yanam, Tamil Nadu, Puducherry & Karaikal, Rayalaseema; **Heavy to very Heavy rainfall (≥ 12 cm)** likely at isolated places over Kerala & Mahe, Coastal Karnataka, South Interior Karnataka; **Heavy rainfall (≥ 7 cm)** likely at isolated places over Konkan & Goa, North Interior Karnataka.
- ❖ **Thunderstorm accompanied with lightning** very likely at isolated places over Konkan & Goa, Madhya Maharashtra, Gujarat state, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe, Coastal Andhra Pradesh & Yanam, Rayalaseema, Telangana, 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, southwest bay of Bengal adjoining southeast bay of Bengal, many parts of westcentral bay of Bengal. **Squally weather with wind speed 40 kmph to 50 kmph gusting to 60 kmph** is likely to prevail over northern parts of southwest bay of Bengal, southern parts of westcentral bay of Bengal, along and off north Sri Lanka coast, north Tamil Nadu and adjoining south Andhra Pradesh. Fishermen are advised not to venture into these areas.



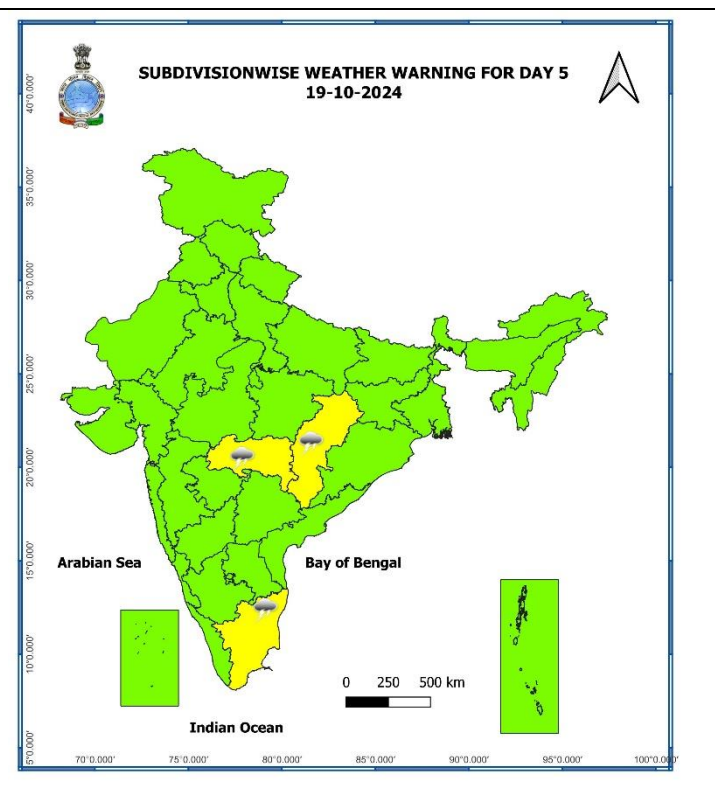
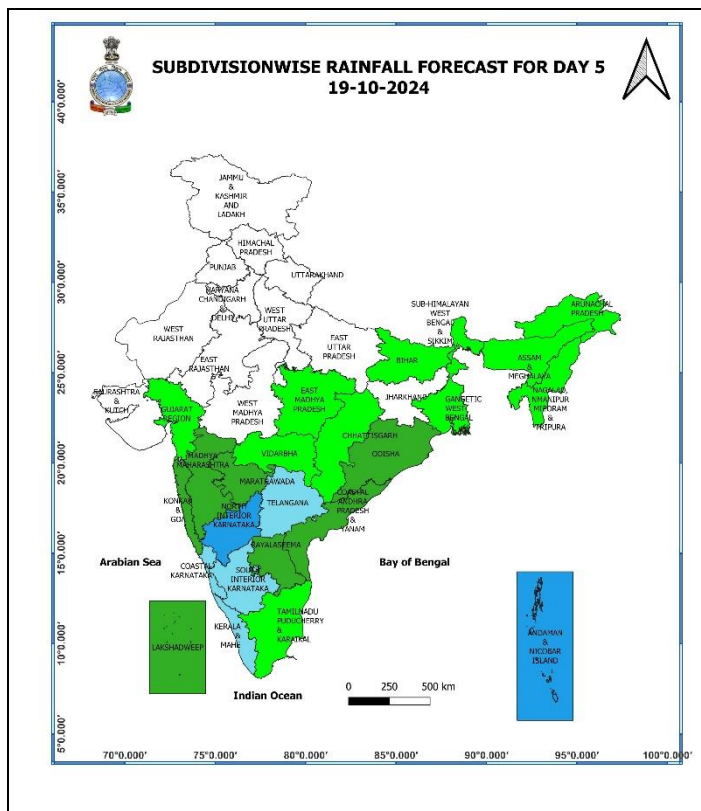
17 October (Day 3):

- ❖ **Heavy to very Heavy rainfall (≥ 12 cm)** very likely at isolated places over Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe, South Interior Karnataka; **Heavy rainfall (≥ 7 cm)** at isolated places over Konkan & Goa, Coastal Andhra Pradesh & Yanam, Rayalaseema, Coastal Karnataka, North Interior Karnataka.
- ❖ **Thunderstorm accompanied with lightning** very likely at isolated places over Odisha, Konkan & Goa, Madhya Maharashtra, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe, North Interior 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, southwest bay of Bengal adjoining southeast bay of Bengal, many parts of 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.



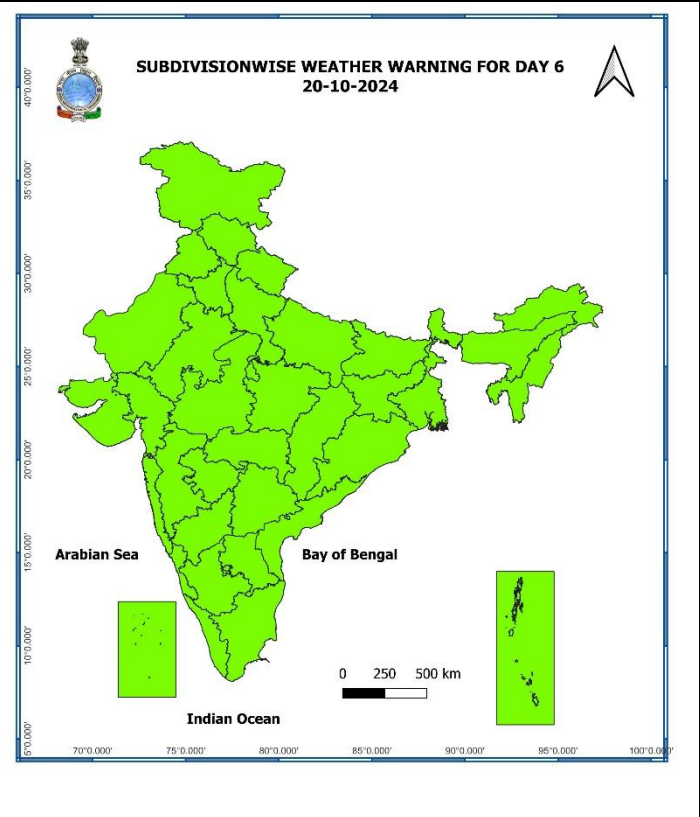
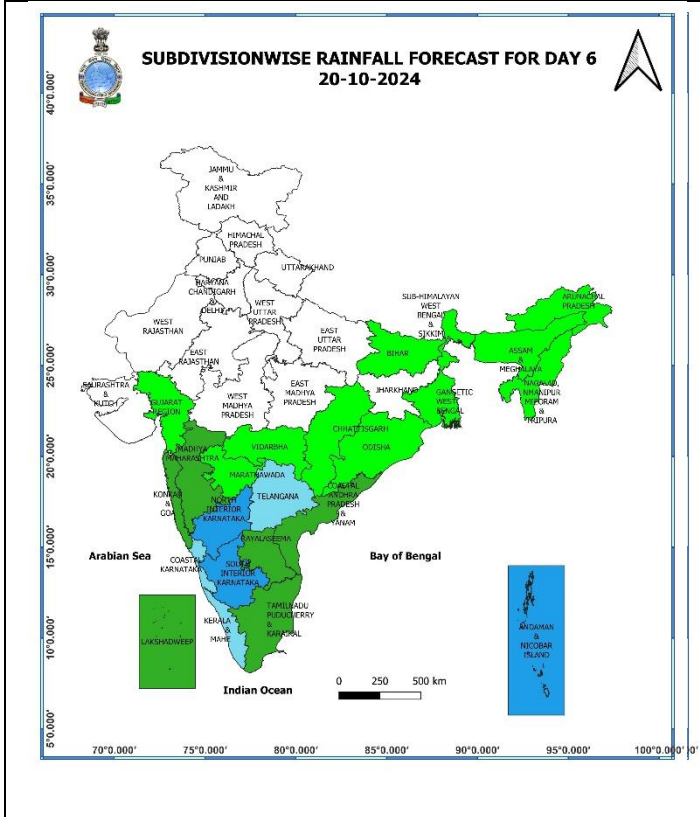
18 October (Day 4):

- ❖ **Heavy rainfall ($\geq 7\text{cm}$)** likely at isolated places over Coastal Karnataka.
- ❖ **Thunderstorm accompanied with lightning** likely at isolated places over Vidarbha, Chhattisgarh, Odisha, Konkan & Goa, Madhya Maharashtra, Marathwada, Tamil Nadu, Puducherry & Karaikal.
- ❖ **Squally weather with wind speed 35 kmph to 45 kmph gusting to 55 kmph** 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, over southwest bay of Bengal, few parts of 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 adjoining sea area. Fishermen are advised not to venture into these areas.



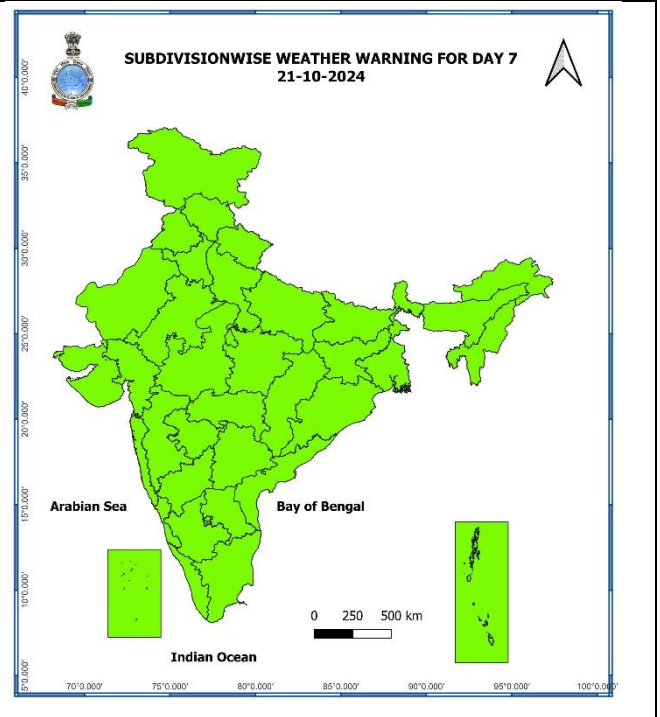
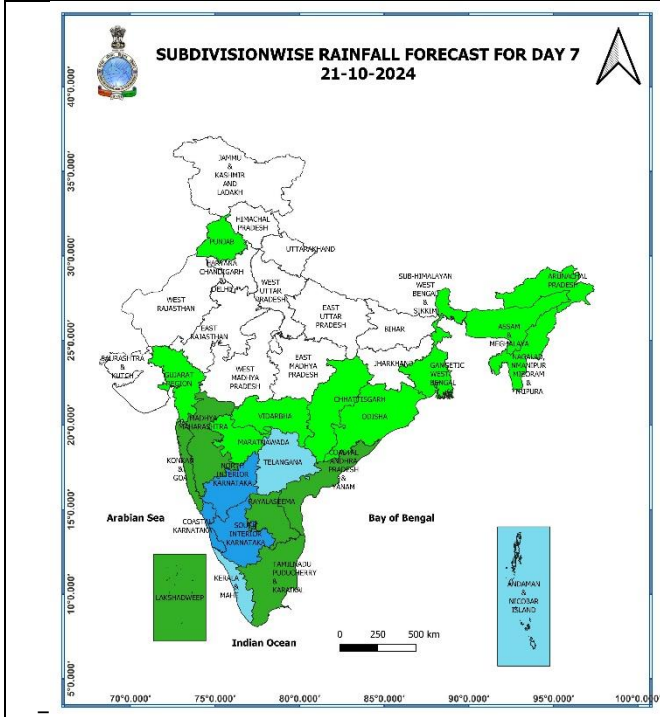
19 October (Day 5):

- ❖ **Thunderstorm accompanied with lightning** 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** likely to prevail over along and off Kerala, Karnataka coasts and adjoining Lakshadweep area, over Comorin area, gulf of Mannar, along and off north Sri Lanka coast, along and off Tamil Nadu, south Andhra Pradesh coasts and adjoining sea area. **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 adjoining sea area. Fishermen are advised not to venture into these areas.



20 October (Day 6):

❖ **No weather warning.**



21 October (Day 7):

- ❖ No weather warning.

Weather Outlook for subsequent 3 days (During 22nd October- 24th October, 2024)

- ❖ Fairly widespread to widespread rainfall likely over 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.

Impact due to

- ✓ **Isolated extremely heavy rainfall** very likely over Tamil Nadu, Puducherry & Karaikal on 15th-16th; Coastal Andhra Pradesh & Yanam, Rayalaseema on 16th October.
- ✓ **Isolated very heavy rainfall** very likely over Kerala & Mahe, South Interior Karnataka during 15th-17th; Tamil Nadu, Puducherry & Karaikal on 17th; Coastal Andhra Pradesh & Yanam, Rayalaseema on 15th October.
- ✓ **Low to Moderate flash flood risk** likely over few watersheds & neighbourhoods of Coastal Andhra Pradesh & Yanam, Rayalaseema and Tamil Nadu, Puducherry & Karaikal on 15th & 16th 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. Immediately harvest matured rice in Nellore district and shift the harvested produce 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 and other standing crops and vegetable fields in **Kerala**, as well as from rice nurseries and fields of rice, maize, pepper, and newly planted turmeric in **Tamil Nadu**.
- ✓ 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 1130 IST of 16-10-2024:

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

Coastal Andhra Pradesh – Nellore and Prakasham district

Rayalaseema – Kadapa and Chittoor districts

Tamil Nadu, Puducherry and Karaikal – Thiruvallur, Thruvanamalai, Chennai and Kanchipuram 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.

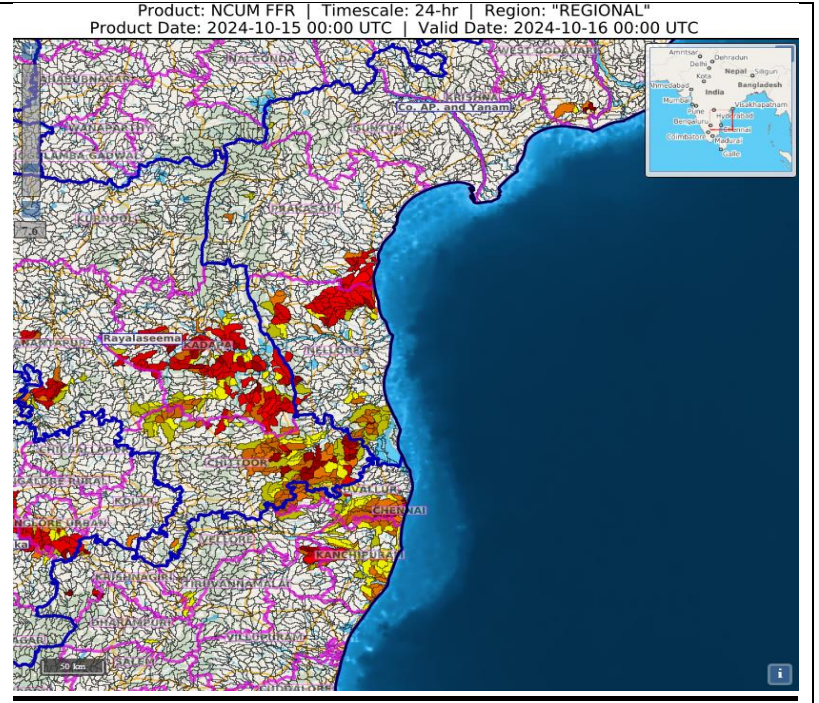


Fig. 1: Maximum Temperatures

Fig. 2: Departure of Maximum Temperatures

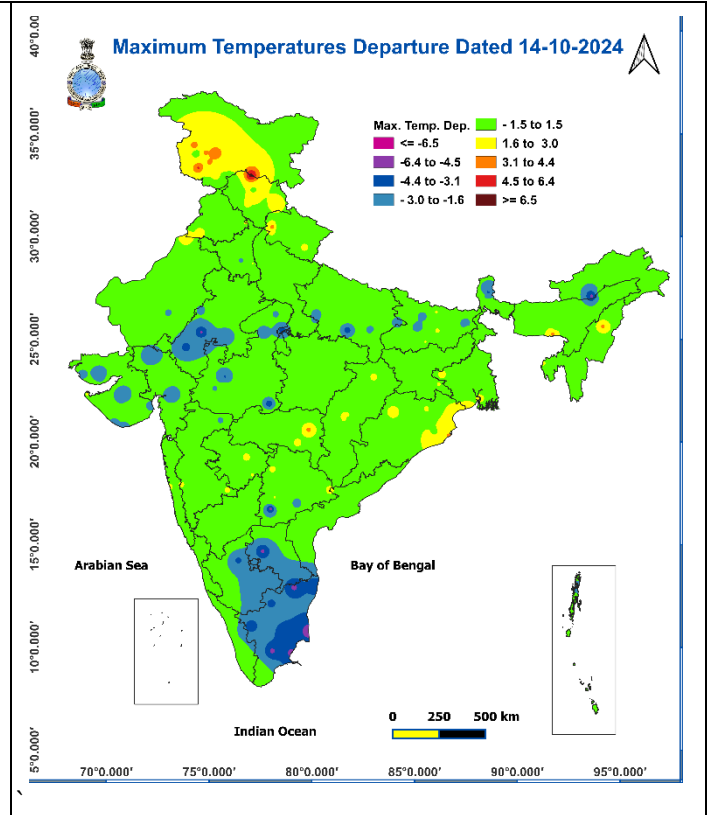
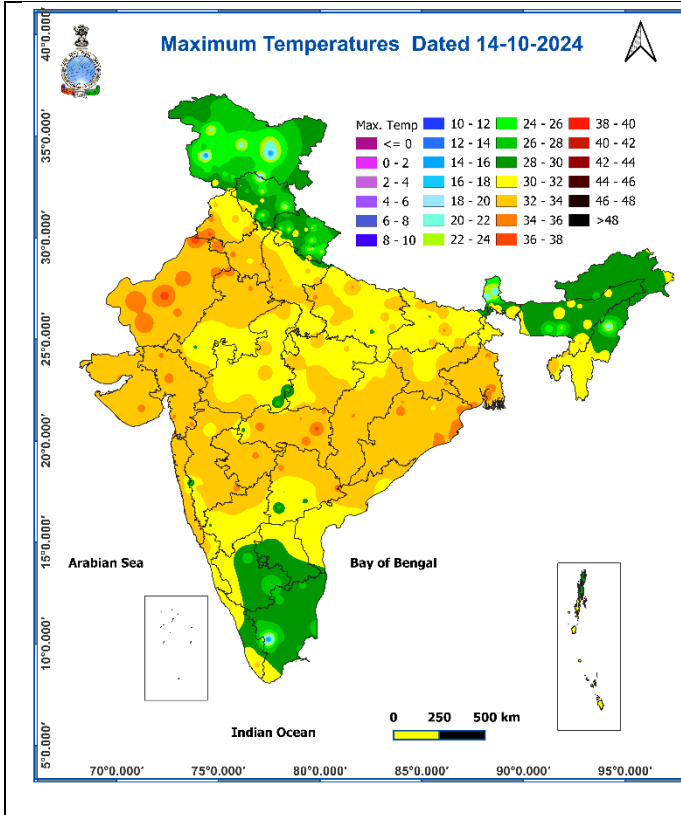


Fig. 3: Minimum Temperatures

Fig. 4: Departure of Minimum Temperatures

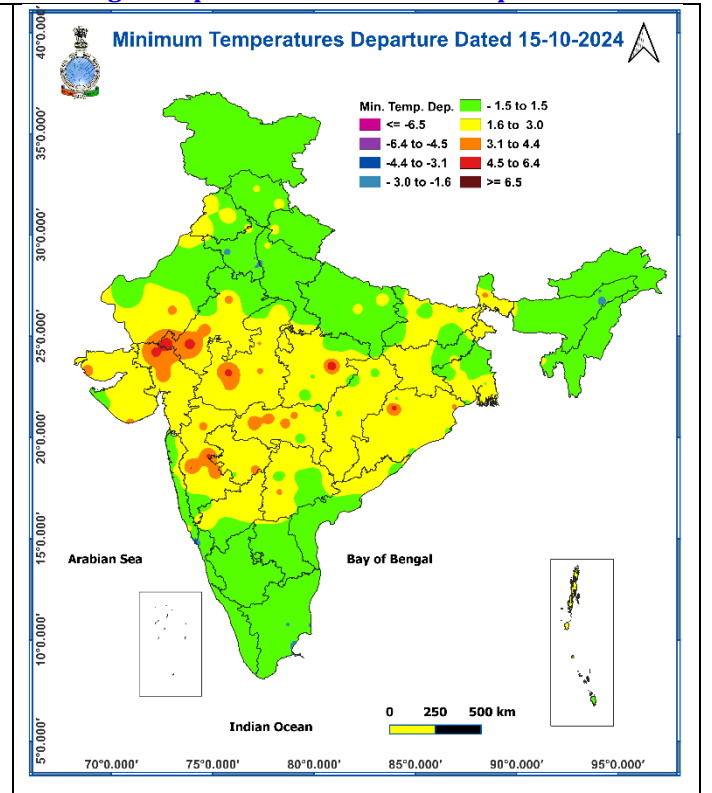
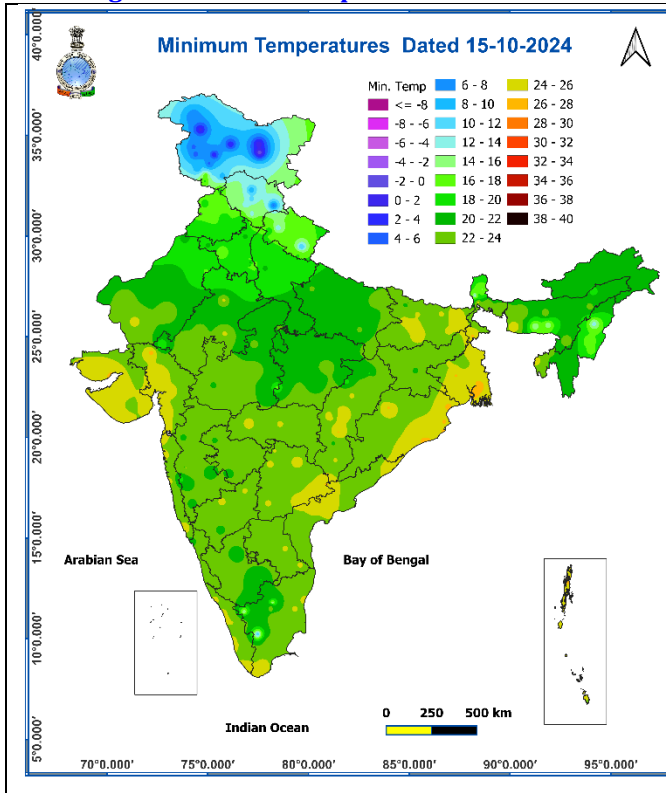
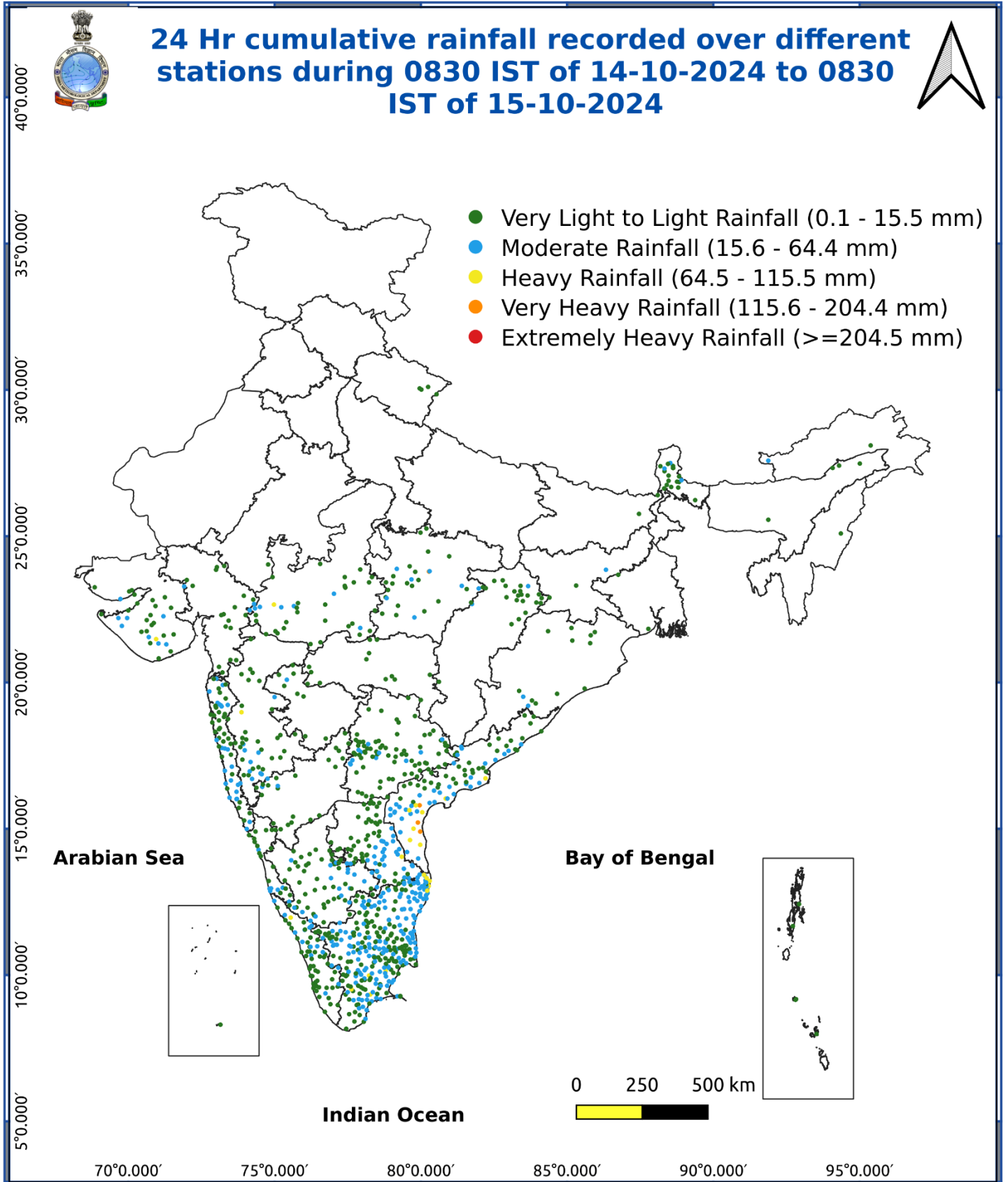


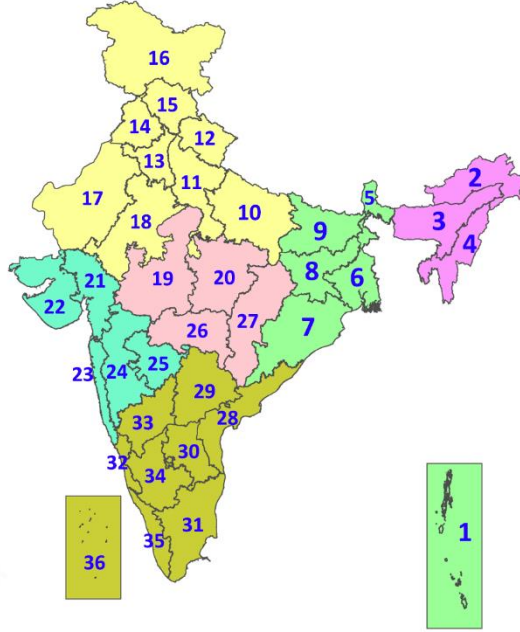
Fig. 5: Accumulated Rainfall (mm) during past 24 hours



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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

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