



Friday, September 15, 2023
Time of Issue: 0815 hours IST
(MORNING)

ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

Significant Weather Features

Significant Weather features:

- ❖ A Well Marked Low Pressure Area lies over north Chhattisgarh & neighbourhood. It is likely to move across Madhya Pradesh during next 24 hours.
- ❖ A trough runs from northeast Rajasthan to centre of Well Marked Low Pressure Area over north Chhattisgarh across north Madhya Pradesh in lower tropospheric levels.
- ❖ The Monsoon Trough lies to the south of its normal position.

Weather Forecast and Warnings:

East India: Light/moderate fairly widespread to widespread rainfall/thunderstorm & lightning with **isolated heavy rainfall** very likely over Odisha on 15th, 18th & 19th; over Gangetic West Bengal and Jharkhand on 15th and over Andaman & Nicobar Islands during 15th -18th September.

Central India: Light/moderate fairly widespread to widespread rainfall/thunderstorm & lightning with **isolated heavy rainfall** very likely over Madhya Pradesh, Vidarbha during 15th-17th and Chhattisgarh during 15th-16th September.

Isolated very heavy rainfall is also very likely over Chhattisgarh, East Madhya Pradesh on 15th; West Madhya Pradesh during 15th-17th; Vidarbha on 15th & 16th September.

Northwest India: Light/moderate fairly widespread to widespread rainfall/thunderstorm with isolated **heavy falls** very likely over Uttarakhand during 15th-16th; Jammu division, Himachal Pradesh, Haryana, Delhi and West Uttar Pradesh on 15th; and East Rajasthan during 15th-17th September.

Isolated very heavy rainfall is also very likely over Haryana, West Uttar Pradesh, Uttarakhand on 15th; over East Rajasthan on 16th September.

South India: Light/moderate fairly widespread to widespread rainfall with isolated **heavy rainfall** very likely over Telangana on 15th September.

West India: Light/moderate fairly widespread to widespread rainfall/thunderstorm & lightning with **isolated heavy rainfall** very likely over Konkan & Goa, ghat areas of Madhya Maharashtra during 15th-19th and Marathwada during 15th-17th September; Gujarat Region during 16th-19th and Saurashtra during 17th-19th September.

Isolated very heavy rainfall very likely over Konkan & Goa, ghat areas of Madhya Maharashtra, Gujarat Region during 16th-19th; over Saurashtra & Kutch on 19th and Marathwada on 16th September.

Northeast India: Light/moderate scattered to fairly widespread rainfall/thunderstorm activity very likely over Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura on 15th September.

Main Weather Observations:

- ❖ **Rainfall distribution** (from 0830 hours IST to 1730 hours IST of yesterday): **at most places** over Kerala & Mahe; **at many places** over Uttarakhand, Odisha and Konkan & Goa; ; **at a few places** over Nagaland, Manipur, Mizoram & Tripura, Sub-Himalayan West Bengal & Sikkim, East Rajasthan, Gujarat Region, Madhya Pradesh, Vidarbha and Chhattisgarh and **at isolated places** over Arunachal Pradesh, Assam & Meghalaya, Gangetic West Bengal, Bihar, Uttar Pradesh, Himachal Pradesh, Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Punjab, Haryana-Chandigarh-Delhi, West Rajasthan, Saurashtra & Kutch, Telangana, Madhya Maharashtra, Interior Karnataka, Tamil Nadu, Puducherry & Karaikal and Lakshadweep.
- ❖ **Significant rainfall recorded** (from 0830 hours IST to 1730 hours IST of today): **(in cm)**: Assam & Meghalaya: Khasi Hills-3; Nagaland, Manipur, Mizoram & Tripura: Kolasib-5; Saina-4; Sakshi, Aizal and Serchhip-2; Gangetic West Bengal: Kolhala-1; Panganas-2; Jharkhand: Purulia-8; Khunti-3; Uttarakhand: Dehradun and Rudraprayag-2 each; Almora-3; Udham Singh Nagar-2; Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad: Jammu-2; West Rajasthan: Jalore-3; East Rajasthan: Bundi and Buran-1 each; gr-1 each; Gujarat Region: Narmada-2; East Madhya Pradesh: Panna and Baloghat-5 each; West Madhya Pradesh: Harda-5; Khandwa-3; West Uttar Pradesh: Jhansi-5; Vidarbha: Buldana and Godchiroli-2 each; Kerala & Mahe: Kasaragod-3; Kannur and Idukki-4 each; Odisha: Balangir-12; Kendujhar-6; Balasore-3; Cuttak-2; Chhattisgarh:, Kabirdham, Rajnanadan gaon and Dharmtri-4; Raipur-2; Garidband and Bijapur-2 each; Telangana: Rangareddy-1; Konkan & Goa: Raigad and Goa-3 each; Dapoli-2; Madhya Maharashtra: Jalgaon and Buldana -2each.
- ❖ **Yesterday's Heavy to very heavy rainfall** at isolated places over Odisha and **heavy rainfall** at isolated places Jharkhand
- ❖ **Minimum Temperature Departures (as on 14-09-2023)**: Minimum temperatures were **appreciably above normal (3.1°C to 5.0°C)** at most places over Punjab and Himachal Pradesh; at many places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Haryana-Chandigarh-Delhi; at a few places over Uttarakhand, West Rajasthan; at isolated places over West Uttar Pradesh and **above normal (1.6°C to 3.0°C)** at most places over East Rajasthan, East Uttar Pradesh; at a few places over Sub-Himalaya West Bengal & Sikkim, Saurashtra & Kutch and at isolated places over Bihar, Arunachal Pradesh, Assam & Meghalaya, Madhya Pradesh, Marathwada, Tamil Nadu, Puducherry & Karaikal and **near normal** over rest parts of the country. Yesterday, **the lowest minimum temperature of 20.0°C** is reported at **Dhar (West Madhya Pradesh)** over the plains of the country.
- ❖ **Maximum Temperature Departures (as on 14-09-2023)**: Maximum temperatures were **markedly above normal(5.1°C to more)** at many places over Arunachal Pradesh and at isolated places over Assam & Meghalaya and Himachal Pradesh; **appreciably above normal (3.1°C to 5.0°C)** at a few places over Sub-Himalayan West Bengal & Sikkim and at isolated places over Haryana-Chandigarh-Delhi, Uttarakhand, Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad and Nagaland, Manipur, Mizoram & Tripura; **above normal (1.6°C to 3.0°C)** at most places over Punjab and West Uttar Pradesh; at a few places over East Uttar Pradesh and Saurashtra & Kutch and at isolated places over East Madhya Pradesh, Bihar, North & South Interior Karnataka, Rajasthan, Gujarat Region, Konkan & Goa, Madhya Maharashtra and Tamil Nadu, Puducherry & Karaikal. They were **markedly above normal (-5.1°C to less)** at isolated places over West Madhya Pradesh; **appreciably below normal (-3.1°C to -5.0°C)** at a few places over Marathwada and Gangetic West Bengal and at isolated places over Telangana, Chhattisgarh and Odisha; **below normal (-1.6°C to -3.0°C)** at many places over Andaman & Nicobar Islands and at isolated places over Jharkhand, Coastal Andhra Pradesh & Yanam and Vidarbha and **near normal** over rest parts of the country. Yesterday, **the highest maximum temperature of 40.0°C** was reported at **Churu (West Rajasthan)**.

* 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 **Well Marked Low Pressure Area** over north Odisha & neighbourhood now lies over north Chhattisgarh & neighbourhood and the associated cyclonic circulation extends upto 7.6 km above mean sea level tilting southwestwards with height. It is likely to move across East Madhya Pradesh during next 24 hours.
- ❖ The **Monsoon Trough** at mean sea level now passes through Bikaner, Kota, Guna, Satna, centre of Well Marked Low Pressure Area over north Chhattisgarh, Jamshedpur, Digha and thence east-southeastwards to Northeast Bay of Bengal.
- ❖ The **cyclonic circulation** over southeast Uttar Pradesh & adjoining northeast Madhya Pradesh at 0.9 km above mean sea level has merged with cyclonic circulation associated with Well Marked Low Pressure Area over north Chhattisgarh.
- ❖ The **trough** now runs from northeast Rajasthan to centre of **Well Marked Low Pressure Area** over north Chhattisgarh & neighbourhood across north Madhya Pradesh, at 1.5 km above mean sea level.
- ❖ The **cyclonic circulation** over northeast Rajasthan & neighbourhood at 0.9 km above mean sea level has become less marked.
- ❖ A fresh **Western Disturbance** is likely to affect Northwest India from the night of 15th September, 2023.

Weather Forecast for next 5 days (Upto 0830 hours IST of 20th 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	15-Sep	16-Sep	17-Sep	18-Sep	19-Sep	20-Sep	21-Sep
		Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
1	ANDAMAN & NICOBAR ISLANDS	WS	WS	WS	WS	WS	WS	SCT
2	ARUNACHAL PRADESH	SCT	SCT	SCT	SCT	FWS	FWS	WS
3	ASSAM & MEGHALAYA	SCT	SCT	SCT	FWS	FWS	FWS	WS
4	NAGALAND, MANIPUR, MIZORAM & TRIPURA	SCT	SCT	SCT	FWS	FWS	FWS	WS
5	SUB-HIMALAYAN WEST BENGAL & SIKKIM	SCT	SCT	SCT	SCT	SCT	SCT	WS
6	GANGETIC WEST BENGAL	FWS	SCT	SCT	FWS	FWS	FWS	WS
7	ODISHA	FWS	SCT	SCT	FWS	WS	WS	WS
8	JHARKHAND	WS	FWS	SCT	SCT	FWS	FWS	WS
9	BIHAR	SCT	SCT	SCT	SCT	SCT	SCT	FWS
10	EAST UTTAR PRADESH	SCT	SCT	SCT	SCT	SCT	ISOL	FWS
11	WEST UTTAR PRADESH	FWS	SCT	ISOL	ISOL	ISOL	ISOL	FWS
12	UTTARAKHAND	WS	FWS	FWS	SCT	SCT	SCT	FWS
13	HARYANA CHANDIGARH & DELHI	WS	SCT	ISOL	ISOL	ISOL	ISOL	ISOL
14	PUNJAB	SCT	SCT	SCT	ISOL	ISOL	ISOL	ISOL
15	HIMACHAL PRADESH	FWS	SCT	SCT	ISOL	ISOL	ISOL	ISOL
16	JAMMU & KASHMIR AND LADAKH	SCT	SCT	SCT	ISOL	DRY	DRY	ISOL
17	WEST RAJASTHAN	SCT	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
18	EAST RAJASTHAN	FWS	FWS	FWS	SCT	SCT	SCT	SCT
19	WEST MADHYA PRADESH	WS	WS	WS	FWS	SCT	SCT	FWS
20	EAST MADHYA PRADESH	WS	WS	FWS	SCT	SCT	SCT	FWS
21	GUJARAT REGION	SCT	FWS	WS	FWS	SCT	SCT	SCT
22	SAURASHTRA & KUTCH	ISOL	ISOL	SCT	SCT	SCT	SCT	SCT
23	KONKAN & GOA	WS	WS	WS	WS	WS	WS	WS
24	MADHYA MAHARASHTRA	FWS	WS	WS	WS	SCT	SCT	FWS
25	MARATHAWADA	WS	WS	FWS	FWS	SCT	SCT	SCT
26	VIDARBHA	WS	WS	WS	FWS	FWS	FWS	FWS
27	CHHATTISGARH	WS	FWS	SCT	SCT	SCT	SCT	FWS
28	COASTAL ANDHRA PRADESH & YANAM	SCT	FWS	FWS	FWS	SCT	SCT	FWS
29	TELANGANA	FWS	FWS	SCT	SCT	SCT	SCT	FWS
30	RAYALASEEMA	ISOL	ISOL	ISOL	SCT	SCT	ISOL	FWS
31	TAMILNADU PUDUCHERRY & KARAIKAL	ISOL	SCT	SCT	ISOL	ISOL	ISOL	FWS
32	COASTAL KARNATAKA	WS	WS	WS	WS	FWS	FWS	FWS
33	NORTH INTERIOR KARNATAKA	ISOL	FWS	FWS	FWS	FWS	FWS	FWS
34	SOUTH INTERIOR KARNATAKA	SCT	FWS	FWS	SCT	SCT	SCT	FWS
35	KERALA & MAHE	FWS	FWS	FWS	FWS	FWS	FWS	FWS
36	LAKSHADWEEP	FWS	FWS	FWS	FWS	SCT	SCT	FWS

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

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Fig. 1: Maximum Temperatures Dated 14.09.2023

Fig. 2: Departure of Maximum Temp. Dated 14.09.2023

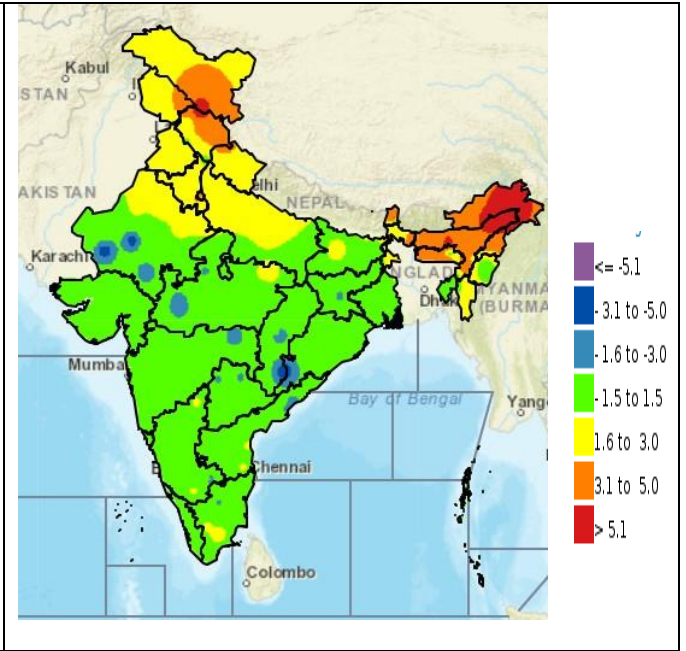
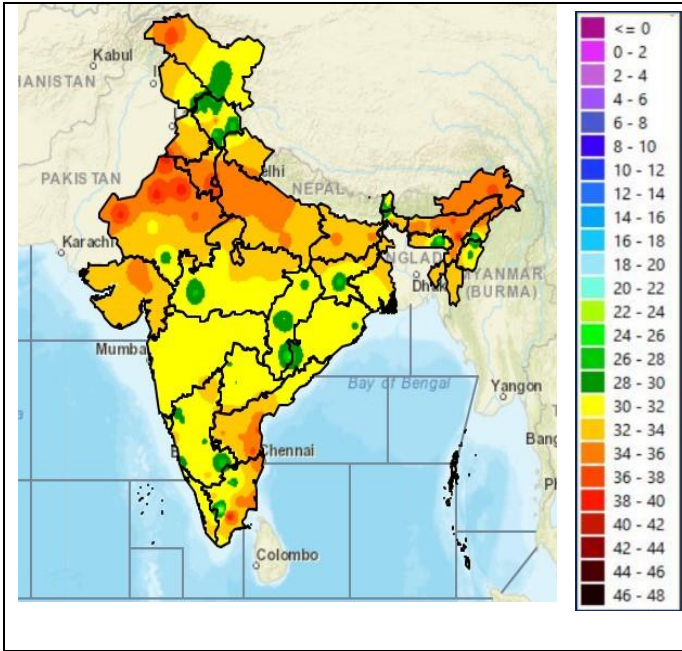


Fig. 3: Minimum Temperatures Dated 14.09.2023

Fig. 4: Departure of Minimum Temp. Dated 14.09.2023

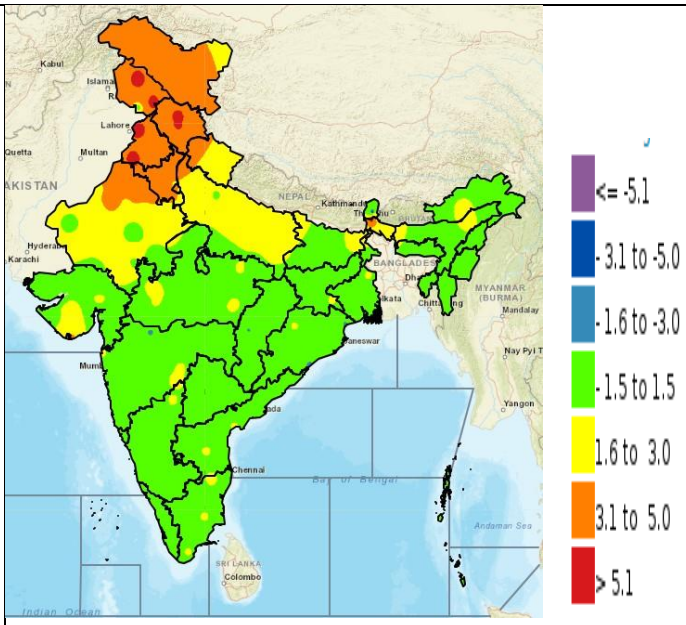
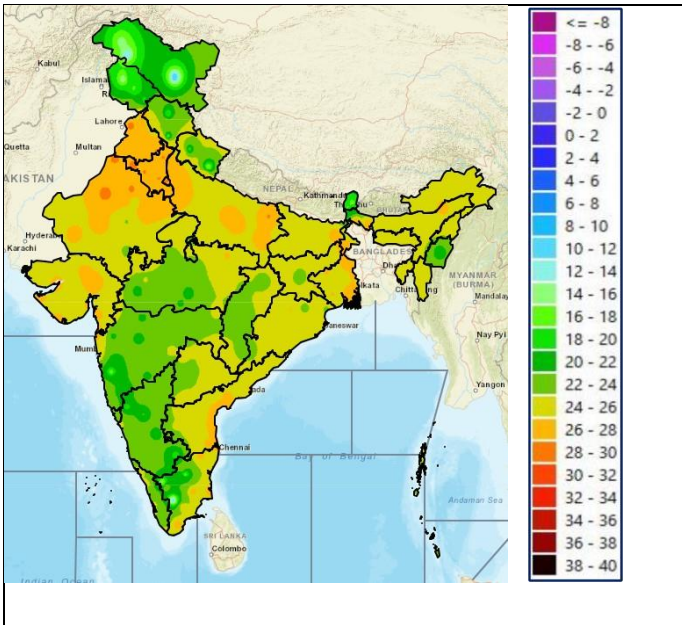
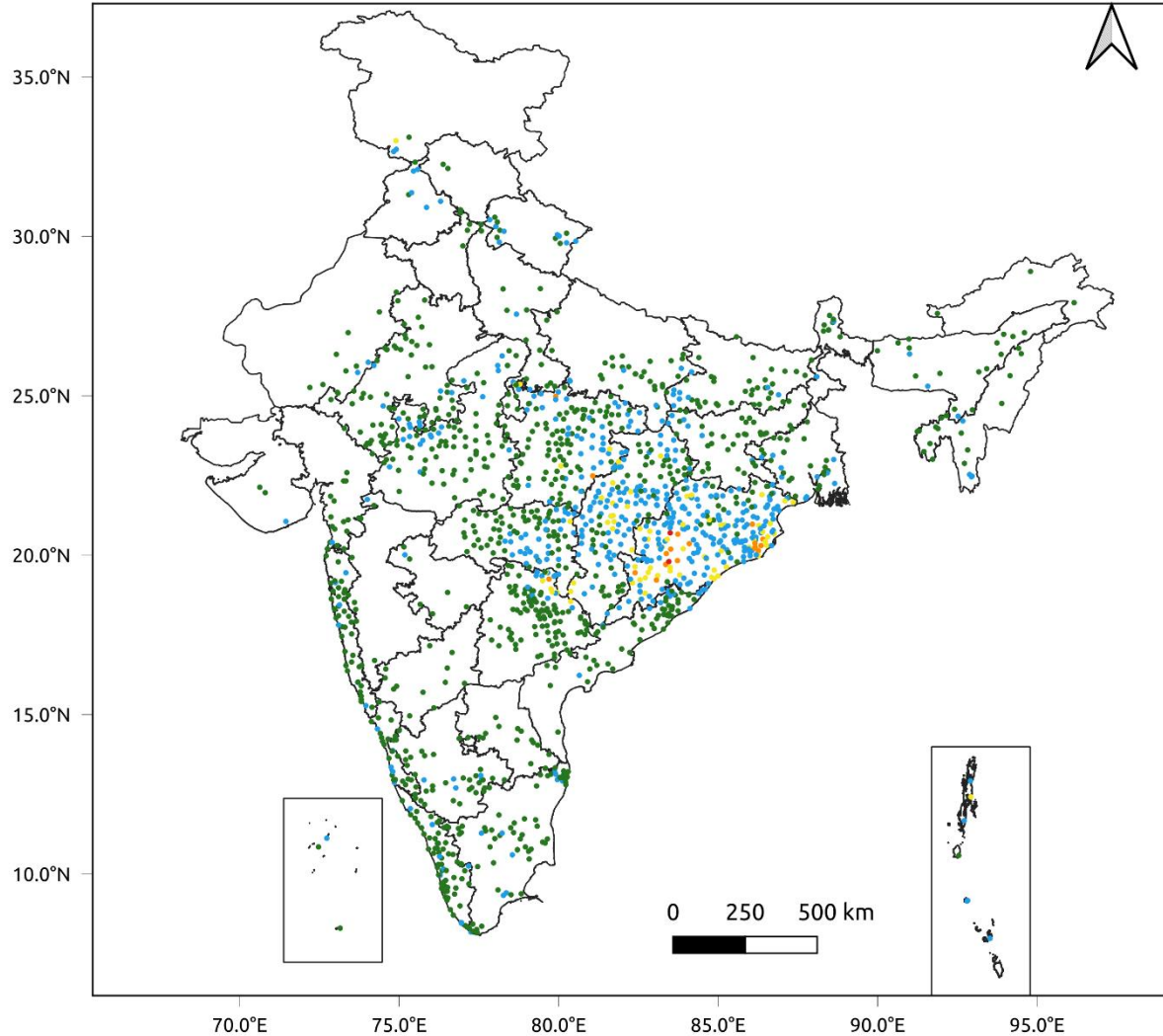


Fig. 5: Accumulated Rainfall (mm) during past 24 hours

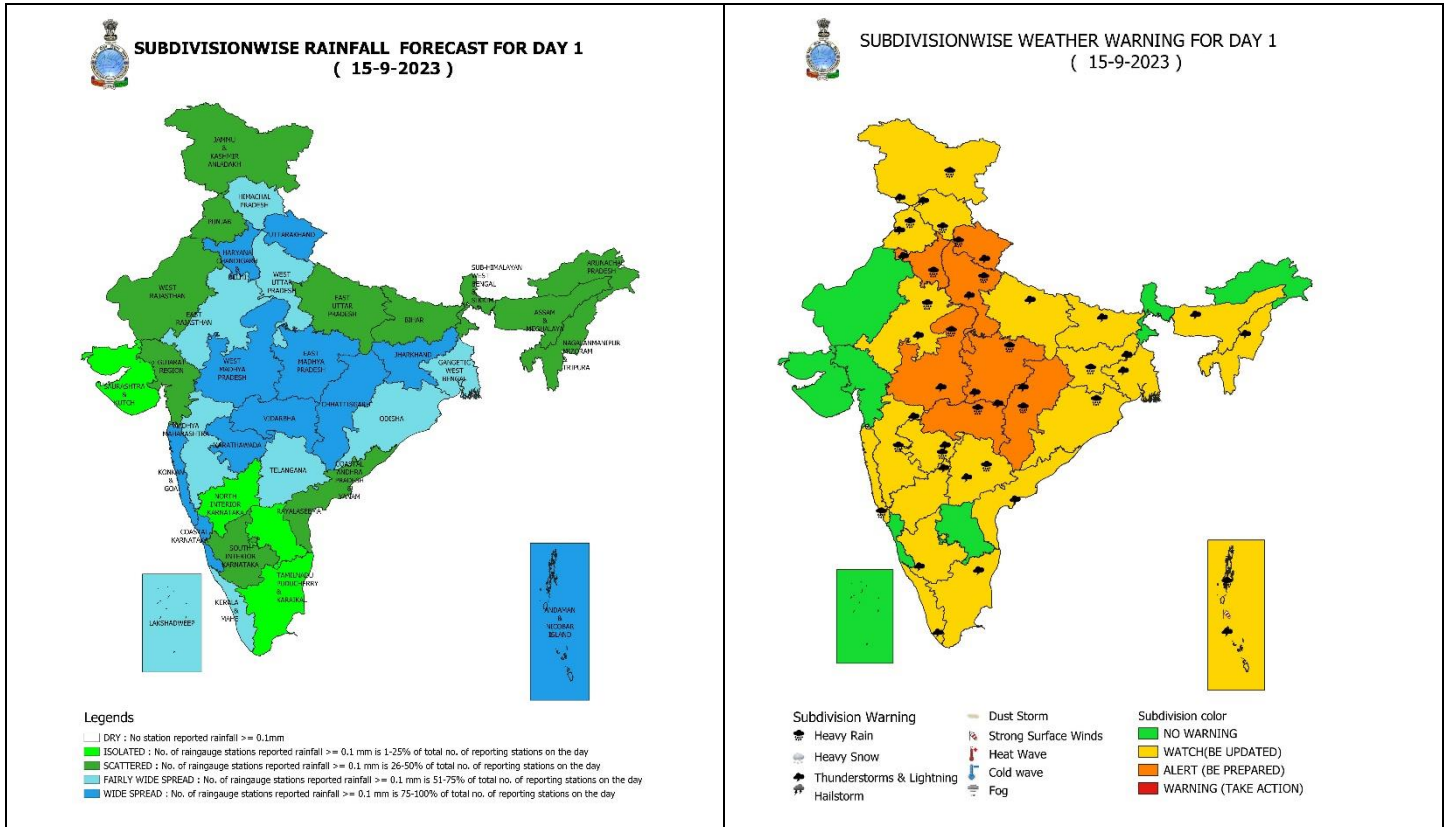


24 Hr cumulative rainfall recorded over different stations during 0830 IST of 13-9-2023 to 0830 IST of 14-9-2023



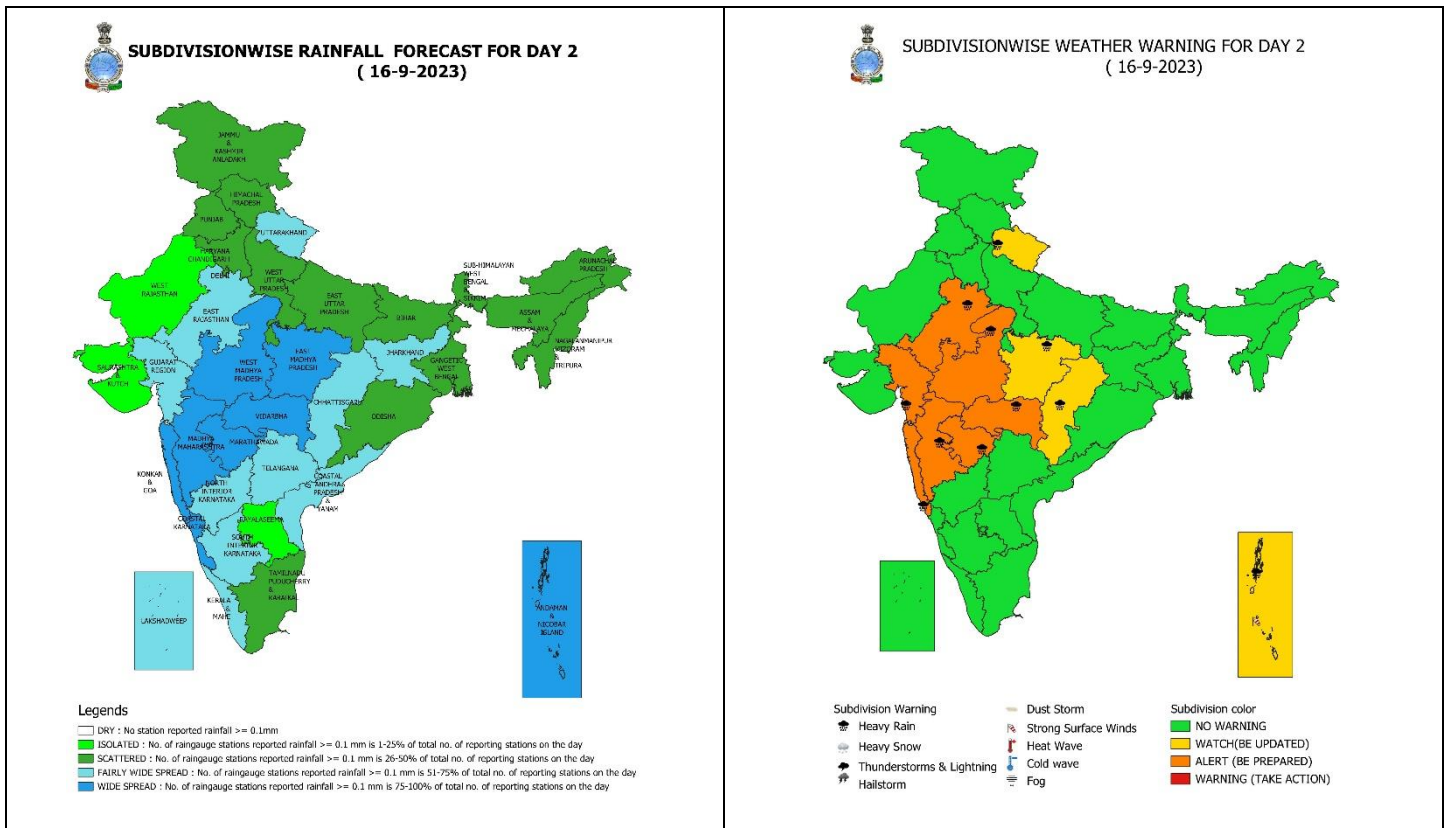
Legends

- 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)



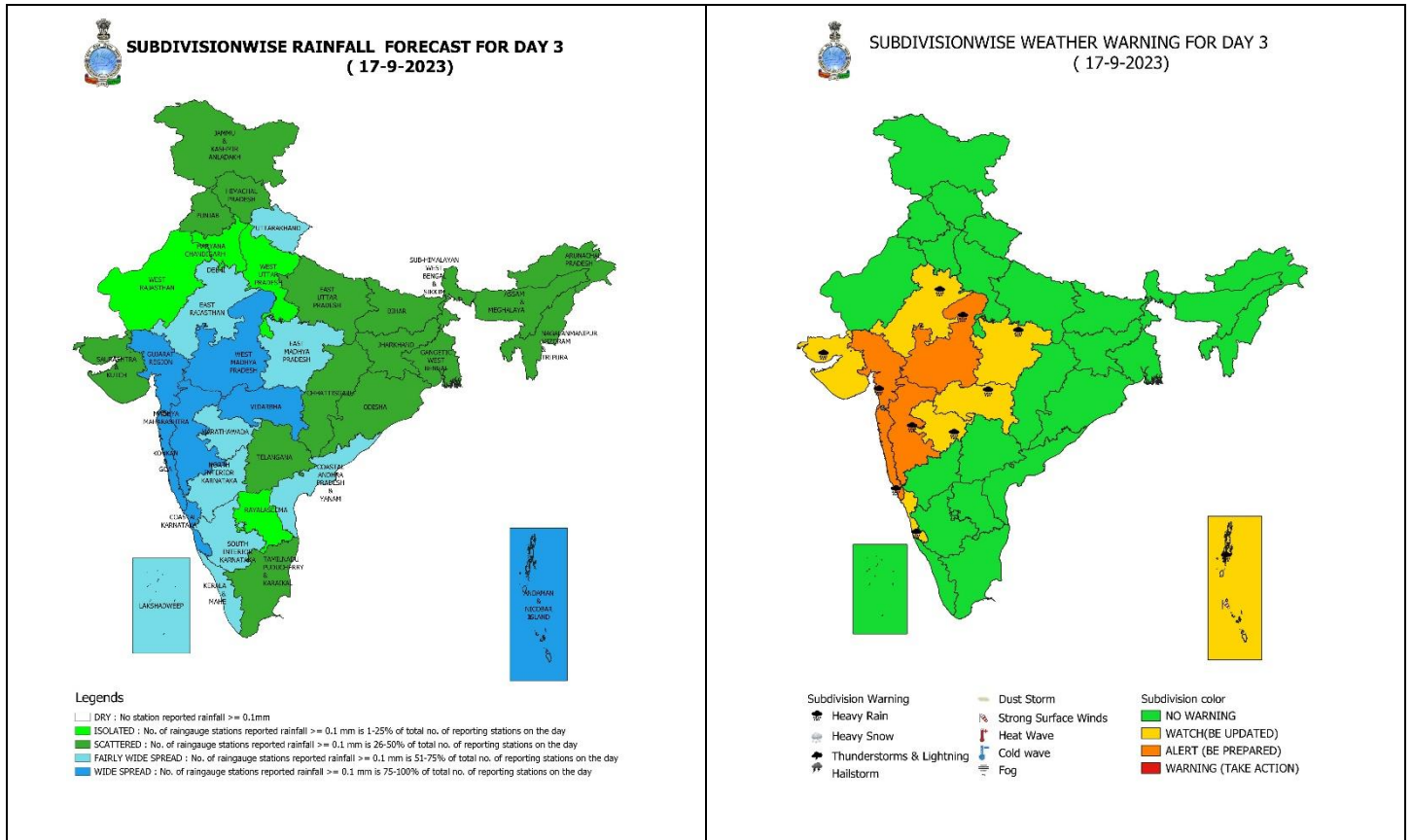
15 September (Day 1): -

- ❖ **Heavy to very heavy rainfall** very likely at isolated places over West Uttar Pradesh, Haryana, Uttarakhand, Madhya Pradesh, Vidarbha and Chhattisgarh and **heavy rainfall** at isolated places over Himachal Pradesh, Jammu division, Delhi, Gangetic West Bengal, East Rajasthan, Odisha, Jharkhand, Andaman & Nicobar Islands, Konkan & Goa, ghat areas of Madhya Maharashtra, Marathwada and Telangana.
- ❖ **Thunderstorm with lightning & gusty winds (speed 40-50 kmph gusting to 60 kmph)** very likely at isolated places over Haryana, Delhi and West Uttar Pradesh; **with lightning & gusty winds (speed 30-40 kmph)** very likely at isolated places over Uttarakhand, East Rajasthan, Andaman & Nicobar Islands and Kerala & Mahe and **with lightning** at isolated places over Himachal Pradesh, Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, north Punjab, Chandigarh, Uttar Pradesh, Madhya Pradesh, Chhattisgarh, Vidarbha, Gangetic West Bengal, Jharkhand, Bihar, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Madhya Maharashtra, Marathwada, Coastal Andhra Pradesh & Yanam, Telangana, Interior Karnataka and Tamil Nadu, Puducherry & Karaikal.
- ❖ **Squally wind speed of 45-55 kmph gusting to 65 kmph** very likely over Southwest and adjoining Westcentral Arabian Sea and Westcentral Bay of Bengal and **Squally weather** (wind speed reaching 40-45 kmph gusting to 55 kmph) over South and adjoining central Bay of Bengal and north Andaman Sea. **Fishermen are advised not to venture into these areas.**



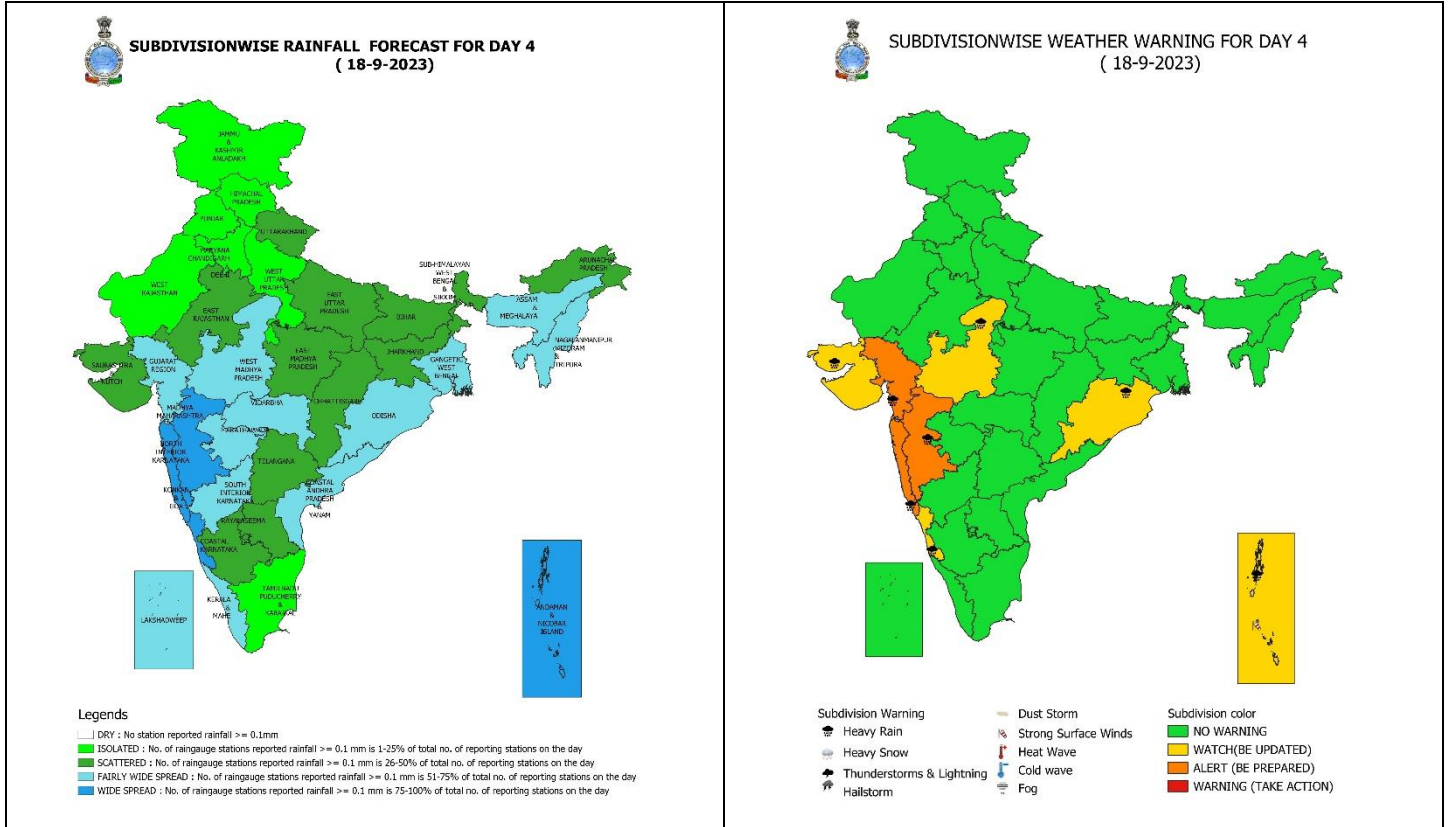
16 September (Day 2): -

- ❖ **Heavy to very heavy rainfall** very likely at isolated places over East Rajasthan, West Madhya Pradesh, Vidarbha, Konkan & Goa, ghat areas of Madhya Maharashtra, Marathwada and Gujarat Region and **heavy rainfall** at isolated places over Uttarakhand, East Madhya Pradesh, Chhattisgarh and Andaman & Nicobar Islands.
- ❖ **Thunderstorm with lightning & gusty winds (speed 30-40 kmph)** very likely at isolated places over Andaman & Nicobar Islands and **with lightning** at isolated places over Uttarakhand, East Uttar Pradesh, East Rajasthan, Madhya Pradesh, Chhattisgarh, Vidarbha, Jharkhand, Konkan & Goa, Madhya Maharashtra, Marathwada, Gujarat state, Coastal Andhra Pradesh & Yanam, Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe.
- ❖ **Squally wind speed of 45-55 kmph gusting to 65 kmph** very likely over Southwest and adjoining Westcentral Arabian Sea and **Squally weather** (wind speed reaching 40-45 kmph gusting to 55 kmph) over Southwest & adjoining Southeast Bay of Bengal and north Andaman Sea. **Fishermen are advised not to venture into these areas.**



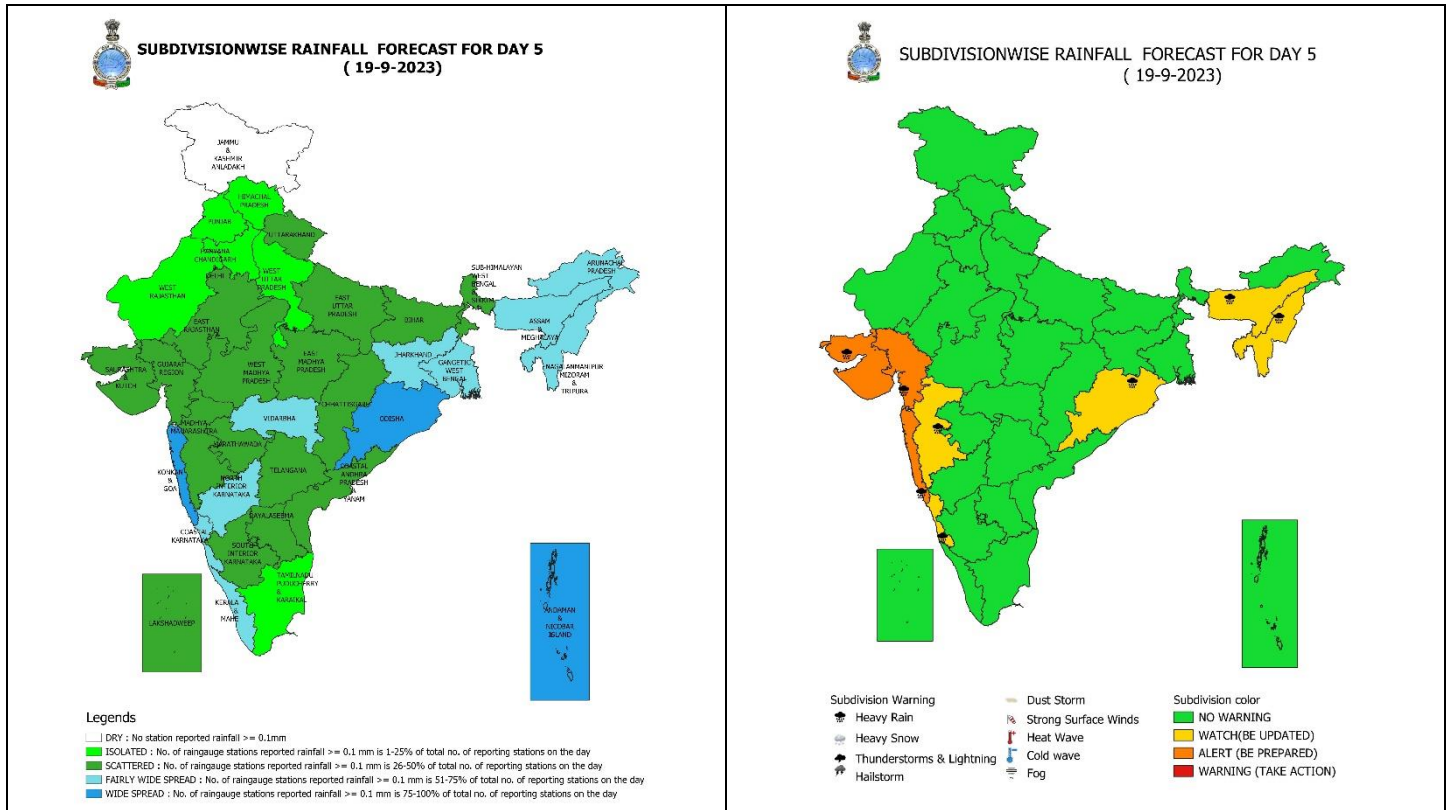
17 September (Day 3): -

- ❖ **Heavy to very heavy rainfall** likely at isolated places over West Madhya Pradesh, Konkan & Goa, ghat areas of Madhya Maharashtra and Gujarat Region and **heavy rainfall** at isolated places over East Rajasthan, East Madhya Pradesh, Vidarbha, Andaman & Nicobar Islands, Marathwada and Saurashtra & Kutch.
- ❖ **Thunderstorm with lightning & gusty winds (speed 30-40 kmph)** likely at isolated places over Andaman & Nicobar Islands and **with lightning** at isolated places over Uttarakhand, East Uttar Pradesh, East Rajasthan, Konkan & Goa, Madhya Maharashtra, Gujarat state, Coastal Andhra Pradesh & Yanam, Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe.
- ❖ **Squally wind speed of 45-55 kmph gusting to 65 kmph** likely over Southwest and adjoining Westcentral Arabian Sea and **Squally weather** (wind speed reaching 40-45 kmph gusting to 55 kmph) over South and adjoining central Bay of Bengal and north Andaman Sea. **Fishermen are advised not to venture into these areas.**



18 September (Day 4): -

- ❖ **Heavy to very heavy rainfall** likely at isolated places over Konkan & Goa, ghat areas of Madhya Maharashtra and Gujarat Region and **heavy rainfall** at isolated places over West Madhya Pradesh, Andaman & Nicobar Islands, Odisha and Saurashtra & Kutch.
- ❖ **Thunderstorm with lightning & gusty winds (speed 30-40 kmph)** likely at isolated places over Andaman & Nicobar Islands and **with lightning** at isolated places over Coastal Andhra Pradesh & Yanam.
- ❖ **Squally wind speed of 45-55 kmph gusting to 65 kmph** likely over Southwest and adjoining Westcentral Arabian Sea and **Squally weather** (wind speed reaching 40-45 kmph gusting to 55 kmph) over South and adjoining central Bay of Bengal and north Andaman Sea. **Fishermen are advised not to venture into these areas.**



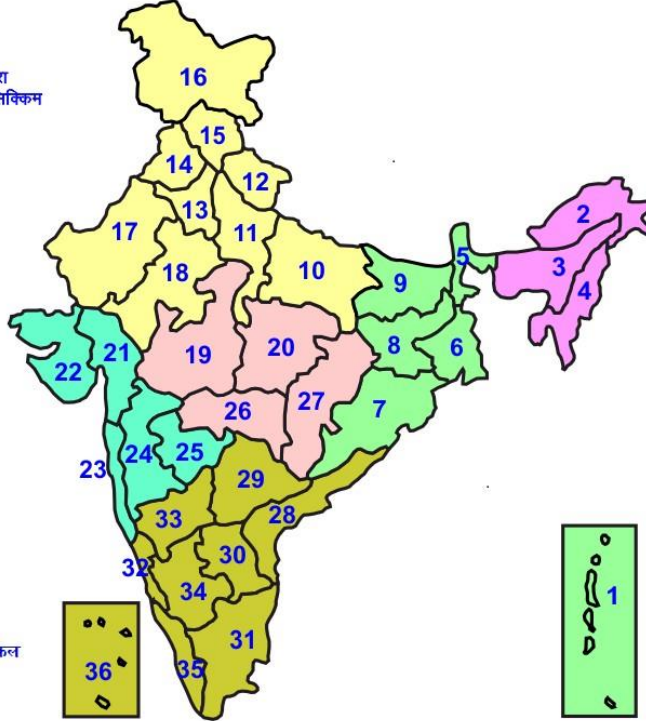
19 September (Day 5): -

- ❖ **Heavy to very heavy rainfall** likely at isolated places over Konkan & Goa and Gujarat state and **heavy rainfall** at isolated places over ghat areas of Madhya Maharashtra, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura and Odisha.
- ❖ **Thunderstorm with lightning & gusty winds (speed 30-40 kmph)** likely at isolated places over Andaman & Nicobar Islands and **with lightning** at isolated places over Coastal Andhra Pradesh & Yanam.
- ❖ **Squally wind speed of 45-55 kmph gusting to 65 kmph** likely over Southwest and adjoining Westcentral Arabian Sea and **Squally weather** (wind speed reaching 40-45 kmph gusting to 55 kmph) over South and adjoining central Bay of Bengal and north Andaman 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 माले
- 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

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



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°C to 6.4°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°C

Warm Night: When minimum temperature departure 4.5°C to 6.4°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°C to -6.4°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°C to -6.4°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)