

Friday, October 11, 2024
Time of Issue: 1330 hours IST
(MID-DAY)

ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

Significant Weather Features:

On further Withdrawal of Southwest Monsoon

- ✓ The line of withdrawal of Southwest Monsoon now passes through 29°N/86°E, Darbhanga, Hazaribagh, Pendra Road, Narsinghpur, Khargaon, 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 lies over eastcentral Arabian sea off Maharashtra coast at 0830 hours IST of today, the 11th October 2024. The associated cyclonic circulation extends upto 5.8 km above mean sea level. It is likely to move west-northwestwards and intensify into a Depression over central Arabian Sea by morning of 13th October.
- ✓ An **upper air cyclonic circulation** lay over south Tamil Nadu coast extending upto lower tropospheric level.
- ✓ Another **upper air cyclonic circulation** lay over central parts of south Bay of Bengal extending upto middle tropospheric level.
- ✓ An **upper air cyclonic circulation** lies over east Assam & neighbourhood at lower tropospheric levels persists.

Forecast & Warnings (upto 7 days):

South Peninsular India

- ✓ Fairly widespread to widespread light to moderate rainfall very likely over Lakshadweep, South Interior Karnataka, Kerala & Mahe; Scattered to Fairly widespread light to moderate rainfall very likely over Coastal Andhra Pradesh & Yanam, Rayalaseema, North Interior Karnataka, Coastal Karnataka, Tamil Nadu, Puducherry & Karaikal; Isolated to Scattered light to moderate rainfall very likely over Telangana during the week.
- ✓ **Isolated very heavy rainfall** very likely over Kerala & Mahe on 11th; Tamil Nadu, Puducherry & Karaikal on 11th, 14th & 15th; Rayalaseema, Coastal Andhra Pradesh & Yanam on 15th October.
- ✓ **Isolated heavy rainfall** very likely over Kerala & Mahe during the week; Tamil Nadu, Puducherry & Karaikal during 11th-16th; Lakshadweep, Coastal Karnataka & North Interior Karnataka on 11th; Coastal Andhra Pradesh & Yanam on 11th, 14th & 15th; Rayalaseema during 14th-16th; South Interior Karnataka on 11th, 12th, 15th & 16th 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, Assam & Meghalaya during next 2 days & Scattered light to moderate rainfall over the same region during the subsequent 5 days; Isolated to Scattered light to moderate rainfall very likely over East India, Nagaland, Manipur, Mizoram & Tripura during the week.
- ✓ **Isolated heavy rainfall** very likely over Arunachal Pradesh on 11th & 12th; Assam & Meghalaya on 11th; Andaman & Nicobar Islands on 13th October.

West India

- ✓ Scattered to Fairly widespread light to moderate rainfall very likely over Konkan & Goa, Gujarat State during next 3 days & Isolated to scattered light to moderate rainfall during the next subsequent 4 days; Isolated to scattered light to moderate rainfall over remaining region during the week.
- ✓ **Isolated heavy rainfall** very likely over Konkan & Goa on 11th; Madhya Maharashtra & Gujarat Region on 11th & 12th October.

Northwest & Central India:

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

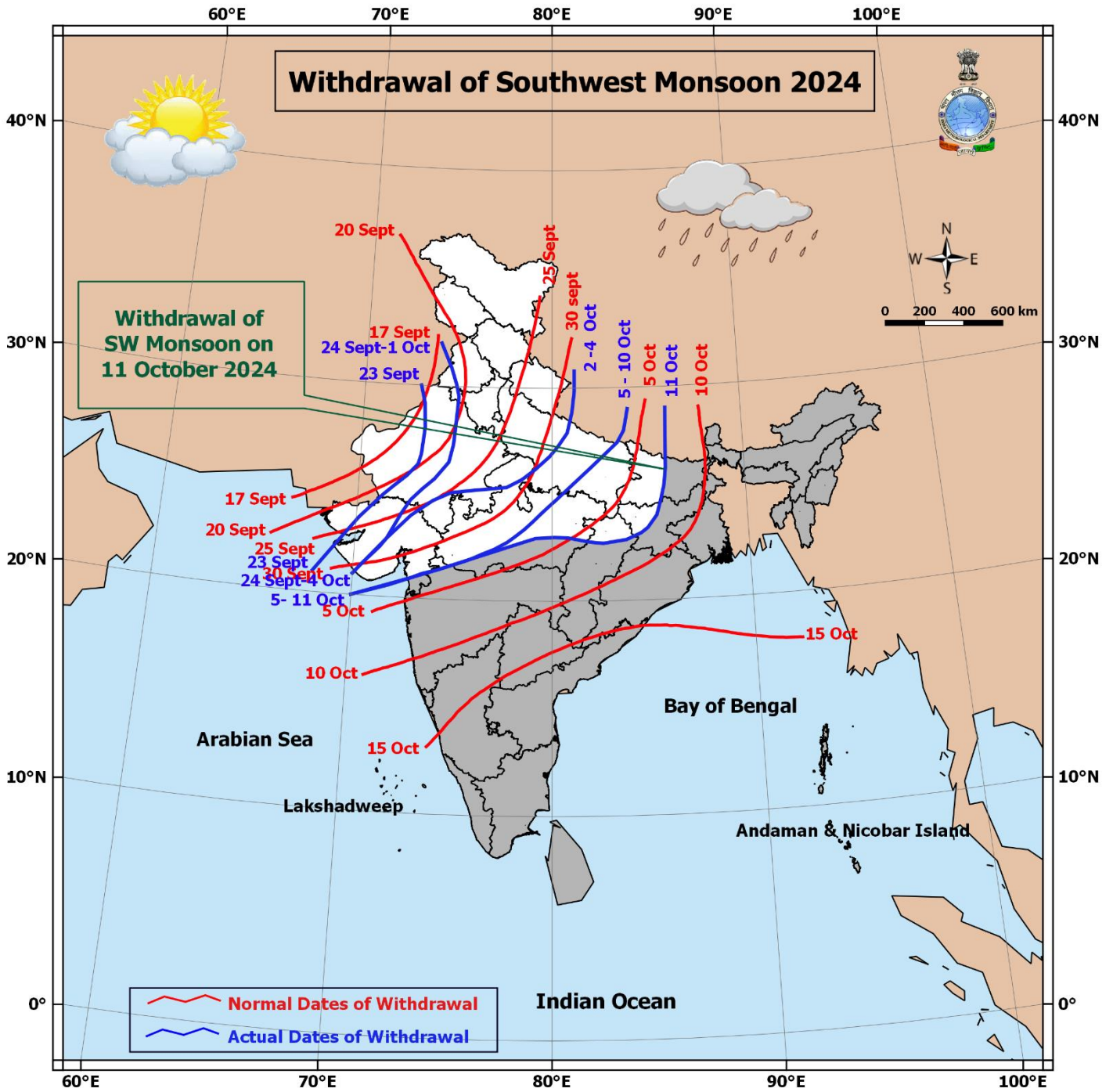
Main Weather Observations:

- ❖ **Rainfall distribution** (from 0830 hours IST of yesterday to 0830 hours IST of today): **at most places** over Arunachal Pradesh, Lakshadweep; **at many places** over Assam & Meghalaya, Madhya Maharashtra, Konkan & Goa, Tamil Nadu, Puducherry & Karaikal, Telangana, Coastal Andhra Pradesh & Yanam, Coastal Karnataka, South Interior Karnataka, Vidarbha; **at a few places** over West Bengal & Sikkim, Nagaland, Manipur, Mizoram & Tripura, Gujarat state, Kerala & Mahe, Rayalaseema, North Interior Karnataka; **at isolated places** over Himachal Pradesh, Uttarakhand, Rajasthan, Madhya Pradesh, Chhattisgarh, Andaman & Nicobar Islands, Bihar, Jharkhand, Odisha.
- ❖ **Heavy rainfall recorded** (from 0830 hours IST of yesterday to 0830 hours IST of today): **Heavy to very Heavy rainfall** at isolated places over Konkan & Goa; **Heavy rainfall** at isolated places over Arunachal Pradesh, Gujarat Region, Madhya Maharashtra, Coastal Andhra Pradesh & Yanam, Rayalaseema, Chhattisgarh, South Interior Karnataka, Tamil Nadu, Puducherry & Karaikal.
- ❖ **Significant amount of rainfall** (from 0830 hours IST of yesterday to 0830 hours IST of today) (in cm): **Konkan & Goa:** Matheran (dist Raigad) 13; **Coastal Andhra Pradesh & Yanam:** Santhamaguluru (dist Bapatla) 11, Karamchedu (dist Bapatla) 7; **Arunachal Pradesh:** Itanagar (dist Papumpara) 10, Oyan Arg (dist East Siang) 9, Naharlagun (dist Papumpara) 9, Pasighat_ Aero (dist East Siang) 9; **Tamil Nadu, Puducherry & Karaikal:** Puducherry Town (dist Puducherry) 9, Madukkur (dist Thanjavur) 8 ; **Madhya Maharashtra:** Malegaon Camp - Imd Pt (dist Nashik) 9, Satna Baglan (dist Nashik) 7; **Gujarat Region:** Valod (dist Tapi) 8, Vyara (dist Tapi) 7, Dolvan (dist Tapi) 7; **Chhattisgarh:** Gangalur (dist Bijapur) 8; **South Interior Karnataka:** Nayakanahatty (dist Chitradurga) 9, Kottigehara (dist Chikkamagaluru) 7; **Rayalaseema:** Amarapuram (dist Sri Sathyasai District) 7.
- ❖ **Minimum Temperature Departures (as on 11-10-2024):** Minimum temperatures are **appreciably above normal (3.1°C to 5.0°C)** at isolated places over West Madhya Pradesh, Bihar and Madhya Maharashtra; **above normal (1.6°C to 3.0°C)** at a few places over East Uttar Pradesh, Odisha, Marathwada, Jharkhand and Andaman & Nicobar Islands; at isolated places over East Rajasthan, West Bengal & Sikkim, Nagaland, Manipur, Mizoram & Tripura, Gujarat state, Vidarbha, Konkan & Goa, Odisha, Telangana, 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 15.7°C** is and b reported at **Delhi Ridge (New Delhi)** over the plains of the country. **(Fig.4)**
- ❖ **Maximum Temperature Departures (as on 10-10-2024):** Maximum temperatures were **appreciably above normal (3.1°C to 5.0°C)** at isolated places over Bihar; **above normal (1.6°C to 3.0°C)** at a few places over Odisha, Jharkhand, Gangetic West Bengal; at isolated places over Himachal Pradesh, Uttarakhand, East Uttar Pradesh, Chhattisgarh, Vidarbha, East Madhya Pradesh, Telangana, Coastal Andhra Pradesh & Yanam. These were **markedly below normal (-5.1°C or less)** at isolated places over Arunachal Pradesh, Assam & Meghalaya, Gujarat state; **appreciably below normal (-3.1°C to -5.0°C)** at isolated places over Nagaland, Manipur, Mizoram & Tripura; **below normal (-1.6°C to -3.0°C)** at isolated places over Haryana-Chandigarh-Delhi, East Rajasthan, West Madhya Pradesh, Madhya Maharashtra, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe. Yesterday, **the highest Maximum Temperature of 39.0°C** was reported at **Barmer (West Rajasthan)** over the country. **(Fig. 2)**

Meteorological Analysis (Based on 0830 hours IST)

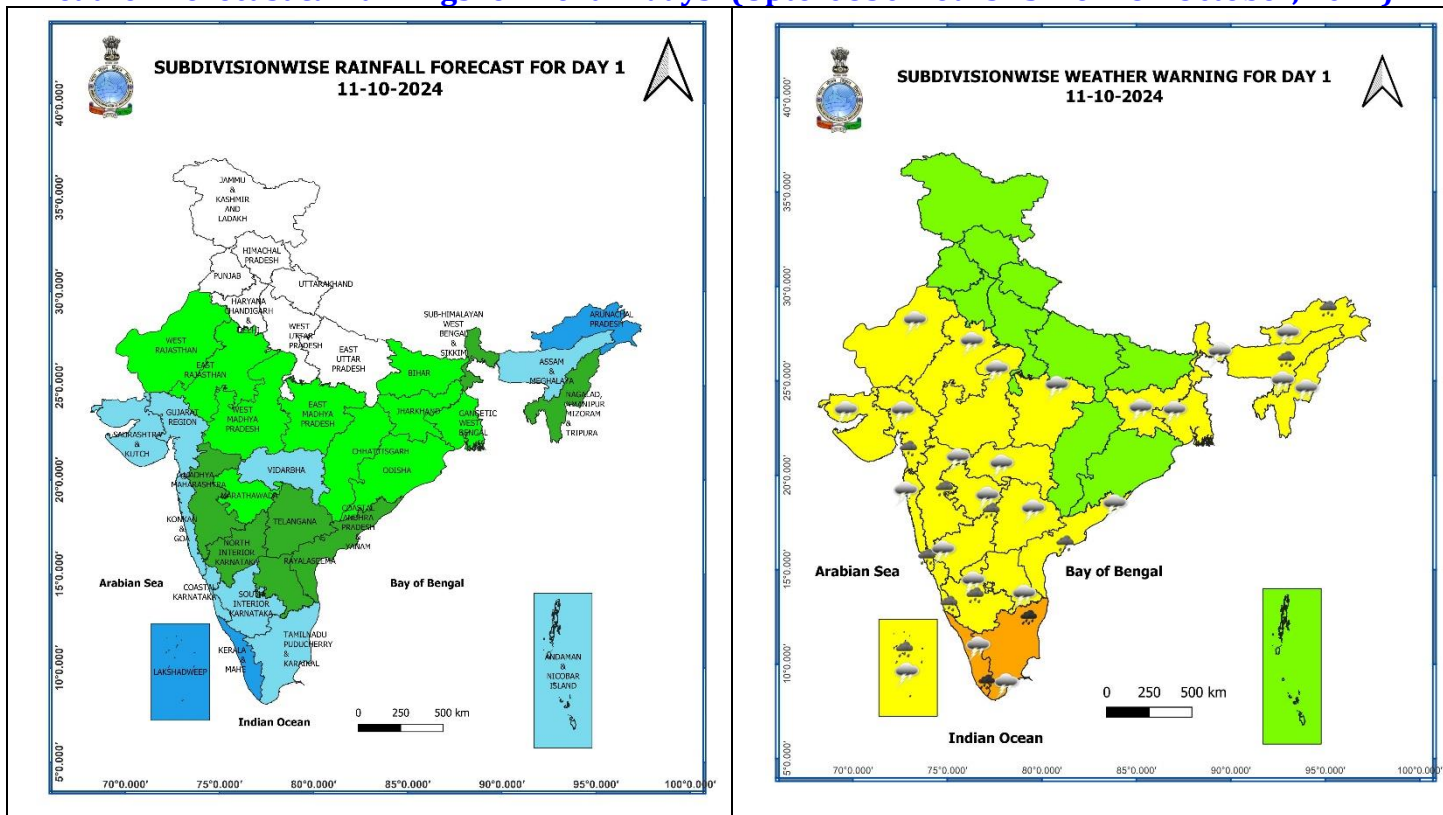
- ❖ Southwest Monsoon has further withdrawn from entire Uttar Pradesh, major parts of Madhya Pradesh, some parts of Bihar, Jharkhand and Chhattisgarh.
- ❖ The **line of withdrawal of Southwest Monsoon** now passes through 29°N/86°E, Darbhanga, Hazaribagh, Pendra Road, Narsinghpur, Khargaon, Nandurbar, 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 off Goa & north Karnataka coasts moved northwestwards and lay over eastcentral Arabian sea off Maharashtra coast at 0830 hours IST of today, the 11th October 2024. The associated cyclonic circulation extending upto 5.8 km above mean sea level. It is likely to move west-northwestwards and intensify into a **Depression** over central Arabian Sea by morning of 13th October.
- ❖ A **trough** runs from centre of the Well Marked Low pressure area over eastcentral Arabian sea off Maharashtra coast to southeast Arabian sea off south Kerala coast extending upto middle tropospheric levels.
- ❖ The upper air **cyclonic circulation** over southwest Bay of Bengal off Tamil Nadu coast lay over south Tamil Nadu coast and extends upto 1.5 km above mean sea level.
- ❖ Another upper air **cyclonic circulation** lay over central parts of south Bay of Bengal and extends upto 3.1 km above mean sea level.
- ❖ An upper air **cyclonic circulation** lay over east Assam & neighbourhood at 0.9 km above mean sea level.
- ❖ The **Western Disturbance** as an upper air **cyclonic circulation** over Jammu and adjoining Pakistan at 3.1 km above mean sea level with a trough aloft at 5.8 km above mean sea level has moved east-northeastwards.

Withdrawal of Southwest Monsoon 2024



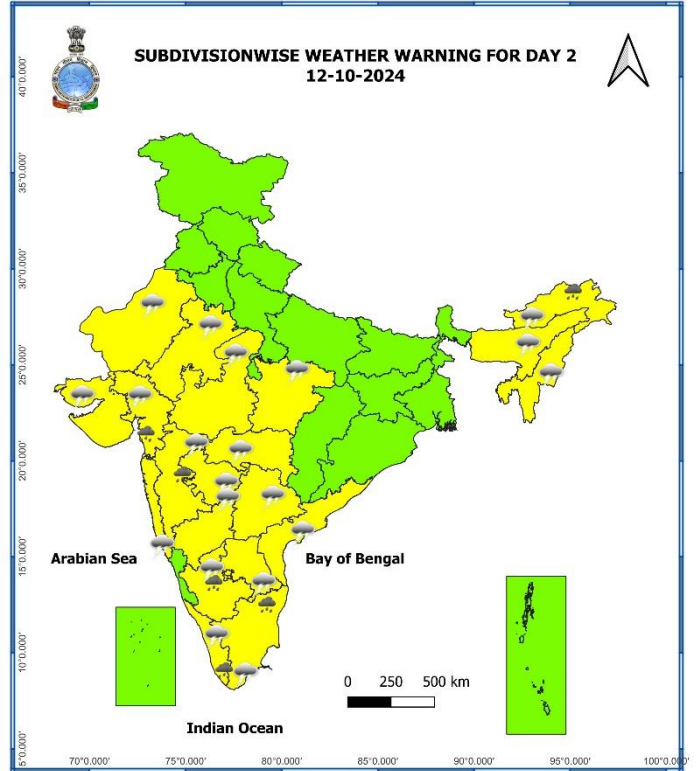
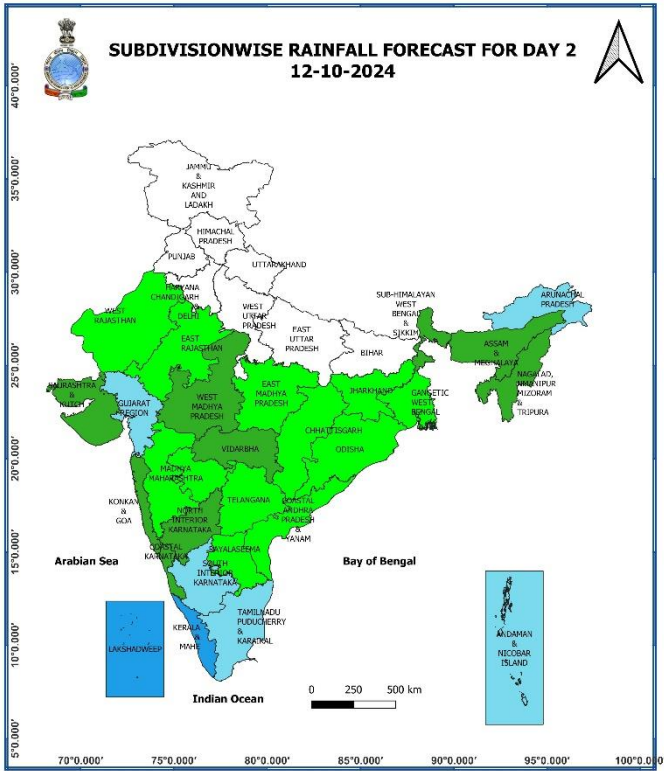
* Red colour warning does not mean "Red Alert", Red colour warning means "Take Action".
 Forecast and Warning for any day is valid from 0830 hours IST of day till 0830 hours IST of next day.
 For more details, kindly visit <https://mausam.imd.gov.in> or contact: 011-2434-4599
 (Service to the Nation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

Weather Forecast & Warnings for next 7 days (Upto 0830 hours IST of 18th October, 2024)



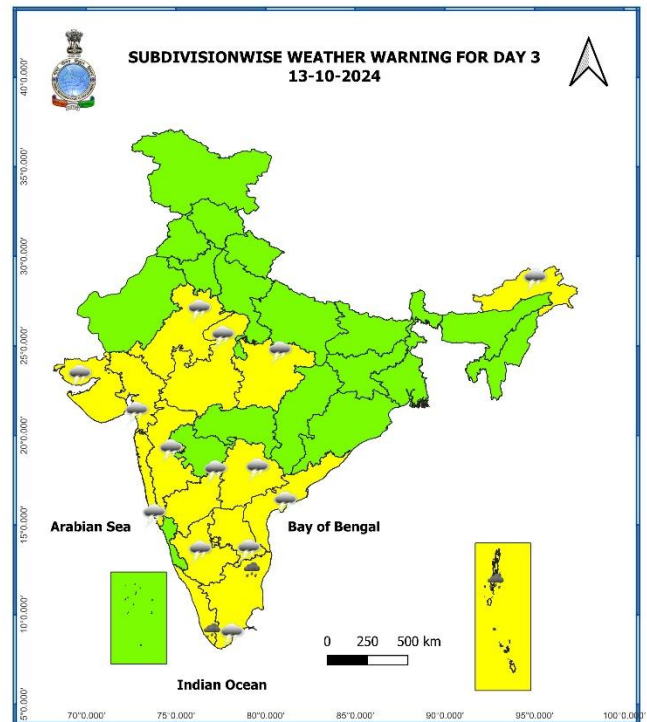
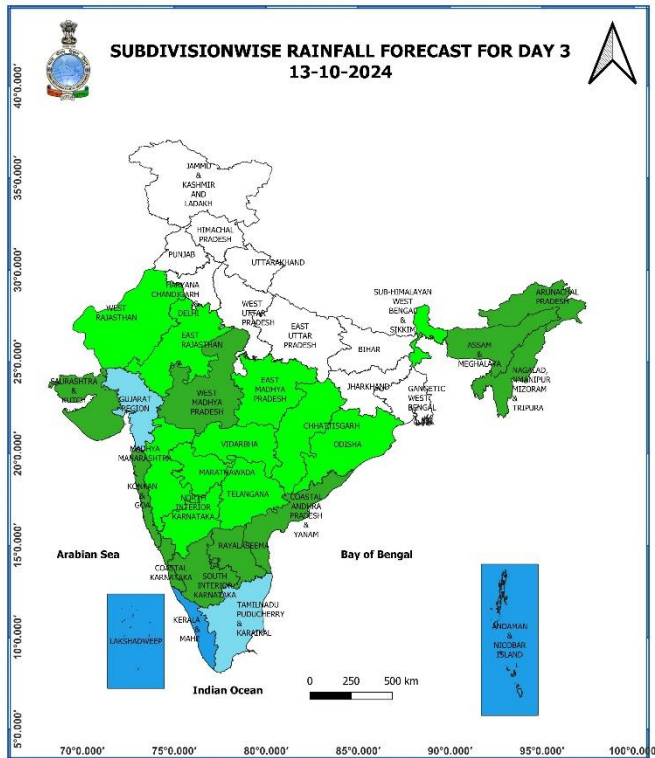
11 October (Day 1):

- ❖ **Heavy to very Heavy rainfall (≥ 12 cm)** very likely at isolated places over Kerala & Mahe, Tamil Nadu, Puducherry & Karaikal; **Heavy rainfall (≥ 7 cm)** very likely at isolated places over Arunachal Pradesh, Assam & Meghalaya, Konkan & Goa, Madhya Maharashtra, Gujarat Region, Lakshadweep, Coastal Andhra Pradesh & Yanam and Karnataka.
- ❖ **Thunderstorm accompanied gusty winds (speed reaching 30-40 kmph)** very likely at isolated places over Telangana; **with lightning** very likely at isolated places over Rajasthan, Madhya Pradesh, Vidarbha, West Bengal & Sikkim, Jharkhand, 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, Interior Karnataka.
- ❖ **Squally weather with wind speed 35 kmph to 45 kmph gusting to 55 kmph** very likely to prevail over along and off Somalia coast, over Maldives, Lakshadweep Comorin areas, southeast Arabian sea and many parts of southwest Arabian sea, along and off Kerala, Karnataka, goa, Maharashtra, south Gujarat coasts, most parts of east central Arabian sea, gulf of manner, along and off south Sri Lanka coast and central parts of south Bay of Bengal. Fishermen are advised not to venture into these areas.



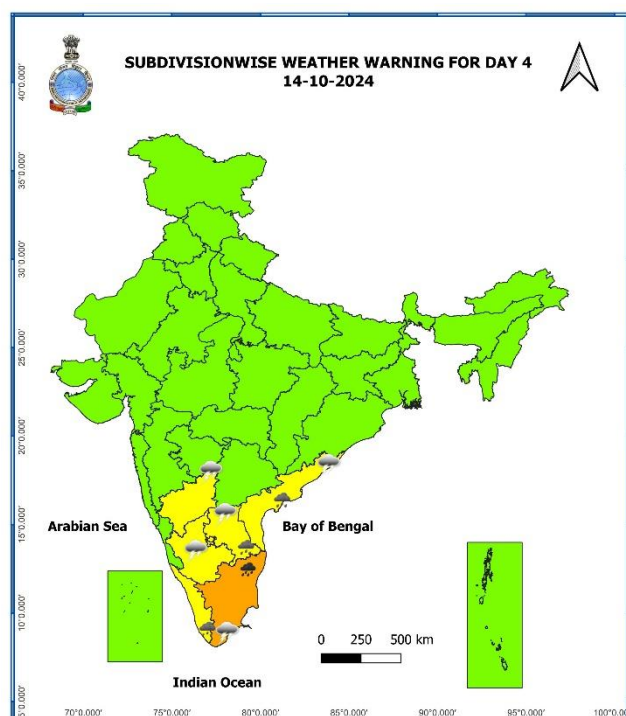
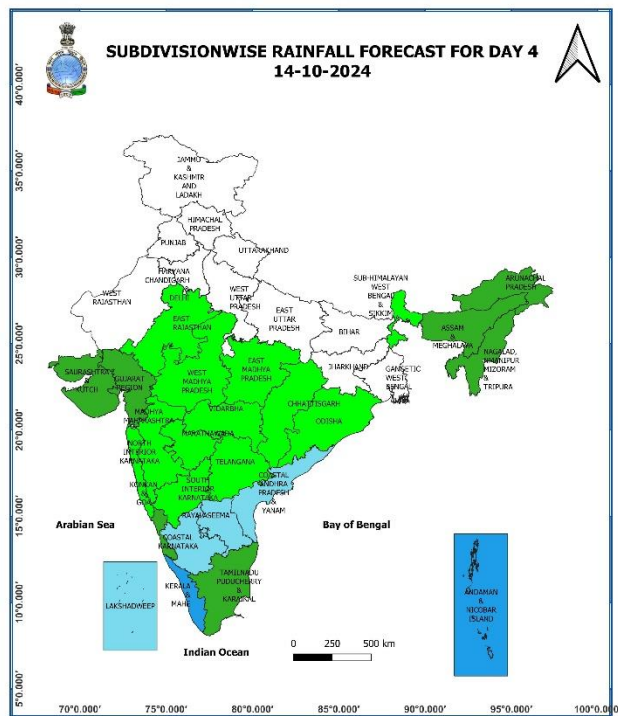
12 October (Day 2):

- ❖ **Heavy rainfall ($\geq 7\text{cm}$)** very likely at isolated places over Arunachal Pradesh, Madhya Maharashtra, Gujarat region, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe, South Interior Karnataka.
- ❖ **Thunderstorm accompanied gusty winds (speed reaching 30-40 kmph)** very likely at isolated places over Telangana; **with lightning** very likely at isolated places over Rajasthan, Madhya Pradesh, Vidarbha, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, 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 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 east central Arabian sea, along and off Kerala, Karnataka coasts, off Maharashtra coast, gulf of manner, 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.



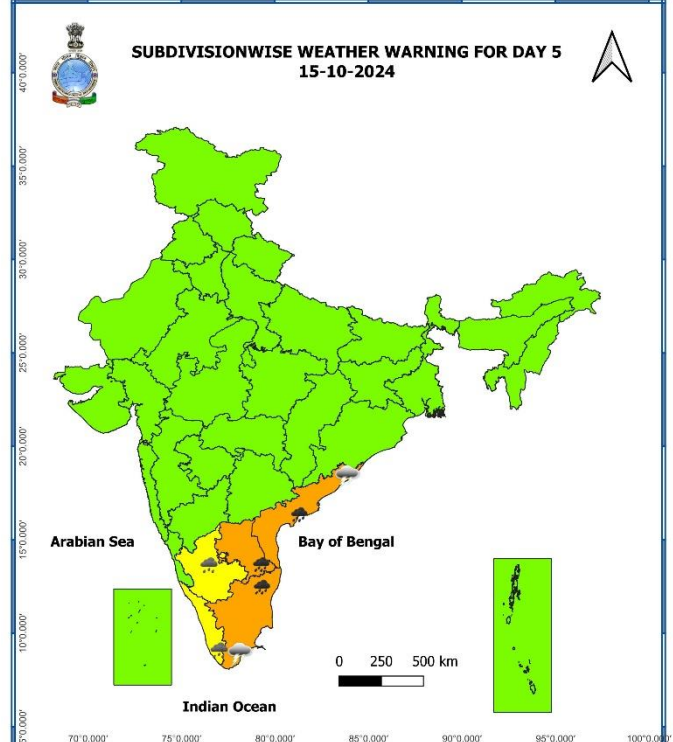
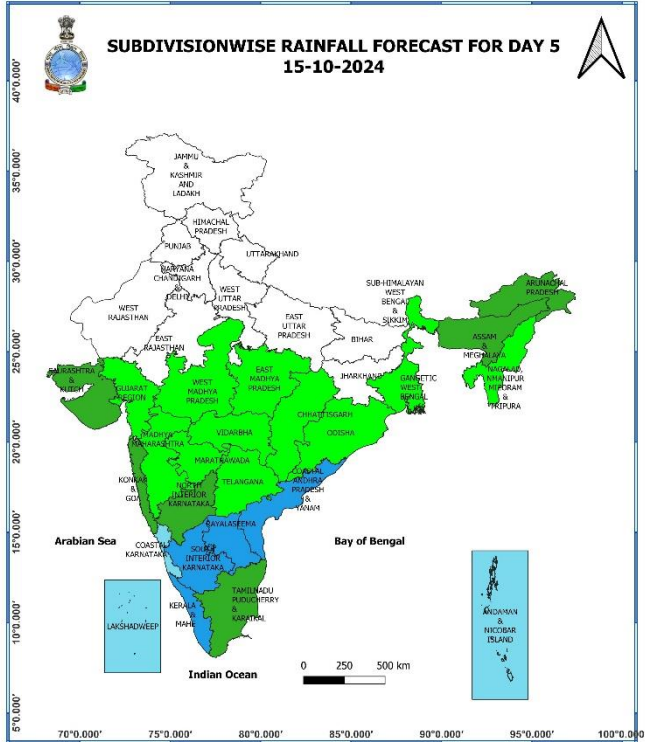
13 October (Day 3):

- ❖ **Heavy rainfall ($\geq 7\text{cm}$)** very likely at isolated places over Andaman & Nicobar Islands, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe.
- ❖ **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, Arunachal Pradesh, Konkan & Goa, Madhya Maharashtra, 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 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 manner, 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.



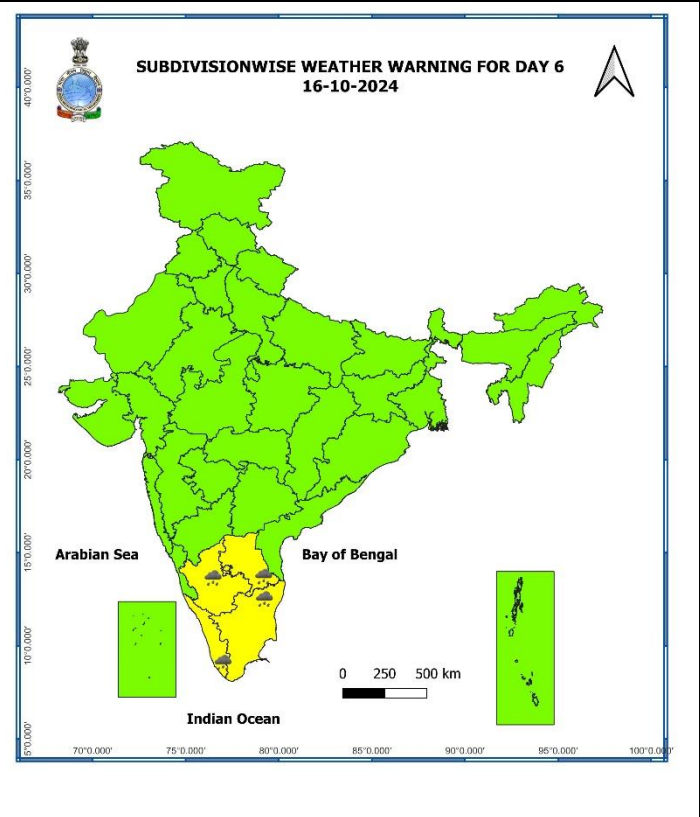
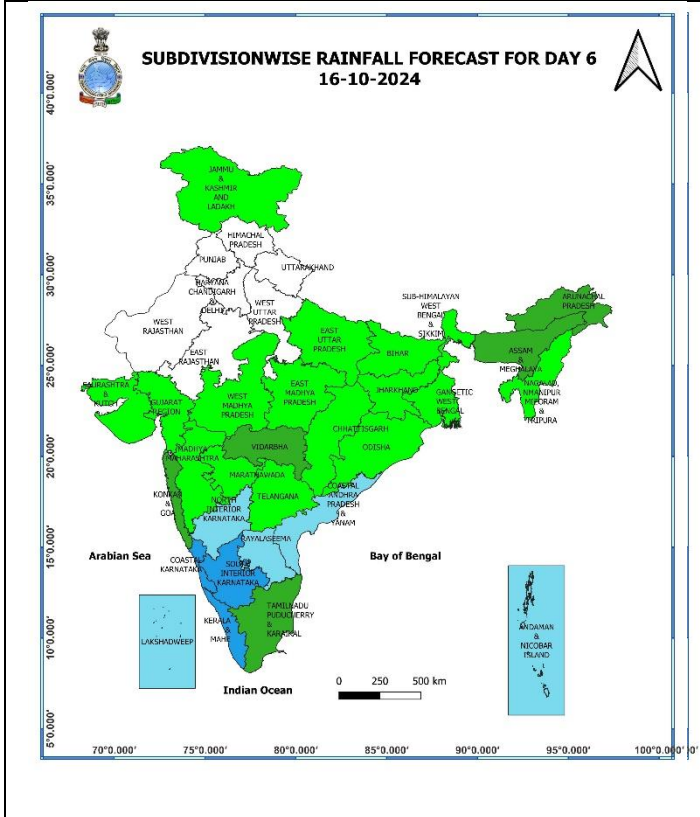
14 October (Day 4):

- ❖ **Heavy to very Heavy rainfall (≥ 12 cm)** likely at isolated places over Tamil Nadu, Puducherry; **Heavy rainfall (≥ 7 cm)** likely at isolated places over Kerala & Mahe, Coastal Andhra Pradesh & Yanam and Rayalaseema.
- ❖ **Thunderstorm accompanied with lightning** likely at isolated places over Tamil Nadu, Puducherry & Karaikal, Coastal Andhra Pradesh & Yanam, Rayalaseema, Interior Karnataka.
- ❖ **Squally weather with wind speed 35 kmph to 45 kmph gusting to 55 kmph** 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 manner, 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.



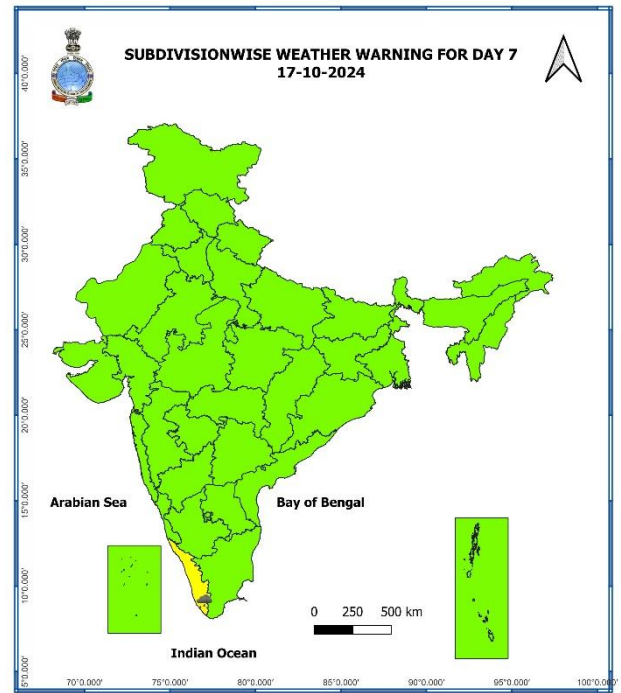
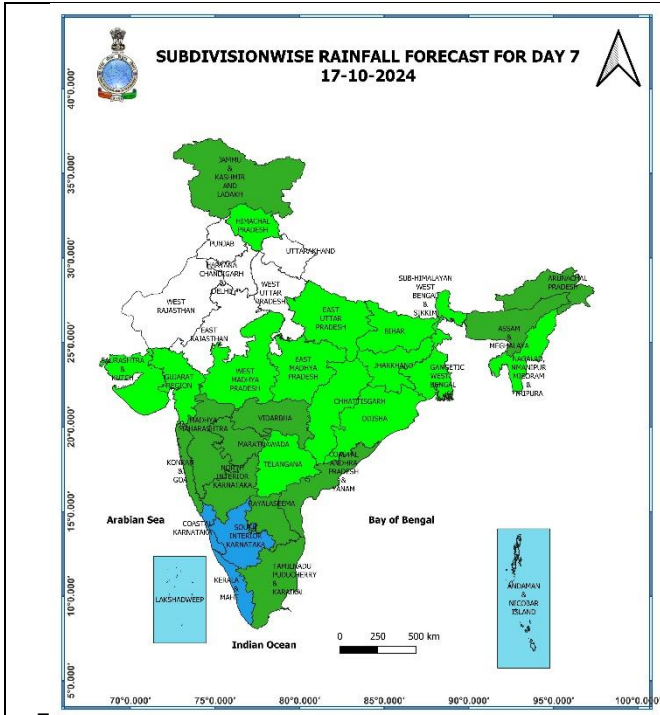
15 October (Day 5):

- ❖ **Heavy to very Heavy rainfall (≥ 12 cm)** likely at isolated places over Tamil Nadu, Puducherry, Coastal Andhra Pradesh & Yanam and Rayalaseema; **Heavy rainfall (≥ 7 cm)** likely at isolated places over Kerala & Mahe, South Interior Karnataka.
- ❖ **Thunderstorm accompanied with lightning** likely at isolated places over Tamil Nadu, Puducherry & Karaikal, Coastal Andhra Pradesh & Yanam.
- ❖ **Squally weather with wind speed 35 kmph to 45 kmph gusting to 55 kmph** likely to prevail over gulf of manner, 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 east central Bay of Bengal. Fishermen are advised not to venture into these areas.



16 October (Day 6):

- ❖ **Heavy rainfall ($\geq 7\text{cm}$)** likely at isolated places over Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe, Rayalaseema and South Interior Karnataka.



17 October (Day 7):

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

Weather Outlook for subsequent 3 days (During 18th October- 20th October, 2024)

- ❖ Fairly widespread to widespread rainfall likely over Peninsular and adjoining Central India and Islands.
- ❖ Isolated to Scattered rainfall likely over 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 Kerala & Mahe on 11th October; Tamil Nadu, Puducherry & Karaikal on 11th, 14th & 15th October; Rayalaseema, Coastal Andhra Pradesh & Yanam on 15th 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 recently transplanted rice fields; postpone harvesting of matured millet crops.
- ✓ Make necessary arrangements for draining out excess water from standing crop fields and fruit orchards to avoid water stagnation in Konkan & Goa, Madhya Maharashtra, Gujarat region, Kerala, Lakshadweep, Karnataka, Arunachal Pradesh and Assam & Meghalaya.
- ✓ 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

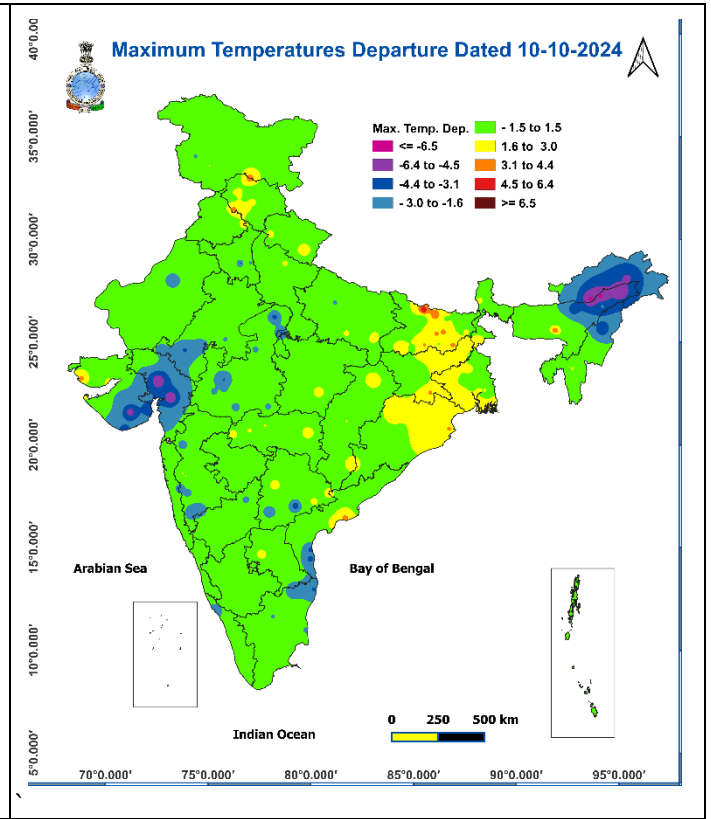
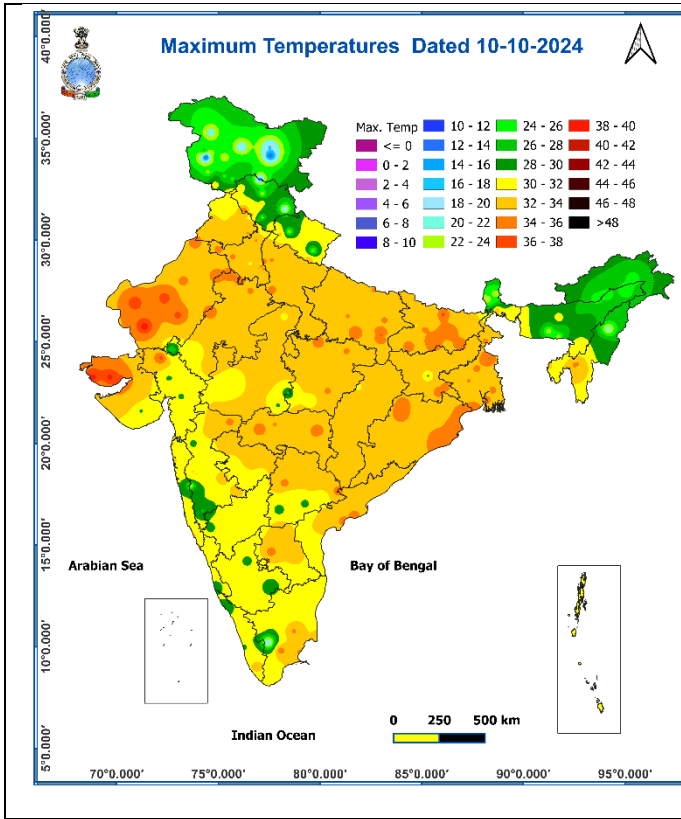


Fig. 3: Minimum Temperatures

Fig. 4: Departure of Minimum Temperatures

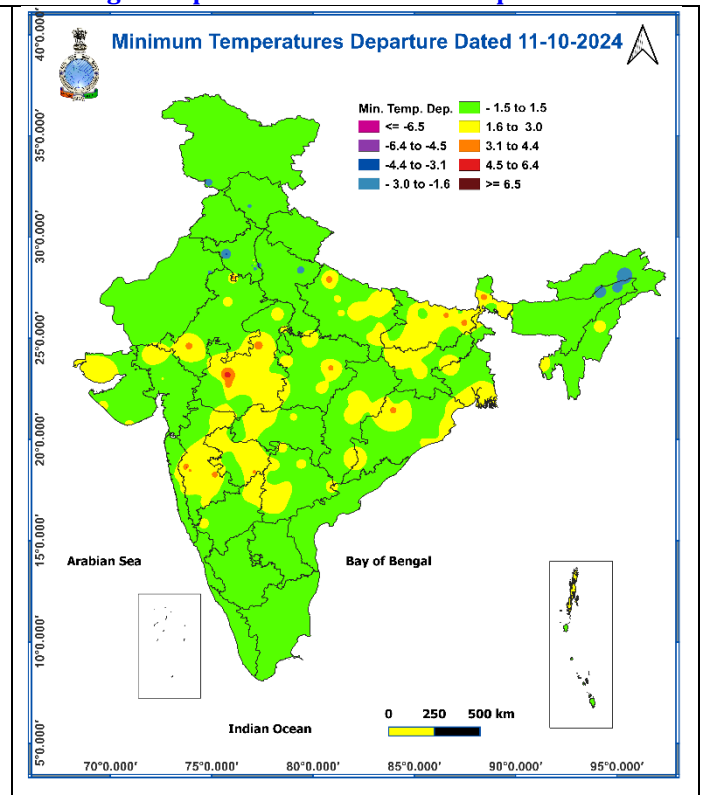
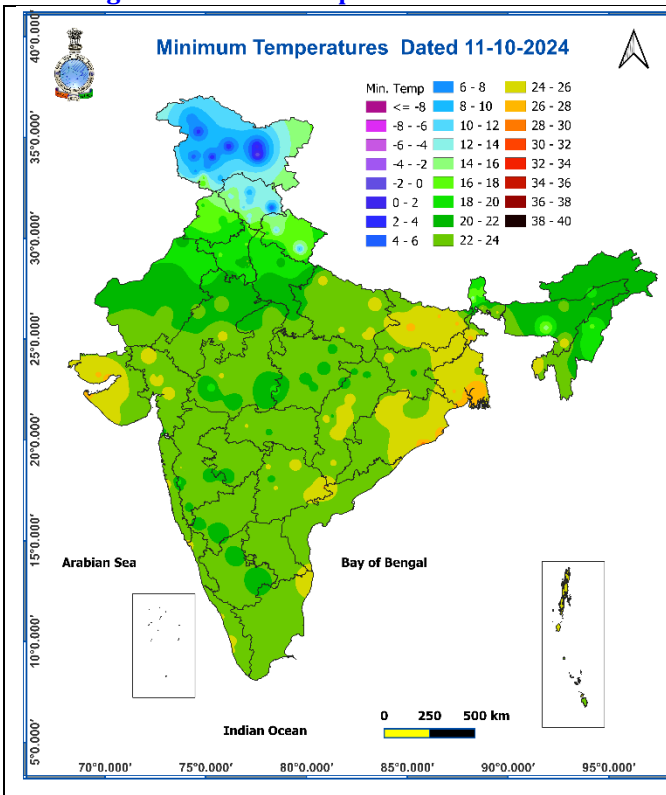
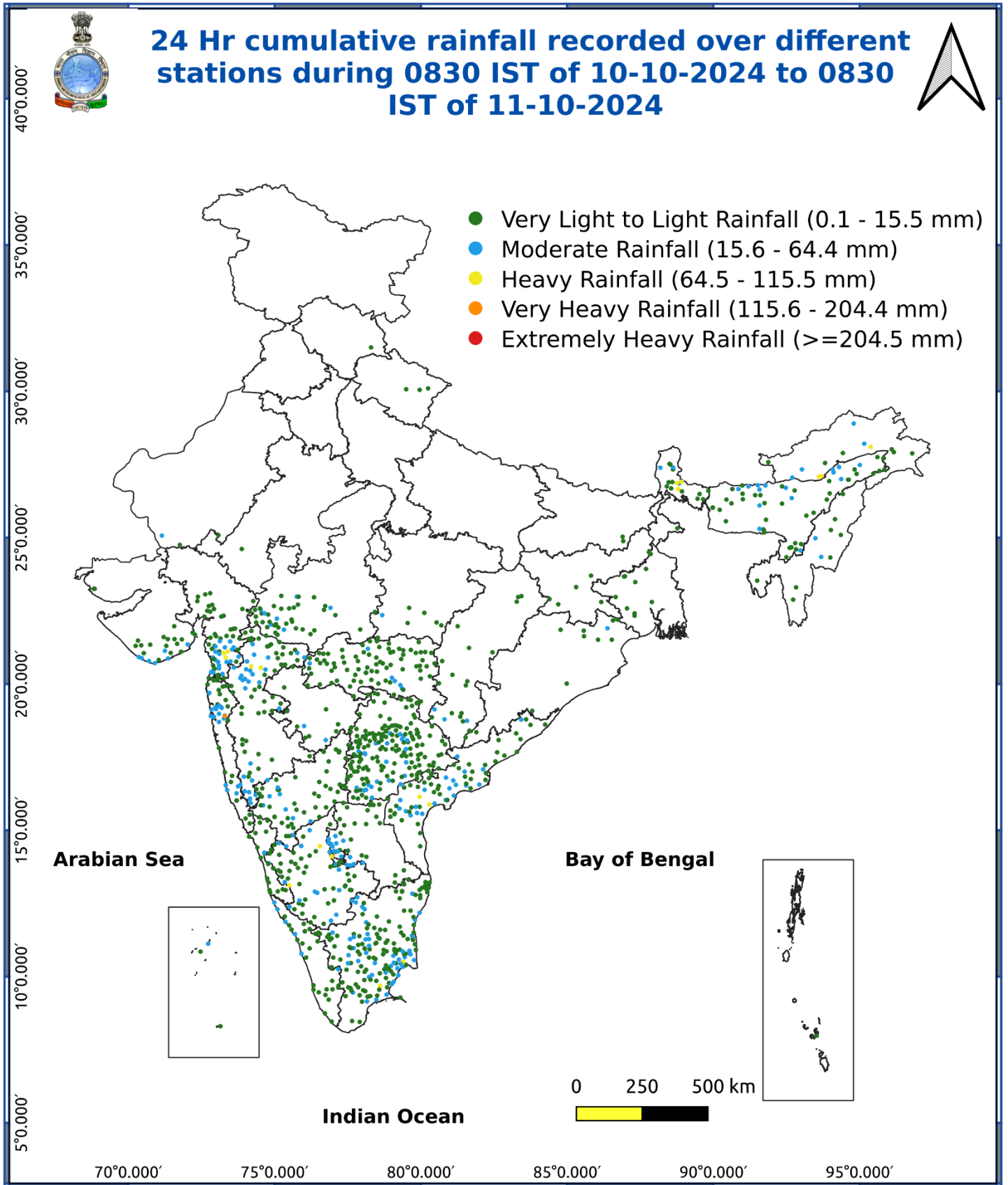


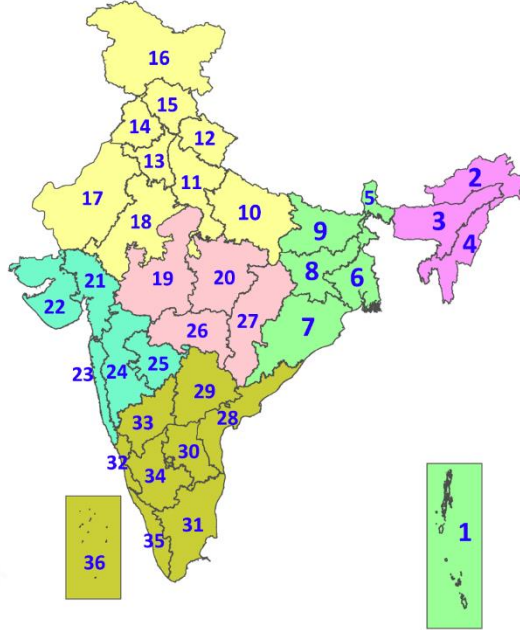
Fig. 5: Accumulated Rainfall (mm) during past 24 hours



* 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 *	<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>