



Friday, September 29, 2023
Time of Issue: 0830 hours IST
(MORNING)

ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

Significant Weather Features

Withdrawal of Southwest Monsoon:

- Conditions are becoming favourable for further withdrawal of Southwest Monsoon from some more parts of Northwest and adjoining Westcentral India during next 2-3 days.
- The line of withdrawal of Southwest Monsoon continues to pass through 28.3°N/72.0°E, Nokhra, Jodhpur, Barmer and 25.7°N/70.3°E.

Significant Weather features:

- ❖ Under the influence of the **cyclonic circulation** over north Coastal Karnataka & neighbourhood, a **Low-Pressure Area** has formed over Eastcentral Arabian Sea off south Konkan-Goa coasts. The associated cyclonic circulation extends upto 5.8 km above mean sea level. It is likely to become **Well Marked Low Pressure Area** over the same area and gradually move west-northwestwards during next 24 hours.
- ❖ Under the influence of the **cyclonic circulation** over Myanmar & adjoining Eastcentral Bay of Bengal, a **Low-Pressure Area** has formed over Northeast & adjoining Eastcentral Bay of Bengal. Associated cyclonic circulation extends upto 7.6 km above mean sea level. It is likely to become **Well Marked Low Pressure Area** and move northwestwards towards north Odisha & adjoining West Bengal coasts during next 48 hours.

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 and Odisha during 29th September to 01st October; Gangetic West Bengal on 29th & 30th and Jharkhand during 30th September to 03rd October; Sub-Himalayan West Bengal & Sikkim and Bihar on 02nd & 03rd October.

Isolated very heavy rainfall very likely over Andaman & Nicobar Islands on 29th & 30th September; Odisha on 01st & 02nd October; Sub-Himalayan West Bengal & Sikkim and north Bihar on 03rd October. Squally weather with wind speed reach 45-55 gusting to 65 likely over Andaman Islands during 29th September to 01st October, 2023.

South India: Light/moderate fairly widespread to widespread rainfall with isolated **heavy rainfall** very likely over ghat areas of Tamil Nadu and Interior Karnataka on 29th; Coastal Karnataka and Kerala & Mahe during 29th September to 01st October. **Isolated very heavy rainfall very likely over Coastal Karnataka on 29th & 30th September.**

West India: Light/moderate fairly widespread to widespread rainfall/thunderstorm & lightning with **isolated heavy rainfall** very likely over Konkan-Goa during 29th September to 01st October; Madhya Maharashtra on 29th & 30th September. **Isolated very heavy rainfall very likely over Konkan & Goa on 29th & 30th and Madhya Maharashtra on 29th September.**

Central India: Light/moderate fairly widespread to widespread rainfall/thunderstorm & lightning with **isolated heavy rainfall** very likely over Chhattisgarh during 30th September to 03rd October.

Northeast India: Light/moderate fairly widespread to widespread rainfall/thunderstorm & lightning with **isolated heavy rainfall** very likely over Nagaland, Manipur, Mizoram & Tripura on 29th; over Assam & Meghalaya 01st to 03rd October.

No significant weather over rest parts of the country.



Main Weather Observations:

- ❖ **Rainfall distribution** (from 0830 to 1730 hours IST of yesterday): **at most places** over Kerala & Mahe, Konkan & Goa; **at many places** over Madhya Maharashtra; **at a few places** over Marathwada, Coastal Andhra Pradesh & Yanam, Rayalaseema, Telangana, South Interior Karnataka, Chhattisgarh, East Uttar Pradesh, Bihar, Jharkhand, Sub-Himalaya West Bengal & Sikkim, Gangetic West Bengal, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Lakshadweep and **at isolated places** over Tamil Nadu, Puducherry & Karaikal, Gujarat state, Madhya Pradesh, Rajasthan, Punjab, Haryana, Uttarakhand, Andaman & Nicobar Islands.
- ❖ **Significant rainfall recorded** (from 0830 to 1730 hours IST of yesterday) (in cm): Alapuzha and Panaji-8 each; Ernakulum-7; Pune-6; Palakkad and Srikakulum-5 each; Kozhikode, Kannur, Kasargod, Satara-4 each.
- ❖ **Heavy rainfall** observed (from 0830 to 1730 hours IST of yesterday): at isolated places over Kerala and Goa.
- ❖ **Minimum Temperature Departures (as on 28-09-2023):** Minimum temperatures were **above normal (1.6°C to 3.0°C)** at many places over Bihar, East Uttar Pradesh, East Madhya Pradesh; at a few places over West Bengal & Sikkim, Gujarat state, Chhattisgarh; at isolated places over Jharkhand, Rajasthan, West Madhya Pradesh, Marathwada, Telangana, Coastal Andhra Pradesh & Yanam, Odisha, Tamil Nadu, Puducherry & Karaikal, North Interior Karnataka, Punjab, Uttarakhand. They were **below normal (-1.6°C to -3.0°C)** at isolated places over Himachal Pradesh, Haryana-Chandigarh-Delhi, Kerala & Mahe, Madhya Maharashtra and **near normal** over rest parts of the country. Yesterday, **the lowest minimum temperature of 16.0°C** was reported at **Raisen (West Madhya Pradesh)** over the plains of the country.
- ❖ **Maximum Temperature Departures (as on 28-09-2023):** Maximum temperatures were **markedly above normal (5.0°C and above)** at a few places over Arunachal Pradesh, Assam & Meghalaya; at isolated places over Nagaland, Manipur, Mizoram & Tripura; **appreciably above normal (3.1°C to 5.0°C)** at a few places over Sub-Himalaya West Bengal & Sikkim; at isolated places over Bihar, Chhattisgarh, Coastal Andhra Pradesh & Yanam; **above normal (1.6°C to 3.0°C)** at many places over East Uttar Pradesh, Gangetic West Bengal; at a few places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand, Jharkhand; at isolated places over West Rajasthan, Saurashtra & Kutch, East Madhya Pradesh, Telangana, Tamil Nadu, Puducherry & Karaikal, od, West Uttar Pradesh. They were **below normal (-1.6°C to -3.0°C)** at isolated places over Coastal & South Interior Karnataka, Madhya Maharashtra, Konkan & Goa and Kerala & Mahe and **near normal** over rest parts of the country. Yesterday, **the highest maximum temperature of 40.4°C** was reported at **Jaisalmer (West Rajasthan)**.



Meteorological Analysis (Based on 0530 hours IST)

- ❖ Conditions are becoming favourable for further withdrawal of Southwest Monsoon from some more parts of Northwest and adjoining Westcentral India during next 2-3 days.
- ❖ The line of withdrawal of Southwest Monsoon continues to pass through 28.3°N/72.0°E, Nokhra, Jodhpur, Barmer and 25.7°N/70.3°E.
- ❖ Under the influence of the **cyclonic circulation** over north Coastal Karnataka & neighbourhood, a **Low-Pressure Area** has formed over Eastcentral Arabian Sea off south Konkan-Goa coasts. The associated cyclonic circulation extends upto 5.8 km above mean sea level. It is likely to become **Well Marked Low Pressure Area** over the same area and gradually move west-northwestwards during next 24 hours.
- ❖ Under the influence of the **cyclonic circulation** over Myanmar & adjoining Eastcentral Bay of Bengal, a **Low-Pressure Area** has formed over Northeast & adjoining Eastcentral Bay of Bengal. Associated cyclonic circulation extends upto 7.6 km above mean sea level. It is likely to become **Well Marked Low Pressure Area** and move northwestwards towards north Odisha & adjoining West Bengal coasts during next 48 hours.
- ❖ 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. 67°E to the north of Lat. 30°N persists.
- ❖ The **east-west shear zone** roughly along Lat. 15° N across above cyclonic circulation over north Coastal Karnataka & neighbourhood between 3.1 & 4.5 km above mean sea level persists.
- ❖ The **cyclonic circulation** over Southwest Bay of Bengal off Tamil Nadu coast at 5.8 km above mean sea level persists.
- ❖ The **cyclonic circulation** over north Madhya Maharashtra & neighbourhood at 0.9 km above mean sea level persists.

Weather Forecast for next 5 days (Upto 0830 hours IST of 04th October, 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 & northeast India and Islands.
- ❖ Dry weather likely to prevail over rest parts of the country except isolated to scattered rainfall likely over east Uttar Pradesh, Chhattisgarh and parts of south peninsular India.

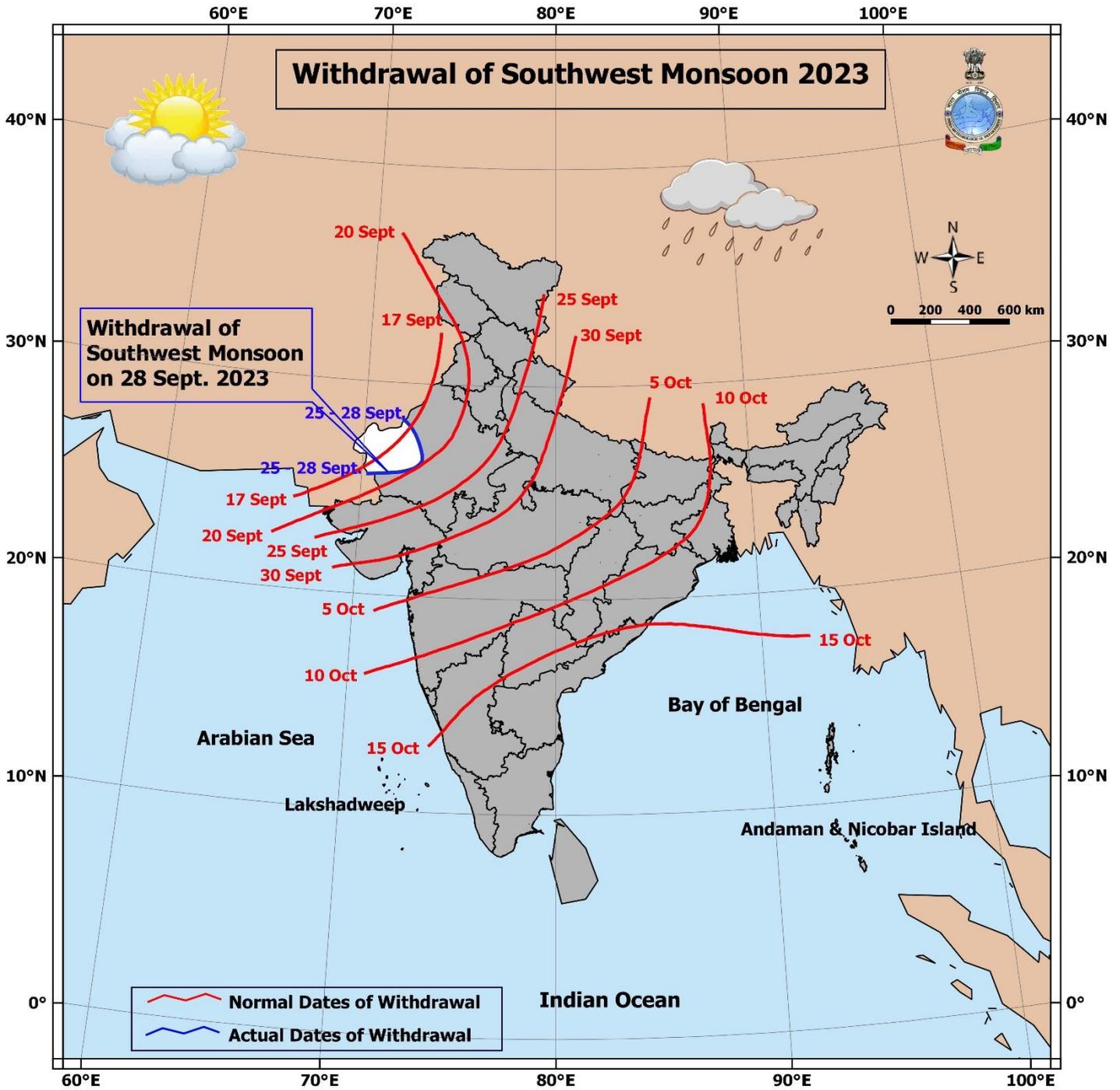




Table-1

7 Days Rainfall Forecast

S. No.	Subdivision	29-Sep	30-Sep	01-Oct	02-Oct	03-Oct	04-Oct	05-Oct
		Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
1	ANDAMAN & NICOBAR ISLANDS	WS	WS	WS	WS	FWS	FWS	FWS
2	ARUNACHAL PRADESH	ISOL	ISOL	SCT	FWS	FWS	FWS	WS
3	ASSAM & MEGHALAYA	SCT	SCT	FWS	FWS	WS	WS	WS
4	NAGALAND, MANIPUR, MIZORAM & TRIPURA	FWS	FWS	FWS	WS	WS	WS	WS
5	SUB-HIMALAYAN WEST BENGAL & SIKKIM	SCT	SCT	FWS	WS	WS	WS	WS
6	GANGETIC WEST BENGAL	FWS	WS	WS	WS	WS	FWS	WS
7	ODISHA	SCT	FWS	WS	WS	WS	FWS	WS
8	JHARKHAND	SCT	FWS	WS	WS	WS	FWS	FWS
9	BIHAR	ISOL	SCT	SCT	FWS	WS	WS	FWS
10	EAST UTTAR PRADESH	DRY	DRY	SCT	SCT	SCT	SCT	SCT
11	WEST UTTAR PRADESH	DRY	DRY	ISOL	ISOL	DRY	DRY	DRY
12	UTTARAKHAND	DRY	ISOL	ISOL	ISOL	ISOL	ISOL	DRY
13	HARYANA CHANDIGARH & DELHI	DRY						
14	PUNJAB	DRY						
15	HIMACHAL PRADESH	DRY						
16	JAMMU & KASHMIR AND LADAKH	ISOL	DRY	DRY	DRY	DRY	DRY	DRY
17	WEST RAJASTHAN	DRY						
18	EAST RAJASTHAN	ISOL	DRY	DRY	DRY	DRY	DRY	DRY
19	WEST MADHYA PRADESH	ISOL	ISOL	ISOL	ISOL	ISOL	DRY	DRY
20	EAST MADHYA PRADESH	SCT	SCT	SCT	FWS	FWS	FWS	ISOL
21	GUJARAT REGION	ISOL	ISOL	DRY	DRY	DRY	DRY	DRY
22	SAURASHTRA & KUTCH	ISOL	ISOL	DRY	DRY	DRY	DRY	DRY
23	KONKAN & GOA	WS	WS	FWS	SCT	SCT	SCT	ISOL
24	MADHYA MAHARASHTRA	FWS	FWS	SCT	ISOL	ISOL	ISOL	ISOL
25	MARATHAWADA	SCT	SCT	ISOL	ISOL	ISOL	ISOL	DRY
26	VIDARBHA	FWS	FWS	FWS	FWS	FWS	SCT	ISOL
27	CHHATTISGARH	FWS	WS	WS	WS	WS	WS	FWS
28	COASTAL ANDHRA PRADESH & YANAM	SCT	SCT	SCT	SCT	SCT	SCT	ISOL
29	TELANGANA	FWS	SCT	SCT	SCT	ISOL	ISOL	ISOL
30	RAYALASEEMA	SCT	SCT	SCT	SCT	ISOL	ISOL	ISOL
31	TAMILNADU PUDUCHERRY & KARAIKAL	SCT	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
32	COASTAL KARNATAKA	WS	WS	WS	FWS	FWS	FWS	SCT
33	NORTH INTERIOR KARNATAKA	FWS	FWS	FWS	FWS	SCT	SCT	DRY
34	SOUTH INTERIOR KARNATAKA	FWS	FWS	FWS	FWS	SCT	SCT	ISOL
35	KERALA & MAHE	WS	WS	WS	WS	FWS	FWS	FWS
36	LAKSHADWEEP	WS	WS	WS	WS	FWS	FWS	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

Fig. 1: Maximum Temperatures Dated 28.09.2023

Fig. 2: Departure of Maximum Temp. Dated 28.09.2023

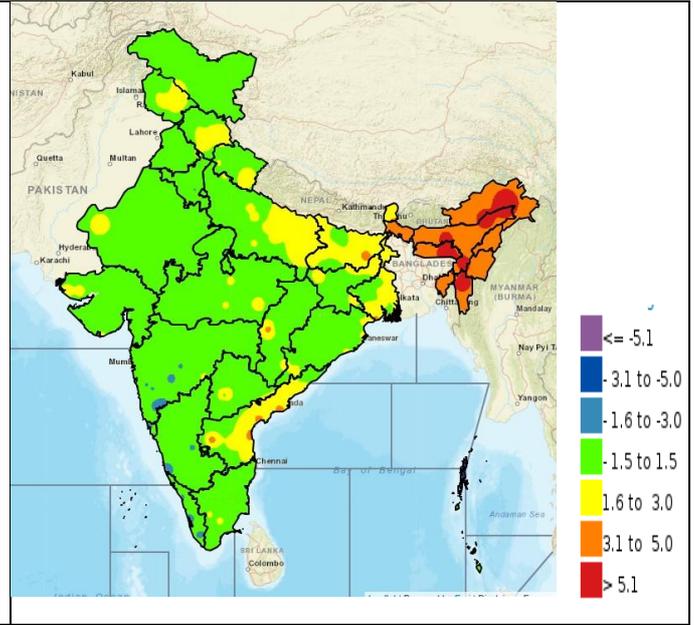
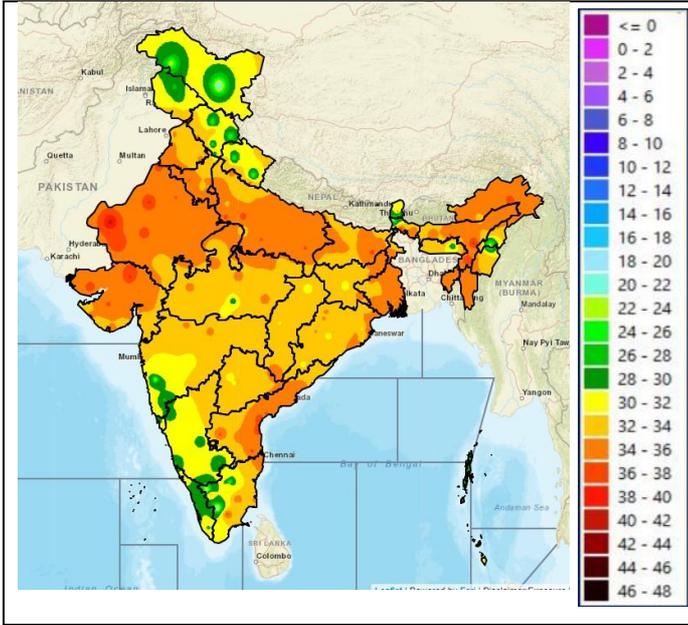


Fig. 3: Minimum Temperatures Dated 28.09.2023

Fig. 4: Departure of Minimum Temp. Dated 28.09.2023

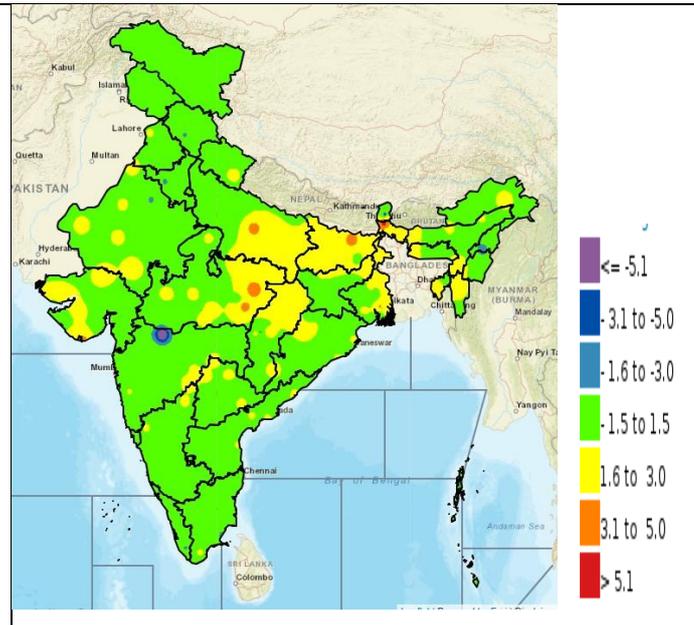
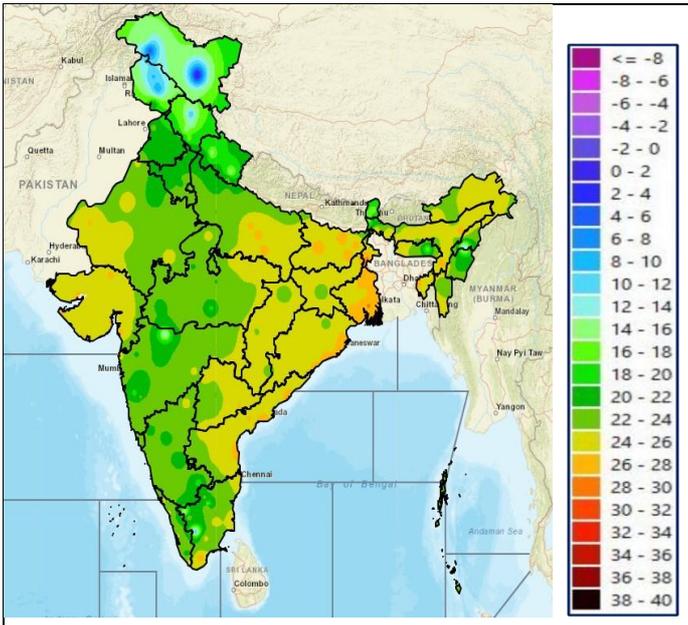
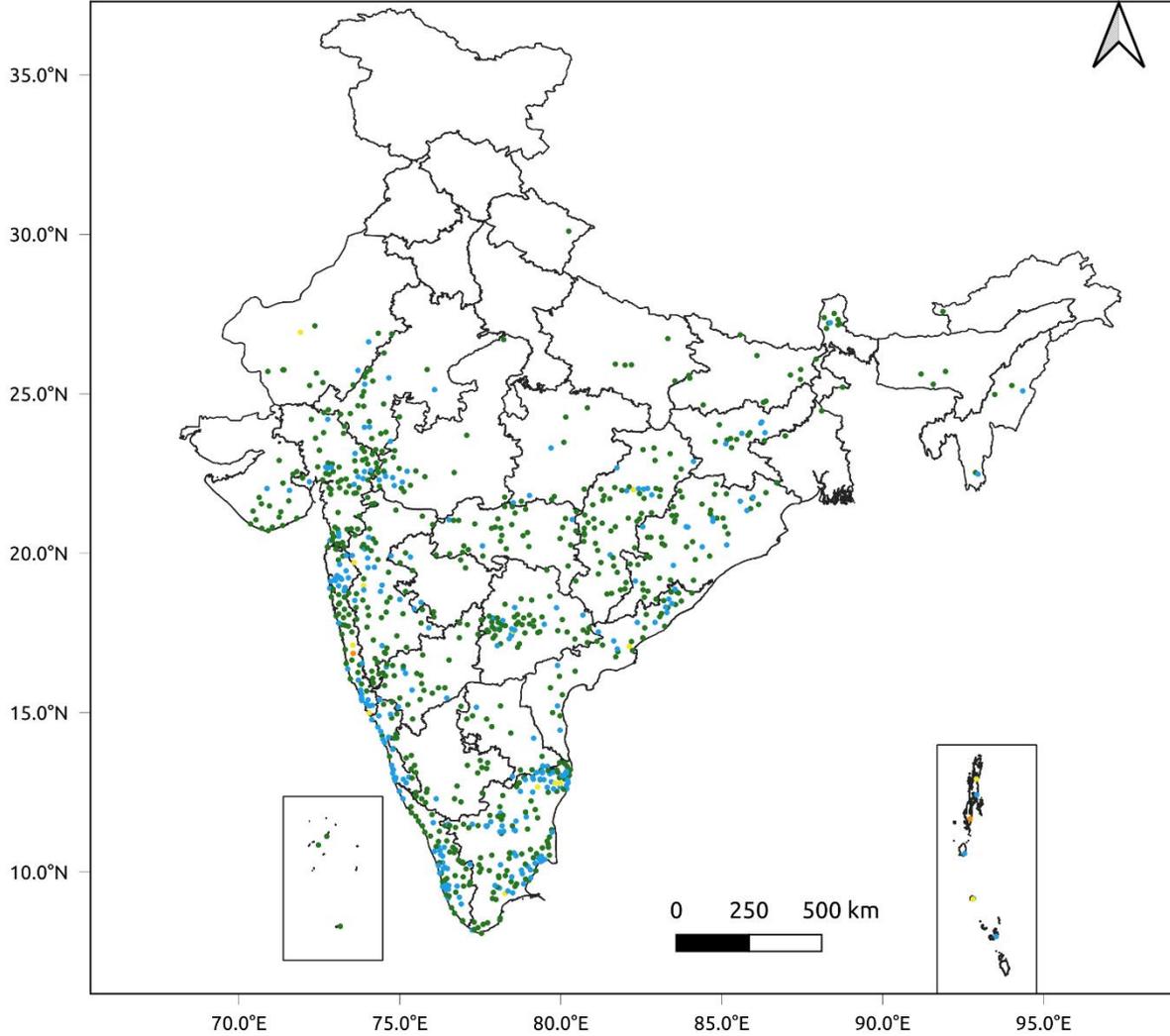


Fig. 5: Accumulated Rainfall (mm) during past 24 hours

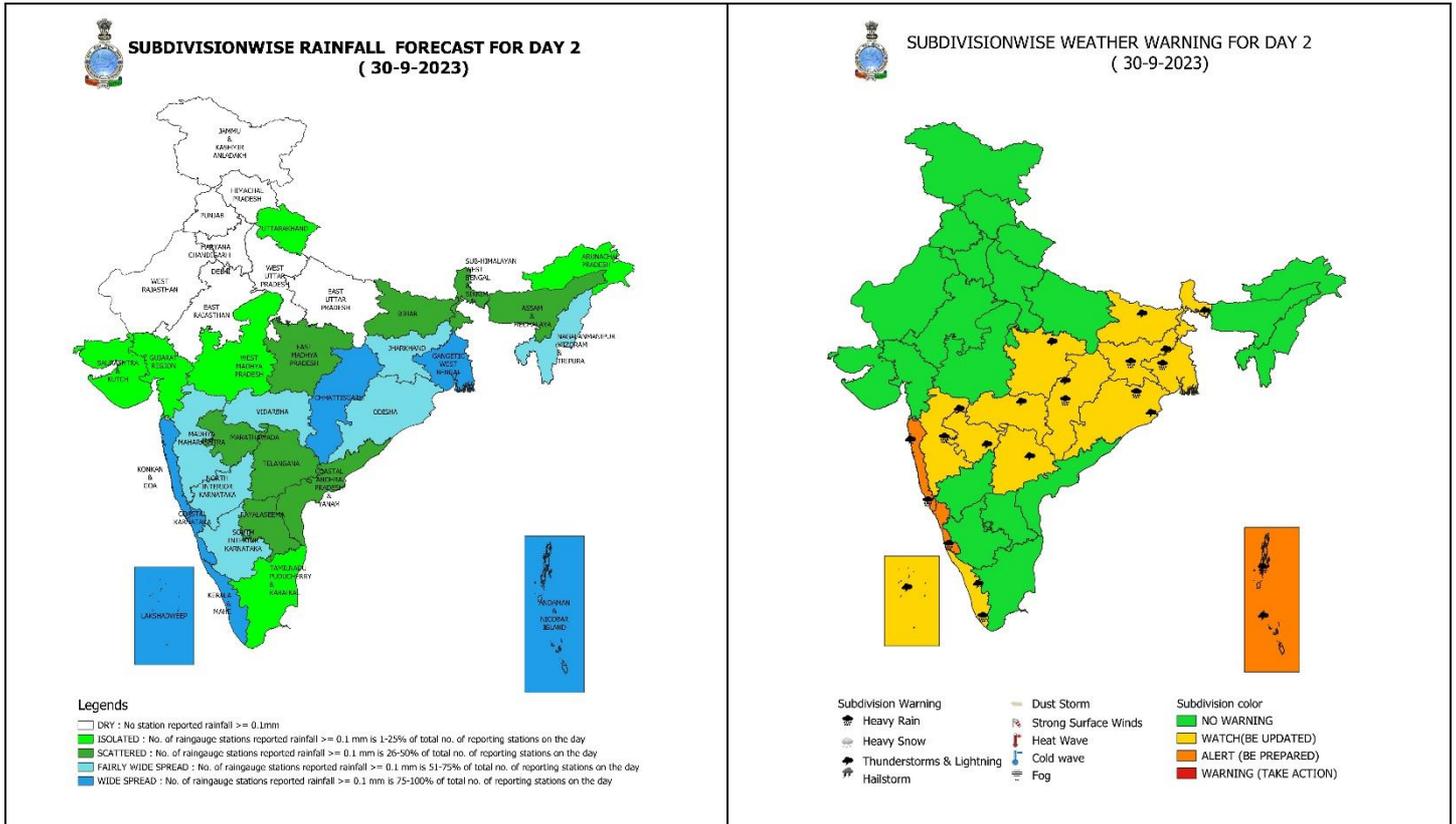


24 Hr cumulative rainfall recorded over different stations during 0830 IST of 27-9-2023 to 0830 IST of 28-9-2023



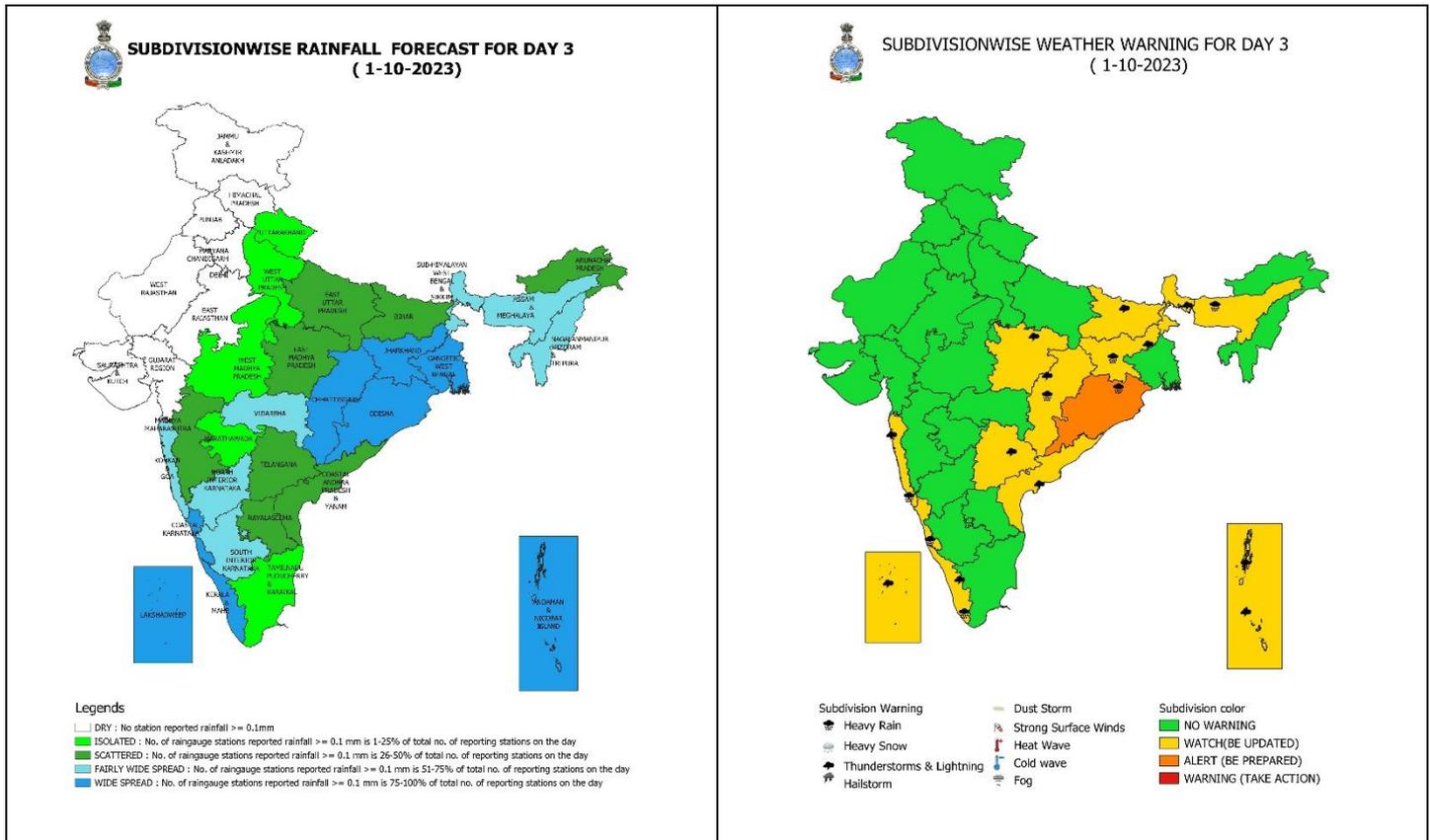
Legends

- 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)



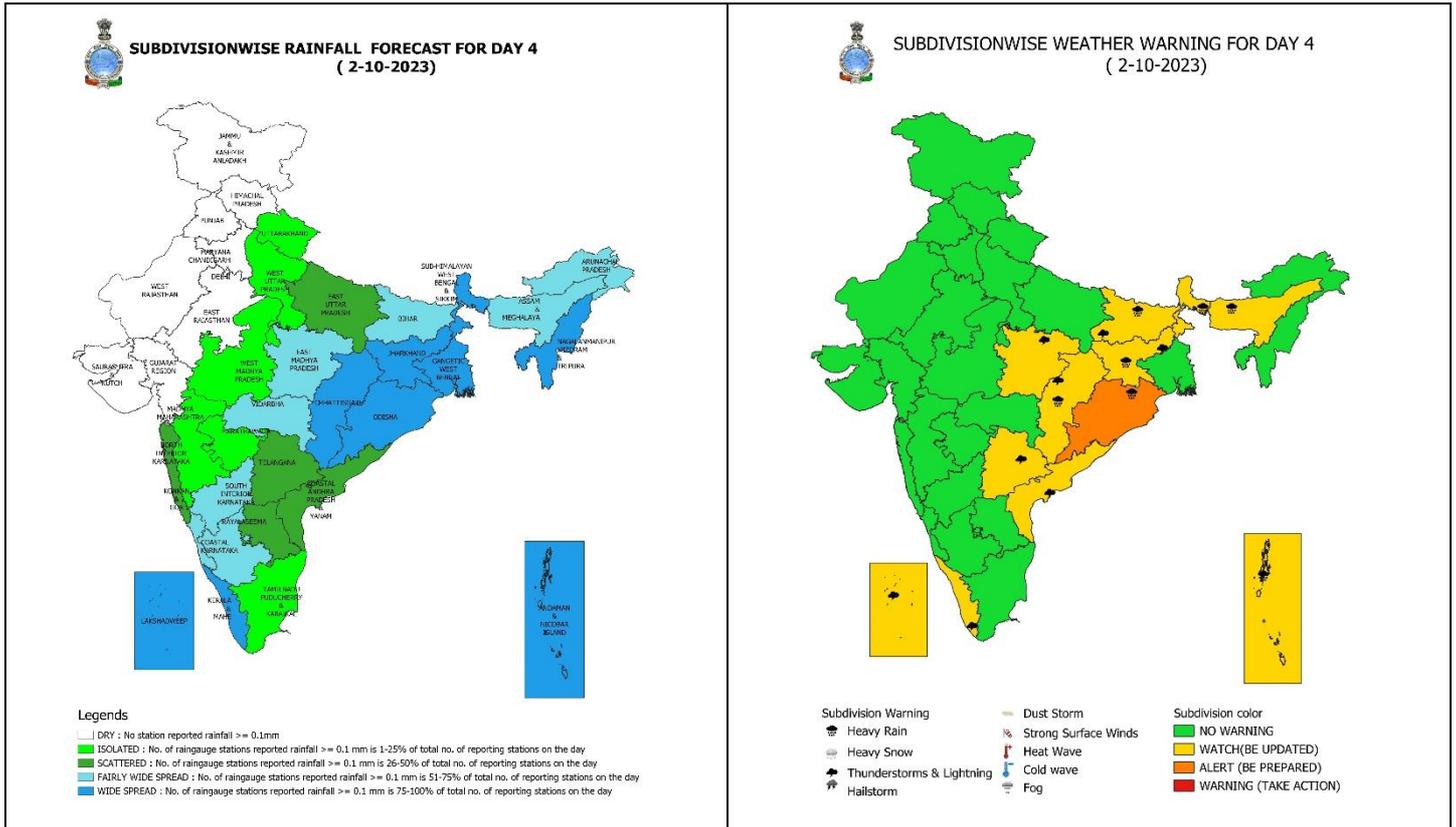
30 September (Day 2): -

- ❖ **Heavy to very heavy rainfall** very likely at isolated places over Andaman & Nicobar Islands, Coastal Karnataka and Konkan & Goa; **Heavy rainfall** at isolated places over Chhattisgarh, Gangetic West Bengal, Odisha, Jharkhand, Madhya Maharashtra, Kerala & Mahe.
- ❖ **Thunderstorm with lightning & gusty winds (speed 30-40 kmph)** very likely at isolated places over Andaman & Nicobar Islands and Kerala & Mahe; **with lightning** likely at isolated places over East Madhya Pradesh, Vidarbha, Chhattisgarh, Sub-Himalaya West Bengal & Sikkim, Bihar, Jharkhand, Odisha, Konkan & Goa, Madhya Maharashtra, Marathwada, Telangana, Lakshadweep.
- ❖ **Squally wind speed of 45-55 kmph gusting to 65 kmph** very likely over Southwest and adjoining Westcentral Arabian Sea, Gulf of Mannar and **Squally weather speed of 45-55 kmph gusting to 65 kmph** likely over South & adjoining Central Bay of Bengal, North Bay of Bengal, North Andaman Sea; **Squally weather speed of 40-45 kmph gusting to 55 kmph** over South Maharashtra-Karnataka-North Kerala coasts and Lakshadweep areas. **Fishermen are advised not to venture into these areas.**



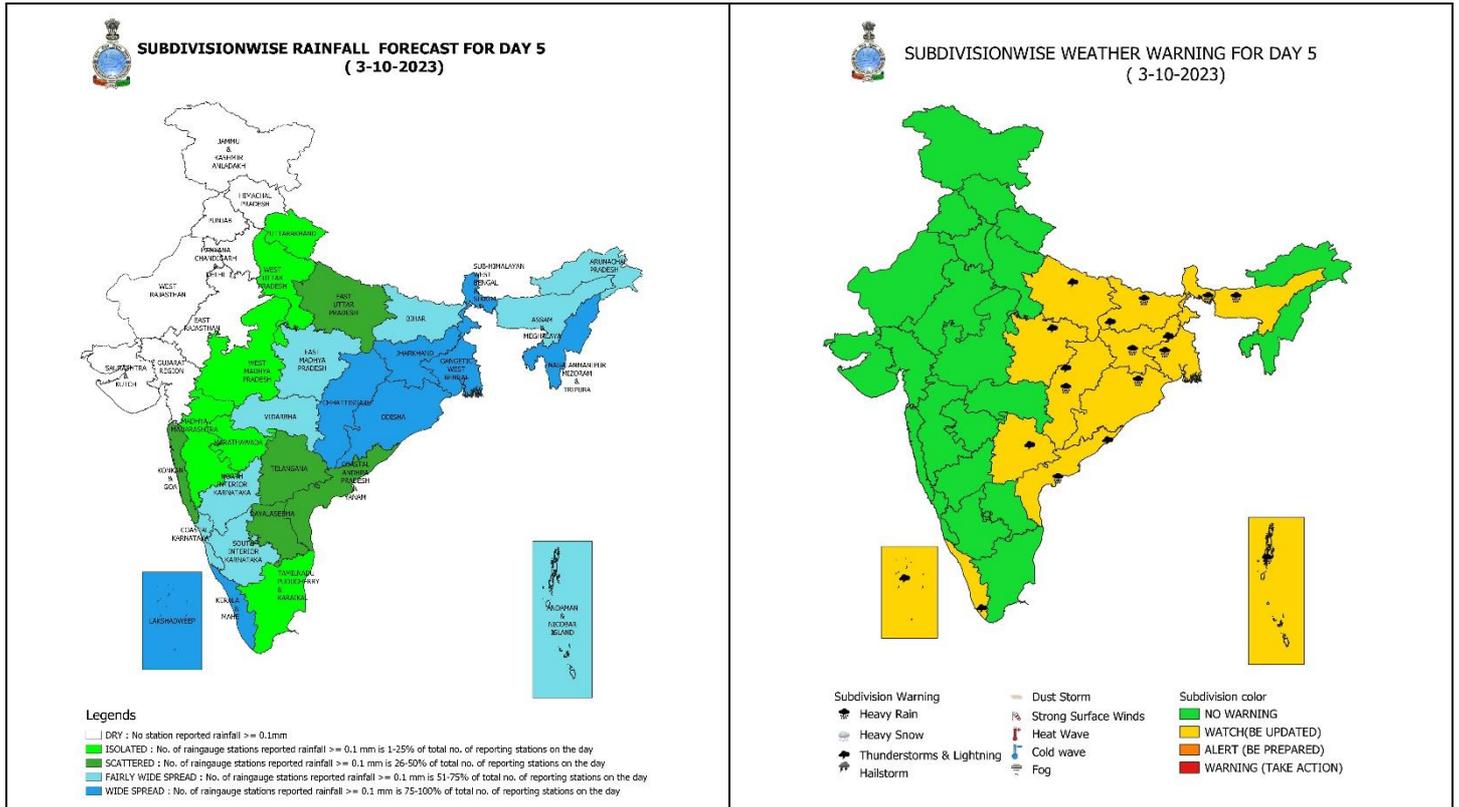
01 October (Day 3):-

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



02 October (Day 4): -

- ❖ **Heavy to very heavy rainfall** likely at isolated places over Odisha; **Heavy rainfall** at isolated places over Chhattisgarh, Sub-Himalayan West Bengal & Sikkim, Bihar, Jharkhand, Assam & Meghalaya.
- ❖ **Thunderstorm with lightning** likely at isolated places over East Madhya Pradesh, Chhattisgarh, Bihar, Jharkhand, Coastal Andhra Pradesh & Yanam, Telangana, Kerala & Mahe and Lakshadweep.
- ❖ **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 65 kmph** likely over South, Central and Northwest Bay of Bengal. **Fishermen are advised not to venture into these areas.**

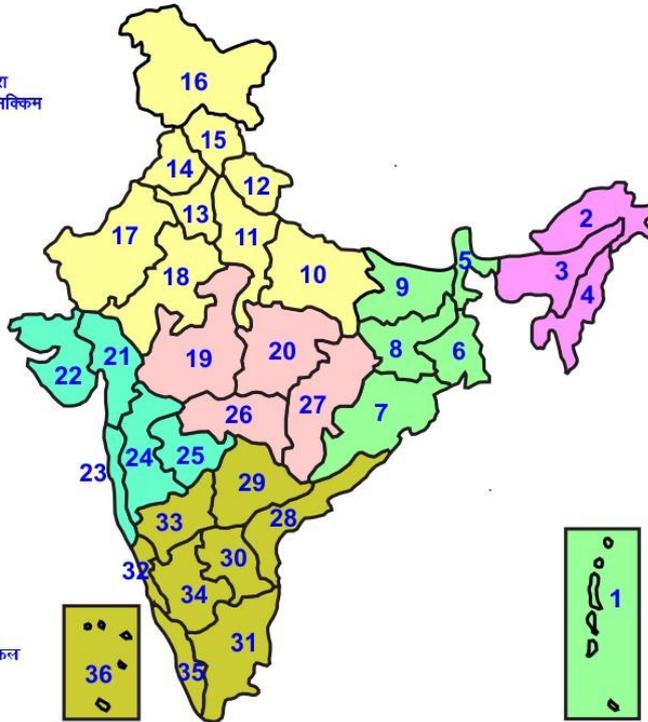


03 October (Day 5): -

- ❖ **Heavy to very heavy rainfall** likely at isolated places over Sub-Himalayan West Bengal & Sikkim and north Bihar; **Heavy rainfall** at isolated places over Chhattisgarh, Gangetic West Bengal, Odisha, Jharkhand, Assam & Meghalaya and north Coastal Andhra Pradesh & Yanam.
- ❖ **Thunderstorm with lightning** likely at isolated places over East Uttar Pradesh, East Madhya Pradesh, Chhattisgarh, Bihar, Jharkhand, Coastal Andhra Pradesh & Yanam, Telangana, Kerala & Mahe and Lakshadweep.
- ❖ **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 65 kmph** likely over South, Central and Northwest Bay of Bengal. **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

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".

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°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)

* 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)