



Tuesday, September 26, 2023  
Time of Issue: 0800 hours IST  
(MORNING)

## ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

### Significant Weather Features

#### **Withdrawal of Southwest Monsoon:**

- ❖ The line of withdrawal of Southwest Monsoon passes through 28.3°N/72.0°E, Nokhra, Jodhpur, Barmer, 25.7°N/70.3°E.

#### **Significant Weather features:**

- ❖ A cyclonic circulation lies over Southeast Uttar Pradesh & neighbourhood and a trough runs from this cyclonic circulation to west Assam in lower tropospheric levels.
- ❖ Another cyclonic circulation lies over south Chhattisgarh and a trough runs from this cyclonic circulation to south Konkan in middle tropospheric levels.
- ❖ A cyclonic circulation is likely to form over north Andaman Sea & neighbourhood around 29<sup>th</sup> September. Under its influence a **Low-Pressure Area** is likely to form over north Andaman Sea & adjoining Eastcentral Bay of Bengal during subsequent 24 hours. Thereafter, it is likely to move west-northwestwards with possibility of gradual intensification.

#### **Weather Forecast and Warnings:**

**East India:** Light/moderate fairly widespread to widespread rainfall/thunderstorm & lightning with **isolated heavy rainfall** very likely over Andaman & Nicobar Islands during 26<sup>th</sup>-29<sup>th</sup> September.

**Isolated very heavy rainfall very likely over Andaman & Nicobar Islands during 27<sup>th</sup>-29<sup>th</sup> September.**

**South India:** Light/moderate fairly widespread to widespread rainfall with isolated **heavy rainfall** very likely over Coastal Andhra Pradesh, Telangana, Tamil Nadu on 26<sup>th</sup>, 28<sup>th</sup> & 29<sup>th</sup>; Coastal Karnataka and Kerala on 28<sup>th</sup> & 29<sup>th</sup>; North Interior Karnataka, Rayalaseema on 29<sup>th</sup> and South Interior Karnataka on 28<sup>th</sup> September.

**West India:** Light/moderate fairly widespread to widespread rainfall/thunderstorm & lightning with **isolated heavy rainfall** very likely over Konkan & Goa, Madhya Maharashtra during 26<sup>th</sup>-29<sup>th</sup> and Marathwada, Gujarat Region on 26<sup>th</sup> September.

No significant weather over rest parts of the country.



**Main Weather Observations:**

- ❖ **Rainfall distribution** (from 0830-1730 hours IST of yesterday): **at many places over** Chhattisgarh, Odisha, Arunachal Pradesh, Nagaland, Manipur, Mizoram & Tripura, Konkan & Goa, Madhya Maharashtra; **at a few places** over Jammu-Kashmir, East Rajasthan, Bihar, Jharkhand, West Madhya Pradesh, Gujarat Region, Sub-Himalaya West Bengal & Sikkim, Assam & Meghalaya, Telangana, Kerala & Mahe and **at isolated places over** Punjab, Himachal Pradesh, Uttarakhand, Gangetic West Bengal, West Rajasthan, Uttar Pradesh, East Madhya Pradesh, Marathwada, Vidarbha, Coastal Andhra Pradesh & Yanam, Karnataka, Tamil Nadu, Puducherry & Karaikal, Andaman & Nicobar Islands.
- ❖ **Significant rainfall recorded** (from 0830-1730 hours IST of yesterday): **(in cm)**: Khunti and Ratnagiri-4 each; Leparada, Longleng, Saiha, Bardhaman, Mayurbhanj, Kabirdham-3 each; Cooch Behar, Hingoli, Bijapur, Ganjam- 2 each.
- ❖ **Minimum Temperature Departures (as on 25-09-2023)**: Minimum temperatures were **above normal (1.6°C to 3.0°C)** at many places over Saurashtra & Kutch; at a few places over Gujarat Region, West Rajasthan; at isolated places over Punjab, East Rajasthan, Madhya Pradesh, Coastal Andhra Pradesh & Yanam, Odisha, Bihar, Assam & Meghalaya, North Interior Karnataka. They were **below normal (-1.6°C to -3.0°C)** at isolated places over Sub-Himalaya West Bengal & Sikkim, Chhattisgarh, Marathwada, Madhya Maharashtra, Kerala & Mahe and **near normal** over rest parts of the country. Yesterday, **the lowest minimum temperature of 19.2°C** was reported at **Pachmarhi (West Madhya Pradesh)** over the plains of the country.
- ❖ **Maximum Temperature Departures (as on 25-09-2023)**: Maximum temperatures were **above normal (1.6°C to 3.0°C)** at many places over Nagaland, Manipur, Mizoram & Tripura; at a few places over Assam & Meghalaya, Himachal Pradesh; at isolated places over Arunachal Pradesh, Uttarakhand. They were **appreciably below normal (-3.1°C to -5.0°C)** at a few places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad; **below normal** at a few places over Telangana, Vidarbha, Bihar and at isolated places over North Rajasthan, East Uttar Pradesh, North Interior Karnataka, West Madhya Pradesh and **near normal** over rest parts of the country. Yesterday, **the highest maximum temperature of 38.8°C** was reported at **Jaisalmer (West Rajasthan)**.

### Meteorological Analysis (Based on 0530 hours IST)

- ❖ The line of withdrawal of Southwest Monsoon continues to pass through 28.3°N/72.0°E, Nokhra, Jodhpur, Barmer, 25.7°N/70.3°E.
- ❖ The **cyclonic circulation** over southeast Uttar Pradesh & neighbourhood extending upto 3.1 km above mean sea level persists.
- ❖ The east-west **trough** from cyclonic circulation over southeast Uttar Pradesh to West Assam across Bihar and West Bengal at 1.5 km above mean sea level persists.
- ❖ The **trough** from southeast Uttar Pradesh to Telangana across Chhattisgarh extending upto 3.1 km above mean sea level persists.
- ❖ The **cyclonic circulation** over south Chhattisgarh & neighbourhood between 4.5 & 5.8 km above mean sea level persists.
- ❖ The **trough** from cyclonic circulation over south Chhattisgarh to south Konkan between 4.5 & 5.8 km above mean sea level persists.
- ❖ The **cyclonic circulation** over north coastal Tamil Nadu & neighbourhood between 4.5 & 5.8 km above mean sea level persists.
- ❖ A cyclonic circulation is likely to form over north Andaman Sea & neighbourhood around 29th September. Under its influence a Low-Pressure Area is likely to form over north Andaman Sea & adjoining Eastcentral Bay of Bengal during subsequent 24 hours. Thereafter, it is likely to move west-northwestwards with possibility of gradual intensification.
- ❖ The **Western Disturbance** as a trough in westerlies in mid tropospheric levels with its axis at 5.8 km above mean sea level roughly along Long. 71°E to the north of Lat. 32°N persists.

### Weather Forecast for next 5 days (Upto 0830 hours IST of 30<sup>th</sup> September, 2023)

- ❖ Meteorological sub-division wise detailed 5 days rainfall forecast is given in Table-1.
- ❖ No significant change in maximum temperatures likely over most parts of country during next 5 days.

### Weather Outlook for subsequent 2 days

- ❖ fairly widespread to widespread light/moderate rainfall likely over parts of east & adjoining central and northeast India.
- ❖ Dry weather likely to prevail over rest parts of the country except isolated rainfall likely over south peninsular India.

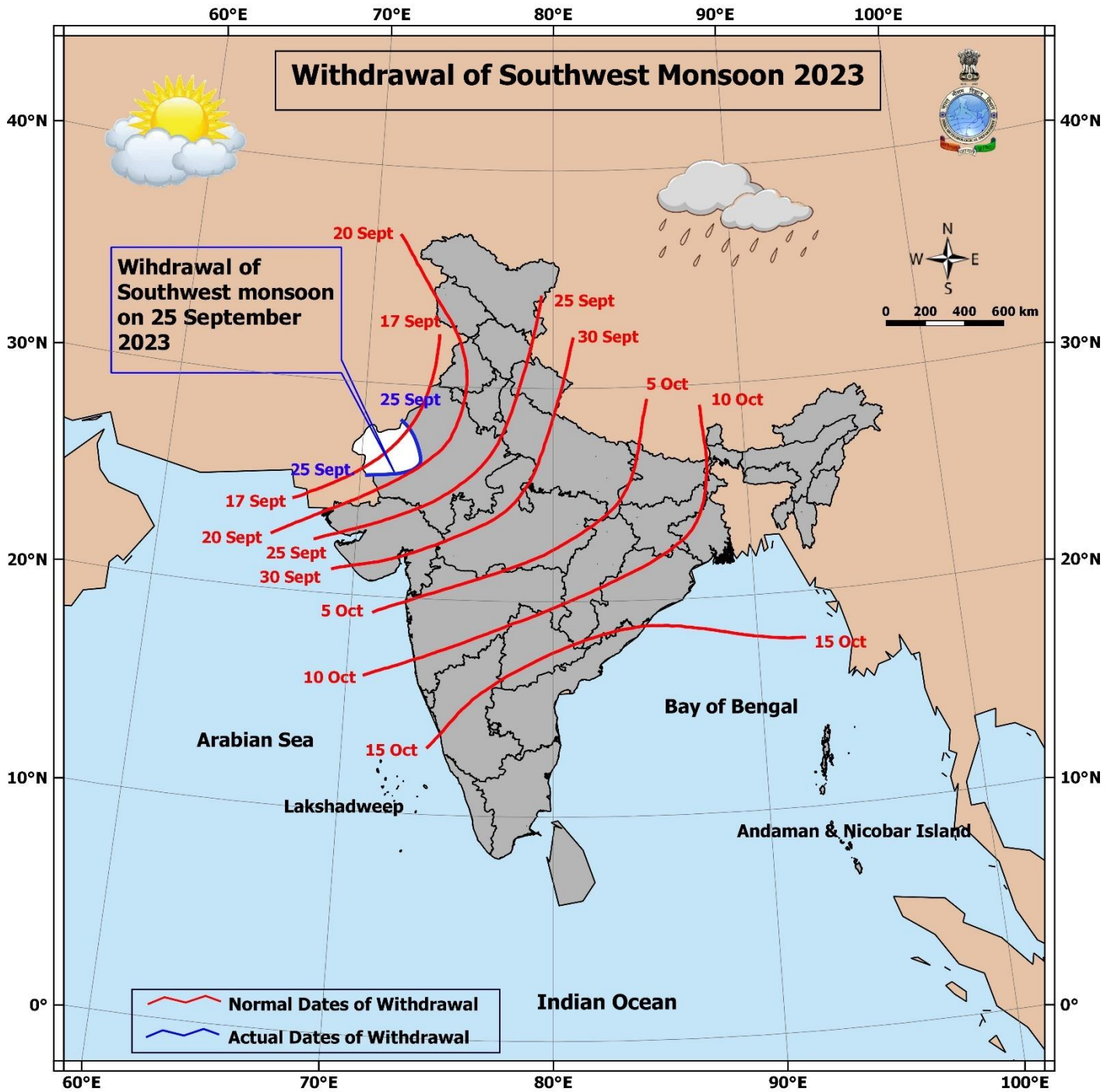




Table-1

| 7 Days Rainfall Forecast |                                      |        |        |        |        |        |        |        |
|--------------------------|--------------------------------------|--------|--------|--------|--------|--------|--------|--------|
| S. No.                   | Subdivision                          | 26-Sep | 27-Sep | 28-Sep | 29-Sep | 30-Sep | 01-Oct | 02-Oct |
|                          |                                      | Day 1  | Day 2  | Day 3  | Day 4  | Day 5  | Day 6  | Day 7  |
| 1                        | ANDAMAN & NICOBAR ISLANDS            | WS     | WS     | WS     | WS     | WS     | WS     | WS     |
| 2                        | ARUNACHAL PRADESH                    | SCT    | SCT    | SCT    | SCT    | SCT    | SCT    | SCT    |
| 3                        | ASSAM & MEGHALAYA                    | SCT    | SCT    | SCT    | SCT    | SCT    | FWS    | FWS    |
| 4                        | NAGALAND, MANIPUR, MIZORAM & TRIPURA | SCT    | SCT    | FWS    | FWS    | FWS    | FWS    | FWS    |
| 5                        | SUB-HIMALAYAN WEST BENGAL & SIKKIM   | SCT    | SCT    | SCT    | SCT    | SCT    | SCT    | SCT    |
| 6                        | GANGETIC WEST BENGAL                 | SCT    | ISOL   | ISOL   | SCT    | SCT    | FWS    | FWS    |
| 7                        | ODISHA                               | SCT    | ISOL   | ISOL   | SCT    | FWS    | WS     | WS     |
| 8                        | JHARKHAND                            | SCT    | ISOL   | ISOL   | SCT    | SCT    | FWS    | FWS    |
| 9                        | BIHAR                                | SCT    | SCT    | SCT    | SCT    | SCT    | FWS    | FWS    |
| 10                       | EAST UTTAR PRADESH                   | ISOL   | ISOL   | SCT    | SCT    | SCT    | SCT    | SCT    |
| 11                       | WEST UTTAR PRADESH                   | ISOL   | ISOL   | ISOL   | ISOL   | ISOL   | ISOL   | ISOL   |
| 12                       | UTTARAKHAND                          | ISOL   | ISOL   | ISOL   | ISOL   | ISOL   | ISOL   | ISOL   |
| 13                       | HARYANA CHANDIGARH & DELHI           | DRY    | DRY    | DRY    | DRY    | DRY    | DRY    | DRY    |
| 14                       | PUNJAB                               | DRY    | DRY    | DRY    | DRY    | DRY    | DRY    | DRY    |
| 15                       | HIMACHAL PRADESH                     | DRY    | DRY    | DRY    | DRY    | DRY    | DRY    | DRY    |
| 16                       | JAMMU & KASHMIR AND LADAKH           | DRY    | DRY    | DRY    | DRY    | DRY    | DRY    | DRY    |
| 17                       | WEST RAJASTHAN                       | ISOL   | DRY    | DRY    | DRY    | DRY    | DRY    | DRY    |
| 18                       | EAST RAJASTHAN                       | SCT    | ISOL   | ISOL   | ISOL   | DRY    | DRY    | DRY    |
| 19                       | WEST MADHYA PRADESH                  | SCT    | ISOL   | ISOL   | ISOL   | ISOL   | ISOL   | ISOL   |
| 20                       | EAST MADHYA PRADESH                  | ISOL   | SCT    | SCT    | SCT    | SCT    | FWS    | FWS    |
| 21                       | GUJARAT REGION                       | ISOL   | ISOL   | ISOL   | ISOL   | ISOL   | ISOL   | ISOL   |
| 22                       | SAURASHTRA & KUTCH                   | ISOL   | ISOL   | ISOL   | ISOL   | ISOL   | ISOL   | ISOL   |
| 23                       | KONKAN & GOA                         | WS     | WS     | WS     | WS     | WS     | WS     | WS     |
| 24                       | MADHYA MAHARASHTRA                   | WS     | WS     | FWS    | SCT    | SCT    | SCT    | SCT    |
| 25                       | MARATHAWADA                          | WS     | WS     | FWS    | SCT    | ISOL   | ISOL   | ISOL   |
| 26                       | VIDARBHA                             | SCT    | SCT    | FWS    | FWS    | SCT    | SCT    | SCT    |
| 27                       | CHHATTISGARH                         | FWS    | FWS    | FWS    | FWS    | FWS    | FWS    | FWS    |
| 28                       | COASTAL ANDHRA PRADESH & YANAM       | FWS    | FWS    | FWS    | FWS    | SCT    | SCT    | SCT    |
| 29                       | TELANGANA                            | FWS    | FWS    | FWS    | FWS    | FWS    | SCT    | SCT    |
| 30                       | RAYALASEEMA                          | SCT    | SCT    | SCT    | SCT    | SCT    | SCT    | SCT    |
| 31                       | TAMILNADU PUDUCHERRY & KARAIKAL      | ISOL   | ISOL   | SCT    | SCT    | ISOL   | ISOL   | ISOL   |
| 32                       | COASTAL KARNATAKA                    | WS     | WS     | WS     | WS     | WS     | WS     | WS     |
| 33                       | NORTH INTERIOR KARNATAKA             | FWS    | FWS    | FWS    | FWS    | FWS    | FWS    | FWS    |
| 34                       | SOUTH INTERIOR KARNATAKA             | FWS    | FWS    | FWS    | FWS    | FWS    | FWS    | FWS    |
| 35                       | KERALA & MAHE                        | FWS    | WS     | WS     | WS     | WS     | WS     | WS     |
| 36                       | LAKSHADWEEP                          | SCT    | FWS    | WS     | WS     | WS     | WS     | WS     |

| Legend | Category                      | % Stations |
|--------|-------------------------------|------------|
| WS     | Widespread/Most Places        | 76-100     |
| FWS    | Fairly Widespread/Many Places | 51-75      |
| SCT    | Scattered/ A Few Places       | 26-50      |
| ISOL   | Isolated Places               | 1-25       |
| DRY    | No Rain                       | 0          |

Fig. 1: Maximum Temperatures Dated 25.09.2023

Fig. 2: Departure of Maximum Temp. Dated 25.09.2023

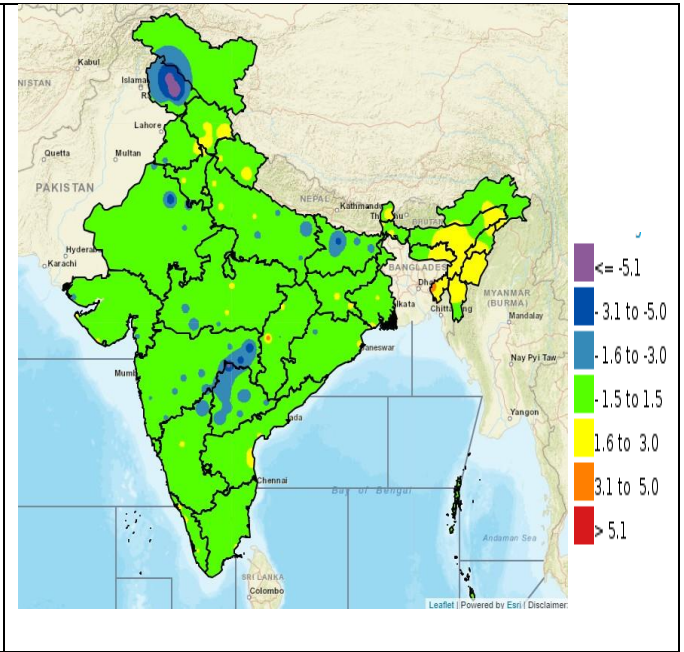
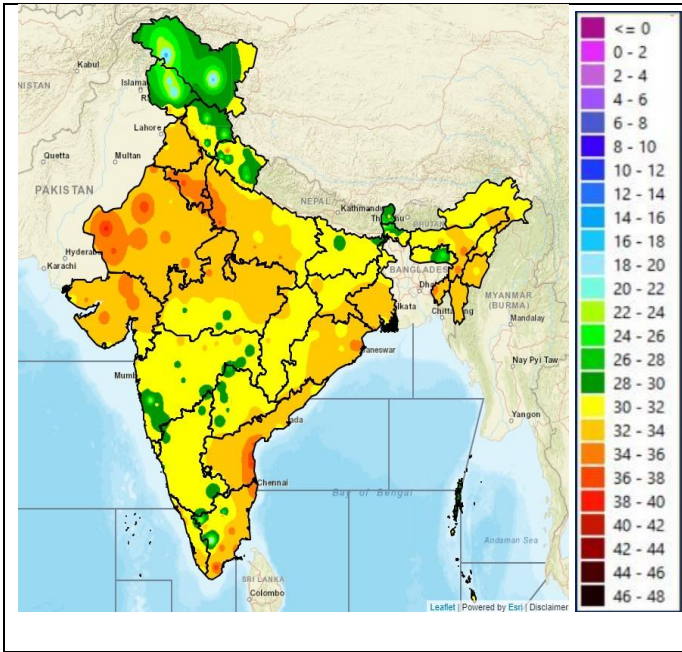


Fig. 3: Minimum Temperatures Dated 25.09.2023

Fig. 4: Departure of Minimum Temp. Dated 25.09.2023

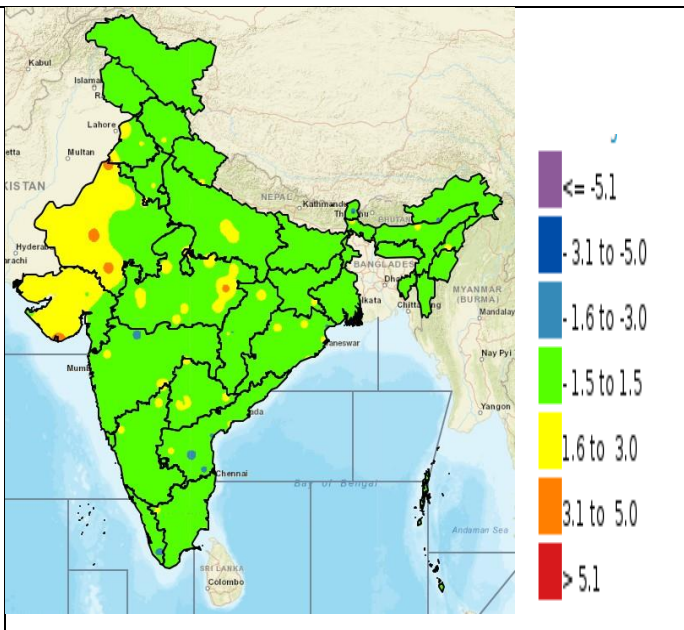
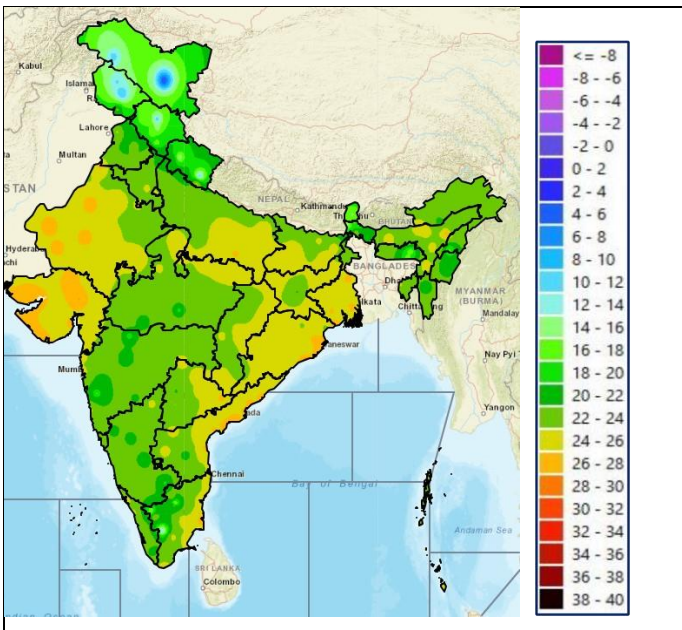
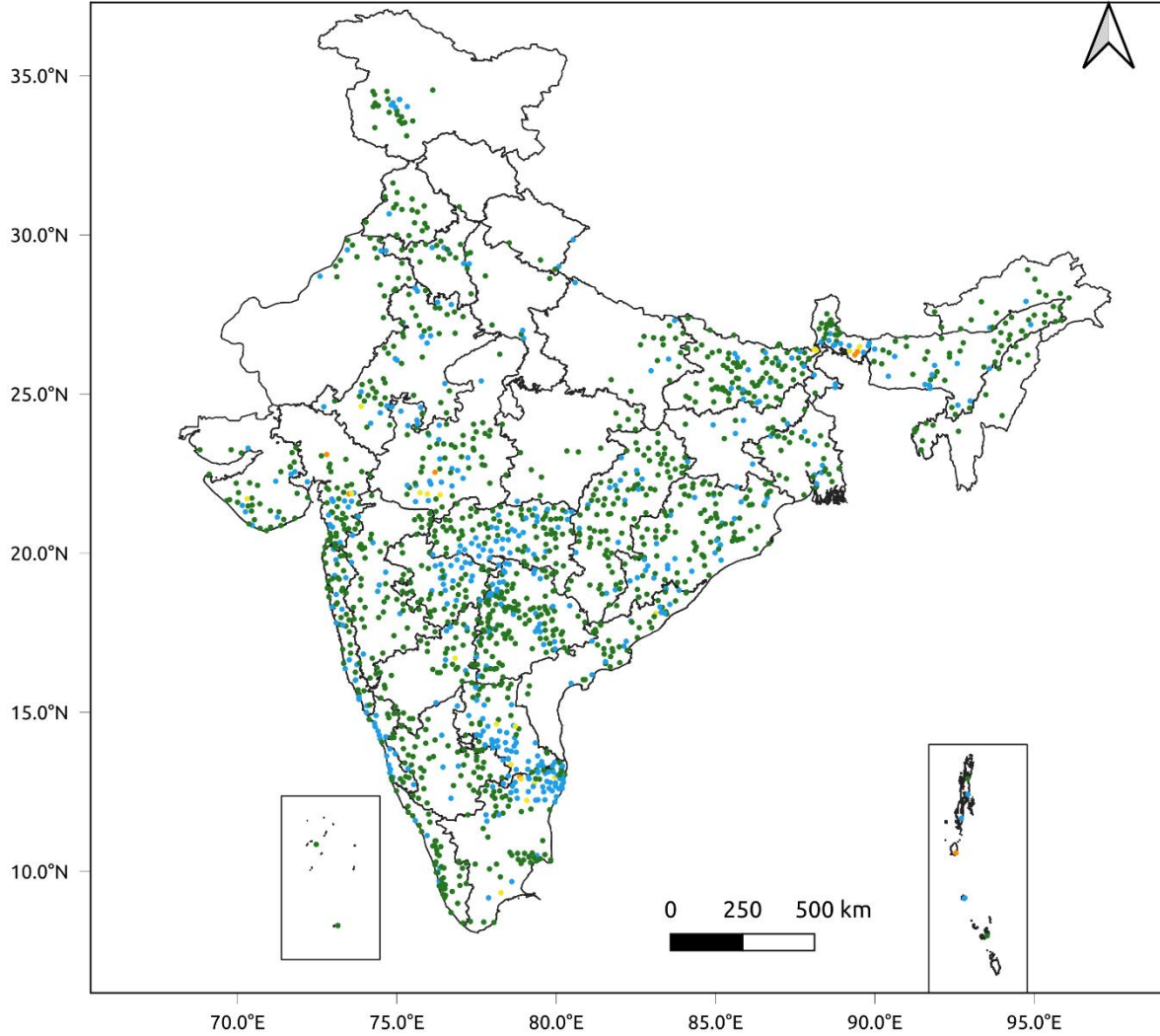


Fig. 5: Accumulated Rainfall (mm) during past 24 hours

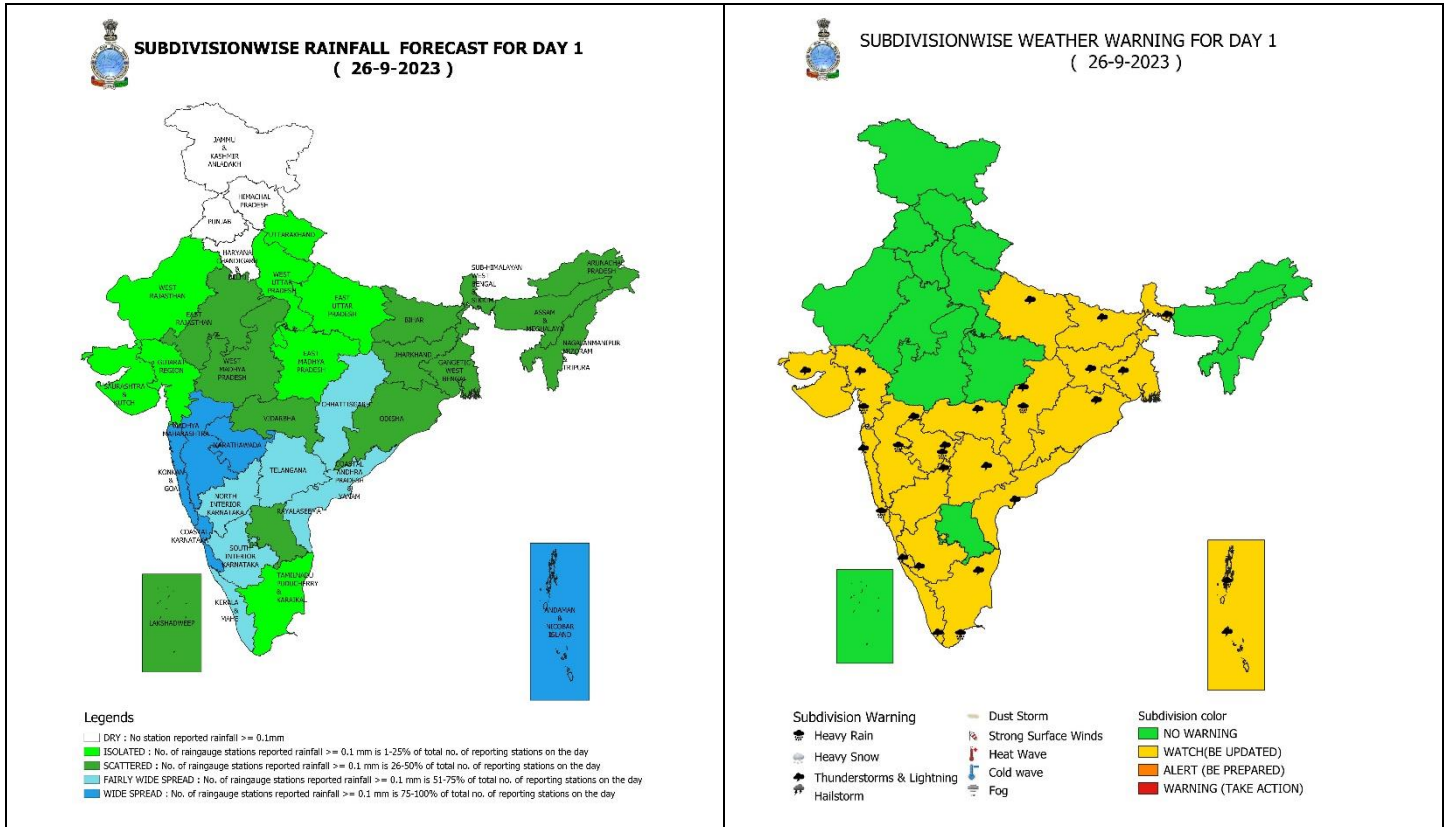


24 Hr cumulative rainfall recorded over different stations during 0830 IST of 24-9-2023 to 0830 IST of 25-9-2023



## Legends

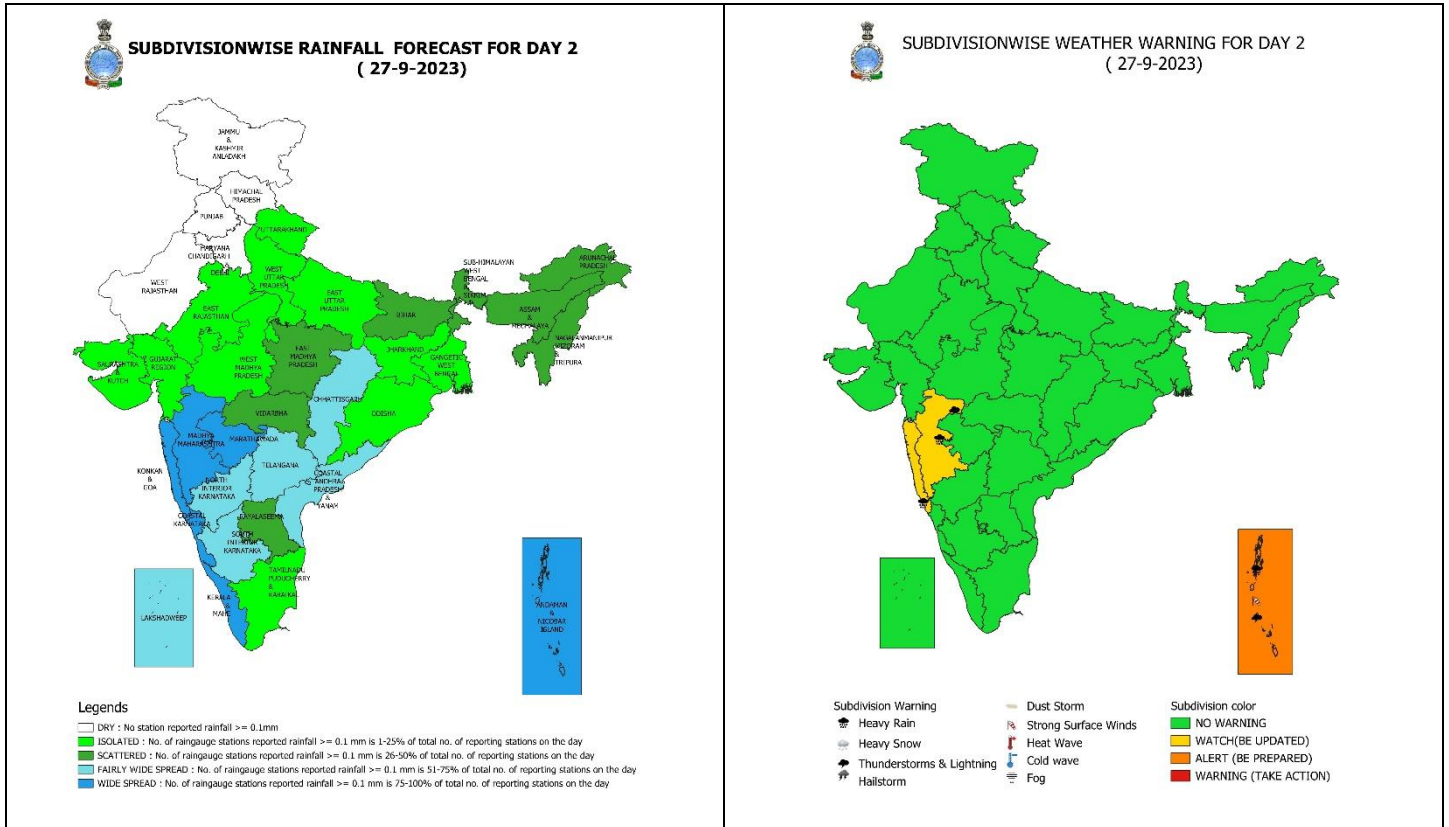
- Very Light to Light Rainfall (0.1 - 15.5 mm)
- Moderate Rainfall (15.6 - 64.4 mm)
- Heavy Rainfall (64.5 - 115.5 mm)
- Very Heavy Rainfall (115.6 - 204.4 mm)
- Extremely Heavy Rainfall ( $\geq 204.5$  mm)



### 26 September (Day 1): -

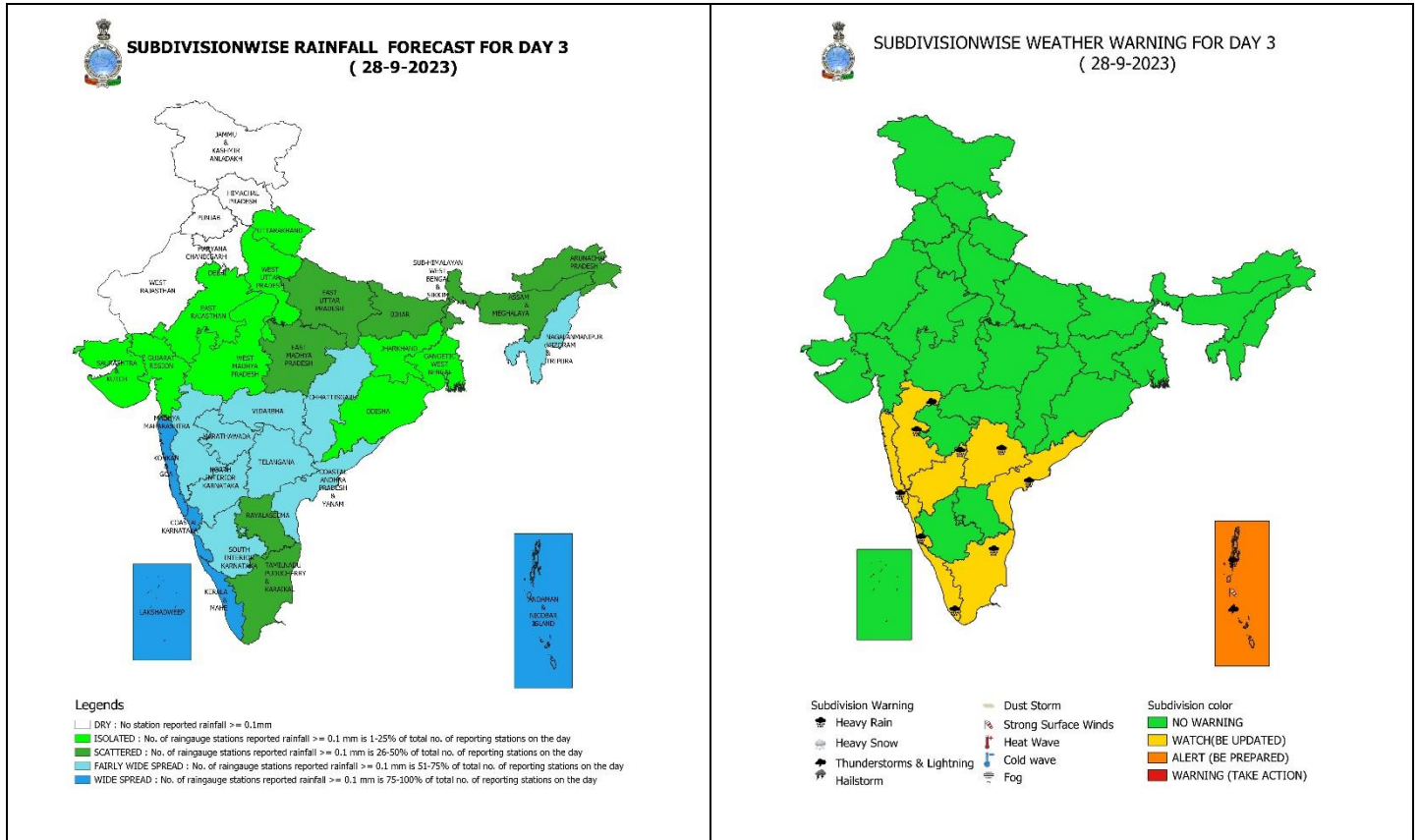
- ❖ **Heavy rainfall** very likely at isolated places over Andaman & Nicobar Islands, Konkan & Goa, Madhya Maharashtra, Marathwada, Gujarat Region and Tamil Nadu, Puducherry & Karaikal.
- ❖ **Thunderstorm with lightning** very likely at isolated places over East Uttar Pradesh, Vidarbha, Chhattisgarh, Andaman & Nicobar Islands, West Bengal & Sikkim, Bihar, Jharkhand, Odisha, Konkan & Goa, Madhya Maharashtra, Marathwada, Gujarat Region, Coastal Andhra Pradesh & Yanam, Telangana, Karnataka, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe.
- ❖ **Squally wind speed of 45-55 kmph gusting to 65 kmph** likely over Southwest and adjoining Westcentral Arabian Sea. **Fishermen are advised not to venture into these areas.**





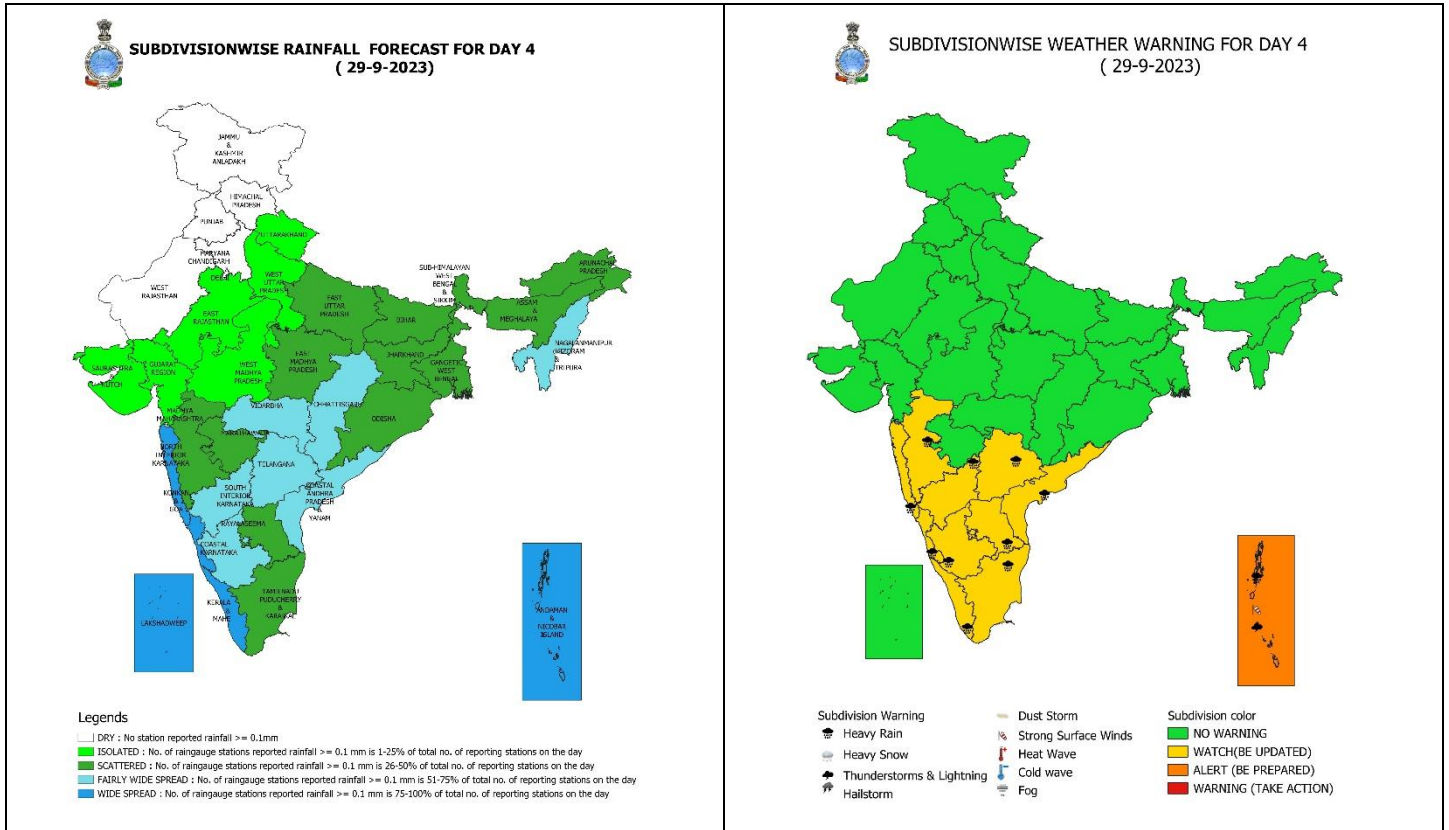
**27 September (Day 2): -**

- ❖ **Heavy to very heavy rainfall** very likely at isolated places over Andaman & Nicobar Islands; **Heavy rainfall** likely at isolated places over Konkan & Goa and Madhya Maharashtra.
- ❖ **Thunderstorm with lightning & gusty winds (speed 40-50 kmph)** very likely at isolated places over Andaman & Nicobar Islands; **with lightning & gusty winds (speed 30-40 kmph) at isolated places over Kerala & Mahe; with lightning** likely at isolated places over East Uttar Pradesh, Vidarbha, Chhattisgarh, Konkan & Goa, Madhya Maharashtra, Marathwada and Telangana.
- ❖ **Squally wind speed of 45-55 kmph gusting to 65 kmph** likely over Southwest and adjoining Westcentral Arabian Sea and **Squally weather speed of 40-45 kmph gusting to 55 kmph** Likely over southwest & adjoining southeast Bay of Bengal, North Andaman Sea. **Fishermen are advised not to venture into these areas.**



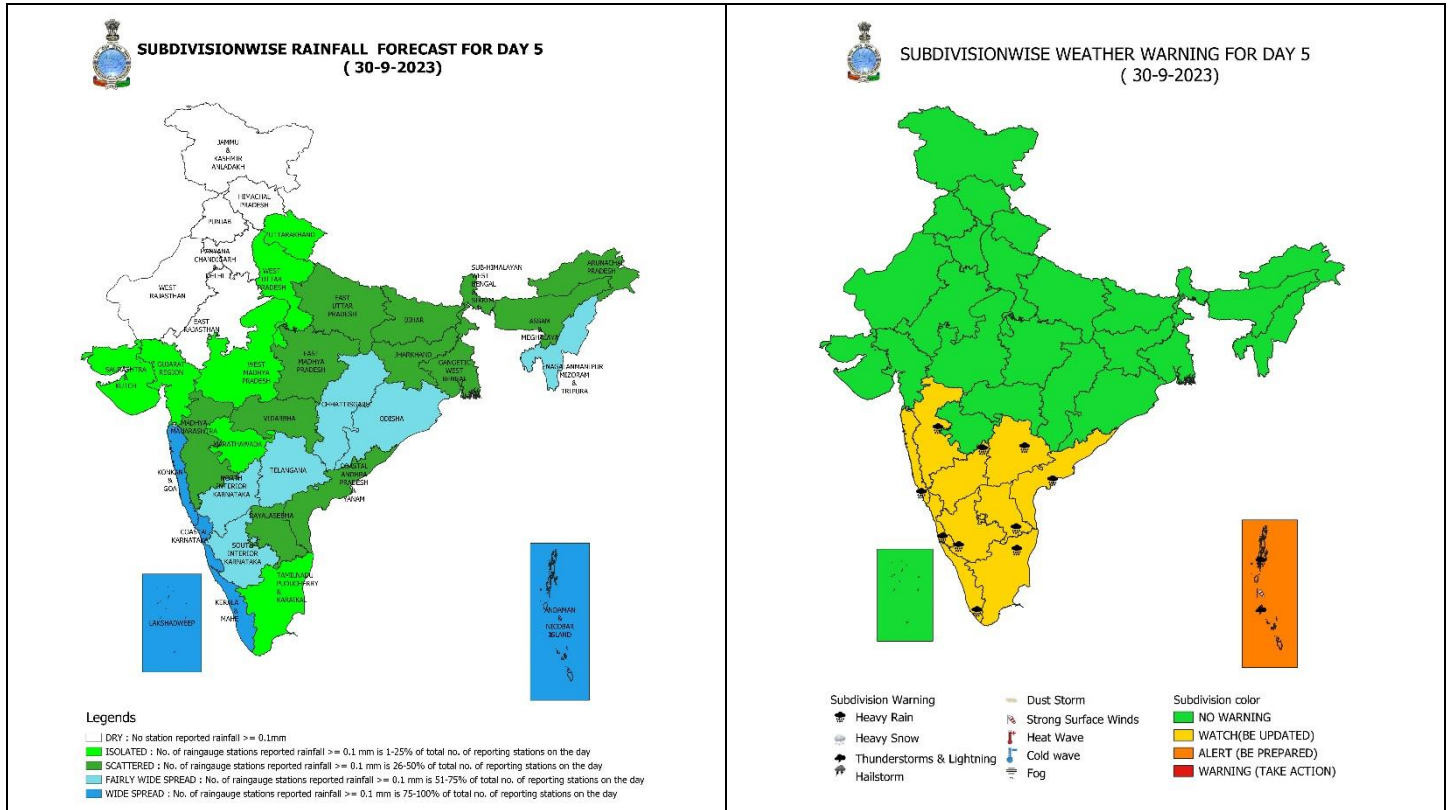
**28 September (Day 3): -**

- ❖ **Heavy to very heavy rainfall** likely at isolated places over Andaman & Nicobar Islands; **Heavy rainfall** likely at isolated places over Konkan & Goa, Madhya Maharashtra, Coastal Andhra Pradesh & Yanam, Telangana, Coastal & North Interior Karnataka, Tamil Nadu, Kerala & Mahe.
- ❖ **Thunderstorm with lightning & gusty winds (speed 40-50 kmph)** very likely at isolated places over Andaman & Nicobar Islands; **with lightning & gusty winds (speed 30-40 kmph) at isolated places over Kerala & Mahe; with lightning** likely at isolated places over East Uttar Pradesh, Konkan & Goa, Madhya Maharashtra, Coastal Andhra Pradesh & Yanam, Telangana.
- ❖ **Squally wind speed of 45-55 kmph gusting to 65 kmph** likely over Southwest and adjoining Westcentral Arabian Sea and **Squally weather speed of 40-45 kmph gusting to 55 kmph** likely over south & adjoining Eastcentral Bay of Bengal, Comorin area and Andaman Sea. **Fishermen are advised not to venture into these areas.**



**29 September (Day 4): -**

- ❖ **Heavy to very heavy rainfall** likely at isolated places over Andaman & Nicobar Islands; **Heavy rainfall** at isolated places over Konkan & Goa, Madhya Maharashtra, Coastal Andhra Pradesh & Yanam, Telangana, Rayalaseema, Karnataka, Tamil Nadu and Kerala & Mahe.
- ❖ **Thunderstorm with lightning & gusty winds (speed 40-50 kmph)** very likely at isolated places over Andaman & Nicobar Islands; **with lightning & gusty winds (speed 30-40 kmph)** at isolated places over Kerala & Mahe; **with lightning** likely at isolated places over Konkan & Goa, Coastal Andhra Pradesh & Yanam, Telangana and Rayalaseema.
- ❖ **Squally wind speed of 45-55 kmph gusting to 65 kmph** likely over Southwest and adjoining Westcentral Arabian Sea and **Squally weather speed of 45-55 kmph gusting to 55 kmph** likely over South Bay of Bengal and Andaman Sea. **Fishermen are advised not to venture into these areas.**



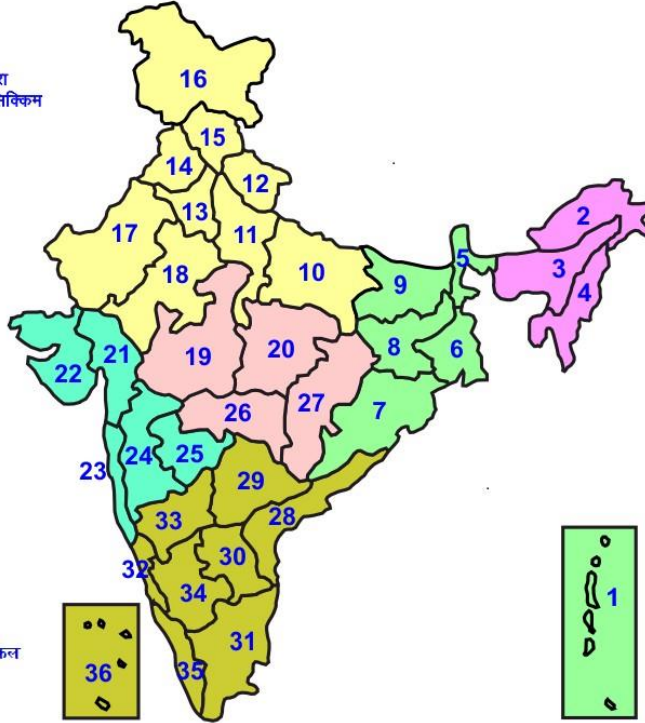
### 29 September (Day 5): -

- ❖ **Heavy to very heavy rainfall** likely at isolated places over Andaman & Nicobar Islands; **Heavy rainfall** at isolated places over Konkan & Goa, Madhya Maharashtra, Coastal Andhra Pradesh & Yanam, Telangana, Rayalaseema, Karnataka, Tamil Nadu and Kerala & Mahe.
- ❖ **Thunderstorm with lightning & gusty winds (speed 40-50 kmph)** very likely at isolated places over Andaman & Nicobar Islands; **with lightning & gusty winds (speed 30-40 kmph)** at isolated places over Kerala & Mahe; **with lightning** likely at isolated places over Konkan & Goa, Coastal Andhra Pradesh & Yanam, Telangana and Rayalaseema.
- ❖ **Squally wind speed of 45-55 kmph gusting to 65 kmph** likely over Southwest and adjoining Westcentral Arabian Sea and **Squally weather speed of 45-55 kmph gusting to 55 kmph** likely over South Bay of Bengal and Andaman Sea. **Fishermen are advised not to venture into these areas.**



## LEGENDS

- 1 अंडमान और निकोबार द्वीप समुह
- 2 अरुणाचल प्रदेश
- 3 असम और मेघालय
- 4 नागालैंड मनीपुर मीजोरम और त्रिपुरा
- 5 उप हिमालय पश्चिम बंगाल एवं सिक्किम
- 6 पश्चिम गंगेय बंगाल
- 7 ओडिसा
- 8 झारखंड
- 9 बिहार
- 10 पूर्वी उत्तर प्रदेश
- 11 पश्चिम उत्तर प्रदेश
- 12 उत्तराखंड
- 13 हरियाणा चंडिगढ़ एवं दिल्ली
- 14 पंजाब
- 15 हिमाचल प्रदेश
- 16 जम्मू एवं कश्मीर एवं लद्दाख
- 17 पश्चिम राजस्थान
- 18 पूर्वी राजस्थान
- 19 पश्चिम मध्य प्रदेश
- 20 पूर्वी मध्य प्रदेश
- 21 गुजरात क्षेत्र
- 22 सौराष्ट्र एवं कच्छ
- 23 कोंकण एवं गोवा
- 24 मध्य महाराष्ट्र
- 25 मराठावाडा
- 26 विदर्भ
- 27 छत्तीसगढ़
- 28 तटीय आंध्र प्रदेश एवं यनम
- 29 तेलंगाना
- 30 रायलसीमा
- 31 तमिलनाडु, पुदुचेरी एवं कराईकल
- 32 तटिय कर्नाटक
- 33 आंतरिक उत्तरी कर्नाटक
- 34 आंतरिक दक्षिणी कर्नाटक
- 35 केरल एवं 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. Orissa
8. Jharkhand
9. Bihar
10. East Uttar Pradesh
11. West Uttar Pradesh
12. Uttarakhand
13. Haryana, Chd & 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. Marathawada
26. Vidharbha
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)               |

## WARNING

|                                |
|--------------------------------|
| <b>WARNING (TAKE ACTION)</b>   |
| <b>ALERT ( BE PREPARED)</b>    |
| <b>WATCH (BE UPDATED)</b>      |
| <b>NO WARNING ( NO ACTION)</b> |

## Probabilistic Forecast

| Terms       | Probability of Occurrence (%) |
|-------------|-------------------------------|
| Unlikely    | < 25                          |
| Likely      | 25 - 50                       |
| Very Likely | 50 - 75                       |
| Most Likely | > 75                          |



Heavy Rain



Heavy Snow



Thunderstorm



Dust Storm



Strong Winds



Visibility



Cyclone



Squall/ Hail



Frost



Cold Wave



Heat Wave



Sea State

\* Red color warning does not mean "Red Alert" Red color 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

### WARNING

|                         |
|-------------------------|
| WARNING (TAKE ACTION)   |
| ALERT ( BE PREPARED)    |
| WATCH (BE UPDATED)      |
| NO WARNING ( NO ACTION) |

### Probabilistic Forecast

| Terms       | Probability of Occurrence (%) |
|-------------|-------------------------------|
| Unlikely    | < 25                          |
| Likely      | 25 - 50                       |
| Very Likely | 50 - 75                       |
| Most Likely | > 75                          |



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  $\geq 40^{\circ}\text{C}$  for plains and  $\geq 30^{\circ}\text{C}$  for hilly regions  
(a) Based on Departure from normal

Heat Wave: Maximum Temperature Departure from normal  $4.5^{\circ}\text{C}$  to  $6.4^{\circ}\text{C}$ .

Severe Heat Wave: Maximum Temperature Departure from normal  $\geq 6.5^{\circ}\text{C}$

(b). Based on Actual maximum temperature

Heat Wave: When actual maximum temperature  $\geq 45^{\circ}\text{C}$ .

Severe Heat Wave: When actual maximum temperature  $\geq 47^{\circ}\text{C}$

(c). Criteria for heat wave for coastal stations

When maximum temperature departure is  $> 4.5^{\circ}\text{C}$  from normal. Heat Wave may be described provided maximum temperature  $\geq 37^{\circ}\text{C}$



Warm Night

When maximum temperature remains  $40^{\circ}\text{C}$

Warm Night: When minimum temperature departure  $4.5^{\circ}\text{C}$  to  $6.4^{\circ}\text{C}$ .

Severe Warm Night: When minimum temperature departure  $> 6.4^{\circ}\text{C}$ .



Cold Wave

When minimum temperature of a station  $\leq 10^{\circ}\text{C}$  for plains and  $\leq 0^{\circ}\text{C}$  for hilly regions.

(a). Based on departure

Cold Wave: Minimum Temperature Departure from normal  $-4.5^{\circ}\text{C}$  to  $-6.4^{\circ}\text{C}$ .

Severe Cold Wave: Minimum Temperature Departure from normal  $\leq -6.5^{\circ}\text{C}$

(b) Based on actual Minimum Temperature (for Plains only)

Cold Wave : When Minimum Temperature is  $\leq 4.0^{\circ}\text{C}$

Severe Cold Wave: When Minimum Temperature is  $\leq 2.0^{\circ}\text{C}$

(c) For Coastal Stations

When Minimum Temperature departure is  $\leq -4.5^{\circ}\text{C}$  & actual Minimum Temperature is  $\leq 15^{\circ}\text{C}$



Cold Day

When minimum temperature of a station  $\leq 10^{\circ}\text{C}$  for plains and  $\leq 0^{\circ}\text{C}$  for hilly regions  
Based on departure

Cold Day: Maximum Temperature Departure from normal  $-4.5^{\circ}\text{C}$  to  $-6.4^{\circ}\text{C}$ .

Severe Cold Day: Maximum Temperature Departure from normal  $\leq -6.5^{\circ}\text{C}$



Fog

Phenomenon of small droplets suspended in air and the horizontal visibility  $< 1\text{km}$

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  $\leq 4^{\circ}\text{C}$  ( 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 Storm: Wind speed  $> 220$  kmph ( $> 119$  knots)

\* Red color warning does not mean "Red Alert" Red color 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

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