



Monday, September 18, 2023
Time of Issue: 1315 hours IST
(MID-DAY)

ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

Significant Weather Features

Significant Weather features:

- ❖ Yesterday's Low-Pressure Area over Southeast Rajasthan & neighbourhood has become less marked. However, the associated cyclonic circulation now lies over East Rajasthan & neighbourhood in lower & middle tropospheric levels. A trough runs from this cyclonic circulation to northeast Arabian Sea in lower tropospheric levels.
- ❖ Another cyclonic circulation lies over Northeast & adjoining Eastcentral Bay of Bengal Sea in lower & middle tropospheric levels. Under its influence, a Low-Pressure Area likely to form over northwest Bay of Bengal & neighbourhood during next 48 hours.
- ❖ The Monsoon Trough lies south to its normal position.
- ❖ **A Western Disturbance** as a trough in middle tropospheric westerlies runs roughly along Long. 70°E to the north of Lat. 28°N.

Weather Forecast and Warnings:

West India: Light/moderate fairly widespread to widespread rainfall/thunderstorm & lightning with **isolated heavy to very heavy rainfall** very likely over Gujarat Region & south Rajasthan on 18th & 19th and north Konkan, north Madhya Maharashtra on 18th September.

❖ **Isolated extremely heavy rainfall very likely over Gujarat state on 18th; very heavy rainfall on 19th and heavy to very heavy rainfall over south Rajasthan on 18th September.**

Northwest India: Light/moderate scattered to fairly widespread rainfall/thunderstorm with **isolated heavy falls** very likely over Jammu division and Himachal Pradesh on 18th September.

East India: Light/moderate fairly widespread to widespread rainfall/thunderstorm & lightning with **isolated heavy rainfall** very likely over Sub-Himalayan West Bengal & Sikkim, Jharkhand during 20th-22nd, Gangetic West Bengal on 18th, 21th & 22nd; over Odisha during 18th – 21st and Bihar on 21st & 22nd September.

Isolated very heavy rainfall very likely over Odisha on 20th & 21st 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 during 18th-22nd and over Arunachal Pradesh during 20th-22nd September.

Isolated very heavy rainfall very likely over Assam, Meghalaya, Nagaland & Manipur during 20th-22nd and over Arunachal Pradesh on 21st & 22nd September.

Central India: Light/moderate fairly widespread to widespread rainfall/thunderstorm & lightning with **isolated heavy rainfall** very likely over Chhattisgarh during 20th-22nd September.

South India: Light/moderate fairly widespread to widespread rainfall with **isolated heavy rainfall** very likely over interior Tamil Nadu and Kerala on 18th September.

* Red color warning does not mean "Red Alert" Red color warning means "Take Action".

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Main Weather Observations:

- ❖ **Rainfall distribution** (from 0830 hours IST of yesterday to 0830 hours IST of today): **at most places** over Andaman & Nicobar Islands, Punjab, East Rajasthan, Gujarat Region, Konkan & Goa, Coastal Karnataka, Kerala & Mahe; **at many places** over Nagaland, Manipur, Mizoram & Tripura, Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, West Rajasthan, Saurashtra & Kutch, Madhya Maharashtra, Tamil Nadu, Puducherry & Karaikal, South Interior Karnataka, Lakshadweep; **at a few places** over Haryana-Chandigarh-Delhi, Uttarakhand, West Uttar Pradesh, Odisha, Vidarbha, North Interior Karnataka, Coastal Andhra Pradesh & Yanam and **at isolated places** over Arunachal Pradesh, Assam & Meghalaya, West Bengal & Sikkim, Bihar, Jharkhand, East Uttar Pradesh, East Madhya Pradesh, Marathwada, Chhattisgarh, Telangana and Rayalaseema.
- ❖ **Significant rainfall recorded** (from 0830 hours IST of yesterday to 0830 hours IST of today) **(in cm): Gujarat Region:** Godhra (dist Panchmahal) 24, Shahera (dist Panchmahal) 23, Virpur (dist Mahisagar) 23, Talod (dist Sabarkantha) 21, Bayad (dist Aravalli) 21, Dhansura (dist Aravalli) 20, Morva Hadaf (dist Panchmahal) 18, Lunawada (dist Mahisagar) 17, Prantij (dist Sabarkantha) 17, Kapadvanj (dist Kheda) 16, Mahudha (dist Kheda) 15, Limkheda (dist Dahod) 15, Kadi (dist Mehsana) 15, Balasinor (dist Mahisagar) 15, Kathalal (dist Kheda) 14, Wanakbori (dist Mahisagar) 14, Meghraj (dist Aravalli) 13, Mansa (dist Gandhinagar) 13, Nadiad (dist Kheda) 13, Dahegam (dist Gandhinagar) 12, Abad City (dist Ahmedabad) 11, Galteshwar (dist Kheda) 11, Santrampur (dist Mahisagar) 10, Modasa (dist Aravalli) 10, Jambughoda (dist Panchmahal) 9, Desar (dist Vadodara) 9, Singvad (dist Dahod) 9, Umreth (dist Anand) 9, Dhanpur (dist Dahod) 9; East Rajasthan: Nithuwa Sr (dist Dungarpur) 21, Pratapgarh (dist Pratapgarh) 16, Mounntabu Tehsil Sr (dist Sirohi) 13, Bhungra Sr (dist Banswara) 12, Jagpura Sr (dist Banswara) 11, Gogunda Sr (dist Udaipur) 11, Dhariabad (dist Pratapgarh) 10, Ghatol (dist Banswara) 10, Salumber (dist Udaipur) 10, Arnod Sr (dist Pratapgarh) 10, Chhotisadri (dist Pratapgarh) 10, Sarara (dist Udaipur) 10, Jhadol Sr (dist Udaipur) 9, Khushalgarh (dist Banswara) 9, Pipalkhunt Sr (dist Pratapgarh) 7; West Rajasthan: Pali-20, Ahore Sr (dist Jalore) 10, Desuri (dist Pali) 7; Andaman & Nicobar Islnds: HUTBAY- 15, LONG ISLAND- 10, PORT BLAIR- 9; Odisha: Sundargarh (dist Sundargarh) 13; East Madhya Pradesh: Singrauli-aws (dist Singrauli) 12, Mada (dist Singrauli) 8; West Madhya Pradesh: Bajna (dist Ratlam) 12, Jhabua-aws (dist Jhabua) 10, Thandla (dist Jhabua) 9, Kathiwada (dist Alirajpur) 9, Meghnagar (dist Jhabua) 8, Petlawad (dist Jhabua) 7, Sailana (dist Ratlam) 7; Himachal Pradesh: R L Bbmb (dist Bilaspur) 11, Chuari (dist Chamba) 6; Tamil Nadu: Pambar Dam-13, Tiruvannamalai, Krishnagiri, Kallakurichi-12 each, Tiruchirappalli-11, Harur, Villupuram-8 each, Tirupathur-7; Rayalaseema: Kuppam (dist Chittoor) 9; Jammu: Udampur-9; Punjab: Ajanala Arg (dist Amritsar) 9; Konkan: Tala (dist Raigad) 8, Murbad (dist Thane) 6; Saurashtra: Vanthali (dist Junagadh) 7, Dasada (dist Surendranagar) 7; Haryana: Ismailabad (dist Kurukshetra) 7, Jhansa Irr (dist Kurukshetra) 7; Kerala: Venkurinji AWS (Pathanamthitta district) 7, Ernakulam South 6, Urumi AWS (Kozhikode district) 5; Uttar Pradesh: Nawabganj (dist Bareilly) 6, Kakrahi (dist Siddharth Nagar) 5.
- ❖ **Heavy to very heavy rainfall with extremely heavy falls** at isolated places over East Rajasthan, Gujarat region; Heavy to very heavy rainfall at isolated places over Madhya Pradesh, West Rajasthan, Odisha, Tamil Nadu, Andaman & Nicobar Islands and heavy rainfall at isolated places over Jammu, Himachal Pradesh, Punjab, Haryana, Saurashtra, Konkan, Tripura, Jharkhand, Kerala and Rayalaseema.
- ❖ **Minimum Temperature Departures (as on 18-09-2023):** Minimum temperatures are **appreciably above normal (3.1°C to 5.0°C)** at a few places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad and at isolated places over Himachal Pradesh, Sub-Himalayan West Bengal & Sikkim and Odisha; **above normal (1.6°C to 3.0°C)** at many places over Punjab: at a few places over Gangetic West Bengal, Uttarakhand and Coastal Andhra Pradesh & Yanam and at isolated places over Bihar, Jharkhand, Assam & Meghalaya, East Madhya Pradesh, East Uttar Pradesh, West Rajasthan, North Interior Karnataka and Telangana. They are **below normal (-1.6°C to -3.0°C)** at isolated places over East Rajasthan, Tamil Nadu, Puducherry & Karaikal and **near normal** over rest parts of the country. Today, **the lowest minimum temperature** of 16.5°C is reported at **Raisen (West Madhya Pradesh)** over the plains of the country.
- ❖ **Maximum Temperature Departures (as on 17-09-2023):** Maximum temperatures were **appreciably above normal (3.1°C to 5.0°C)** at most places over Assam & Meghalaya, Arunachal Pradesh; at many places over Bihar, Nagaland, Manipur, Mizoram & Tripura; at a few places over Sub-Himalaya West Bengal & Sikkim; **above normal (1.6°C to 3.0°C)** at most places over Gangetic West Bengal; at many places over Jharkhand; at a few places over Odisha, Chhattisgarh, Coastal Andhra Pradesh & Yanam; at isolated places over Telangana, Rayalaseema, East Madhya Pradesh, North Interior Karnataka, East Uttar Pradesh. They were **appreciably below normal (-3.1°C to -5.0°C)** at a few places over East Rajasthan; **below normal (-1.6°C to -3.0°C)** at many places over Uttarakhand, West Uttar Pradesh, East Rajasthan and **near normal** over rest parts of the country. Yesterday, **the highest maximum temperature of 38.6°C** was reported at **Bhagalpur (Bihar)**.

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Meteorological Analysis (Based on 0830 hours IST)

- ❖ The **Low Pressure Area** over Southeast Rajasthan & neighbourhood has become less marked. However, the associated cyclonic circulation now lies over East Rajasthan & neighbourhood & extends upto 7.6 km above mean sea level tilting southwestwards with height.
- ❖ A trough runs from cyclonic circulation over southeast Rajasthan to northeast Arabian Sea and extends upto 1.5 km above mean sea level.
- ❖ The **Monsoon Trough** at mean sea level now passes through Jaisalmer, Ajmer, Shivpuri, Sidhi, Daltonganj, Digha and thence southeast to Eastcentral Bay of Bengal.
- ❖ The **cyclonic circulation** over Eastcentral & adjoining Northeast Bay of Bengal now lies over Northeast & adjoining Eastcentral Bay of Bengal and extends upto 5.8 km above mean sea level. Under its influence, a Low Pressure Area likely to form over northwest Bay of Bengal & neighbourhood during next 48 hours.
- ❖ The **Western Disturbance** as a trough in middle tropospheric westerlies with its axis at 5.8 km above mean sea level now runs roughly along Long. 70°E to the north of Lat. 32°N.

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

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Fig. 1: Maximum Temperatures Dated 17.09.2023

Fig. 2: Departure of Maximum Temp. Dated 17.09.2023

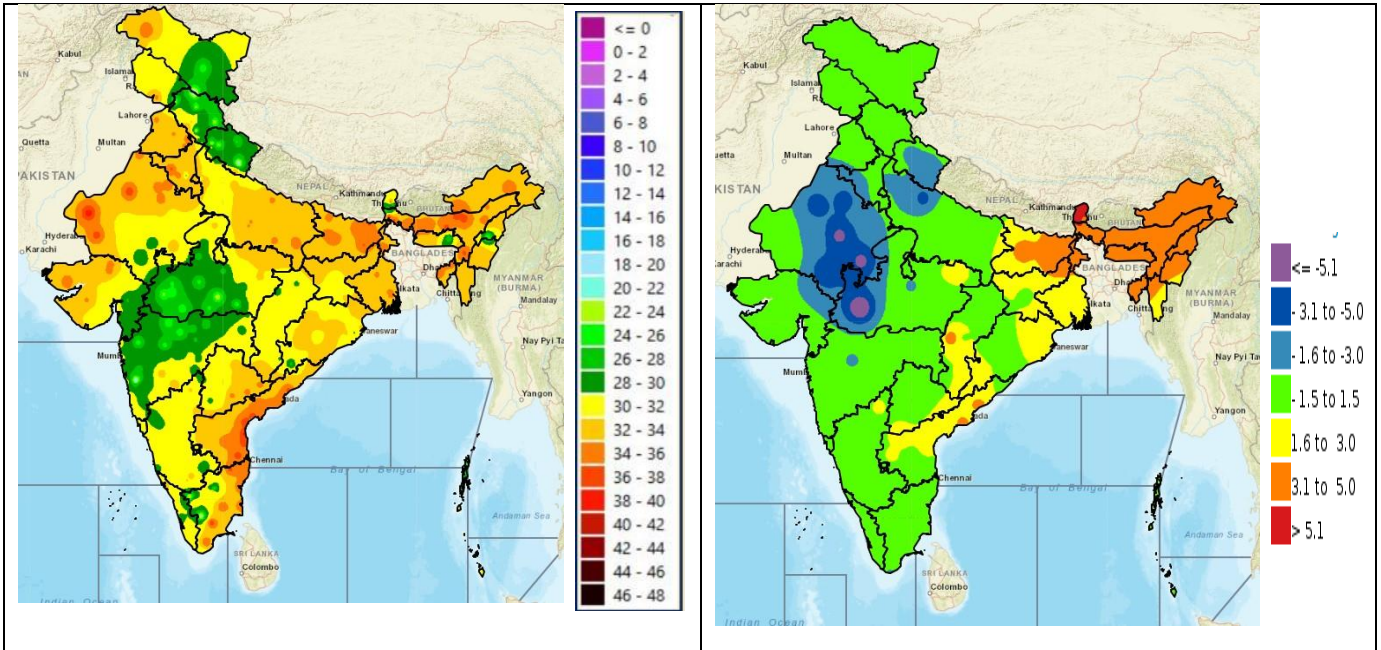


Fig. 3: Minimum Temperatures Dated 18.09.2023

Fig. 4: Departure of Minimum Temp. Dated 18.09.2023

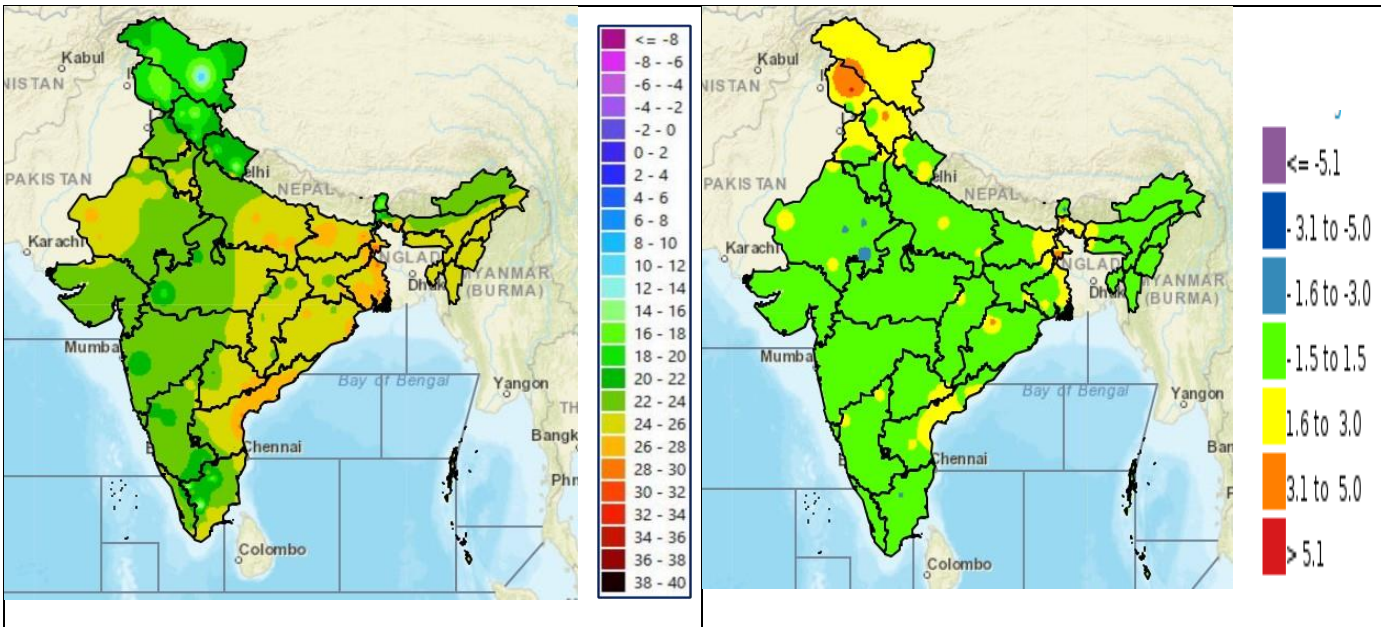
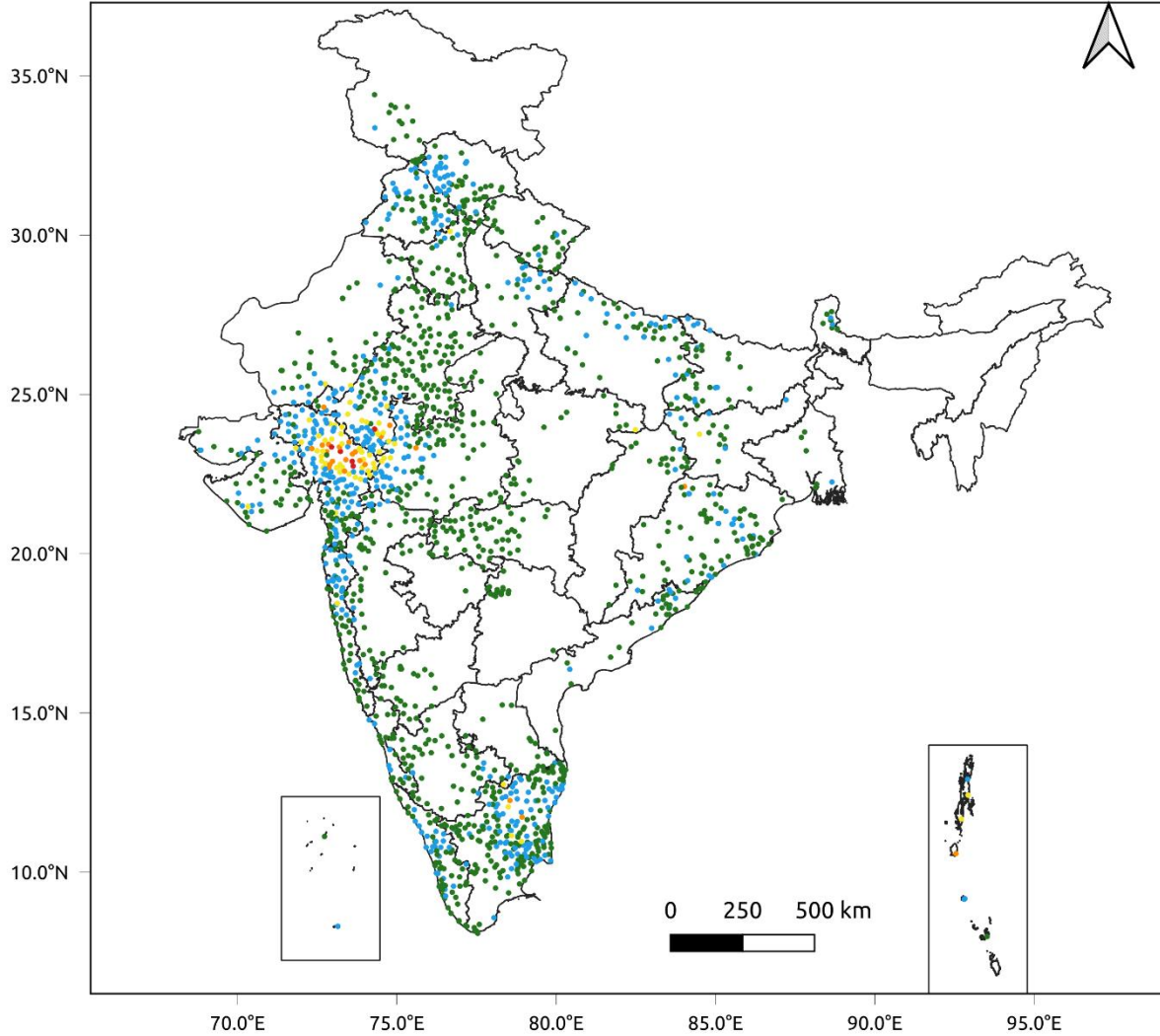


Fig. 5: Accumulated Rainfall (mm) during past 24 hours

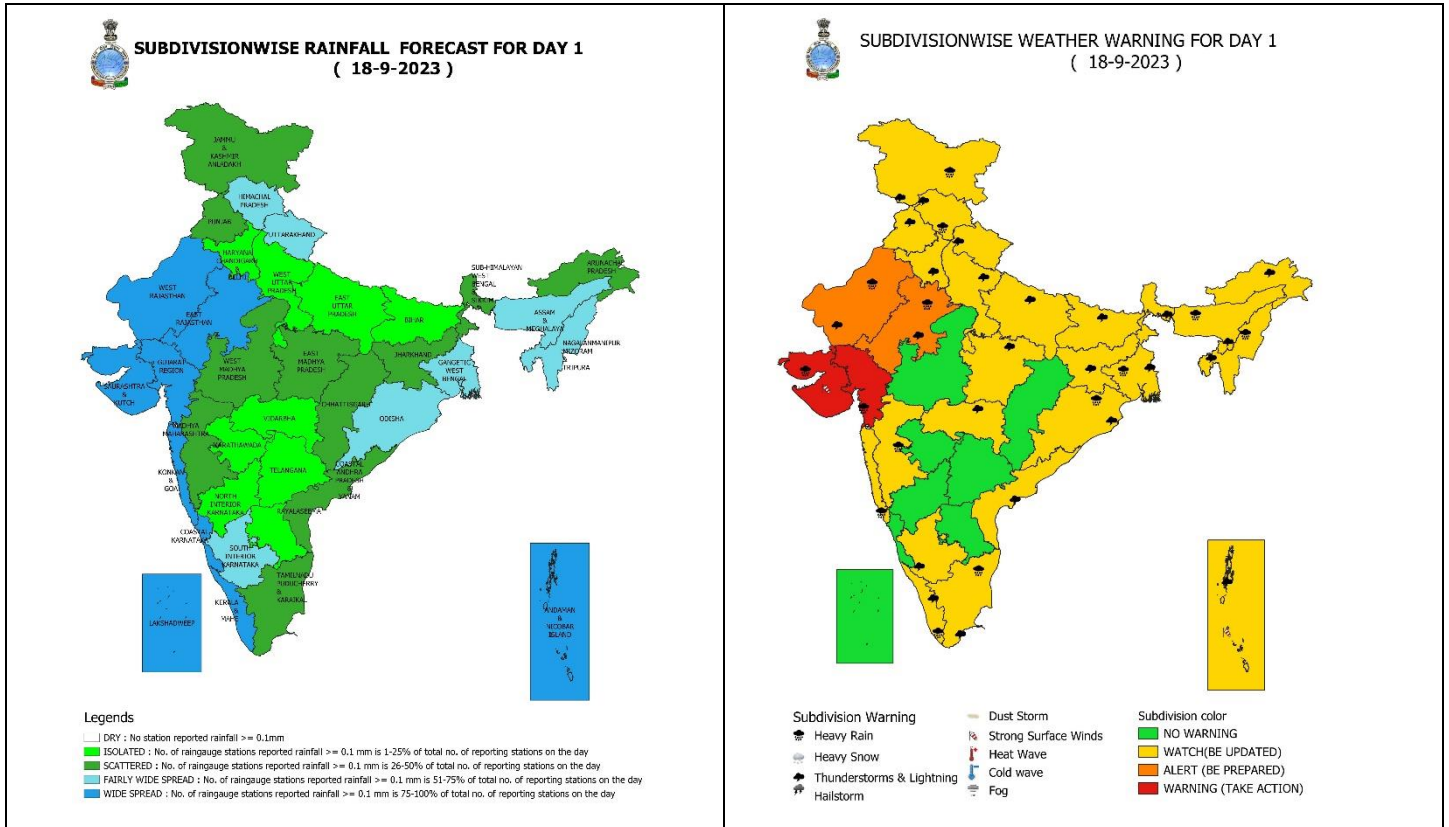


24 Hr cumulative rainfall recorded over different stations during 0830 IST of 17-9-2023 to 0830 IST of 18-9-2023



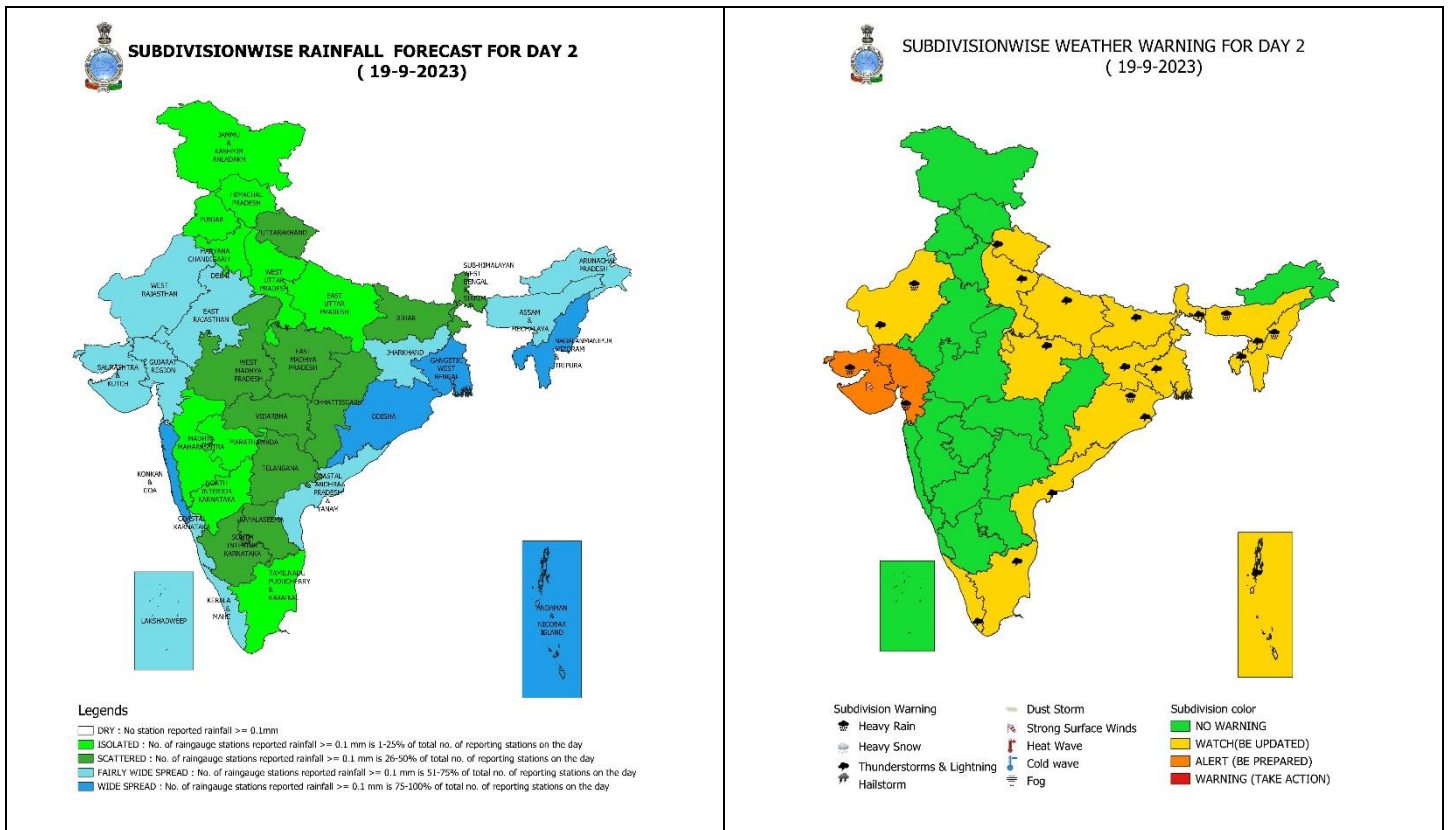
Legends

- 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)



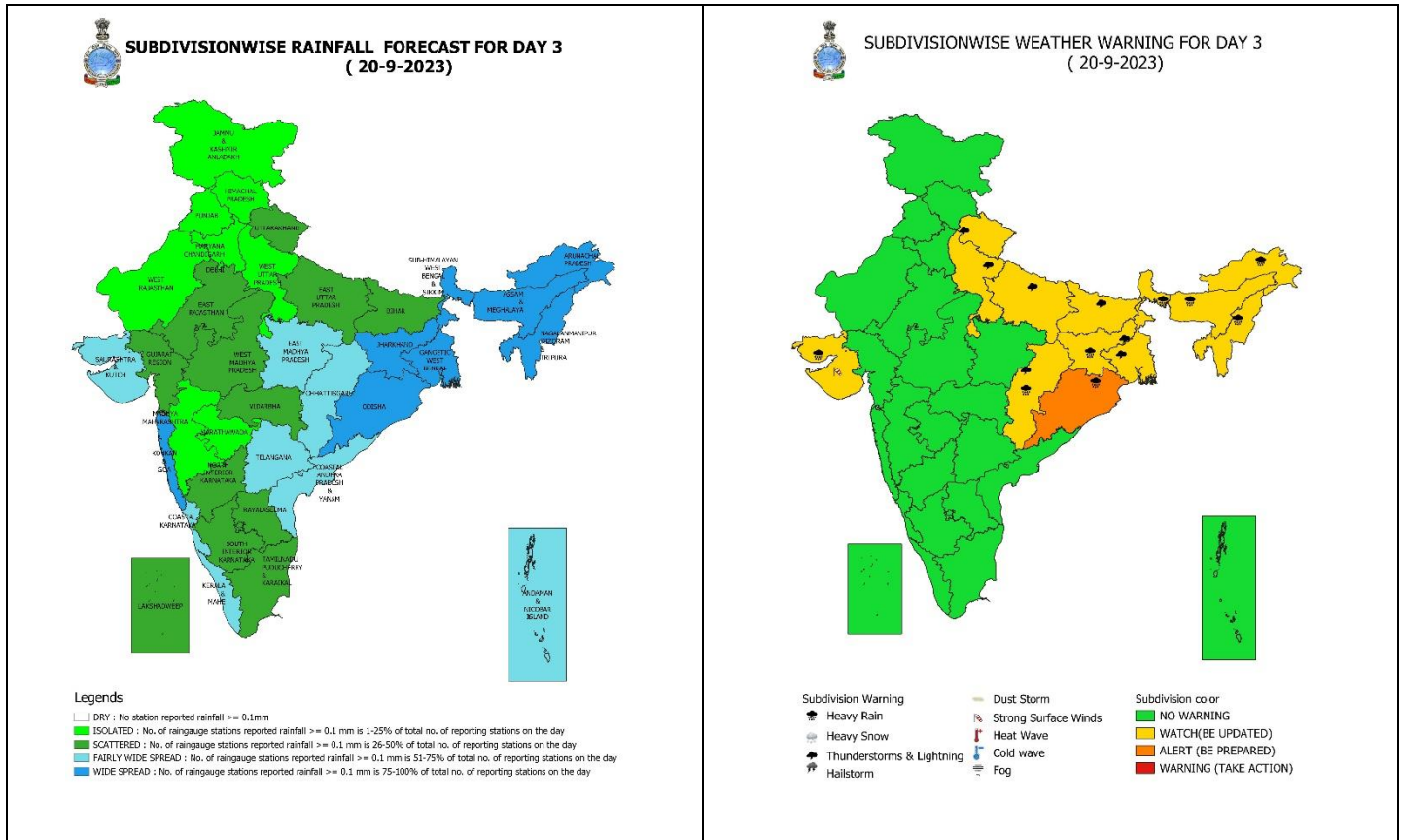
18 September (Day 1): -

- ❖ **Heavy to very heavy rainfall with extremely heavy falls** very likely at isolated places over Gujarat State; **Heavy to very heavy rainfall** at isolated places over south Rajasthan and **heavy rainfall** at isolated places over Himachal Pradesh, Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Gangetic West Bengal, Odisha, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, north Konkan, north Madhya Maharashtra, Tamil Nadu and Kerala.
- ❖ **Thunderstorm with lightning & gusty winds (speed 30-40 kmph)** very likely at isolated places over Andaman & Nicobar Islands and Kerala & Mahe and **with lightning** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Haryana-Chandigarh-Delhi, Punjab, Himachal Pradesh, Uttarakhand, Uttar Pradesh, Rajasthan, East Madhya Pradesh, Vidarbha, West Bengal & Sikkim, Bihar, Jharkhand, Odisha, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Coastal Andhra Pradesh & Yanam, South 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 **Squally weather** (wind speed reaching 40-45 kmph gusting to 55 kmph) over Northeast Arabian Sea along & off Gujarat coast, Central & adjoining north Bay of Bengal. **Fishermen are advised not to venture into these areas.**



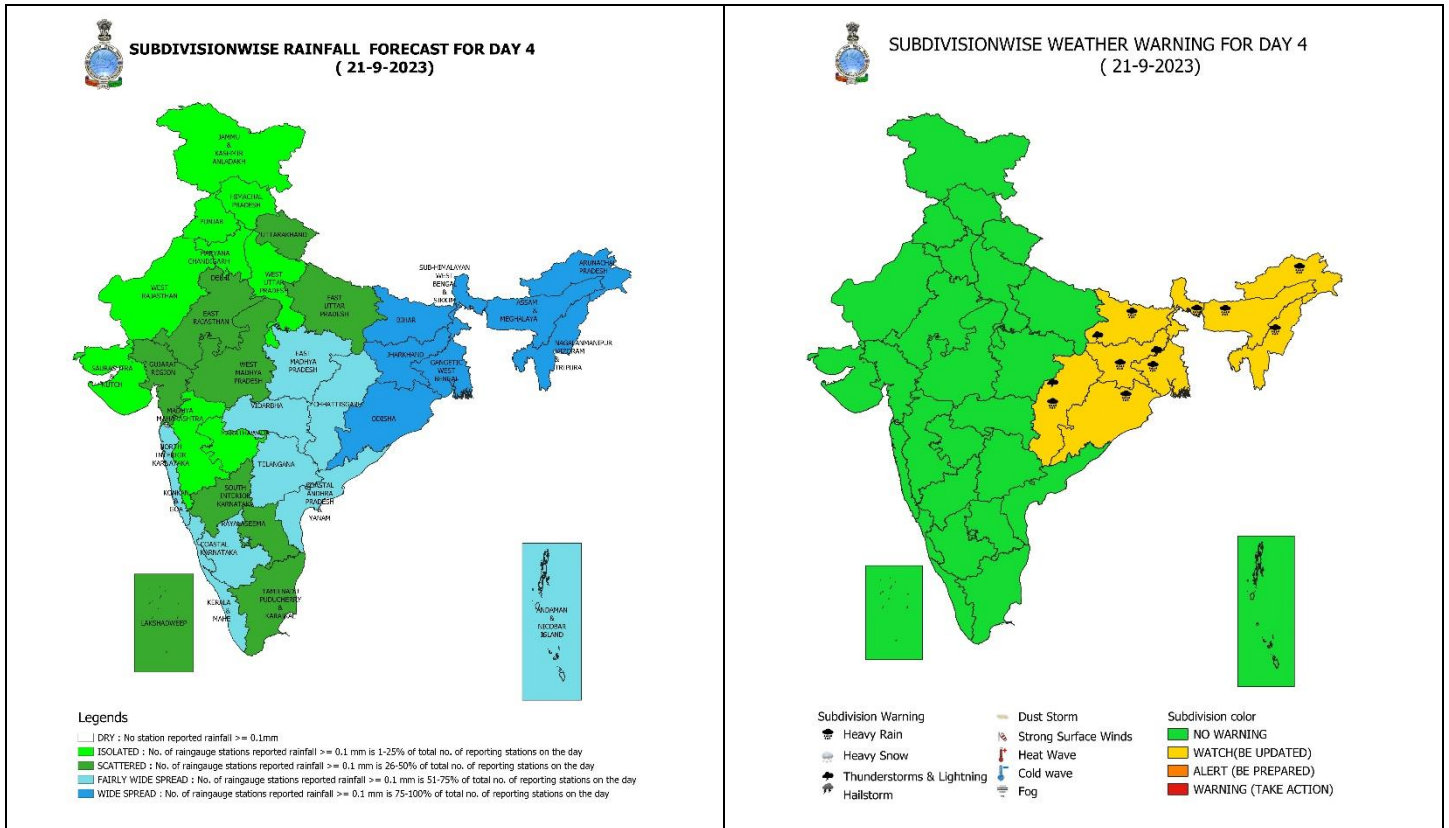
19 September (Day 2): -

- ❖ **Heavy to very heavy rainfall** very likely at isolated places over Gujarat state and **heavy rainfall** at isolated places over West Rajasthan, Odisha, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.
- ❖ **Thunderstorm with lightning & gusty winds (speed 30-40 kmph)** very likely at isolated places over Andaman & Nicobar Islands and Kerala & Mahe and **with lightning** at isolated places over Uttarakhand, Uttar Pradesh, West Rajasthan, East Madhya Pradesh, West Bengal & Sikkim, Bihar, Jharkhand, Odisha, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, , Coastal Andhra Pradesh & Yanam and 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 and adjoining Southwest Bay of Bengal. **Fishermen are advised not to venture into these areas.**



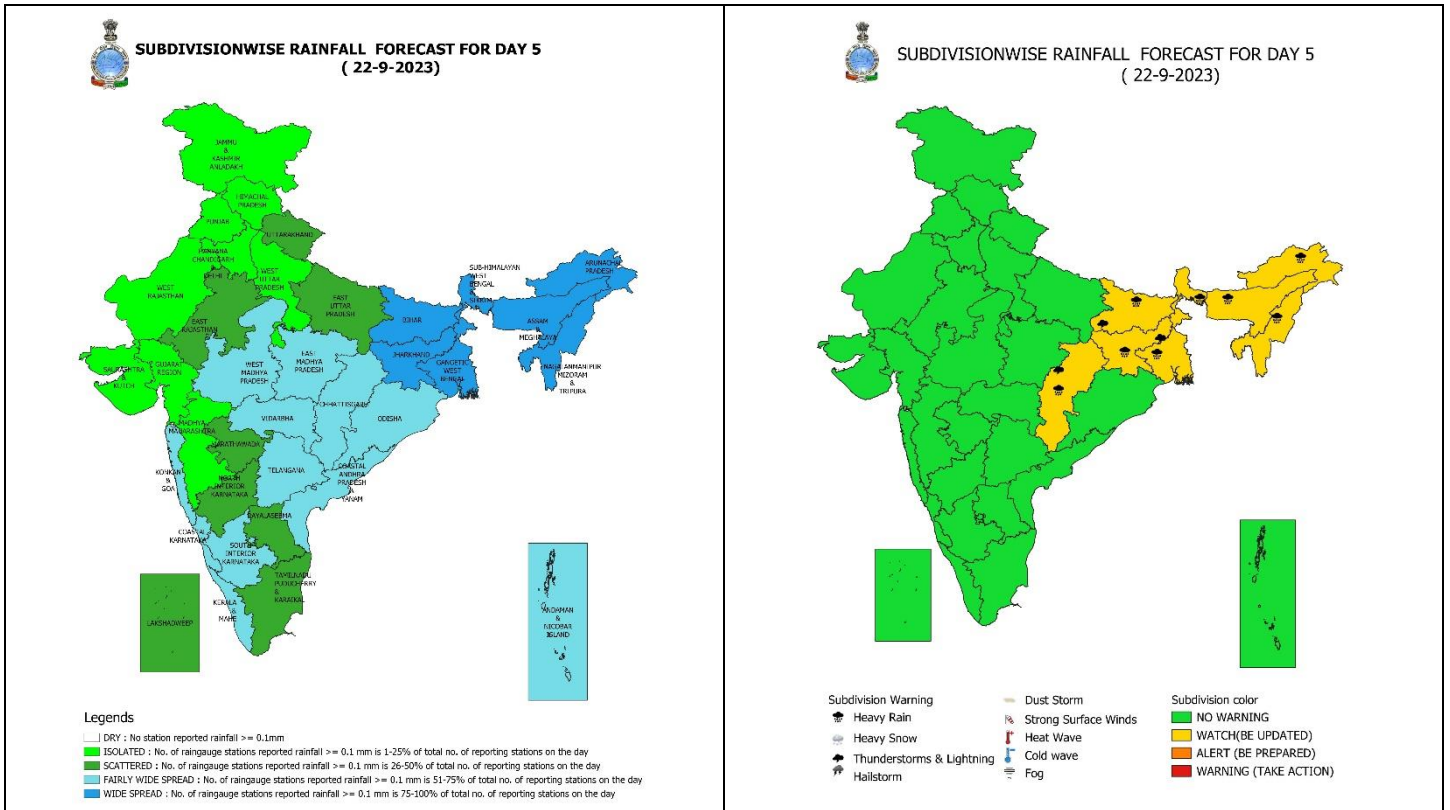
20 September (Day 3): -

- ❖ **Heavy to very heavy rainfall** likely at isolated places over Odisha, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura and **heavy rainfall** at isolated places over Chhattisgarh, Sub-Himalayan West Bengal & Sikkim, Jharkhand, Arunachal Pradesh and Saurashtra & Kutch.
- ❖ **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 Bay of Bengal. **Fishermen are advised not to venture into these areas.**



21 September (Day 4): -

- ❖ **Heavy to very heavy rainfall** likely at isolated places over Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Odisha and **heavy rainfall** at isolated places over Chhattisgarh, Gangetic West Bengal, Bihar and Jharkhand.
- ❖ **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.**



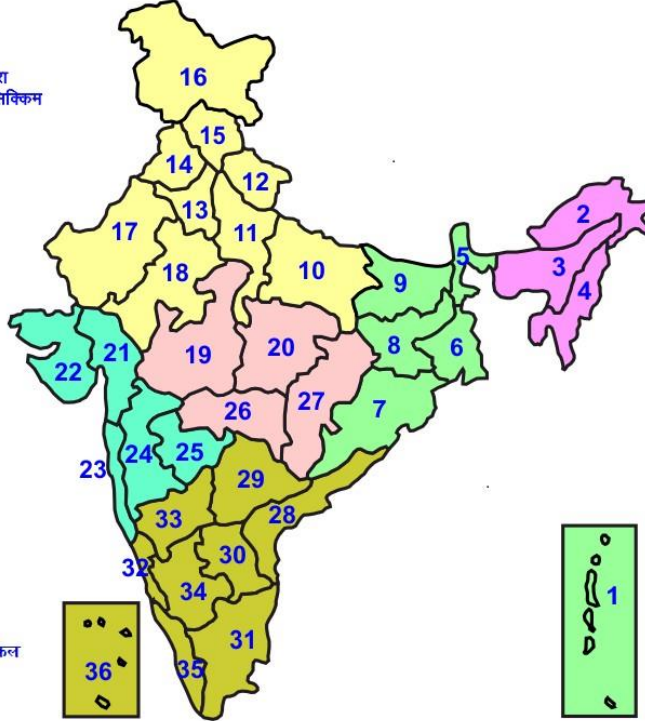
22 September (Day 5): -

- ❖ **Heavy to very heavy rainfall** likely at isolated places Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura and **heavy rainfall** at isolated places over West Bengal & Sikkim Chhattisgarh, Bihar and Jharkhand.
- ❖ **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 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 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

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

* Red color warning does not mean "Red Alert" Red color warning means "Take Action".

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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 $< 1\text{km}$

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)

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