



Wednesday, September 20, 2023  
Time of Issue: 0800 hours IST  
(MORNING)

## ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

### Significant Weather Features

#### Significant Weather features:

- ❖ The **Low Pressure Area** over northwest Bay of Bengal off West Bengal-Odisha coast now lies over northwest Bay of Bengal & adjoining West Bengal-north Odisha coasts and the associated cyclonic circulation extends upto 7.6 km above mean sea level tilting southwestwards with height. It is likely to move west-northwestwards across North Odisha & South Jharkhand during next 2 days.
- ❖ A cyclonic circulation lies over southwest Rajasthan and extends upto middle tropospheric levels.
- ❖ The Monsoon Trough lies south to its normal position and passes through Jaisalmer, Kota, Guna, Siddhi, Daltonganj and the centre of **Low Pressure Area** over northwest Bay of Bengal & adjoining West Bengal-north Odisha coasts and thence southeastwards to Eastcentral Bay of Bengal.

#### Weather Forecast and Warnings:

**West India:** Light/moderate fairly widespread to widespread rainfall/thunderstorm & lightning with **isolated heavy rainfall** very likely over Saurashtra & Kutch on 20<sup>th</sup> September.

**East India:** Light/moderate fairly widespread to widespread rainfall/thunderstorm & lightning with **isolated heavy rainfall** very likely over Gangetic West Bengal, Odisha, Jharkhand, Sub-Himalayan West Bengal & Sikkim during 20<sup>th</sup>-22<sup>nd</sup> and Bihar during 21<sup>st</sup>-23<sup>rd</sup> September.

**Isolated very heavy rainfall very likely over Odisha during 20<sup>th</sup>-21<sup>st</sup> September.**

**Northeast India:** Light/moderate scattered to fairly widespread rainfall/thunderstorm with isolated **heavy rainfall** activity very likely over Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura and Arunachal Pradesh during 20<sup>th</sup>-23<sup>rd</sup> September.

**Isolated very heavy rainfall very likely over Nagaland, Manipur on 20<sup>th</sup> & 21<sup>st</sup> and over Arunachal Pradesh, Assam, Meghalaya on 21<sup>st</sup> & 22<sup>nd</sup> September.**

**Central India:** Light/moderate fairly widespread to widespread rainfall/thunderstorm & lightning with **isolated heavy rainfall** very likely over Chhattisgarh during 20<sup>th</sup>-22<sup>nd</sup>; East Madhya Pradesh during 21<sup>st</sup>-23<sup>rd</sup>; Vidarbha and West Madhya Pradesh on 22<sup>nd</sup> & 23<sup>rd</sup> September.

**South India:** Light/moderate fairly widespread to widespread rainfall with isolated **heavy rainfall** very likely over Coastal Andhra Pradesh on 20<sup>th</sup> September.

For more details kindly refer:

[https://mausam.imd.gov.in/responsive/all\\_india\\_forecast\\_bulletin.php](https://mausam.imd.gov.in/responsive/all_india_forecast_bulletin.php)



### Main Weather Observations:

- ❖ **Rainfall distribution** (from 0830 hours IST to 1730 hours IST of yesterday): **at many places** over Jharkhand, Odisha, Gujarat State, Coastal & North Interior Karnataka; **at a few places** over Assam & Meghalaya, Punjab, Konkan & Goa and South Interior Karnataka and **at isolated places** over Nagaland, Manipur, Mizoram & Tripura, Gangetic West Bengal, East Uttar Pradesh, Uttarakhand, Himachal Pradesh, Rajasthan, West Madhya Pradesh, Madhya Maharashtra and Tamil Nadu, Puducherry & Karaikal.
- ❖ **Significant rainfall recorded** (from 0830 hours IST to 1730 hours IST of yesterday) **(in cm):**  
**Assam & Meghalaya:** Guwahati-1; Nagaland, Manipur, Mizoram & Tripura: Imphal and Agartala -1 each; Odisha: Puri-2; Bhubaneswar-1; East Uttar Pradesh: Kanpur-2; Lucknow-1; Uttarakhand: Mukteshwar-1; West Madhya Pradesh: Khandwa-4; Gujarat Region: Surat-2; Bulsar, Vallabh Vidhya Nagar and Gandhinagar-1 each; Saurashtra & Kutch: Bhaunagar, Surenderanagar, Rajkot and Diu- 1 each; Konkan & Goa: Harnai-1; Madhya Maharashtra: Mahabaleshwar-1; South Interior Karnataka: Honavar and conoor-1 each; Tamil Nadu, Puducherry & Karaikal: K. Paramathy-2.
- ❖ **Minimum Temperature Departures (as on 19-09-2023):** Minimum temperatures were **appreciably above normal (3.1°C to 5.0°C)** at a few places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad; **above normal (1.6°C to 3.0°C)** at most places over Haryana-Chandigarh-Delhi; at many places over Punjab, Himachal Pradesh: at a few places over Uttarakhand, Coastal Andhra Pradesh & Yanam and at isolated places over Rajasthan, East Uttar Pradesh, East Madhya Pradesh, Telangana, Rayalaseema, Madhya Maharashtra, Chhattisgarh, Odisha, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Konkan & Goa. They were **below normal (-1.6°C to -3.0°C)** at isolated places over Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe and **near normal** over rest parts of the country. Yesterday, **the lowest minimum temperature of 16.6°C** was reported at **Raisen (West Madhya Pradesh)** over the plains of the country.
- ❖ **Maximum Temperature Departures (as on 19-09-2023):** Maximum temperatures were **appreciably above normal (3.1°C to 5.0°C)** at a few places over Arunachal Pradesh and at isolated places over Assam & Meghalaya, Sub-Himalayan West Bengal & Sikkim, Chhattisgarh and Marathwada; **above normal (1.6°C to 3.0°C)** at many places over East Uttar Pradesh, East Madhya Pradesh and Telangana; at a few places over Odisha, Coastal Andhra Pradesh & Yanam, Vidarbha and North Interior Karnataka and at isolated places over West Uttar Pradesh, Bihar, Haryana-Chandigarh-Delhi, West Madhya Pradesh, Jharkhand, Konkan & Goa, South Interior Karnataka and Kerala & Mahe. They were **appreciably below normal (-3.1°C to -5.0°C)** at isolated places over West Rajasthan; at a few places over East Rajasthan and Gujarat State; **below normal (-1.6°C to -3.0°C)** at a few places over Gangetic West Bengal and at isolated places over Nagaland, Manipur, Mizoram & Tripura, Madhya Maharashtra and Punjab and **near normal** over rest parts of the country. Yesterday, **the highest maximum temperature of 38.0°C** was reported at **K. Paramathy (Tamil Nadu)**.

\* 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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Meteorological Analysis (Based on 0530 hours IST)

- ❖ **The Low Pressure Area** over northwest Bay of Bengal off West Bengal-Odisha coast now lies over northwest Bay of Bengal & adjoining West Bengal-north Odisha coasts and the associated cyclonic circulation extends upto 7.6 km above mean sea level tilting southwestwards with height. It is likely to move west-northwestwards across North Odisha & South Jharkhand during next 2 days.
- ❖ The cyclonic circulation over Southwest Rajasthan & neighbourhood extending upto 7.6 km above mean sea level persists.
- ❖ The **Monsoon Trough** at mean sea level now passes through Jaisalmer, Kota, Guna, Siddhi, Daltonganj and the centre of **Low Pressure Area** over northwest Bay of Bengal & adjoining West Bengal-north Odisha coasts and thence southeastwards to Eastcentral Bay of Bengal.

Weather Forecast for next 5 days (Upto 0830 hours IST of 25<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

- ❖ Scattered to fairly widespread light/moderate rainfall likely over parts of east, northeast & central India, Uttarakhand, Uttar Pradesh, Karnataka, Telangana, along the west coasts and islands.
- ❖ Isolated to scattered rainfall likely over rest parts of the country.



Table-1

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

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 19.09.2023

Fig. 2: Departure of Maximum Temp. Dated 19.09.2023

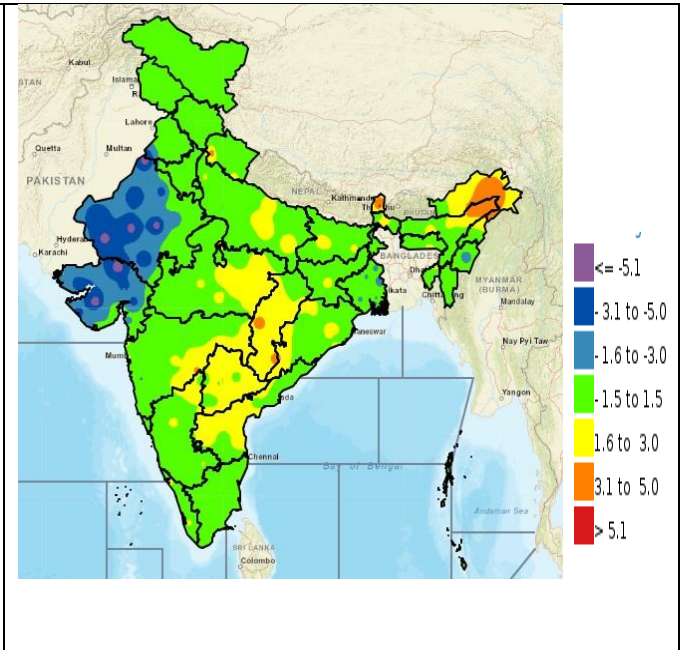
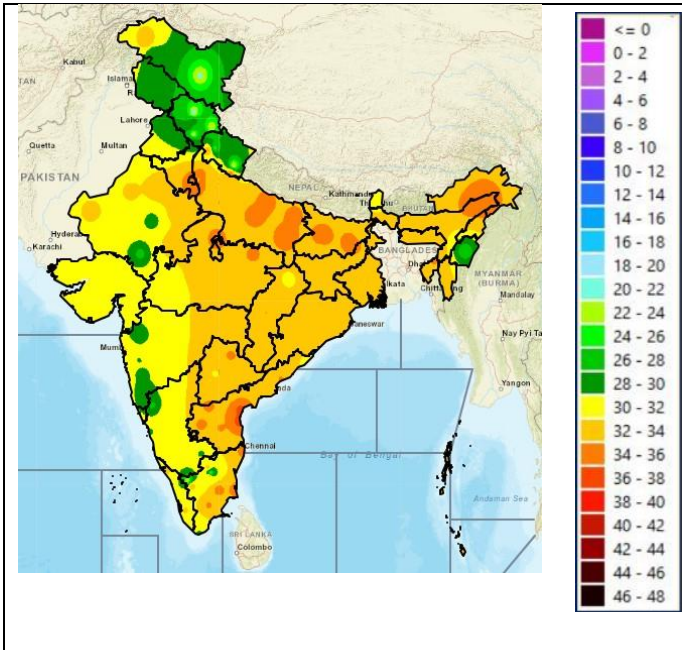


Fig. 3: Minimum Temperatures Dated 19.09.2023

Fig. 4: Departure of Minimum Temp. Dated 19.09.2023

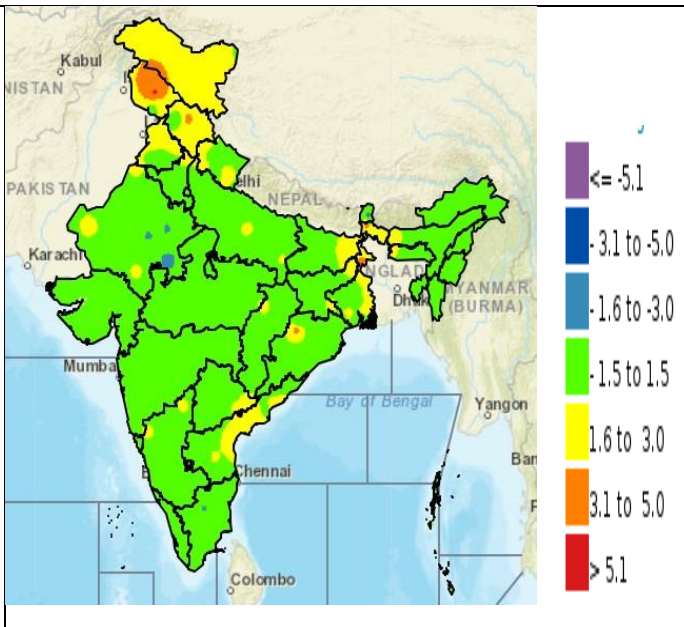
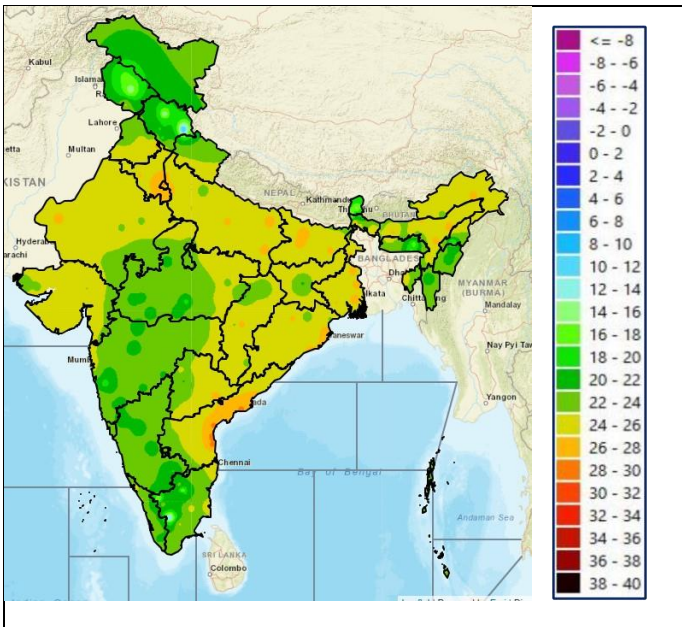
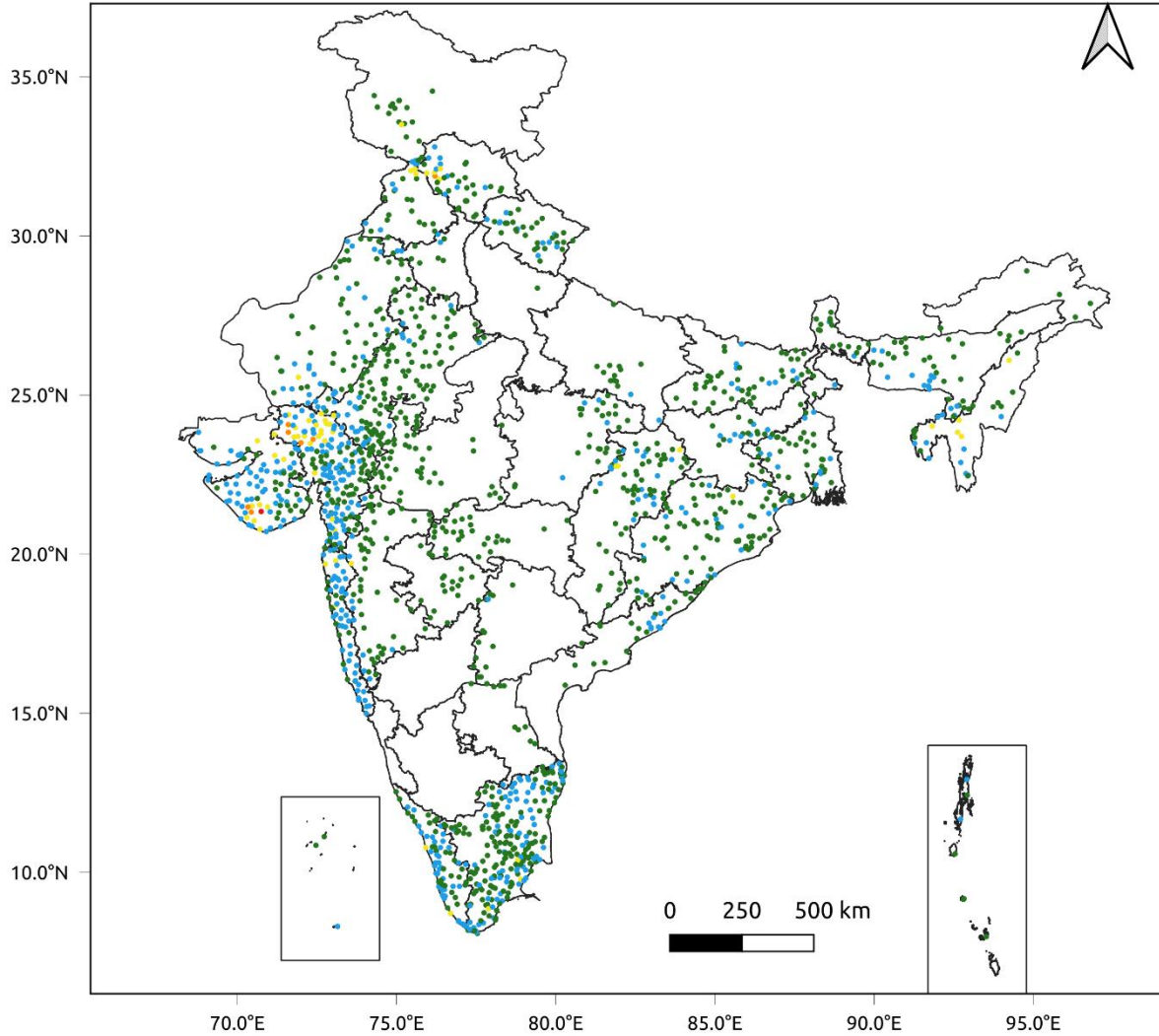


Fig. 5: Accumulated Rainfall (mm) during past 24 hours

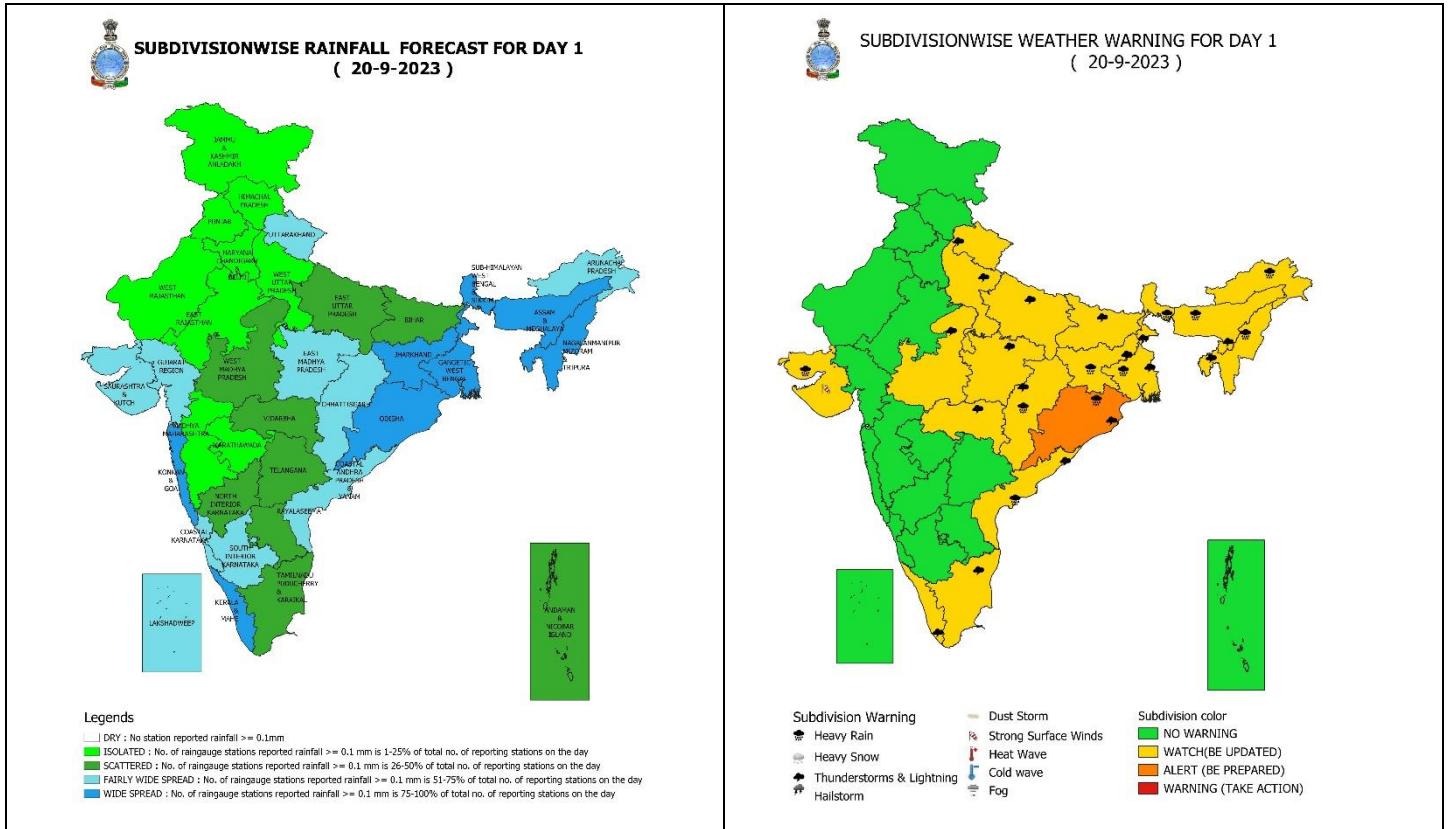


24 Hr cumulative rainfall recorded over different stations during 0830 IST of 18-9-2023 to 0830 IST of 19-9-2023



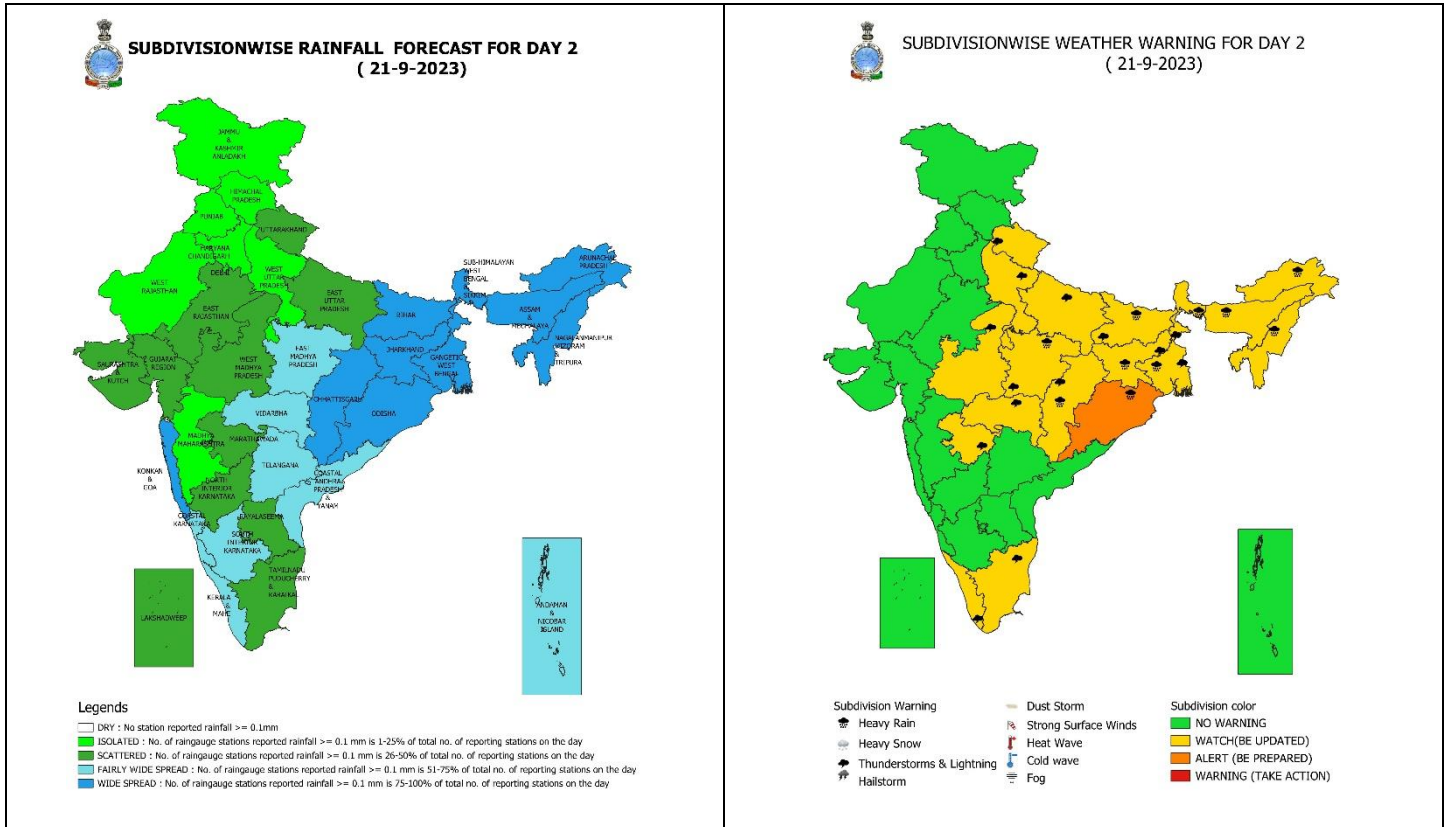
## Legends

- 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 (>=204.5 mm)



## 20 September (Day 1): -

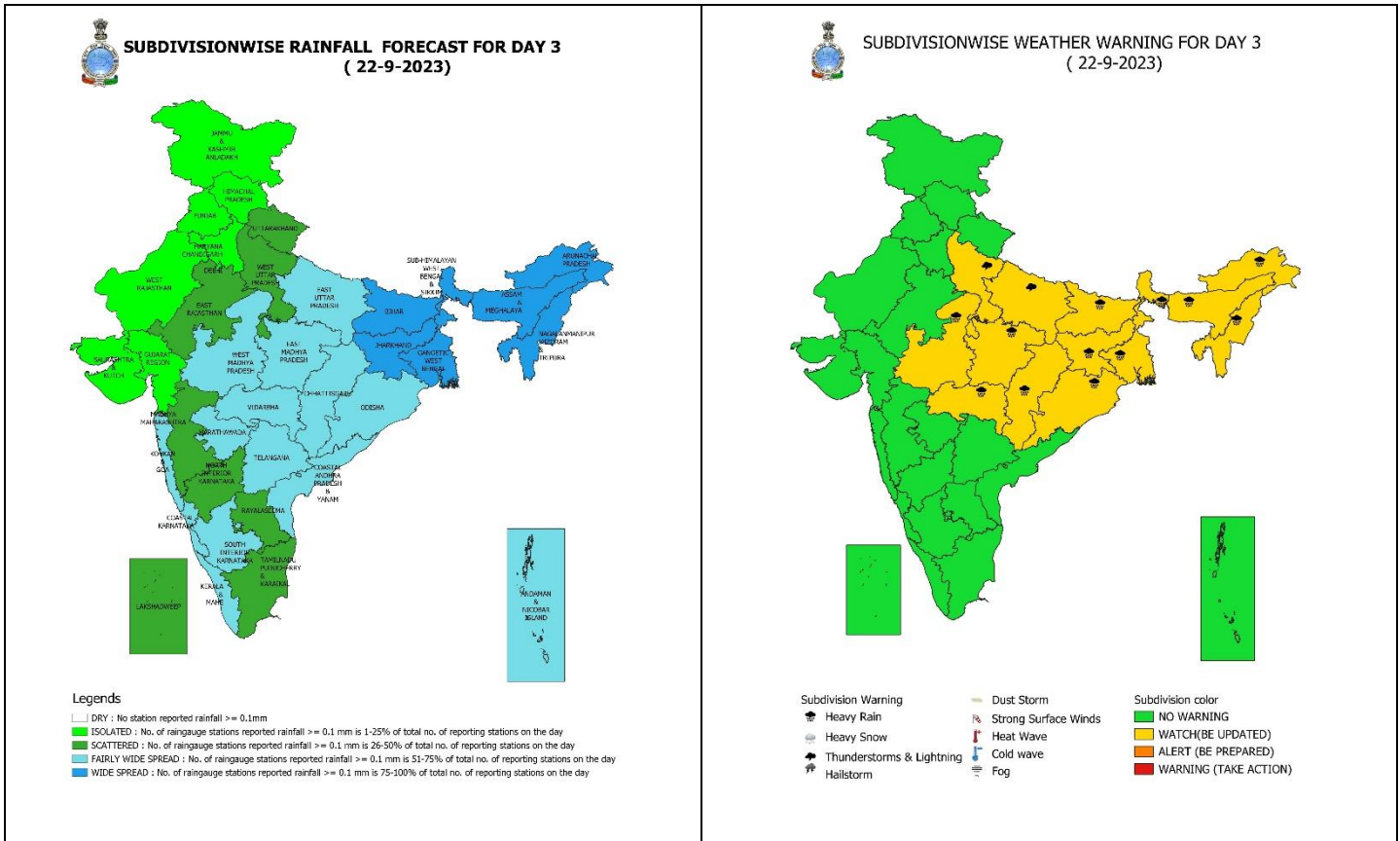
- ❖ **Heavy to very heavy rainfall** very likely at isolated places over Odisha, Assam & Meghalaya, Nagaland, Manipur and **heavy rainfall** at isolated places over Chhattisgarh, West Bengal & Sikkim, Jharkhand, Arunachal Pradesh, Assam & Meghalaya, Saurashtra & Kutch, Coastal Andhra Pradesh & Yanam.
- ❖ **Thunderstorm with lightning & gusty winds (speed 30-40 kmph)** very likely at isolated places over Kerala & Mahe and **with lightning** at isolated places over Uttarakhand, Uttar Pradesh, Madhya Pradesh, Vidarbha, Chhattisgarh, West Bengal & Sikkim, Bihar, Jharkhand, Odisha, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Coastal Andhra Pradesh & Yanam, Tamil Nadu, Puducherry & Karaikal.
- ❖ **Squally wind speed of 45-55 kmph gusting to 65 kmph** likely over Southwest and adjoining Westcentral & Eastcentral Arabian Sea and **Squally weather** (wind speed reaching 40-45 kmph gusting to 55 kmph) over Northeast Arabian Sea along & off Gujarat coast, Westcentral & northwest Bay of Bengal along & off Odisha & Andhra Pradesh coasts. **Fishermen are advised not to venture into these areas.**



## 21 September (Day 2): -

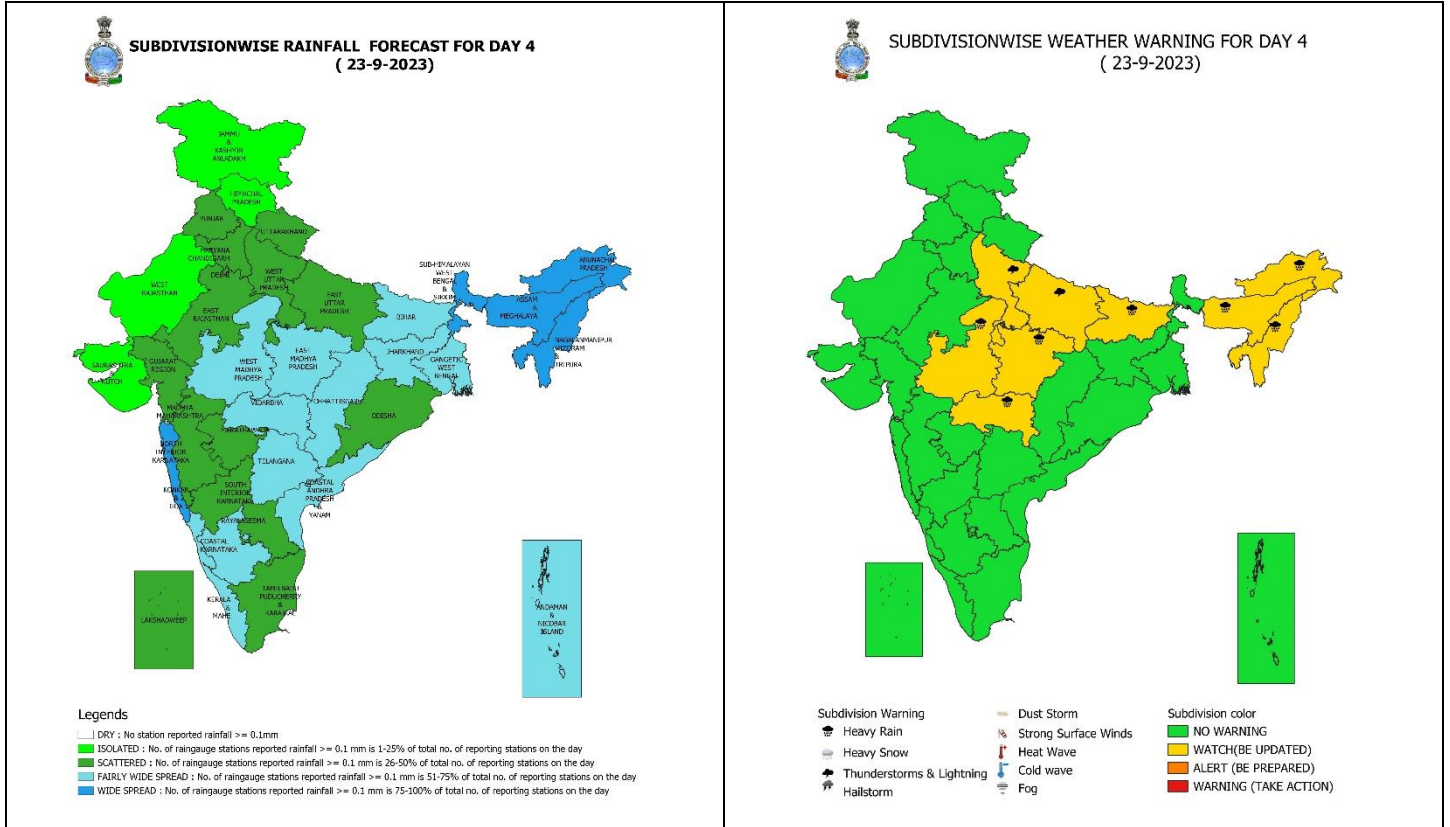
- ❖ **Heavy to very heavy rainfall** very likely at isolated places over Sub-Himalaya West Bengal & Sikkim, Odisha, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur and **heavy rainfall** at isolated places over East Madhya Pradesh, Chhattisgarh, Gangetic West Bengal, Bihar, Jharkhand.
- ❖ **Thunderstorm with lightning** very likely at isolated places over Uttarakhand, Uttar Pradesh, Madhya Pradesh, Vidarbha, Chhattisgarh, West Bengal & Sikkim, Bihar, Jharkhand, Marathwada, 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.**





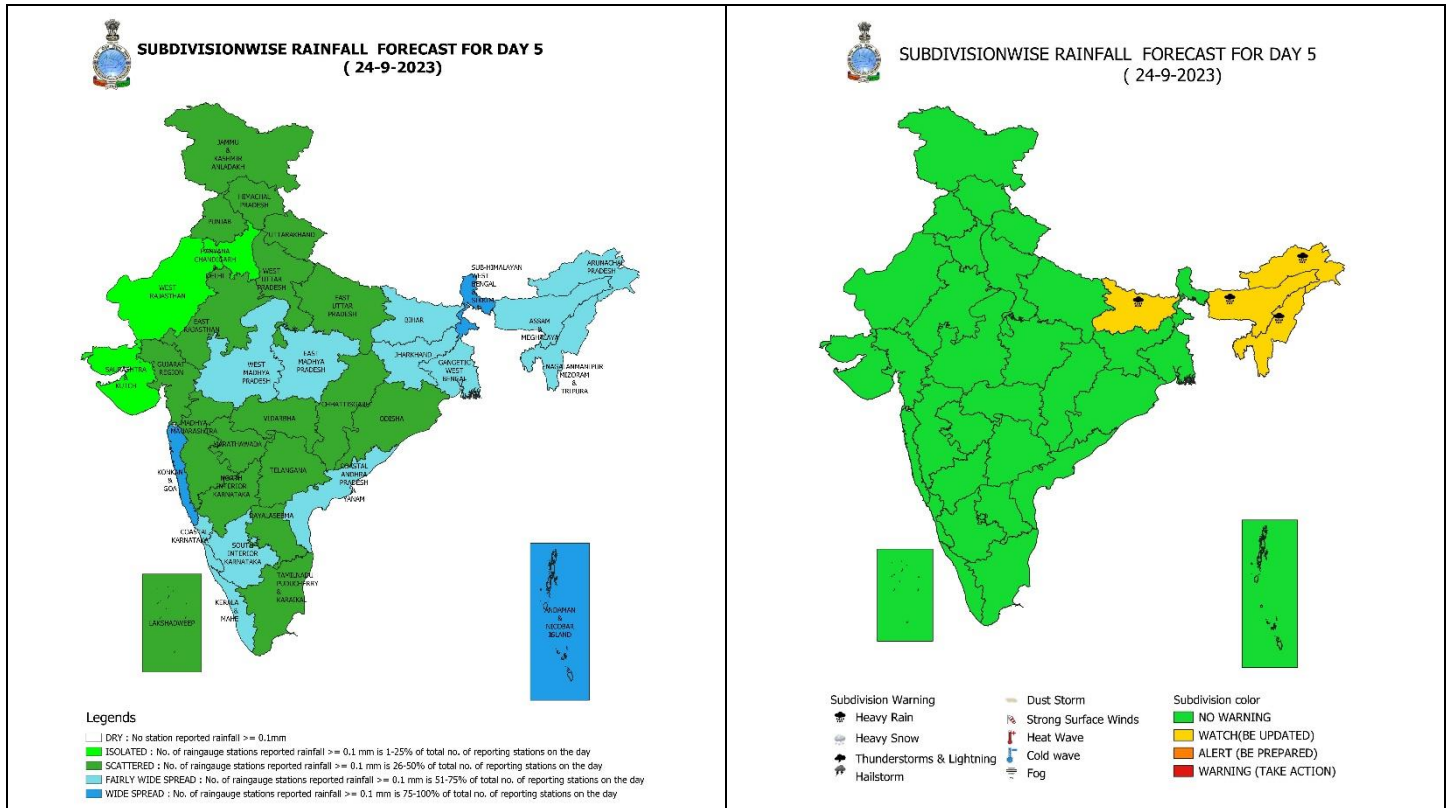
## 22 September (Day 3): -

- ❖ **Heavy to very heavy rainfall** very likely at isolated places Arunachal Pradesh, Assam & Meghalaya and **heavy rainfall** at isolated places over Madhya Pradesh, Vidarbha, Chhattisgarh, West Bengal & Sikkim, Bihar, Jharkhand, Odisha, Nagaland, Manipur.
- ❖ **Thunderstorm with lightning** very likely at isolated places over Uttarakhand, Punjab, Haryana-Chandigarh-Delhi, Uttar Pradesh, East Rajasthan, Madhya Pradesh, Vidarbha, Chhattisgarh, Jharkhand, Madhya Maharashtra, Marathwada, 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.**



### 23 September (Day 4): -

- ❖ **Heavy rainfall** at isolated places over Madhya Pradesh, Vidarbha, Bihar, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur.
- ❖ **Thunderstorm with lightning** likely at isolated places over Uttarakhand, Punjab, Haryana-Chandigarh-Delhi, Uttar Pradesh, East Rajasthan, Madhya Pradesh, Madhya Maharashtra, Marathwada, Tamil Nadu, Puducherry & Karaikal.
- ❖ **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.**



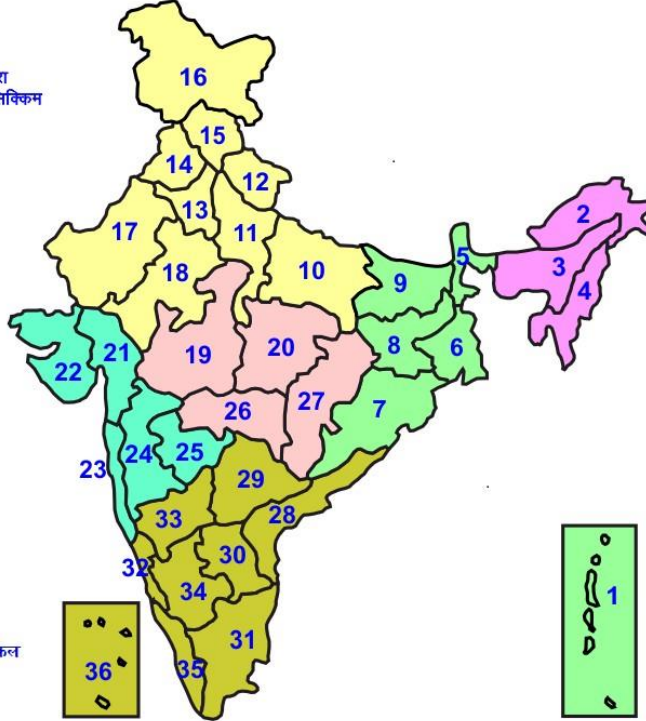
## 24 September (Day 5): -

- ❖ **Heavy rainfall** at isolated places over Bihar, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur.
- ❖ **Thunderstorm with lightning** likely at isolated places over Madhya Pradesh, Madhya Maharashtra, Marathwada, Tamil Nadu, Puducherry & Karaikal.
- ❖ **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.**



## LEGENDS

- 1 अंडमान और निकोबार द्वीप समूह
- 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 मराठावाड़ा
- 26 विदर्भ
- 27 छत्तीसगढ़
- 28 तटीय आंध्र प्रदेश एवं यनम
- 29 तेलंगाना
- 30 रायलसेमा
- 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. Marathwada
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

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## 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 < 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  $\leq 4^{\circ}\text{C}$  ( 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

(Service to the Nation since 1875)