**Wednesday, September 4, 2024**
**Time of Issue: 0800 hours IST**
**(MORNING)**

# ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

## Significant Weather Features:

### Weather Systems:

- ✓ The low pressure area lies over southeast Rajasthan and adjoining southwest Madhya Pradesh.
- ✓ The western end of monsoon trough at mean sea level is near its normal position and its eastern end is south of its normal position. It is likely to continue so for next 2-3 days.
- ✓ A cyclonic circulation lies over Saurashtra & neighbourhood in middle tropospheric levels.
- ✓ A shear zone runs roughly along 20°N over north Peninsular India in lower tropospheric levels.
- ✓ A fresh **low pressure area** is likely to form over westcentral and adjoining northwest Bay of Bengal around 5th September, 2024.

### Forecast & Warnings (upto 7 days)

#### ❖ West & Central India:

- ✓ Fairly widespread to widespread light/moderate rainfall very likely over West & Central India during the week.
- ✓ Isolated **very heavy rainfall** very likely over Gujarat Region 04th September.
- ✓ Isolated **heavy rainfall** very likely over Konkan & Goa, Gujarat Region during next 7 days; West Madhya Pradesh, Saurashtra & Kutch during 04th – 07th; East Madhya Pradesh on 04th & 05th; Vidarbha on 04th; Chhattisgarh during 04th -09th; ghat areas of Madhya Maharashtra during 06th -09th September.

#### ❖ 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 Tamil Nadu, Puducherry & Karaikal, North Interior Karnataka, Rayalaseema and Interior Karnataka during the week.
- ✓ Isolated **heavy rainfall** very likely over Coastal Andhra Pradesh & Yanam, Coastal Karnataka during 04th – 07th; Telangana on 04th September.

#### ❖ East & Northeast India

- ✓ Fairly widespread to widespread light/moderate rainfall very likely over Northeast India, Andaman & Nicobar Islands, Sub-Himalayan West Bengal & Sikkim; Scattered to Fairly widespread light/moderate rainfall very likely over Gangetic West Bengal, Bihar, Jharkhand & Odisha during the week.
- ✓ Isolated **heavy rainfall** very likely over Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura during next 7 days; Arunachal Pradesh during 04th – 06th; Andaman & Nicobar Islands on 04th; Sub-Himalayan West Bengal & Sikkim on 04th & 05th; Bihar on 04th; Odisha during 05th – 07th September.

#### ❖ Northwest India

- ✓ Scattered to Fairly widespread light/moderate rainfall very likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand, Uttar Pradesh, Rajasthan; isolated to scattered rainfall over Punjab & Haryana-Chandigarh-Delhi during the week.
- ✓ Isolated **heavy rainfall** very likely over East Rajasthan during next 7 days; Uttarakhand during 04th –06th; West Uttar Pradesh on 05th; East Uttar Pradesh on 05th & 06th; West Rajasthan during 04th – 07th September.

## Main Weather Observations:

- **Rainfall distribution** (from 0830 hours IST to 1730 hours IST of yesterday): **at most places** over Andaman & Nicobar Islands; **at many places** over Sub-Himalayan West Bengal & Sikkim, Punjab, Himachal Pradesh, Gujarat Region, Konkan & Goa, Kerala & Mahe; **at a few places** over West Madhya Pradesh, Rajasthan, Uttarakhand, Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Saurashtra & Kutch, Telangana; **at isolated places** over Assam & Meghalaya, Gangetic West Bengal, Bihar, Jharkhand, Odisha, Chhattisgarh, East Madhya Pradesh, Haryana-Chandigarh-Delhi, West Uttar Pradesh, Vidarbha, Madhya Maharashtra, Marathwada, Coastal Andhra Pradesh & Yanam, Karnataka and Lakshadweep.

- **Heavy rainfall recorded** (from 0830 hours IST to 1730 hours IST of yesterday): **Heavy rainfall** at isolated places over Andaman & Nicobar Islands.

- **Significant amount of rainfall** (from 0830 hours IST to 1730 hours IST of yesterday) (in cm): **Andaman & Nicobar Islands**: Hut Bay-11, Port Blair & Nancowry-4 each, Car Nicobar-3, Maya Bandar & Long Island-1 each; **Gujarat Region:** Bulsar-2, Surat & Baroda-1 each; **Himachal Pradesh**: Shimla-5, Solan-1; **Punjab**: Ludhiana-3, Patiala-1; **Haryana**: Hissar-6, Rohtak-1; **West Rajasthan**: Ganganagar & Bikaner-4 each, Jaisalmer & Churu-2 each; **East Rajasthan**: Sikar & Mount Abu-1 each; **Saurashtra & Kutch**: Rajkot & New Kandla-1 each; **West Madhya Pradesh**: Dhar-6; Bihar: Supaul-2, Bhagalpur-1; **Jharkhand**: Chaibasa-5; **Gangetic West Bengal**: Kolkata (Salt Lake)-2; **Assam**: Guwahati-3, Goalpara-1; **Chhattisgarh**: Jagdalpur-1; **Coastal Andhra Pradesh**: Kalingapatam-1; **Telangana**: Medak-1; **Madhya Maharashtra**: Mahabaleshwar-5; **Konkan & Goa**: Dahanu, Matheran & Panjim-1 each; **Tamil Nadu**: Thanjavur-3; **Rayalaseema**; Kurnool & Nandyal-1 each.

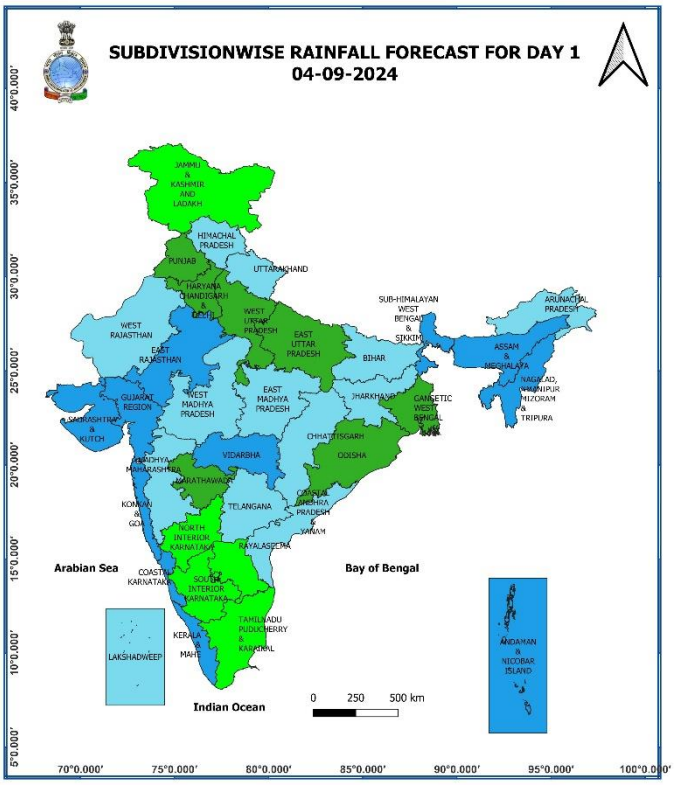
- **Minimum Temperature Departures (as on 03-09-2024):** Minimum temperatures were **appreciably above normal (3.1°C to 5.0°C)** at isolated places over Bihar, East Madhya Pradesh; **above normal (1.6°C to 3.0°C**) at few places over Himachal Pradesh, Haryana-Chandigarh-Delhi, Punjab, Uttar Pradesh, West Madhya Pradesh, East Rajasthan; at isolated places over Saurashtra & Kutch, Madhya Maharashtra, Vidarbha, West Bengal & Sikkim, Assam & Meghalaya, Odisha, Tamil Nadu, Puducherry & Karaikal. These were **below normal (-1.6°C to -3.0°C)** at isolated places over Gujarat Region, Coastal Andhra Pradesh & Yanam, Telangana and **near normal** over rest parts of the country. Yesterday, **the lowest minimum temperature** of **18.6°C** was reported at **Bulsar (Gujarat Region)** over the plains of the country. **(Fig.4)**

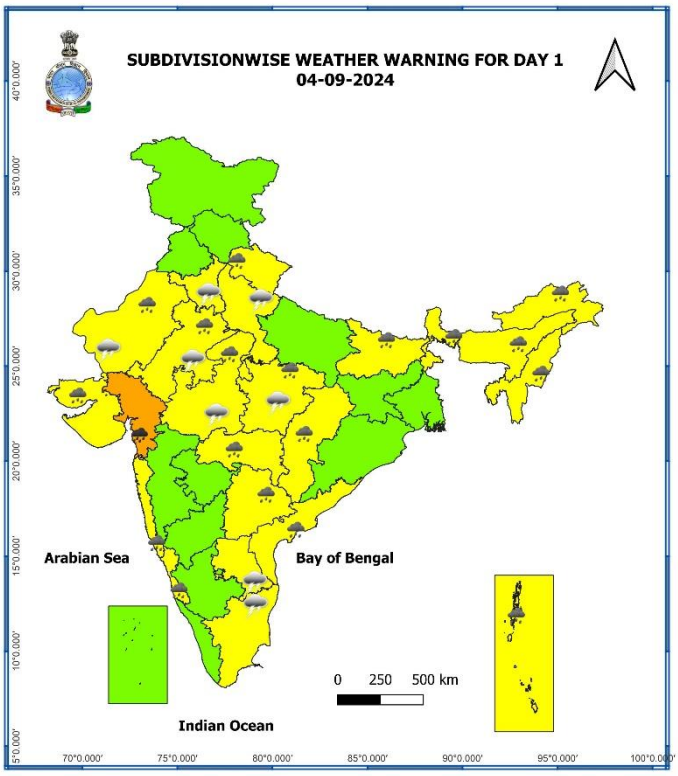
- **Maximum Temperature Departures (as on 03-09-2024):** Maximum temperatures were **appreciably above normal (3.1°C to 5.0°C)** at isolated places over Assam & Meghalaya, Arunachal Pradesh; **above normal (1.6°C to 3.0°C**) at many places over East Uttar Pradesh, Bihar, Jharkhand, Gangetic West Bengal, East Madhya Pradesh; at a few places over Odisha, Chhattisgarh; at isolated places over West Uttar Pradesh, Uttarakhand, Himachal Pradesh, Punjab, Kerala & Mahe, Tamil Nadu, Puducherry & Karaikal, Sub-Himalayan West Bengal & Sikkim, West Madhya Pradesh. These were **markedly below normal (-5.1°C or Less)** at a few places over Gujarat Region, Telangana; at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, West Rajasthan, Coastal Andhra Pradesh & Yanam, Haryana-Chandigarh-Delhi; **below normal (-1.6°C to -3.0°C)** at a few places over Marathwada, Saurashtra & Kutch; at isolated places over Madhya Maharashtra, East Rajasthan, Coastal Andhra Pradesh & Yanam and North Interior Karnataka and **near normal** over rest parts of the country. Yesterday, **the highest Maximum Temperature** of **38.9°C** was reported at **Tiruchirappalli (Tamil Nadu)** over the country. **(Fig. 2)**

## Meteorological Analysis (Based on 0530 hours IST)

- The **low pressure area** over westcentral & adjoining northwest Arabian Sea with associated cyclonic circulation extending upto 5.8 km above mean sea level persists.
- The **low pressure area** over southwest Madhya Pradesh & neighbourhood now lies over southeast Rajasthan and adjoining southwest Madhya Pradesh and the associated cyclonic circulation extends upto 3.1 km above mean sea level.
- The **Monsoon trough** at mean sea level now passes through Jaisalmer, centre of **low pressure area** over southeast Rajasthan and adjoining southwest Madhya Pradesh, Ramagundam, Tuni and thence southeastwards to eastcentral Bay of Bengal and extends upto 0.9 km above mean sea level.
- The **Western Disturbance** as a trough in middle tropospheric westerlies with its axis at 5.8 km above mean sea level roughly along Long. 65°E to the north of Lat. 31°N persists.
- The **shear zone** roughly along 20°N over north Peninsular India at 3.1 km above mean sea level persists.
- The **cyclonic circulation** over Saurashtra & neighbourhood between 4.5 km & 7.6 km above mean sea level tilting southwards with height persists.
- The **cyclonic circulation** over Coastal Andhra Pradesh & Yanam & neighbourhood between 3.1 km & 5.8 km above mean sea level persists.
- The **cyclonic circulation** over East Bangladesh & neighbourhood at 0.9 km above mean sea level persists.
- A fresh **low pressure area** is likely to form over westcentral and adjoining northwest Bay of Bengal around 05th September, 2024.

## Weather Forecast & Warnings for next 7 days (Upto 0830 hours IST of 11th September, 2024)



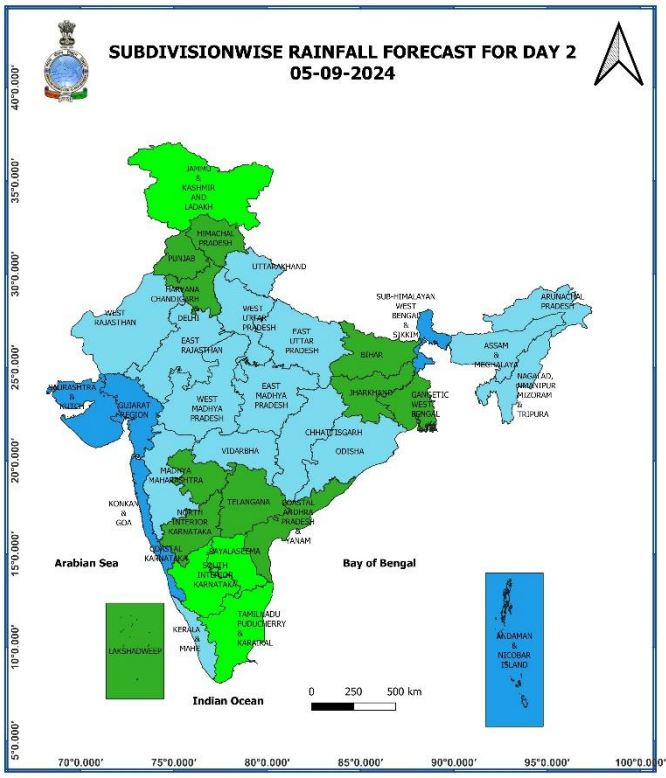



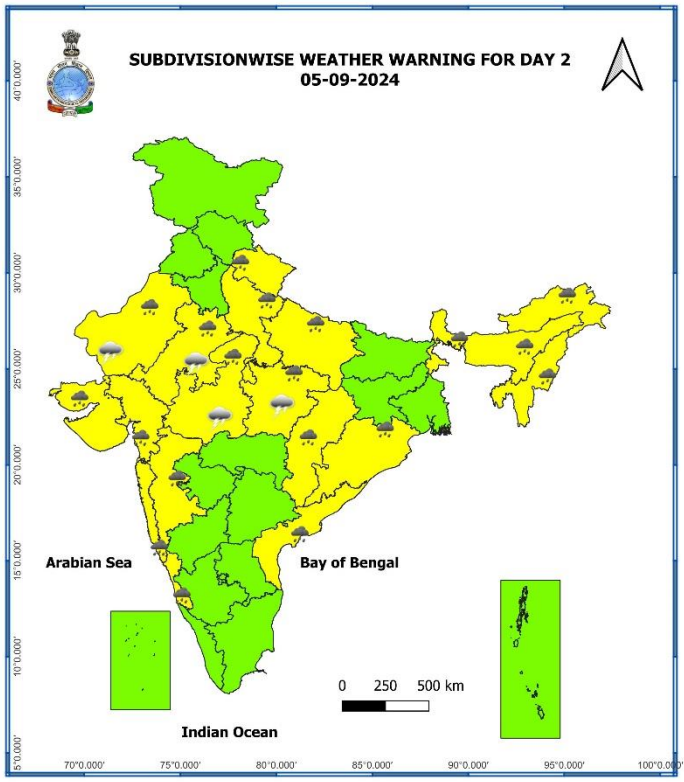

### 04 September (Day 1):

- **Heavy to very heavy rainfall (≥ 12 cm)** very likely at isolated places over Gujarat Region; **Heavy rainfall (≥ 7 cm)** at isolated places over Uttarakhand, Rajasthan, Madhya Pradesh, Vidarbha, Chhattisgarh, Andaman & Nicobar Islands, Sub-Himalayan West Bengal & Sikkim, Bihar, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Arunachal Pradesh, Konkan & Goa, Saurashtra & Kutch, Coastal Andhra Pradesh & Yanam, Telangana, Coastal Andhra Pradesh & Yanam.

- **Thunderstorm accompanied with lightning** very likely at isolated places over Madhya Pradesh and Rajasthan.

- **Squally weather with wind speed reaching 35 kmph to 45 kmph gusting to 55 kmph** very likely to prevail over westcentral Arabian sea, northern parts of southwest Arabian sea, over gulf of Mannar, Shri Lanka coast, many parts of south and central Bay of Bengal off north Andhra Pradesh coasts and Andaman Sea. **Squally winds with speed reaching 45 kmph to 55 kmph gusting to 65 kmph** likely to prevail over many parts of westcentral, western parts of southwest Arabian sea, along and off Somalia, Yemen, south Oman coasts. Fishermen are advised not to venture into these areas.



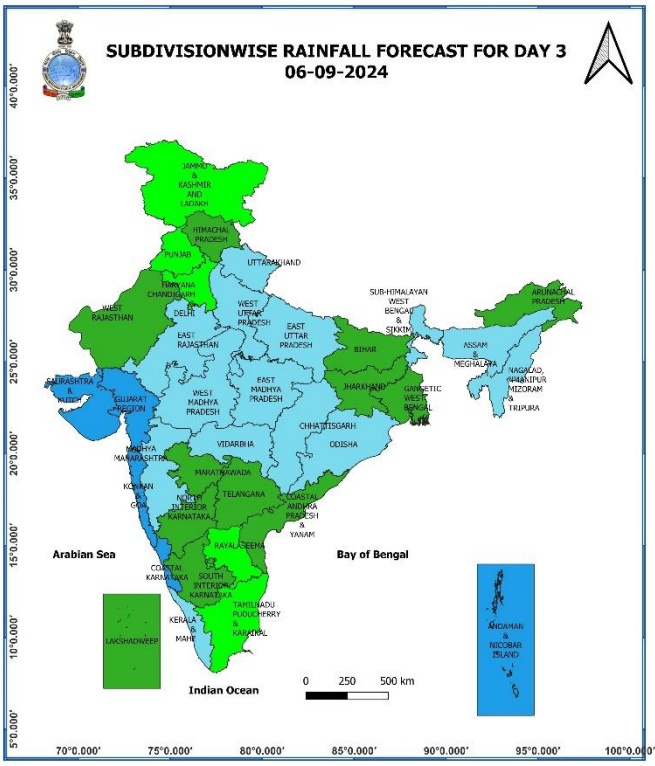



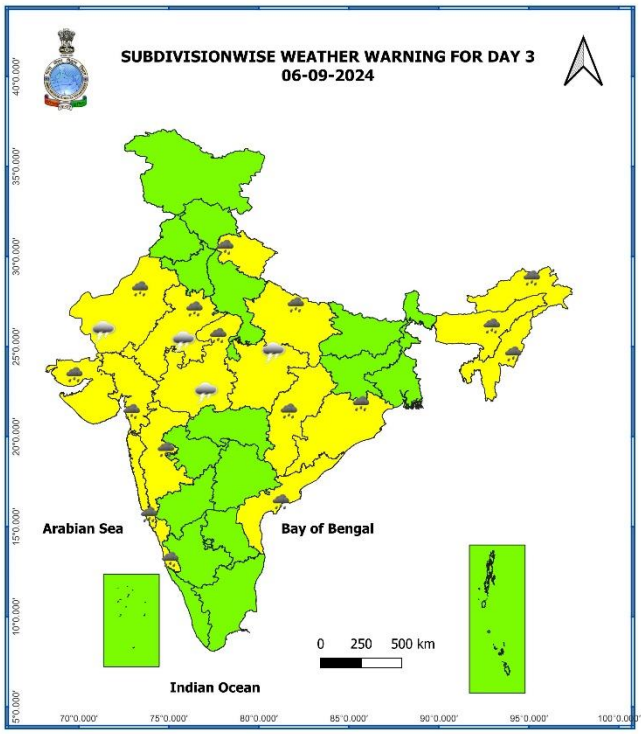

## 05 September (Day 2):

- **Heavy rainfall (≥ 7 cm)** very likely at isolated places over Uttarakhand, Uttar Pradesh, Rajasthan, Madhya Pradesh, Chhattisgarh, Sub-Himalayan West Bengal & Sikkim, Odisha, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Konkan & Goa, Gujarat state, Coastal Andhra Pradesh & Yanam, Coastal Karnataka.

- **Thunderstorm accompanied with lightning** very likely at isolated places over Madhya Pradesh and Rajasthan.

- **Squally weather with wind speed reaching 35 kmph to 45 kmph gusting to 55 kmph** very likely to prevail over off south Gujarat and Maharashtra coasts, central Arabian sea and north parts of southwest Arabian sea, gulf of Mannar, Shri Lanka coast, most parts of south and central Bay of Bengal off north dhrupads coasts and Andaman Sea. **Squally weather with wind speed reaching 45 kmph to 55 kmph gusting to 65 kmph** is likely to prevail over some parts of central adjoining southeast Bay of Bengal. **Squally winds with speed reaching 45 kmph to 55 kmph gusting to 65 kmph** likely to prevail over many parts of westcentral, western parts of southwest Arabian sea, along and off Somalia, Yemen, south Oman coasts. Fishermen are advised not to venture into these areas.



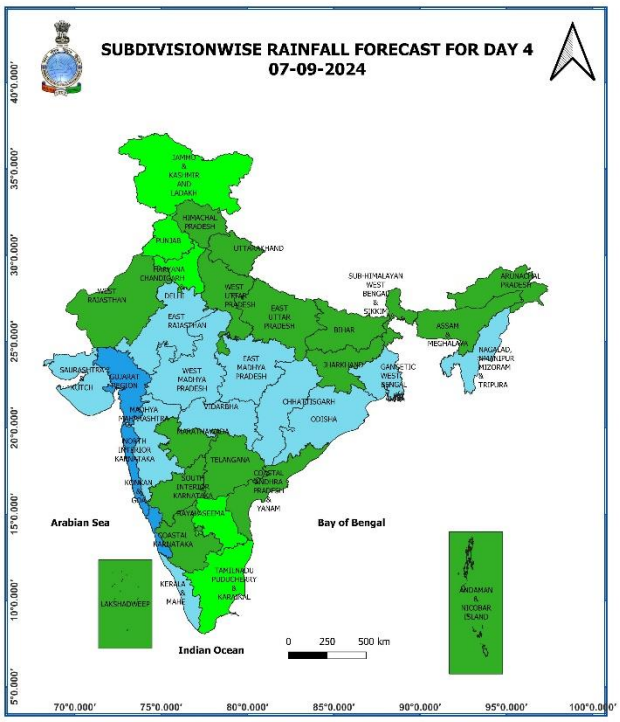



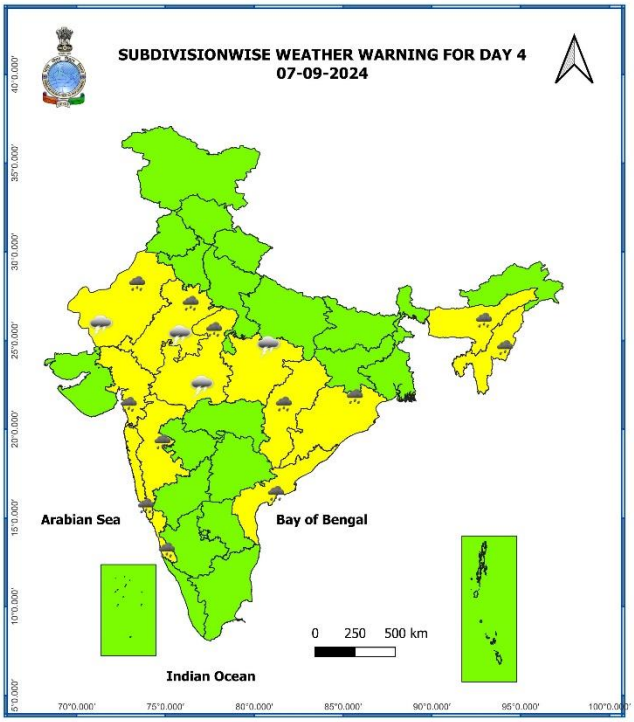

## 06 September (Day 3):

- **Heavy rainfall (≥ 7 cm)** likely at isolated places over Uttarakhand, East Uttar Pradesh, Rajasthan, West Madhya Pradesh, Chhattisgarh, Odisha, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Konkan & Goa, ghat area of Madhya Maharashtra, Gujarat state, Coastal Andhra Pradesh & Yanam, Coastal Karnataka.

- **Thunderstorm accompanied with lightning likely** at isolated places over Madhya Pradesh and Rajasthan.

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



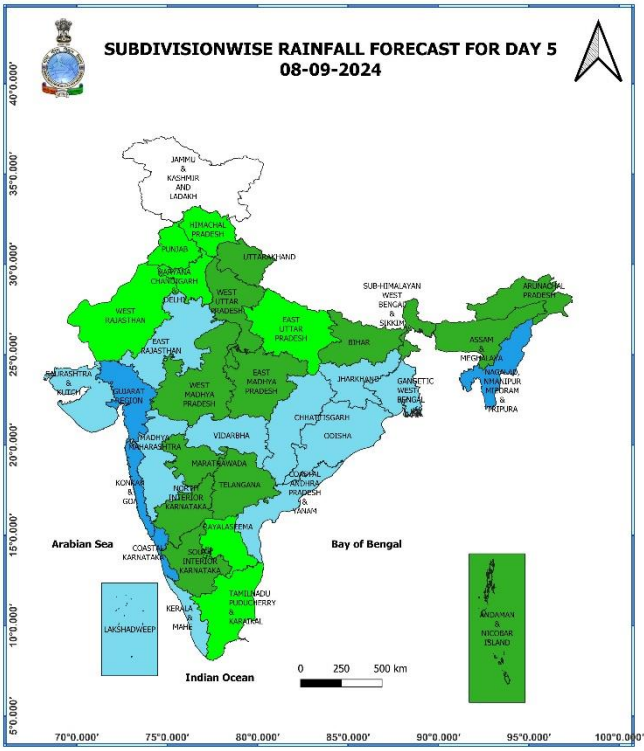



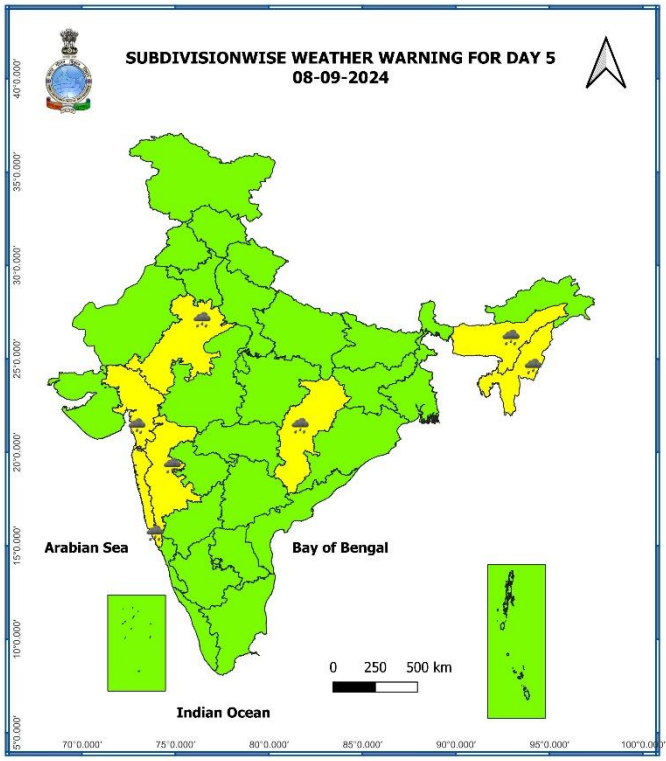

## 07 September (Day 4):

- **Heavy rainfall (≥ 7 cm)** likely at isolated places over Rajasthan, West Madhya Pradesh, Chhattisgarh, Odisha, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Konkan & Goa, ghat area of Madhya Maharashtra, Gujarat Region, Coastal Andhra Pradesh & Yanam, Coastal Karnataka.

- **Thunderstorm accompanied with lightning** at isolated places over Madhya Pradesh and Rajasthan.

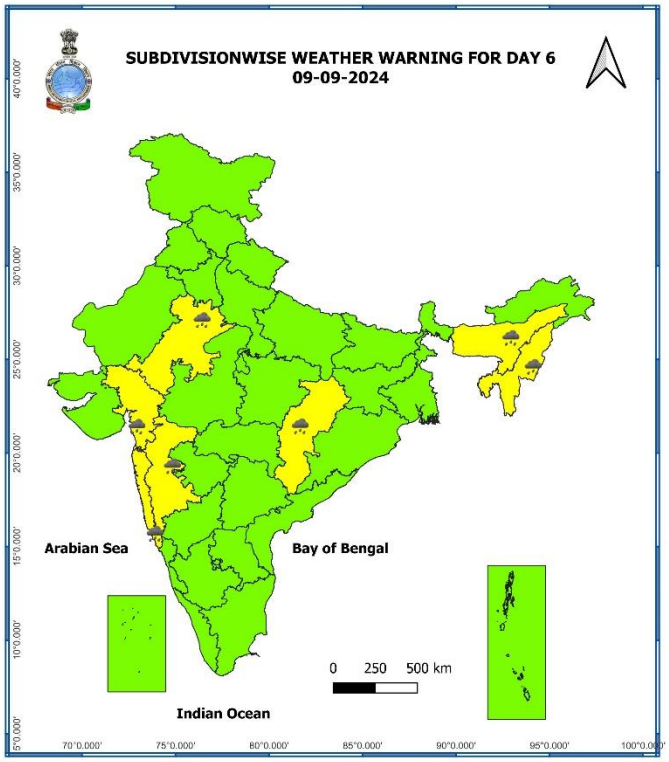
- **Squally weather with wind speed reaching 35 kmph to 45 kmph gusting to 55 kmph** is likely to prevail over many parts of westcentral and adjoining eastcentral Arabian sea, gulf of Mannar, along and Shri Lanka coast, most parts of south and central Bay of Bengal off north Andhra Pradesh coasts and Andaman Sea. **Squally weather with wind speed reaching 45 kmph to 55 kmph gusting to 65 kmph** is likely to prevail over some parts of east and south central Bay of Bengal. **Squally winds with speed reaching 45 kmph to 55 kmph gusting to 65 kmph** likely to prevail over many parts of westcentral, western parts of southwest Arabian sea, along and off Somalia, Yemen, south Oman coasts.

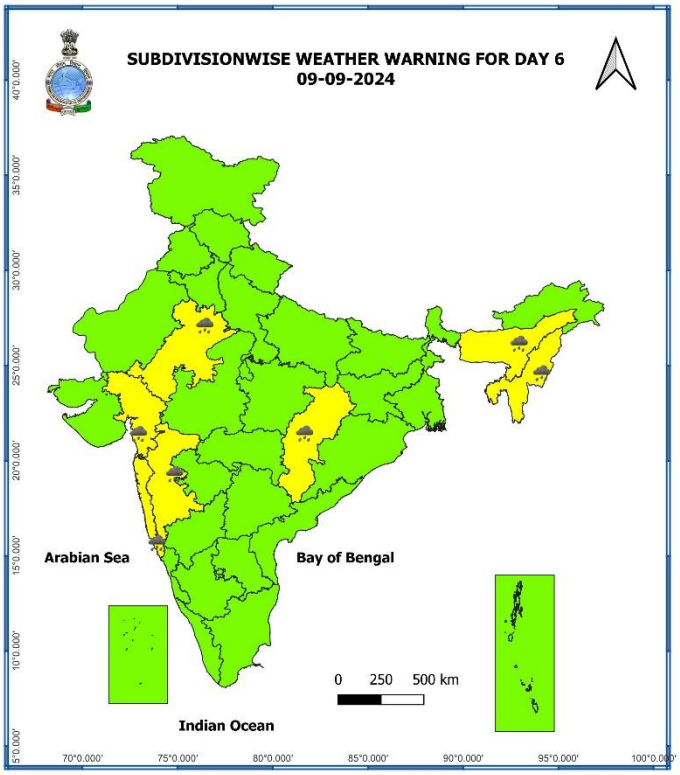



## 08 September (Day 5):

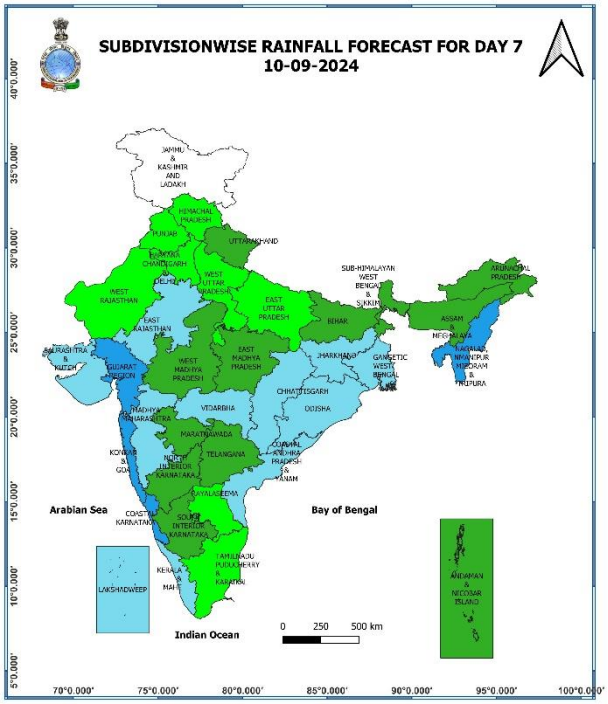
- **Heavy rainfall (≥ 7 cm)** likely at isolated places over East Rajasthan, Chhattisgarh, Konkan & Goa, ghat area of Madhya Maharashtra, Gujarat Region, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura.

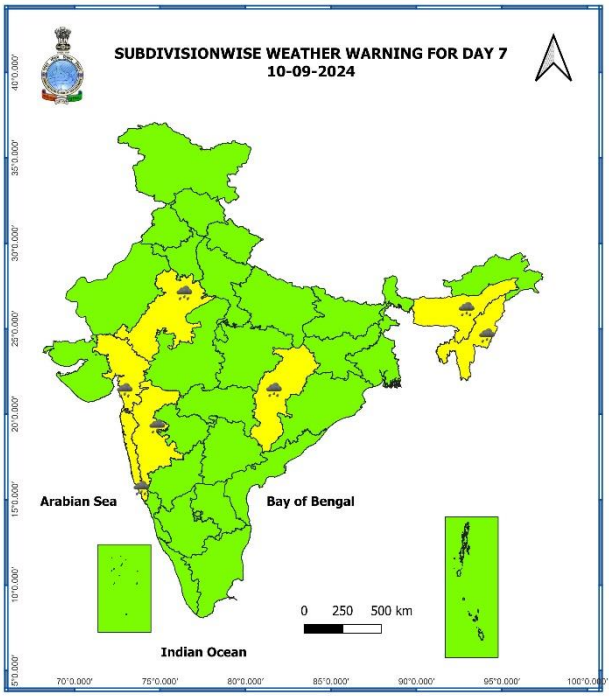



## 09 September (Day 6):

- **Heavy rainfall (≥ 7 cm)** likely at isolated places over East Rajasthan, Chhattisgarh, Konkan & Goa, ghat area of Madhya Maharashtra, Gujarat Region, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura.




**10 September (Day 7):**

❖ **Heavy rainfall (≥ 7 cm)** likely at isolated places over East Rajasthan, Chhattisgarh, Konkan & Goa, ghat area of Madhya Maharashtra, Gujarat Region, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura.

## Weather Outlook for subsequent 3 days (During 11th September– 13th 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

- **Very heavy rainfall** at isolated over Gujarat Region 04th September.
- **Low to Moderate flash flood risk** likely over few watersheds & neighbourhoods of Himachal Pradesh, Uttarakhand, East Rajasthan and Gujarat Region on 04th & 05th 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

- ✓ Drain out excess water from field crops and horticultural crops in **Gujarat, Maharashtra, Himachal Pradesh, Uttarakhand, East Rajasthan, West Madhya Pradesh, Karnataka and Telangana.**
- ✓ Make provision for draining out excess water from standing crop fields and fruit orchards to avoid water stagnation in Andaman & Nicobar Islands, Chhattisgarh, Kerala and North Eastern States.
- ✓ Drain out excess water from rice, castor, cotton, pearl millet, groundnut, sesame and maize fields in Gujarat; from rice, soybean, red gram, maize, cotton and Turmeric in Telangana to prevent water logging.
- ✓ Store the harvested produce of black gram and green gram at safer places in **Vidarbha, Marathwada and Ghat areas of Madhya Maharashtra.**
- ✓ Provide mechanical support to horticultural crops staking to vegetables.

## Flash Flood Guidance:

**ANNEXURE I**

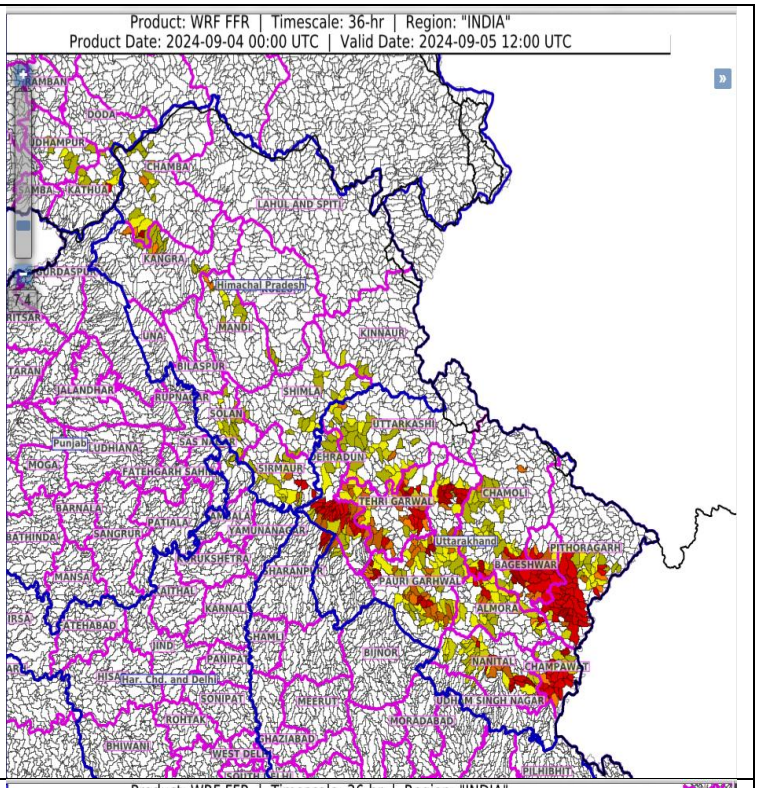
**36 hours Outlook for the Flash Flood Risk (FFR) till 1730 IST of 05-09-2024:**

**Low to Moderate flash flood risk** likely over few watersheds & neighbourhoods of following Met Sub-divisions during next 36 hours.

**Himachal Pradesh** - Chamba, Kangra, Kinnaur, Kullu, Mandi, Shimla, Sirmaur and Solan districts.

**Uttarakhand** - Almora, Bageshwar, Chamoli, Champawat, Dehradun, Nanital, Pauri Garhwal, Pithoragarh, Rudraprayag, Tehri Garwal and Uttarkashi districts.

Surface runoff/ Inundation may occur at some fully saturated soils & low-lying areas over Area of Concern as shown in map due to expected rainfall occurrence in next 36 hours.



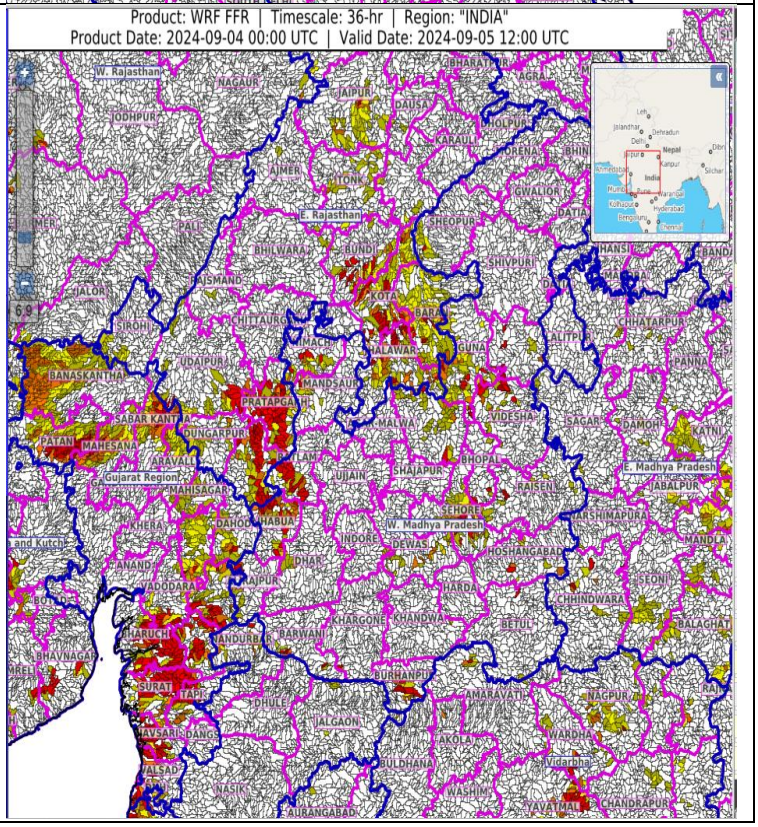

**36 hours Outlook for the Flash Flood Risk (FFR) till 1730 IST of 05-09-2024:**

**Low to Moderate flash flood risk** likely over few watersheds & neighbourhoods of following Met Sub-divisions during next 36 hours.

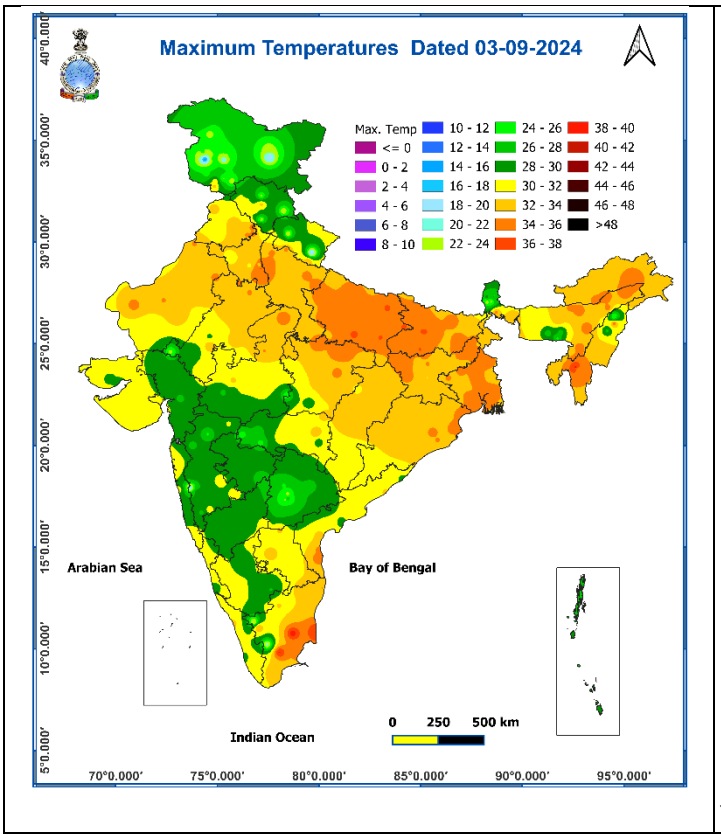
**East Rajasthan** - Banswara, Baran, Bundi, Dausa, Dungarpur, Jaipur, Jhalawar, Kota, Pratapgarh, Sirohi, Tonk and Udaipur districts.

**Gujarat Region** - Dadar & Nagar Haveli, Daman, Aravalli, Banaskantha, Bharuch, Chhota Udepur, Dahod, Mahesana, Mahisagar, Narmada, Navsari, Panchmahal, Patan, Sabar Kantha, Surat, Tapi, Vadodara and Valsad districts.

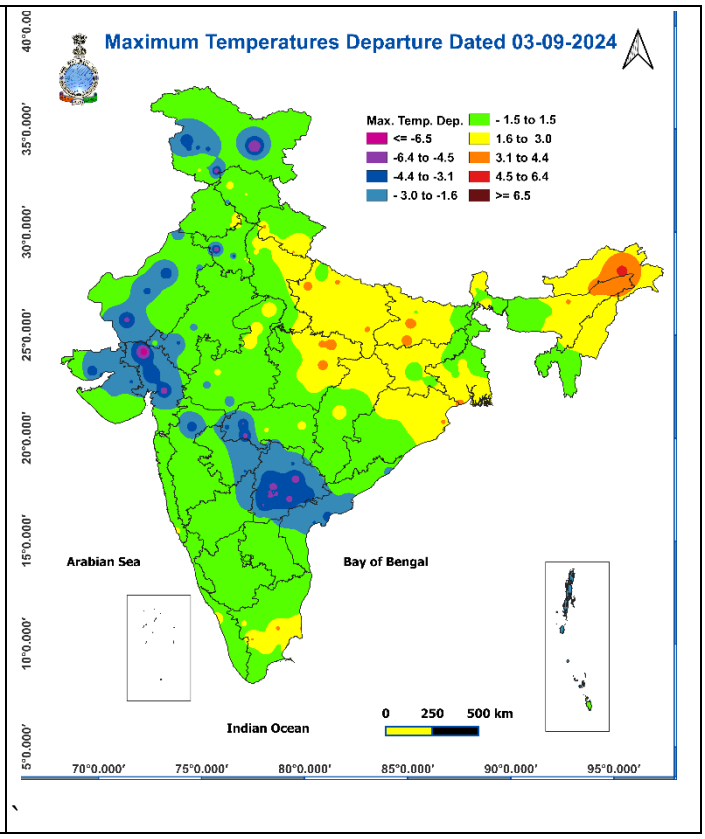
Surface runoff/ Inundation may occur at some fully saturated soils & low-lying areas over Area of Concern as shown in map due to expected rainfall occurrence in next 36 hours.



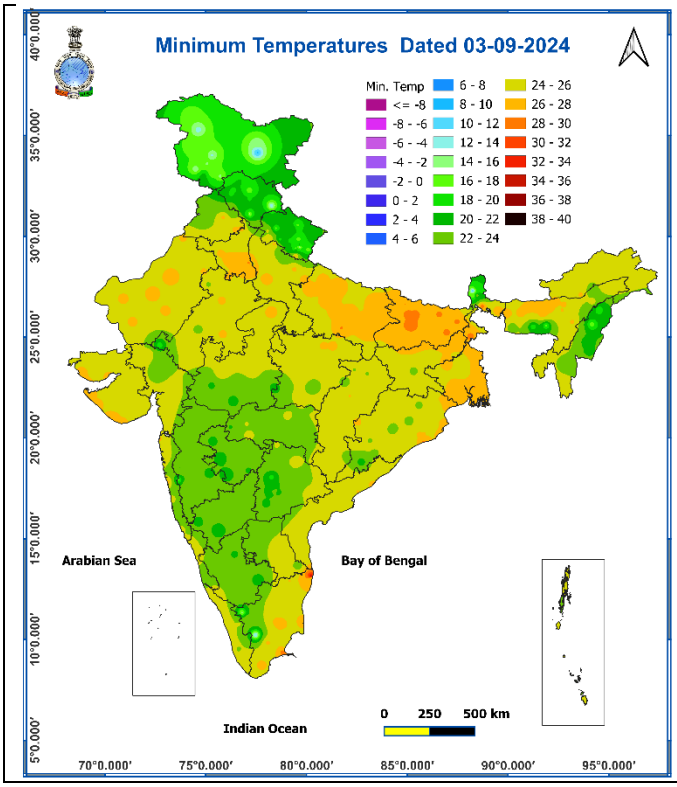
## Fig. 1: Maximum Temperatures



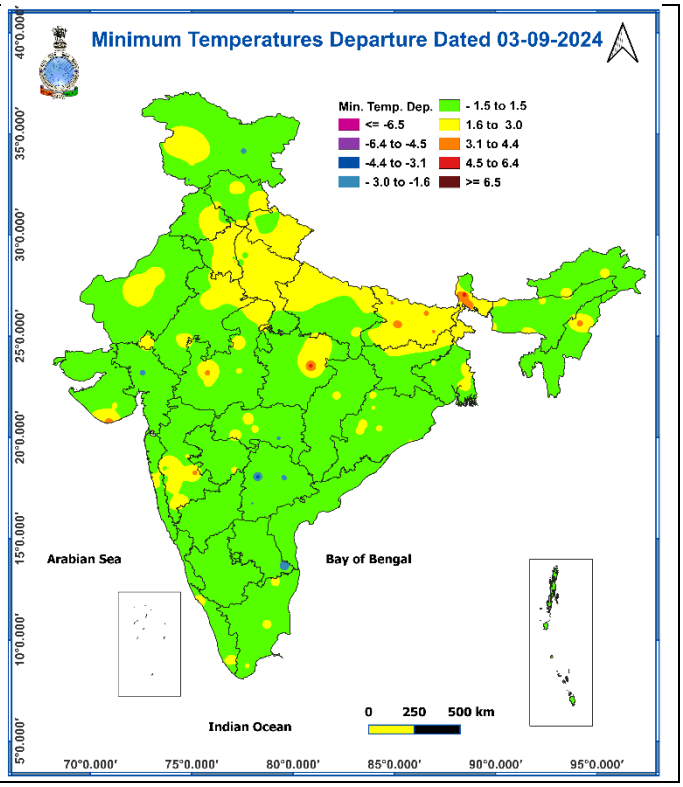

## Fig. 2: Departure of Maximum Temperatures




## Fig. 3: Minimum Temperatures

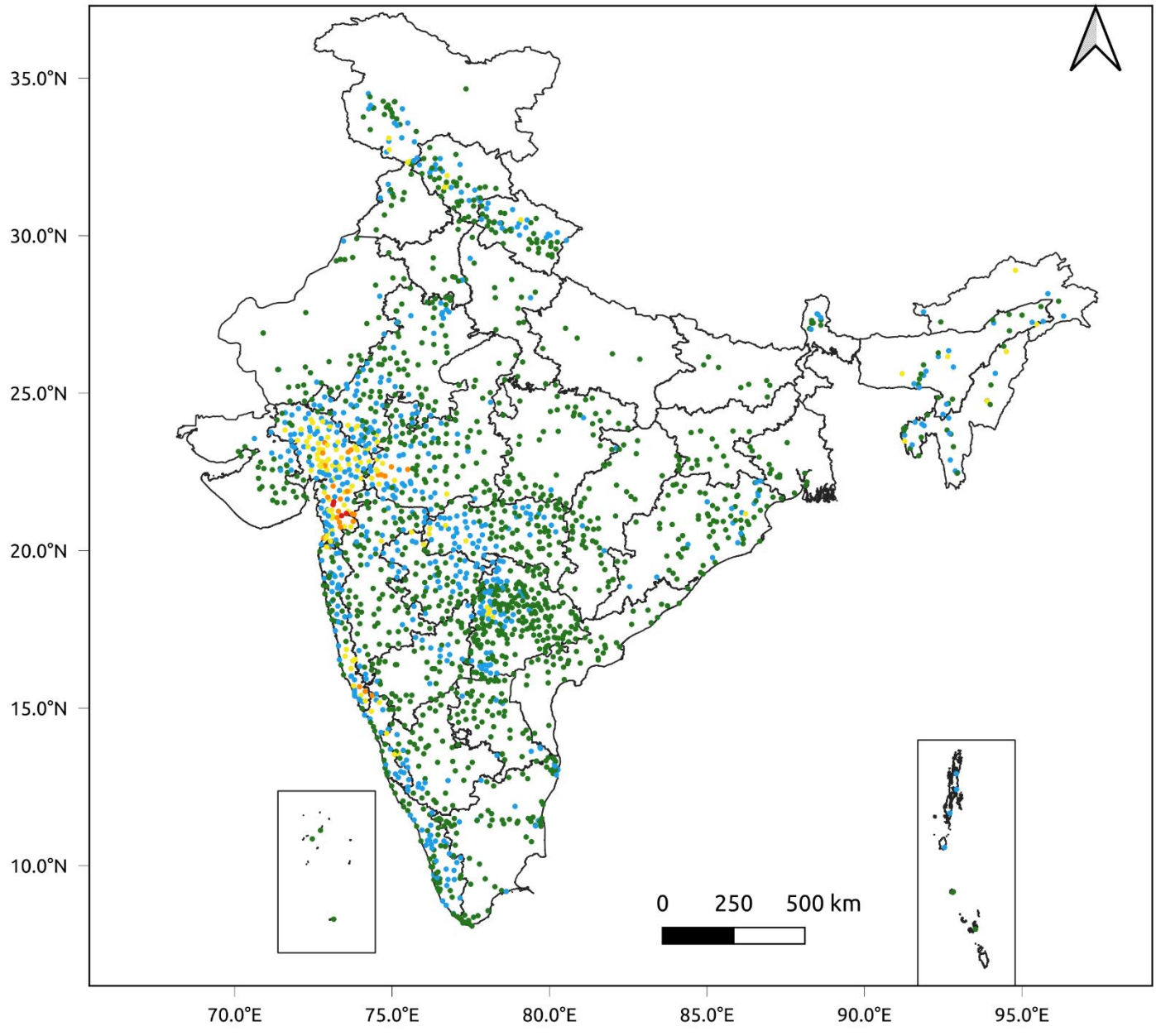



## Fig. 4: Departure of Minimum Temperatures




* 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)

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

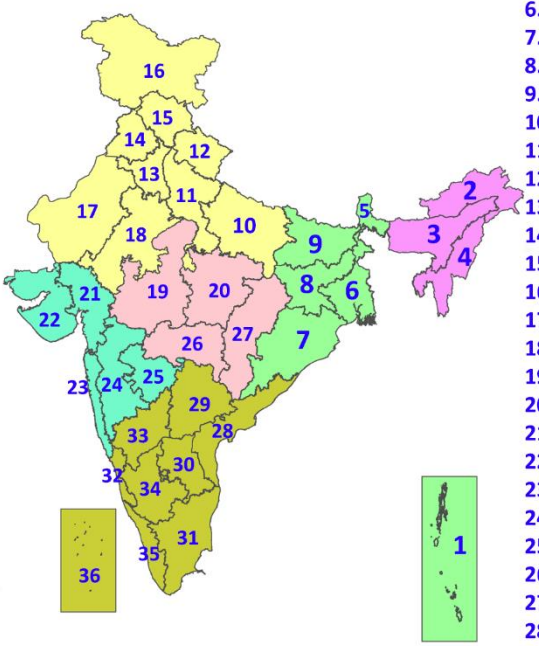



## Legends

- Very Light to Light Rainfall (0.1 - 15.5 mm)
- Moderate Rainfall (15.6 - 64.4 mm)
- Heavy Rainfall (64.5 - 115.5 mm)
- Very Heavy Rainfall (115.6 - 204.4 mm)
- Extremely Heavy Rainfall (>=204.5 mm)

# 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 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)

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