Monday, September 9, 2024
Time of Issue: 0800 hours IST
(MORNING)

ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

Significant Weather Features:

Weather Systems:

- ✓ The **deep depression** over northwest and adjoining westcentral Bay of Bengal moved slowly north-northwestwards with a speed of 8 kmph during past 6 hours and lay centered at 0530 hours IST of today, the 9th September, 2024 over the same region near latitude 19.3°N and longitude 86.2°E, about 70 km southeast of Puri (Odisha), 140 km east of Gopalpur (Odisha), 120 km south-southwest of Paradip (Odisha), 170 km south-southwest of Chandbali (Odisha), 240 km east-northeast of Kalingapatnam (Andhra Pradesh) and 290 km south-southwest of Digha (West Bengal).It is very likely to move nearly northwestwards and cross Odisha coast near Puri by noon of 9th September. Thereafter, it is very likely to move west-northwestwards across Odisha & Chhattisgarh during subsequent 2 days.
- ✓ The **monsoon trough** is south of its normal position at mean sea level. It is likely to continue so for next 3-4 days.
- ✓ A cyclonic circulation lies over central Rajasthan & neighbourhood and extends upto middle tropospheric levels.

Forecast & Warnings (upto 7 days):

❖ **South Peninsular India:**

- ✓ Fairly widespread to widespread light/moderate rainfall very likely over Coastal Karnataka, Kerala & Mahe, Lakshadweep; Scattered to Fairly widespread light/moderate rainfall over Coastal Andhra Pradesh & Yanam, Telangana; isolated to scattered rainfall over Rayalaseema, Tamil Nadu, Puducherry & Karaikal and Interior Karnataka during the week.
- ✓ Isolated **extremely heavy rainfall** very likely over Coastal Andhra Pradesh & Yanam on 09th September.
- ✓ Isolated **very heavy rainfall** very likely over Coastal Karnataka on 08th and Telangana on 09th September.
- ✓ Isolated **heavy rainfall** very likely over Telangana, South Interior Karnataka, Kerala & Mahe during 09th–10th; Coastal Andhra Pradesh & Yanam during 09th –12th; Coastal Karnataka during 09th -11th September.

East & Northeast India

- ✓ Fairly widespread to widespread light/moderate rainfall very likely over Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Andaman & Nicobar Islands, West Bengal & Sikkim during the week; Scattered to Fairly widespread light/moderate rainfall very likely over Arunachal Pradesh, Bihar during the week and scattered to widespread light/moderate rainfall over Jharkhand and Odisha during the week.
- ✓ Isolated **extremely heavy rainfall** very likely over Odisha on 09th September.
- ✓ Isolated **very heavy rainfall** very likely over Odisha on 08th; Jharkhand on 10th & 11th; Gangetic West Bengal on 09th; Assam & Meghalaya on 11th &12th; Nagaland, Manipur, Mizoram & Tripura during 10th - 12th September.
- ✓ Isolated **heavy rainfall** very likely over Nagaland, Manipur, Mizoram & Tripura during next 7 days; Assam & Meghalaya during 09th-13th; Odisha during 08th -10th; Arunachal Pradesh during 10th -12th; Gangetic West Bengal on 09th & 10th; Sub-Himalayan West Bengal & Sikkim during 09th, 11th & 12th; Bihar during 12th-14th; Jharkhand during 09th-12th September.

❖ **West & Central India:**

- ✓ Fairly widespread to widespread light/moderate rainfall very likely over West and Central India during the week.
- ✓ Isolated **very heavy rainfall** very likely over West Madhya Pradesh on 11th & 12th; East Madhya Pradesh on 09th & 10th, Chhattisgarh during 08th-10th and Vidarbha on 09th September.
- ✓ Isolated **heavy rainfall** very likely over West Madhya Pradesh during 09th-12th & 14th; East Madhya Pradesh during 09th-10th; Gujarat Region, Konkan & Goa, Vidarbha, Chhattisgarh during 09th -11th; Madhya Maharashtra during 09th - 12th September.

❖ **Northwest India**

- ✓ Scattered to Fairly widespread light/moderate rainfall very likely over Uttarakhand, Uttar Pradesh, East Rajasthan; isolated to scattered rainfall over the remaining region during the week.
- ✓ Isolated **very heavy rainfall** very likely over East Rajasthan on 12th & 13th September.
- ✓ Isolated **heavy rainfall** very likely over Uttar Pradesh during 10th-12th; Haryana, West Rajasthan on 09th; Uttarakhand during 09th -14th; East Uttar Pradesh on 10th & 11th; East Rajasthan on 09th and 13th September.

Main Weather Observations:

- **Rainfall distribution** (from 0830 hours IST to 1730 hours IST of yesterday): **at many places** over Coastal Andhra Pradesh & Yanam, Kerala & Mahe, Konkan & Goa, Madhya Maharashtra; **at a few places** over Uttar Pradesh, East Rajasthan, West Madhya Pradesh, Vidarbha & Odisha; **at isolated places** over Himachal Pradesh, Uttarakhand, Haryana-Chandigarh-Delhi, Punjab, East Madhya Pradesh, Chhattisgarh, Bihar, Jharkhand, Gangetic West Bengal, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Saurashtra & Kutch, Telangana, Rayalaseema, Marathwada & Karnataka.

- **Heavy rainfall recorded** (from 0830 hours IST to 1730 hours IST of yesterday): **Heavy rainfall** at isolated places over Coastal Andhra Pradesh & Yanam.

- **Significant amount of rainfall** (from 0830 hours IST to 1730 hours IST of yesterday) (in cm): **Coastal Andhra Pradesh & Yanam:** Anandapuram (dis.-Visakhapatnam) 10, Mehadrigadda (dis.-Visakhapatnam) 7, Visakhapatnam, Bhimunipattinam & Kailashgiri (dis.-Visakhapatnam) 6 each, Vizianagaram (dis.-Vizianagaram) 5; **Uttarakhand:** Dehradun 6; **Chhattisgarh:** Keshkal (dis.-Kondagaon) 4, Mana & Mainpat dis.-Surguja) 3 each, Jagdalpur 2; **Odisha:** Gopalpur 4; **Bihar:** Supaul 4, Patna 2; **East Rajasthan:** Banasthali Vidyapeeth 3; **Telangana:** Yellandu (dis.-Bhadradri_Kothagudem) 3, Rajendarnagar (dis.-Ranga_Reddy) 2; **Himachal Pradesh:** Shimla 2; **East Uttar Pradesh:** Hamirpur & Lucknow_Amausi 2 each; **Assam:** Guwahati 2; **Coastal Karnataka:** Mangalore 2; **Kerala:** Kozhikode 2.

- **Minimum Temperature Departures (as on 08-09-2024):** Minimum temperatures were **appreciably above normal (3.1°C to 5.0°C)** at isolated places over Nagaland, Manipur, Mizoram & Tripura and Sub-Himalayan West Bengal & Sikkim; **above normal (1.6°C to 3.0°C**) at many places over Bihar, Arunachal Pradesh, Himachal Pradesh, East Uttar Pradesh; at a few places over Assam & Meghalaya; at isolated places over Gangetic West Bengal, Jharkhand, Odisha, Uttarakhand, West Rajasthan, Madhya Pradesh, Chhattisgarh, Vidarbha, Gujarat state, Kerala & Mahe and Tamil Nadu, Puducherry & Karaikal. These were **markedly below normal (-5.1°C or less)** at isolated places over Coastal Andhra Pradesh & Yanam; **below normal (-1.6°C to -3.0°C)** at isolated places over Telangana and **near normal** over rest parts of the country. Yesterday, **the lowest minimum temperature** of **19.4°C** was reported at **Bulsar (Gujarat Region)** over the plains of the country. **(Fig.4)**

- **Maximum Temperature Departures (as on 08-09-2024):** Maximum temperatures were **markedly above normal (5.1°C or more)** at isolated places over Sub-Himalayan West Bengal & Sikkim, Assam & Meghalaya, Arunachal Pradesh, Nagaland, Manipur, Mizoram & Tripura; **appreciably above normal (3.1°C to 5.0°C**) at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, East Uttar Pradesh, Bihar, Chhattisgarh; **above normal (1.6°C to 3.0°C**) at most places over Jharkhand; at isolated places over Himachal Pradesh, West Uttar Pradesh, East Madhya Pradesh, Gangetic West Bengal, Konkan & Goa, Odisha & Tamil Nadu, Puducherry & Karaikal. These were **markedly below normal (-5.1°C or Less)** at isolated places over Coastal Andhra Pradesh & Yanam, Telangana, East Rajasthan; **below normal (-1.6°C to -3.0°C)** at isolated places over Haryana-Chandigarh-Delhi, Rayalaseema and **near normal** over rest parts of the country. Yesterday, **the highest Maximum Temperature** of **38.8°C** was reported at **Madurai (Tamil Nadu)** over the country. **(Fig. 2)**

Meteorological Analysis (Based on 0530 hours IST)

- The **deep depression** over northwest and adjoining westcentral Bay of Bengal moved slowly north-northwestwards with a speed of 8 kmph during past 6 hours and lay centered at 0530 hours IST of today, the 9th September, 2024 over the same region near latitude 19.3°N and longitude 86.2°E, about 70 km southeast of Puri (Odisha), 140 km east of Gopalpur (Odisha), 120 km south-southwest of Paradip (Odisha), 170 km south-southwest of Chandbali (Odisha), 240 km east-northeast of Kalingapatnam (Andhra Pradesh) and 290 km south-southwest of Digha (West Bengal).It is very likely to move nearly northwestwards and cross Odisha coast near Puri by noon of 9th September. Thereafter, it is very likely to move west-northwestwards across Odisha & Chhattisgarh during subsequent 2 days.

- The **Monsoon trough** at mean sea level now passes through Bikaner, Kanpur, Prayagraj, Ambikapur, Sambalpur and to the centre of **deep depression** over northwest and adjoining westcentral Bay of Bengal and thence southeastwards to eastcentral Bay of Bengal.

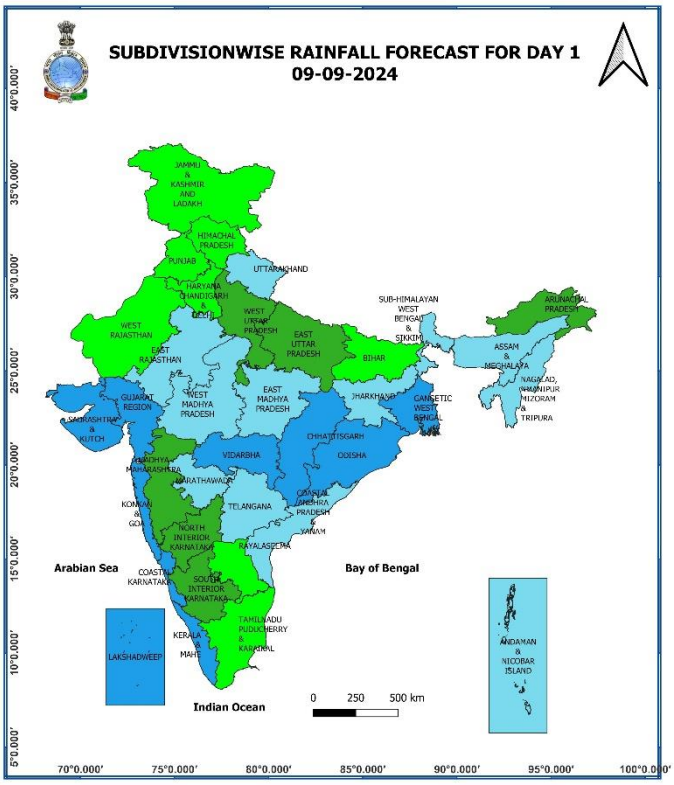
- The **off-shore trough** at mean sea level along north Karnataka to Kerala coasts persists.

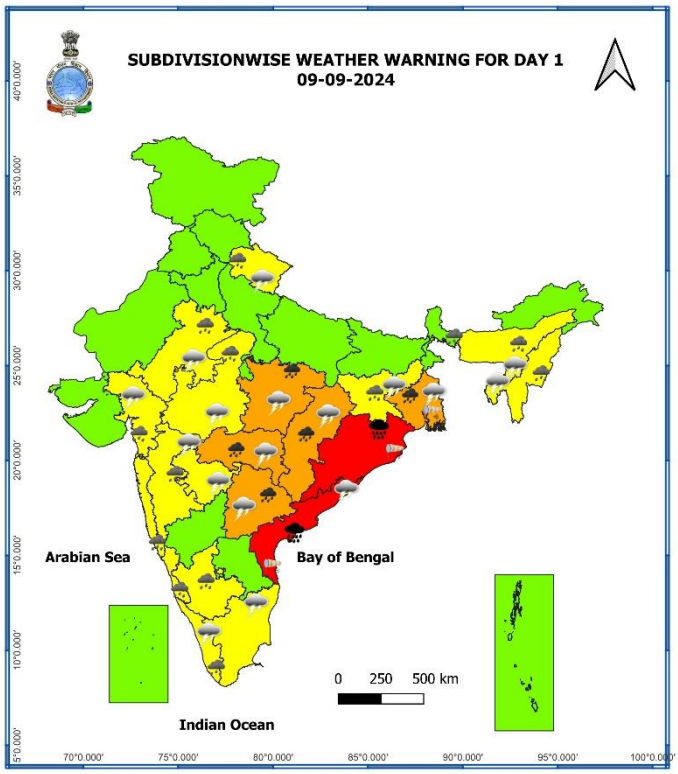
- The **cyclonic circulation** over central Rajasthan & neighbourhood persists and now seen at 1.5 km above mean sea level tilting southwestwards with height.

- The **Western Disturbance** as a trough in middle tropospheric westerlies with its axis at 5.8 km above mean sea level roughly along Long. 72°E to the north of Lat. 32°N persists.

- The **cyclonic circulation** over Westcentral Arabian Sea off Oman coast extending upto 1.5 km above mean sea level has become less marked.

Weather Forecast & Warnings for next 7 days (Upto 0830 hours IST of 15th September, 2024)



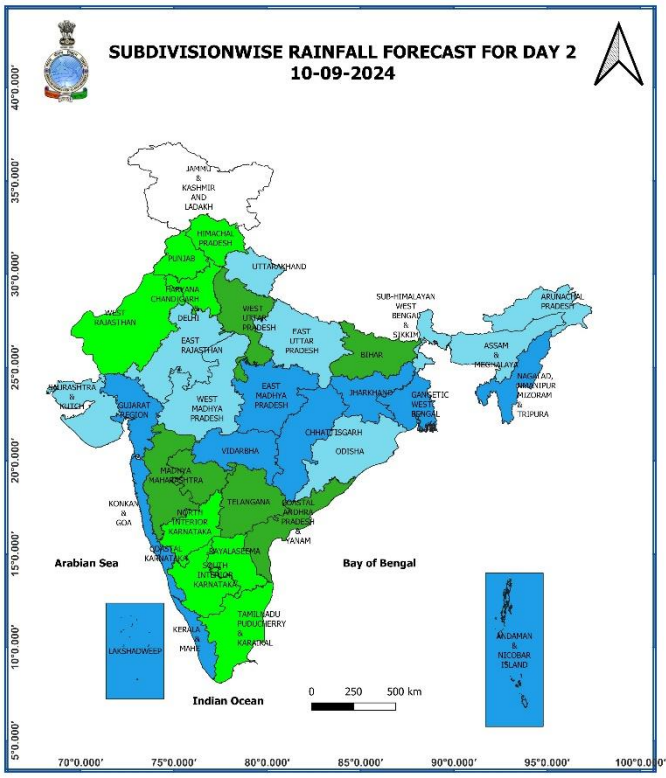


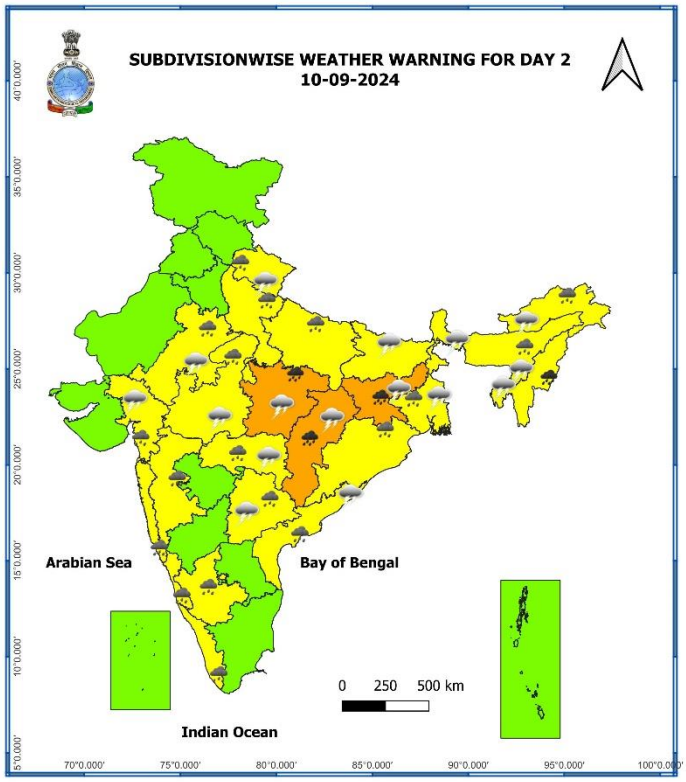
09 September (Day 1):

- **Heavy to very heavy rainfall (≥ 12 cm) with extremely heavy falls (>20 cm)** very likely at isolated places over Odisha, Coastal Andhra Pradesh & Yanam**; Heavy to very heavy rainfall (≥ 12 cm)** at isolated places over East Madhya Pradesh, Vidarbha, Chhattisgarh, Gangetic West Bengal, Telangana; **Heavy rainfall (≥ 7 cm)** at isolated places over Uttarakhand, East Rajasthan, West Madhya Pradesh, Sub-Himalayan West Bengal & Sikkim, Jharkhand, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Konkan & Goa, Madhya Maharashtra, Gujarat Region, Kerala & Mahe, Coastal Karnataka, South Interior Karnataka.

- **Thunderstorm accompanied with lighting and gusty winds (speed reaching 30-40 kmph)** very likely at isolated places over Telangana**; with lightning** very likely at isolated places over Uttarakhand, East Rajasthan, Madhya Pradesh, Vidarbha, Chhattisgarh, Gangetic West Bengal, Jharkhand, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Madhya Maharashtra, Marathwada, Gujarat Region, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe, Coastal Andhra Pradesh & Yanam.

  Squally weather with wind speed reaching 35 kmph to 45 kmph gusting to 55 kmph is likely to prevail over Sri Lanka coast, and few parts along and off south Andhra Pradesh, Andaman Sea. **Squally weather with wind speed reaching 45 kmph to 55 kmph gusting to 65 kmph** is likely to prevail over Gulf of Mannar, many parts of south and central Bay of Bengal, adjoining north Bay of Bengal. **Squally winds with speed reaching 45 kmph to 55 kmph gusting to 65 kmph** likely to prevail over western parts of southwest Arabian sea & adjoining parts of westcentral Arabian sea, along and off Somalia coast. **Squally winds with speed reaching 50 kmph to 60 kmph gusting to 70 kmph** likely to prevail along and off Andhra Pradesh-Odisha-West Bengal coasts adjoining northwest and west central Bay of Bengal. Fishermen are advised not to venture into these areas.



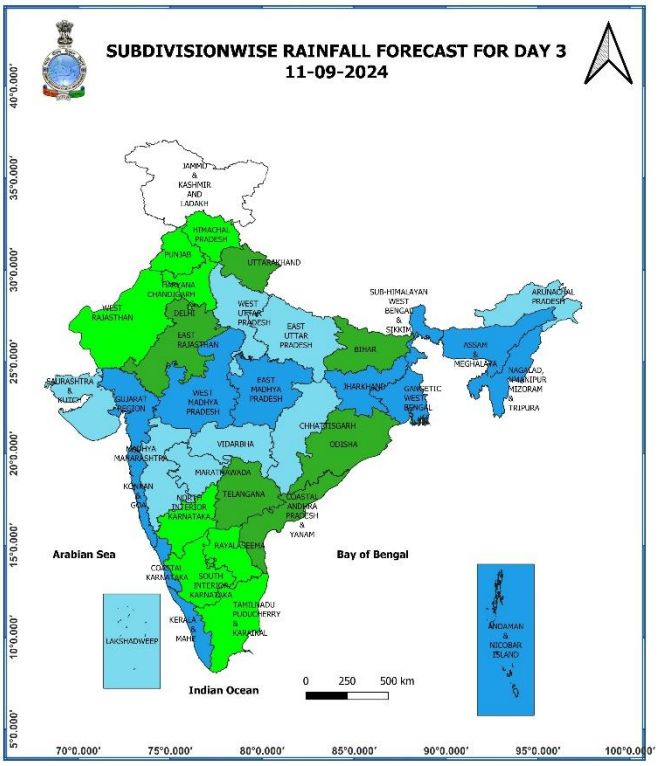


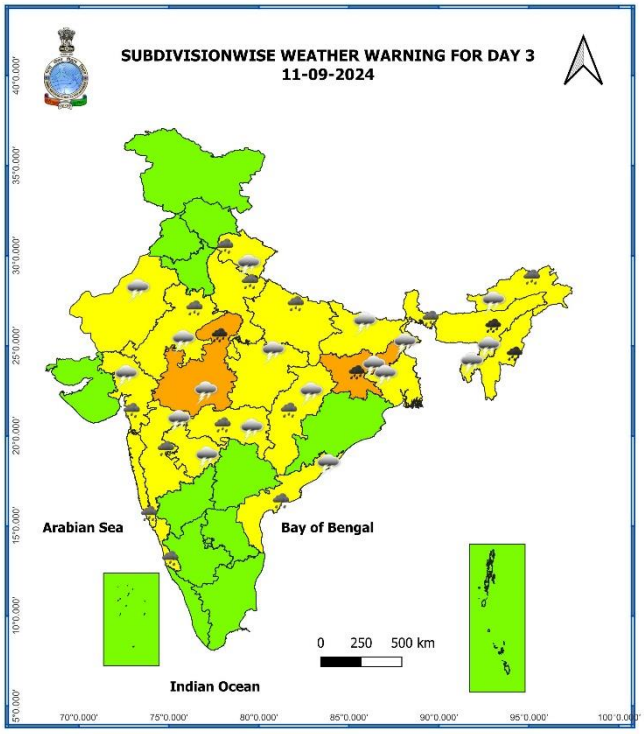
10 September (Day 2):

- **Heavy to very heavy rainfall (≥ 12 cm)** likely at isolated places over East Madhya Pradesh, Chhattisgarh, Jharkhand, Nagaland, Manipur, Mizoram & Tripura; **Heavy rainfall (≥ 7 cm)** at isolated places over Uttarakhand, Uttar Pradesh, East Rajasthan, West Madhya Pradesh, Vidarbha, Gangetic West Bengal, Odisha, Arunachal Pradesh, Assam & Meghalaya, Konkan & Goa, Madhya Maharashtra, Gujarat Region, Kerala & Mahe, Coastal Andhra Pradesh & Yanam, Telangana, Coastal Karnataka, South Interior Karnataka.

- **Thunderstorm accompanied with lighting and gusty winds (speed reaching 30-40 kmph)** very likely at isolated places over Telangana**; with lightning** very likely at isolated places over Uttarakhand, East Rajasthan, Madhya Pradesh, Vidarbha, Chhattisgarh, West Bengal & Sikkim, Bihar. Jharkhand, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Arunachal Pradesh, Gujarat Region, Tamil Nadu, Puducherry & Karaikal, Coastal Andhra Pradesh & Yanam.

Squally weather with wind speed reaching 35 kmph to 45 kmph gusting to 55 kmph is likely to prevail over Gulf of Mannar, along and off Sri Lanka coast, most parts of south and central Bay of Bengal, northwest Bay of Bengal, many parts of northeast Bay of Bengal, north Andaman Sea. **Squally weather with wind speed reaching 45 kmph to 55 kmph gusting to 65 kmph** is likely to prevail over many parts of westcentral adjoining eastcentral along and off north Andhra Pradesh, Odisha, West Bengal coasts and adjoining northwest Bay of Bengal. **Squally winds with speed reaching 45 kmph to 55 kmph gusting to 65 kmph** likely to prevail over western parts of southwest Arabian sea & adjoining parts of westcentral Arabian sea, along and off Somalia coast. Fishermen are advised not to venture into these areas.



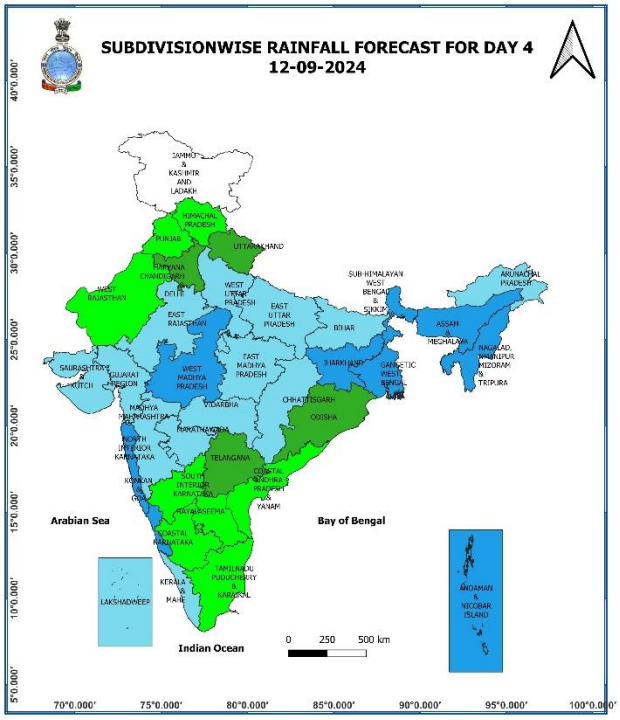


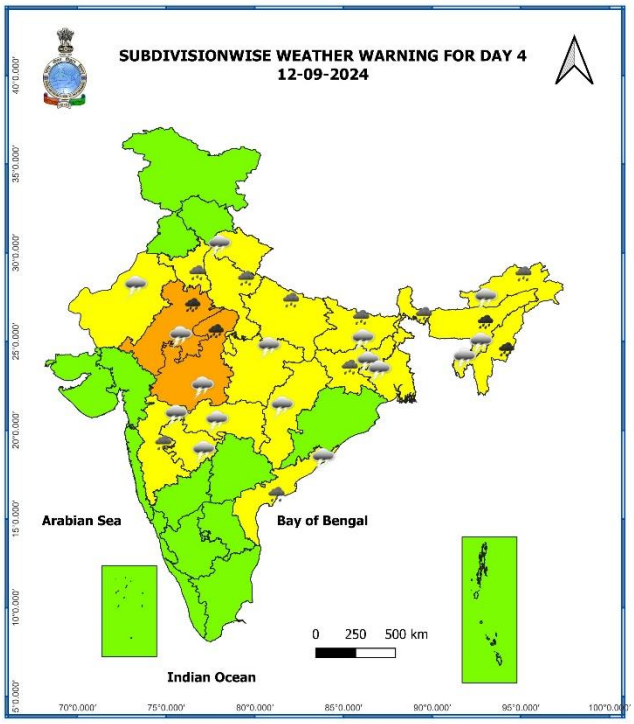
11 September (Day 3):

- **Heavy to very heavy rainfall (≥ 12 cm)** likely at isolated places over West Madhya Pradesh, Jharkhand, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura; **Heavy rainfall (≥ 7 cm)** likely at isolated places over Uttarakhand, Uttar Pradesh, East Rajasthan, Vidarbha, Chhattisgarh, Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh, Konkan & Goa, Madhya Maharashtra, Gujarat Region, Coastal Andhra Pradesh & Yanam, Coastal Karnataka.

- **Thunderstorm accompanied with lighting** very likely at isolated places over Uttarakhand, Rajasthan. Madhya Pradesh, Vidarbha, Chhattisgarh, West Bengal & Sikkim, Bihar, Jharkhand, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Marathwada, Gujarat Region, Coastal Andhra Pradesh & Yanam.

  Squally weather with wind speed reaching 35 kmph to 45 kmph gusting to 55 kmph is likely to prevail over Gulf of Mannar, along and off Sri Lanka coast, most parts of south and central Bay of Bengal, northwest Bay of Bengal, few parts of northeast Bay of Bengal, along and off north Andhra Pradesh-Odisha coast, Andaman Sea. **Squally weather with wind speed reaching 45 kmph to 55 kmph gusting to 65 kmph** is likely to prevail over, many parts of central Bay of Bengal. **Squally winds with speed reaching 45 kmph to 55 kmph gusting to 65 kmph** likely to prevail over western parts of southwest Arabian sea & adjoining parts of westcentral Arabian sea, along and off Somalia coast. Fishermen are advised not to venture into these areas.



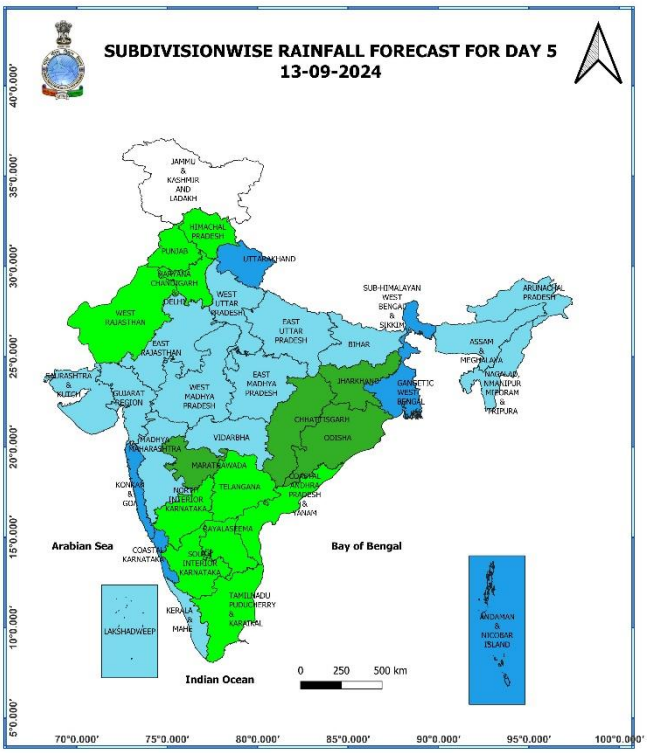


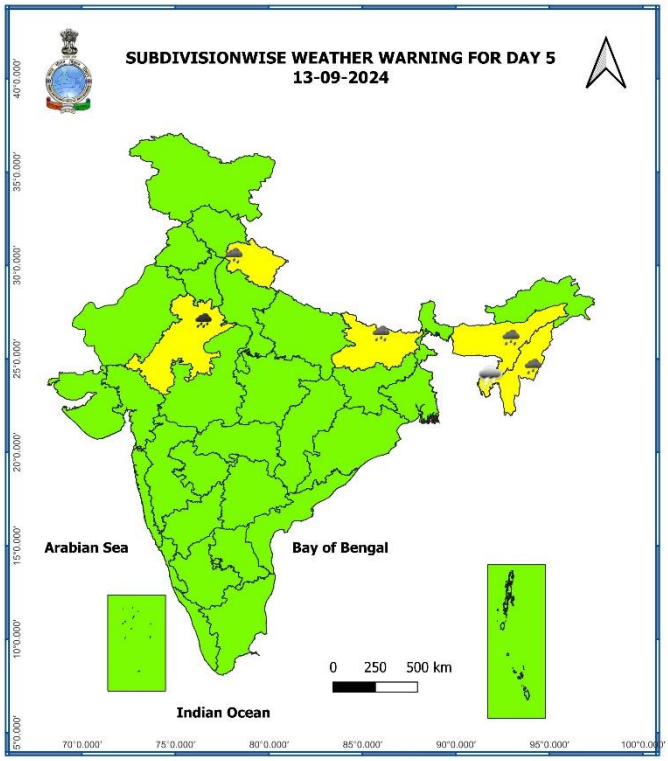
12 September (Day 4):

- **Heavy to very heavy rainfall (≥ 12 cm)** likely at isolated places over East Rajasthan, West Madhya Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura; **Heavy rainfall (≥ 7 cm)** likely at isolated places over Haryana-Chandigarh-Delhi, Uttar Pradesh, Sub-Himalayan West Bengal & Sikkim, Bihar, Jharkhand, Arunachal Pradesh, Madhya Maharashtra, Coastal Andhra Pradesh & Yanam.

- **Thunderstorm accompanied with lighting** likely at isolated places over Uttarakhand, Rajasthan. Madhya Pradesh, Vidarbha, Chhattisgarh, Gangetic West Bengal, Bihar, Jharkhand, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Madhya Maharashtra, Marathwada, Coastal Andhra Pradesh & Yanam.

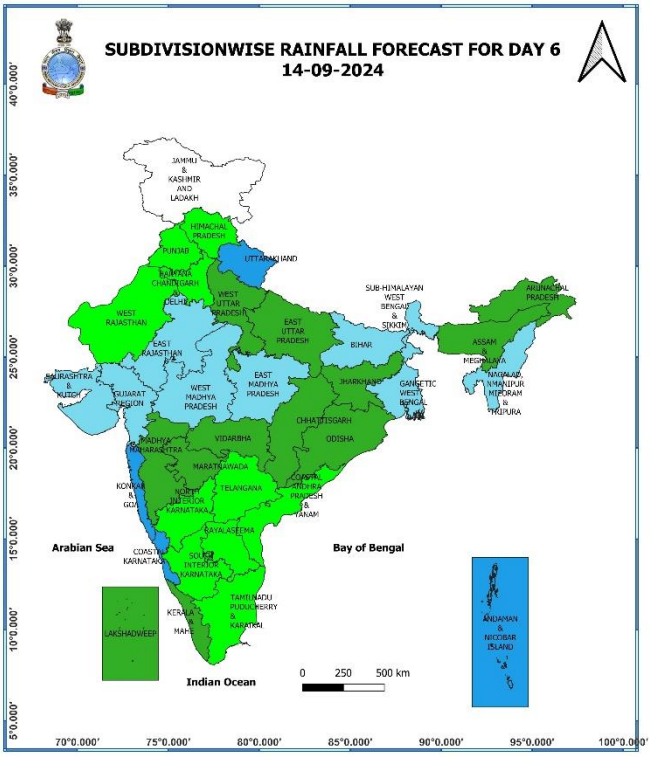
  Squally weather with wind speed reaching 35 kmph to 45 kmph gusting to 55 kmph is likely to prevail Gulf of Mannar, along and off Sri Lanka coast, most parts of south and central Bay of Bengal, along and off north Andhra Pradesh coast. **Squally weather with wind speed reaching 45 kmph to 55 kmph gusting to 65 kmph** is likely to prevail over southeast and eastcentral adjoining westcentral Bay of Bengal. **Squally winds with speed reaching 45 kmph to 55 kmph gusting to 65 kmph** likely to prevail over western parts of southwest Arabian sea & adjoining parts of westcentral Arabian sea, along and off Somalia coast. Fishermen are advised not to venture into these areas.

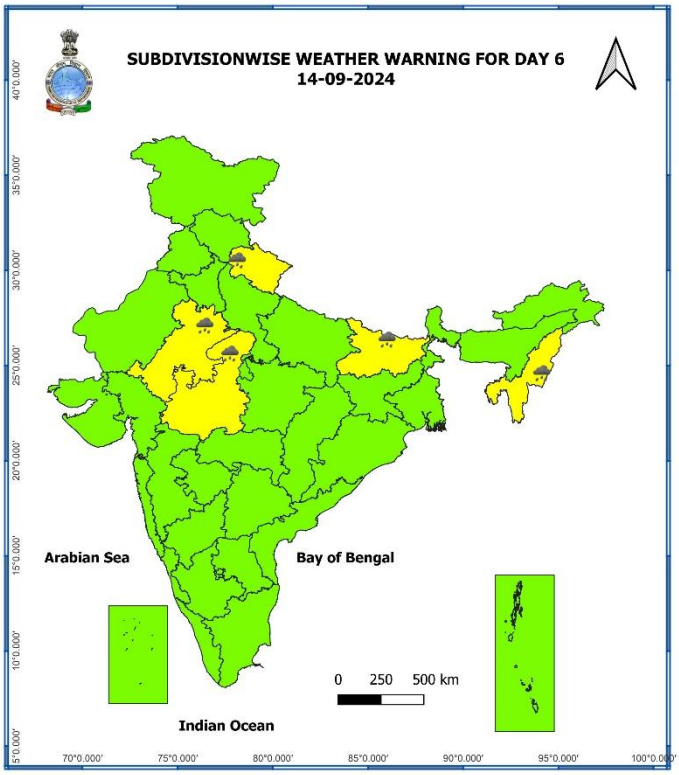




13 September (Day 5):

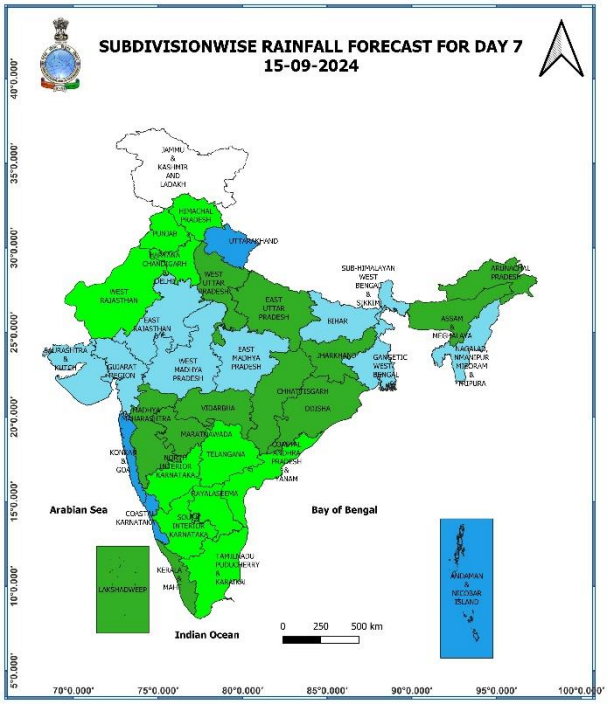
- **Heavy to very heavy rainfall (≥ 12 cm)** likely at isolated places over East Rajasthan; **Heavy rainfall (≥ 7 cm)** likely at isolated places Uttarakhand, Bihar, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura.

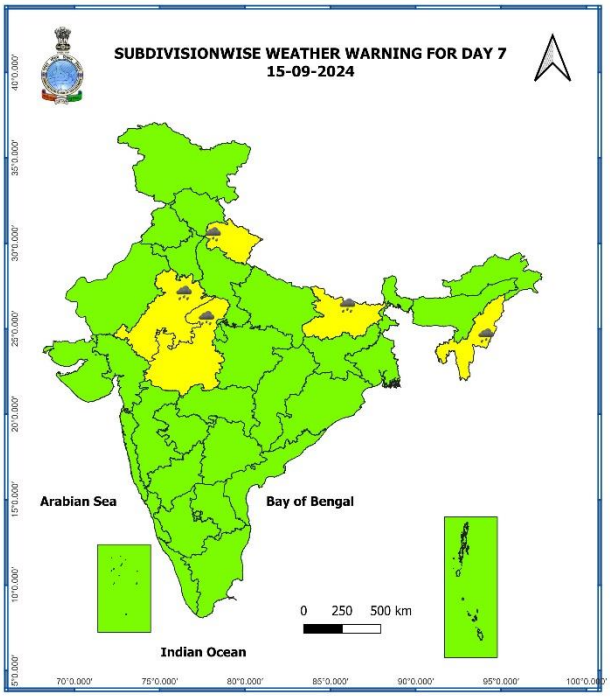




14 September (Day 6):

Heavy rainfall (≥ 7 cm) likely at isolated places over Uttarakhand, East Rajasthan, West Madhya Pradesh, Bihar, Nagaland, Manipur, Mizoram & Tripura.





15 September (Day 7):

- **Heavy rainfall (≥ 7 cm)** likely at isolated places over Uttarakhand, East Rajasthan, West Madhya Pradesh, Bihar, Nagaland, Manipur, Mizoram & Tripura.

Weather Outlook for subsequent 3 days (During 15th September– 17th September, 2024)

- Fairly widespread to widespread rainfall likely over most parts of the country except Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, West Rajasthan, Punjab, Tamil Nadu, Puducherry & Karaikal where isolated to scattered rainfall likely.

- **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 and Coastal Andhra Pradesh & Yanam on 09th September.
- ✓ **Very heavy rainfall** at isolated over East Rajasthan on 12th & 13th; Chhattisgarh during 09th-10th; Vidarbha, Gangetic West Bengal, Telangana on 09th; East Madhya Pradesh on 09th & 10th; Jharkhand on 10th & 11th; Assam & Meghalaya, West Madhya Pradesh during 11th -12th; Nagaland, Manipur, Mizoram & Tripura during 10th -12th September.
- ✓ **Moderate flash flood risk** likely over few watersheds & neighbourhoods of Odisha; **Low to moderate flash flood risk** likely over few watersheds & neighbourhoods of Chhattisgarh & Jharkhand on 09th & 10th September. **(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.
- ✓ Reduction of visibility over sea area due to sea spray induced by strong wind and heavy rainfall.
- ✓ Disruption of traffic in major cities 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.
- ✓ It may lead to riverine flooding in some river catchments (for riverine flooding please visit Web page of CWC)

Action Suggested

- ✓ Judicious regulation of offshore/onshore Operations
- ✓ 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

- ✓ Postpone transplanting of rice in North Coastal **Andhra Pradesh**.
- ✓ Drain out excess water from rice, soybean, red gram, maize, cotton and turmeric in **Telangana;** from rice, finger millet, maize and groundnut in **Odisha;** from rice, maize, sugarcane, black gram, horse gram and niger crops in **Chhattisgarh** to prevent water logging**.**
- ✓ Make provision for draining out excess water from standing crop fields and fruit orchards to avoid water stagnation in Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Uttarakhand, Haryana, East Rajasthan, Gangetic West Bengal, Sub Himalayan West Bengal, Jharkhand, Madhya Pradesh, Konkan & Goa, Madhya Maharashtra, Vidarbha, Gujrat region, Kerala, and Karnataka.
- ✓ Provide mechanical support to horticultural crops & staking to vegetables.
- ✓ Keep the harvested produce at safer place.

ANNEXURE I

Flash Flood Guidance:

24 hours Outlook for the Flash Flood Risk (FFR) till 0530 IST of 10-09-2024 :

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

Chhattisgarh - Balod, Bemetara, Bijapur, Dantewara, Dhamtari, Gariaband, Kanker, Korba, Mahasamund, Raipur, Rajnandgaon and Surguja districts.

Jharkhand - East Singhbhum, Khunti, Simdega and West Singhbhum districts.

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

Odisha - Anugul, Balangir, Baleshwar, Baragarh, Bauda, Bhadrak, Cuttack, Deogarh, Dhenkanal, Jagatsinghapur, Jajapur, Jharsuguda, Kalahandi, Kendraparha, Kendujhar, Khordha, Koraput, Mayurbhanj, Nabarangapur, Nuaparha, Puri, Rayagarha, Sambalpur, Subarnapur and Sundargarh district.

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.

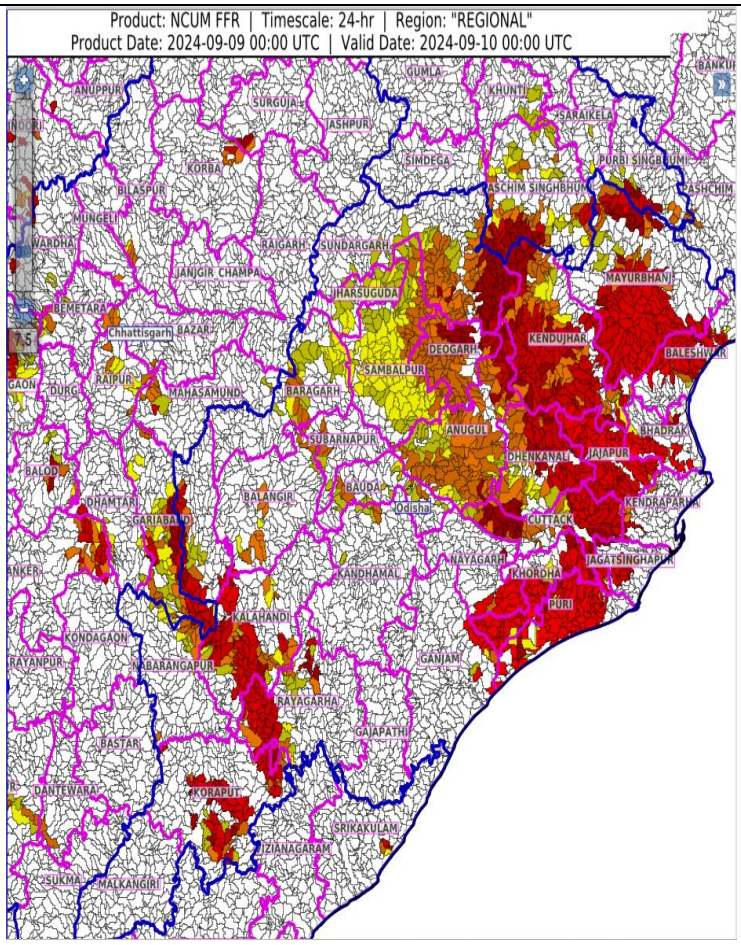


Fig. 1: Maximum Temperatures

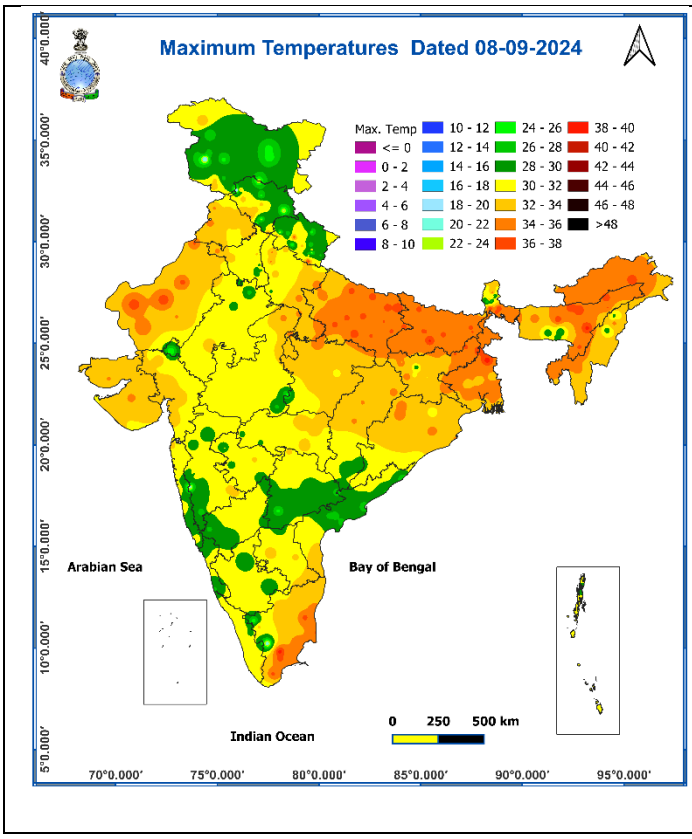


Fig. 2: Departure of Maximum Temperatures

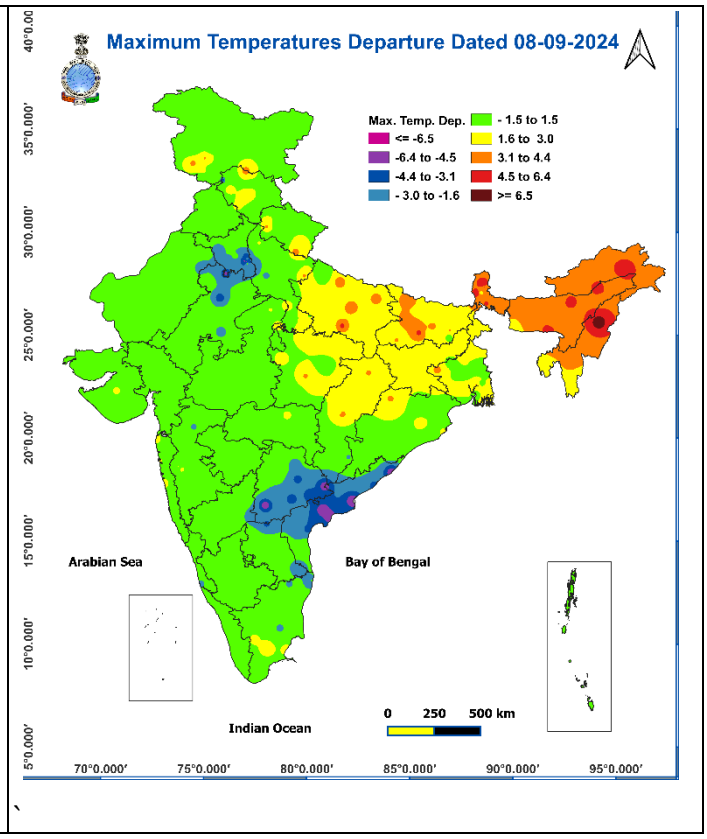


Fig. 3: Minimum Temperatures

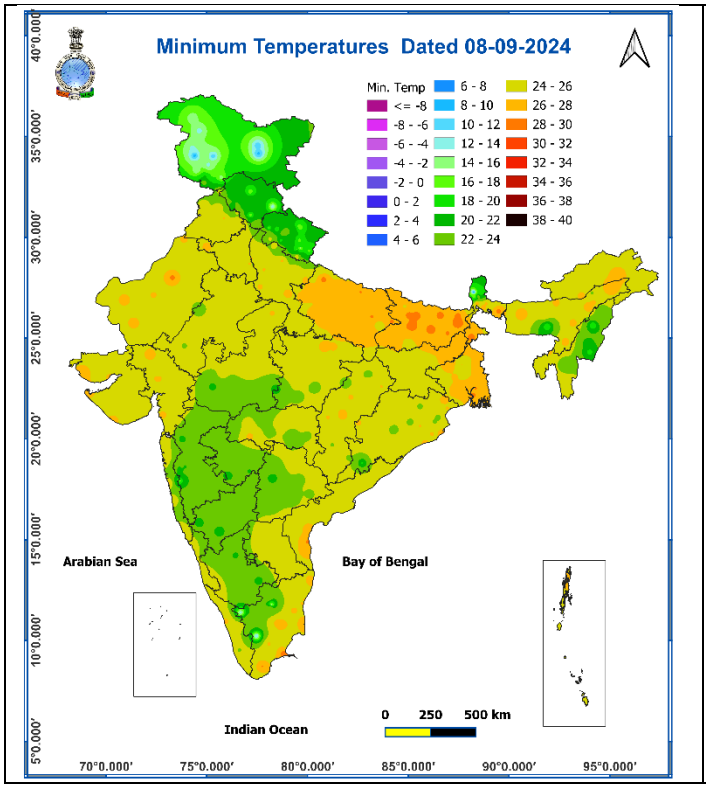


Fig. 4: Departure of Minimum Temperatures

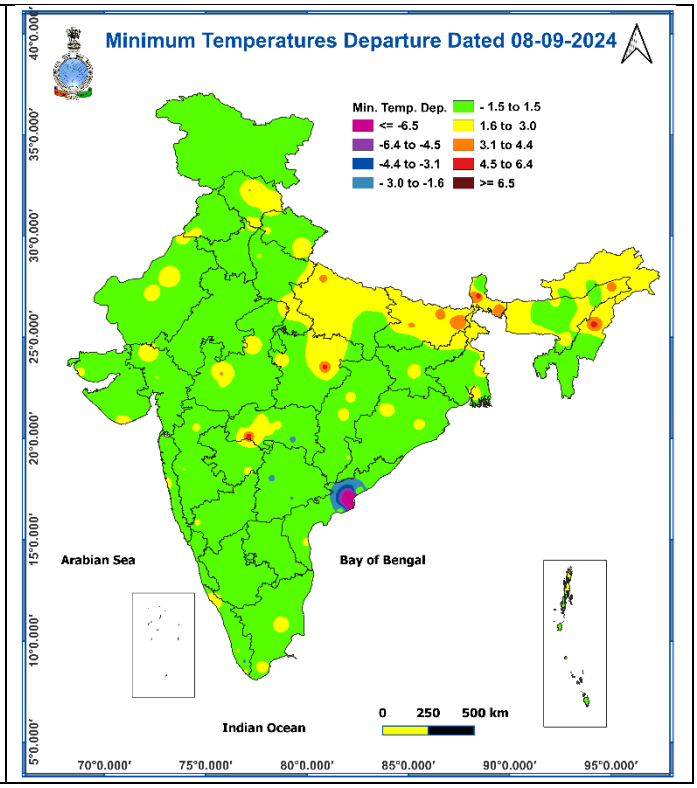
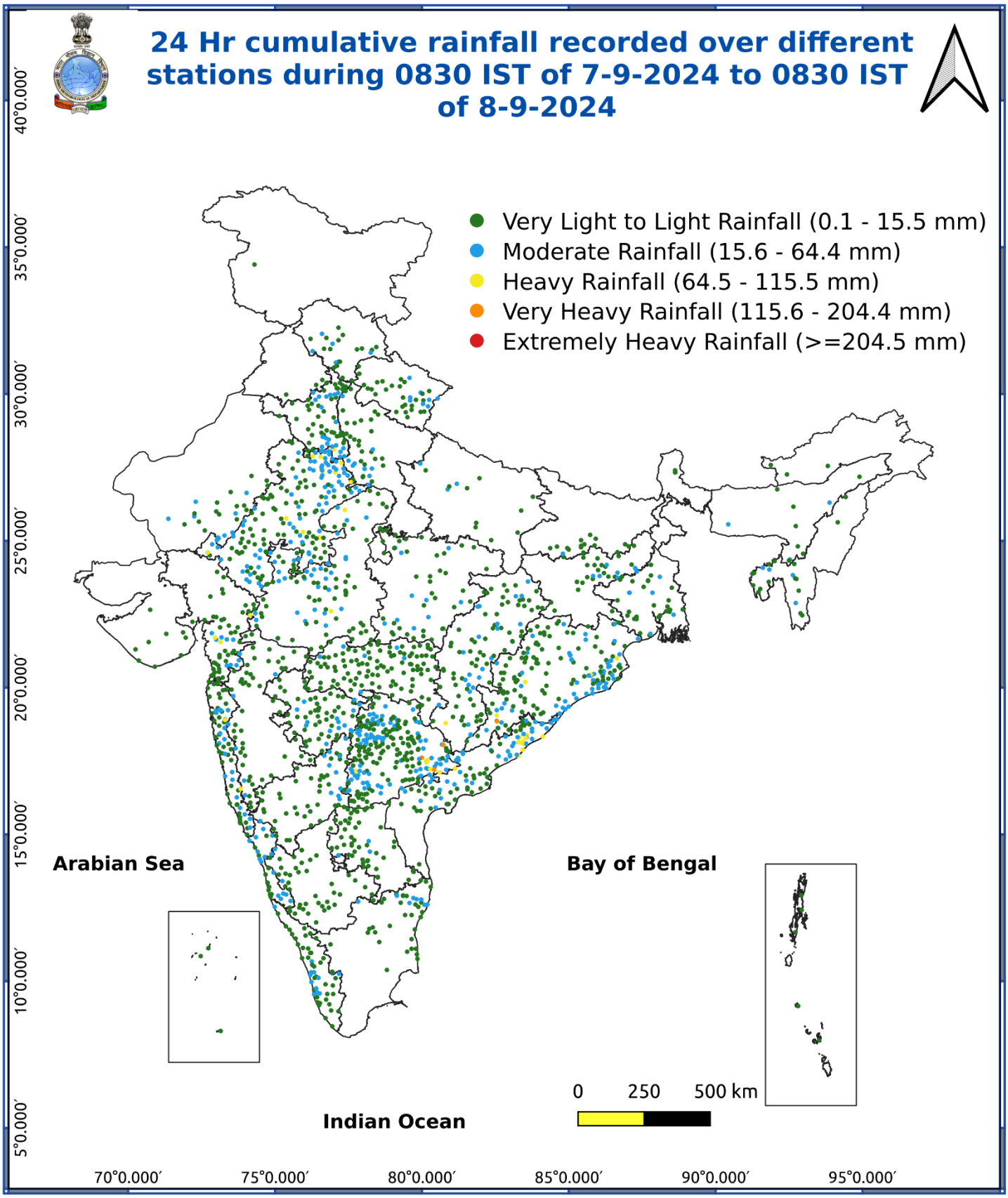
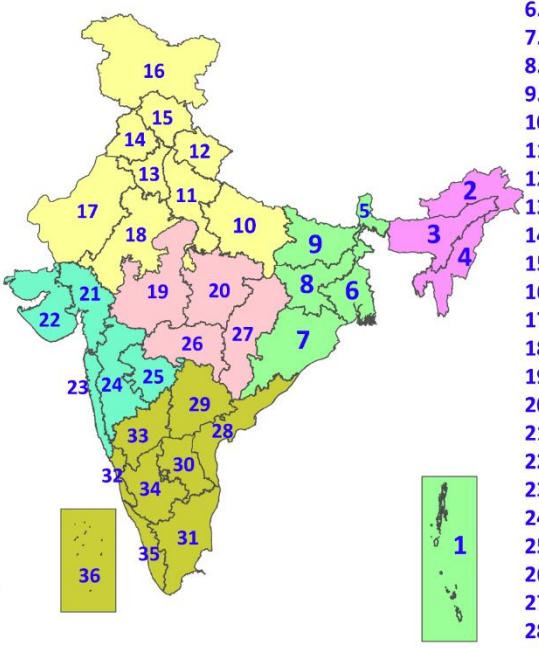


Fig. 5: Accumulated Rainfall (mm) during past 24 hours



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. आतंरिक उत्तरी कर्नाटक
34. आतंरिक 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 Rain
Very Heavy Rain
Extremely Heavy Rain
Thunder & Lightning
Hailstorm
Dust Raising Winds

Heavy Snow
Dust Storm
Heat Wave
Warm Night
Hot Day
Hot & Humid
Strong Surface Winds

Cold Wave
Cold Day
Ground Frost

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

* 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)

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 ≥40° C for plains and ≥30° C for hilly regions** **(a) Based on Departure from normal** **Heat Wave:** Maximum Temperature Departure from normal 4.5° C to 6.4° C. **Severe Heat Wave:** Maximum Temperature Departure from normal ≥6.5° C **(b). Based on Actual maximum temperature** **Heat Wave:** When actual maximum temperature ≥45°C. **Severe Heat Wave:** When actual maximum temperature ≥47°C **(c). Criteria for heat wave for coastal stations** When maximum temperature departure is >4.5°C from normal. Heat Wave may be described provided maximum temperature ≥37°C
Warm Night	**When maximum temperature remains 40°C** **Warm Night:** When minimum temperature departure 4.5 °C to 6.4 °C. **Severe Warm Night:** When minimum temperature departure >6.4 °C.
Cold Wave	**When minimum temperature of a station ≤10°C for plains and ≤0°C for hilly regions.** **(a). Based on departure** **Cold Wave:** Minimum Temperature Departure from normal -4.5 °C to -6.4 °C. **Severe Cold Wave:** Minimum Temperature Departure from normal ≤ -6.5 °C **(b) Based on actual Minimum Temperature (for Plains only)** **Cold Wave :** When Minimum Temperature is ≤ 4.0 °C **Severe Cold Wave:** When Minimum Temperature is ≤ 2.0 °C **(c) For Coastal Stations** When Minimum Temperature departure is ≤-4.5 °C & actual Minimum Temperature is ≤ 15 °C
Cold Day	**When minimum temperature of a station ≤10°C for plains and ≤0°C for hilly regions** **Based on departure** **Cold Day:** Maximum Temperature Departure from normal -4.5 °C to -6.4 °C. **Severe Cold Day:** Maximum Temperature Departure from normal ≤ -6.5 °C
Fog	**Phenomenon of small droplets suspended in air and the horizontal visibility < 1km** **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 ≤4°C (over Plains)
Squall	**A strong wind that rises suddenly, lasts for atleast 1 minute.** **Moderate**: Wind speed 52-61 kmph **Severe**: Wind speed 62-87 kmph **Very Severe**: Wind speed >87 kmph
Sea State	**Effect of various waves in the sea over specific area** **Rough to very rough**: Wind speed 41-62 kmph (22-33 knots) & Wave height 2.5-6 metre **High to very high**: Wind speed 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)