



Saturday, September 30, 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:

- ❖ The **Low-Pressure Area** over Eastcentral Arabian Sea off south Konkan-Goa coasts now lies as a **Well Marked Low Pressure Area** over the same region. It is likely to concentrate into a Depression over the same region during next 24 hours
- ❖ Another **Low-Pressure Area** over central parts of North Bay of Bengal now lies as a **Well Marked Low Pressure Area** over Northwest Bay of Bengal. It is likely to move northwestwards towards north Odisha & adjoining West Bengal coasts during next 24 hours.
- ❖ A **Shear Zone** runs roughly 15°N in lower & middle tropospheric levels.
- ❖ A **cyclonic circulation** lies over Southwest Bay of Bengal off Tamil Nadu coast in middle tropospheric levels.

Weather Forecast and Warnings:

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

Isolated very heavy rainfall very likely over south Konkan & Goa on 30th September.

Squally winds speed reaching 40-50 kmph gusting to 60 kmph are prevailing over Eastcentral Arabian Sea along & off Maharashtra-Goa coasts. It is likely to increase becoming **45-55 kmph gusting to 65 kmph** from today evening and likely to continue till tomorrow morning. **Fishermen are advised not to venture into these areas during next 48 hours.**

East India: Light/moderate fairly widespread to widespread rainfall/thunderstorm & lightning with **isolated heavy rainfall** very likely over Andaman & Nicobar Islands, Gangetic West Bengal on 30th September & 01st October; Odisha on 03rd October; Jharkhand during 30th September to 03rd October; Bihar during 01st-03rd October and Sub-Himalayan West Bengal & Sikkim on 02nd & 03rd October.

Isolated very heavy rainfall very likely over Gangetic West Bengal on 30th September; Odisha on 30th September, 01st & 2nd October. Squally weather with wind speed reaching 45-55 gusting to 65 likely over Andaman Islands on 30th September, 2023.

South India: Light/moderate fairly widespread to widespread rainfall with isolated **heavy rainfall** very likely over Karnataka and Kerala & Mahe on 30th September & 01st October.

Central India: Light/moderate fairly widespread to widespread rainfall/thunderstorm & lightning with **isolated heavy rainfall** very likely over Chhattisgarh during 30th September-02nd October.

Northeast India: Light/moderate fairly widespread to widespread rainfall/thunderstorm & lightning with **isolated heavy rainfall** very likely over Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura on 30th September & 02nd October and over Arunachal Pradesh on 03rd October.

Main Weather Observations:

- ❖ **Rainfall distribution** (from 0830 hours IST to 1730 hours IST of yesterday): **at most places** over Andaman & Nicobar Islands, Coastal Karnataka, Lakshadweep and Kerala & Mahe; **at many places** over Konkan & Goa; **at a few places** over Gangetic West Bengal, Marathwada, Vidarbha and Coastal Andhra Pradesh & Yanam and **at isolated places** over Madhya Pradesh, Chhattisgarh, Odisha, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Madhya Maharashtra, Telangana and Tamil Nadu, Puducherry & Karaikal.
- ❖ **Significant rainfall recorded** (from 0830 hours IST to 1730 hours IST of yesterday) (in cm): **Konkan & Goa:** Mapusa-5, Canacona & Alibagh-4 each, Pernem, Ela & Panji-3 each; **Andaman & Nicobar Islands:** Carnicobar-5, Hut Bay-4; **Kerala:** Thiruvananthapuram-5, Punalur-3, Kannur, Thrissur & Kottayam-2 each; **Tamil Nadu:** Valprai-4; **East Madhya Pradesh:** Satna-4; **Marathwada:** Aurangabad-4, Parbhani-2; **Gangetic West Bengal:** Uluberia-3; **Telangana:** Adilabad & Nizamabad-3 each, Ramagundam-2; **Lakshadweep:** Minicoy-3; **Chhattisgarh:** Durg & Jagdalpur-2 each; **Coastal Karnataka:** Karwar & Mangalore-2 each.
- ❖ **Minimum Temperature Departures (as on 29-09-2023):** Minimum temperatures were **appreciably above normal (3.1°C to 5.0°C)** at isolated places over East Madhya Pradesh, Bihar, Sub-Himalaya West Bengal & Sikkim, Arunachal Pradesh; **above normal (1.6°C to 3.0°C)** at many places over Jharkhand, Gangetic West Bengal, Assam & Meghalaya, East Uttar Pradesh; at a few places over West Madhya Pradesh, Odisha, Saurashtra & Kutch; at isolated places over Vidarbha, West Rajasthan, Punjab, Telangana, Himachal Pradesh, Uttarakhand. They were **below normal (-1.6°C to -3.0°C)** at isolated places over East Rajasthan, Nagaland, Manipur, Mizoram & Tripura, Kerala & Mahe and **near normal** over rest parts of the country. Yesterday, **the lowest minimum temperature of 18.0°C** was reported at **Sikar (West Rajasthan)** over the plains of the country.
- ❖ **Maximum Temperature Departures (as on 29-09-2023):** Maximum temperatures were **markedly above normal (5.1°C and above)** at most places over Arunachal Pradesh; at many places over Assam & Meghalaya; at a few places over Sub-Himalayan West Bengal & Sikkim; **appreciably above normal (3.1°C to 5.0°C)** at many places over Nagaland, Manipur, Mizoram & Tripura; at a few places over Bihar; at isolated places over Himachal Pradesh and Coastal Andhra Pradesh & Yanam; **above normal (1.6°C to 3.0°C)** at many places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad; at a few places over Punjab, West Rajasthan, East Uttar Pradesh and Telangana; at isolated places over Uttarakhand, West Madhya Pradesh and Chhattisgarh. They were **appreciably below normal (-3.1°C to -5.0°C)** at a few places over Kerala & Mahe; at isolated places over Tamil Nadu, Puducherry & Karaikal; **below normal (-1.6°C to -3.0°C)** at a few places over Coastal Karnataka; at isolated places over Konkan & Goa and **near normal** over rest parts of the country. Yesterday, **the highest maximum temperature of 40.5°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.
- ❖ The **Low-Pressure Area** over Eastcentral Arabian Sea off south Konkan-Goa coasts now lies as a **Well Marked Low Pressure Area** over the same region. The associated cyclonic circulation extends upto 7.6 km above mean sea level. It is likely to concentrate into a Depression over the same region during next 24 hours.
- ❖ The **Low-Pressure Area** over central parts of North Bay of Bengal now lies as a **Well Marked Low Pressure Area** over Northwest Bay of Bengal. The associated cyclonic circulation extends upto 7.6 km above mean sea level. It is likely to move northwestwards towards north Odisha & adjoining West Bengal coasts during next 24 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 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 central Pakistan & adjoining West Rajasthan at 0.9 km above mean sea level persists.
- ❖ The **cyclonic circulation** over northwest Uttar Pradesh & neighbourhood between 1.5 km & 3.1 km above mean sea level persists.

Weather Forecast for next 5 days (Upto 0830 hours IST of 05th October, 2023)

- ❖ Meteorological sub-division wise detailed 5 days rainfall forecast is given in Table-1.
- ❖ Thunderstorm with lightning very likely over East India, South Peninsular India and East Uttar Pradesh during 01st-03rd October.
- ❖ 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.

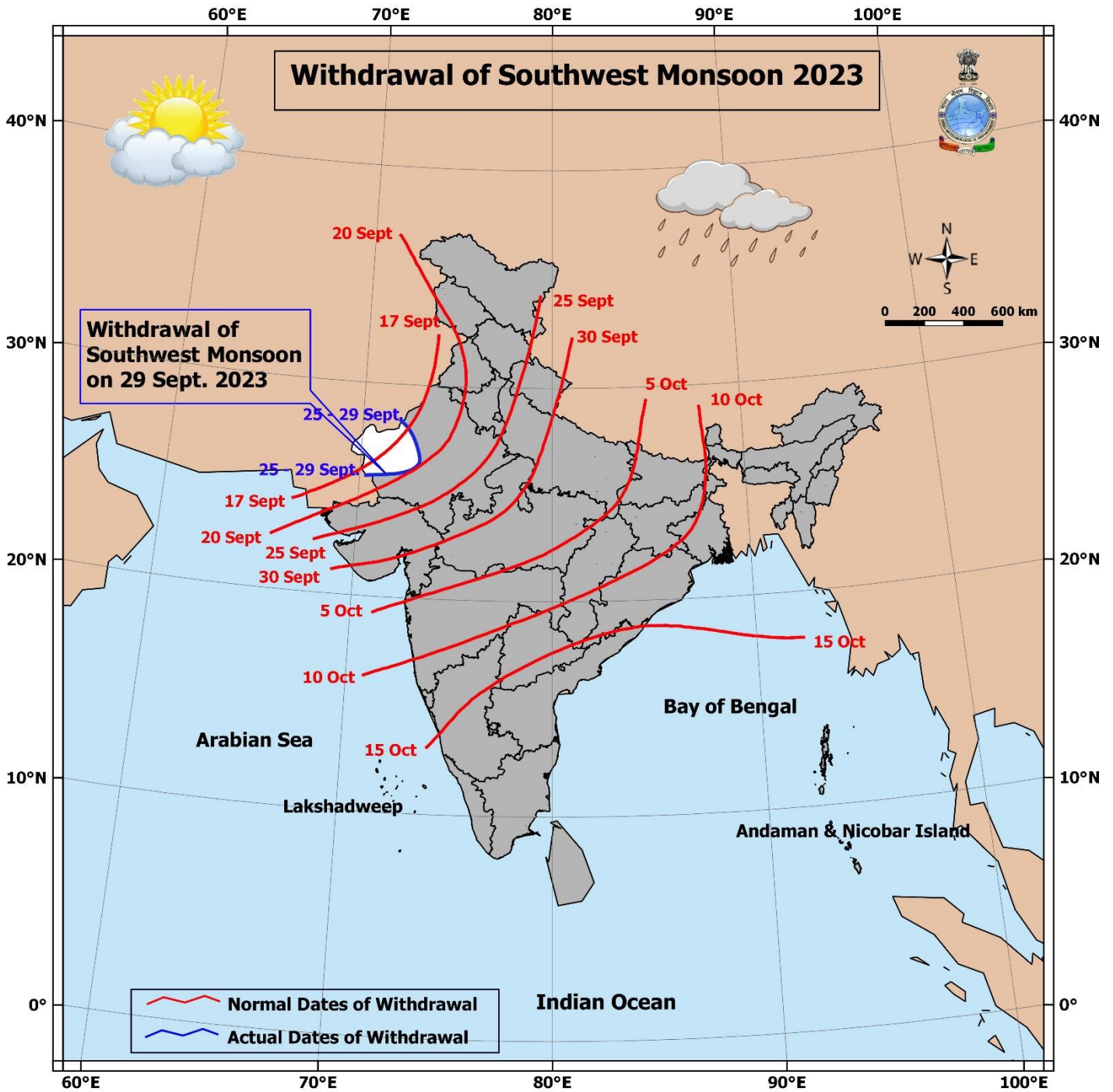




Table-1

7 Days Rainfall Forecast								
S. No.	Subdivision	30-Sep	01-Oct	02-Oct	03-Oct	04-Oct	05-Oct	06-Oct
		Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
1	ANDAMAN & NICOBAR ISLANDS	WS	WS	WS	WS	WS	WS	WS
2	ARUNACHAL PRADESH	ISOL	SCT	SCT	FWS	FWS	WS	WS
3	ASSAM & MEGHALAYA	SCT	FWS	FWS	WS	WS	WS	WS
4	NAGALAND, MANIPUR, MIZORAM & TRIPURA	FWS	FWS	WS	WS	WS	WS	WS
5	SUB-HIMALAYAN WEST BENGAL & SIKKIM	SCT	FWS	WS	WS	WS	WS	WS
6	GANGETIC WEST BENGAL	WS	WS	WS	FWS	FWS	FWS	FWS
7	ODISHA	FWS	WS	WS	WS	FWS	SCT	SCT
8	JHARKHAND	FWS	WS	WS	WS	FWS	FWS	FWS
9	BIHAR	SCT	FWS	WS	WS	WS	FWS	FWS
10	EAST UTTAR PRADESH	ISOL	SCT	SCT	SCT	ISOL	ISOL	ISOL
11	WEST UTTAR PRADESH	DRY	DRY	DRY	DRY	DRY	DRY	DRY
12	UTTARAKHAND	ISOL	ISOL	ISOL	ISOL	ISOL	DRY	DRY
13	HARYANA CHANDIGARH & DELHI	DRY	DRY	DRY	DRY	DRY	DRY	DRY
14	PUNJAB	DRY	DRY	DRY	DRY	DRY	DRY	DRY
15	HIMACHAL PRADESH	DRY	DRY	DRY	DRY	DRY	DRY	DRY
16	JAMMU & KASHMIR AND LADAKH	ISOL	DRY	DRY	DRY	DRY	DRY	DRY
17	WEST RAJASTHAN	DRY	DRY	DRY	DRY	DRY	DRY	DRY
18	EAST RAJASTHAN	DRY	DRY	DRY	DRY	DRY	DRY	DRY
19	WEST MADHYA PRADESH	ISOL	ISOL	DRY	DRY	DRY	DRY	DRY
20	EAST MADHYA PRADESH	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
21	GUJARAT REGION	ISOL	ISOL	DRY	DRY	DRY	DRY	DRY
22	SAURASHTRA & KUTCH	ISOL	DRY	DRY	DRY	DRY	DRY	DRY
23	KONKAN & GOA	WS	FWS	SCT	SCT	SCT	ISOL	ISOL
24	MADHYA MAHARASHTRA	FWS	SCT	SCT	ISOL	ISOL	ISOL	ISOL
25	MARATHAWADA	SCT	SCT	ISOL	ISOL	DRY	DRY	DRY
26	VIDARBHA	SCT	SCT	ISOL	ISOL	ISOL	ISOL	ISOL
27	CHHATTISGARH	WS	WS	FWS	SCT	ISOL	ISOL	ISOL
28	COASTAL ANDHRA PRADESH & YANAM	SCT	SCT	SCT	SCT	ISOL	ISOL	ISOL
29	TELANGANA	SCT	SCT	SCT	ISOL	ISOL	ISOL	ISOL
30	RAYALASEEMA	SCT	SCT	SCT	ISOL	ISOL	ISOL	ISOL
31	TAMILNADU PUDUCHERRY & KARAİKAL	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
32	COASTAL KARNATAKA	WS	WS	WS	FWS	FWS	FWS	FWS
33	NORTH INTERIOR KARNATAKA	FWS	FWS	SCT	SCT	SCT	SCT	SCT
34	SOUTH INTERIOR KARNATAKA	FWS	FWS	SCT	SCT	SCT	SCT	SCT
35	KERALA & MAHE	WS	WS	WS	FWS	FWS	SCT	SCT
36	LAKSHADWEEP	WS	WS	WS	FWS	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

* 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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Fig. 1: Maximum Temperatures Dated 29.09.2023

Fig. 2: Departure of Maximum Temp. Dated 29.09.2023

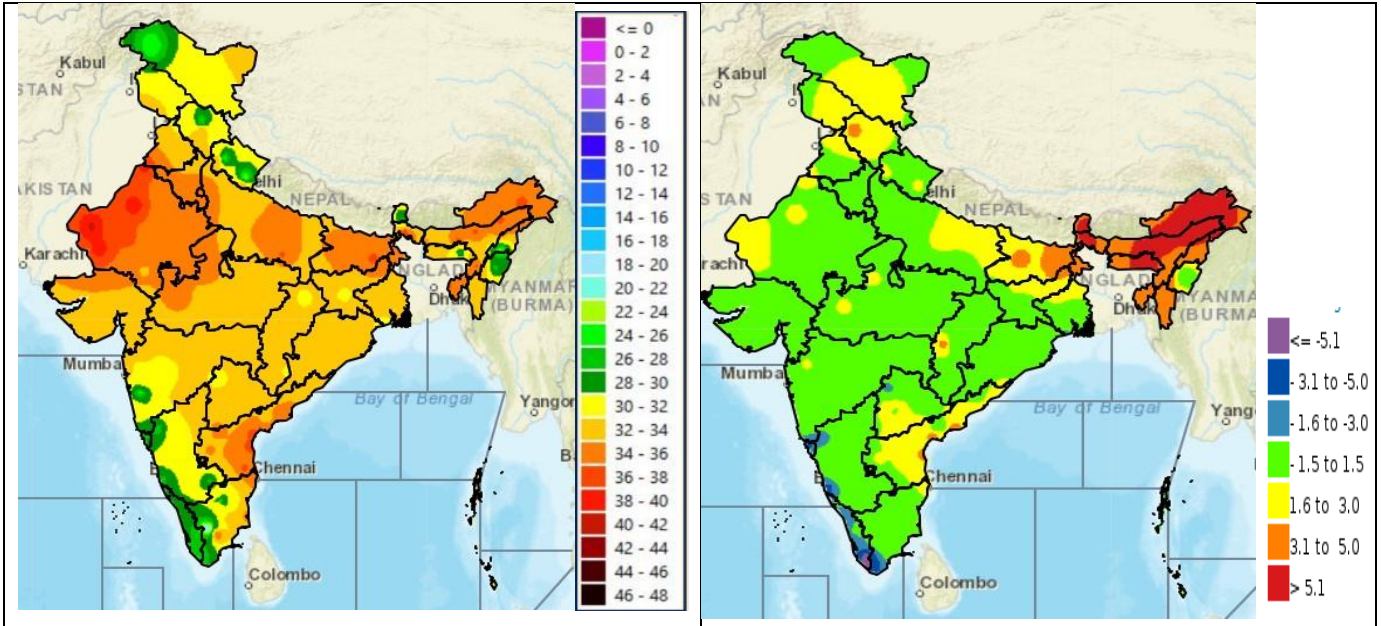
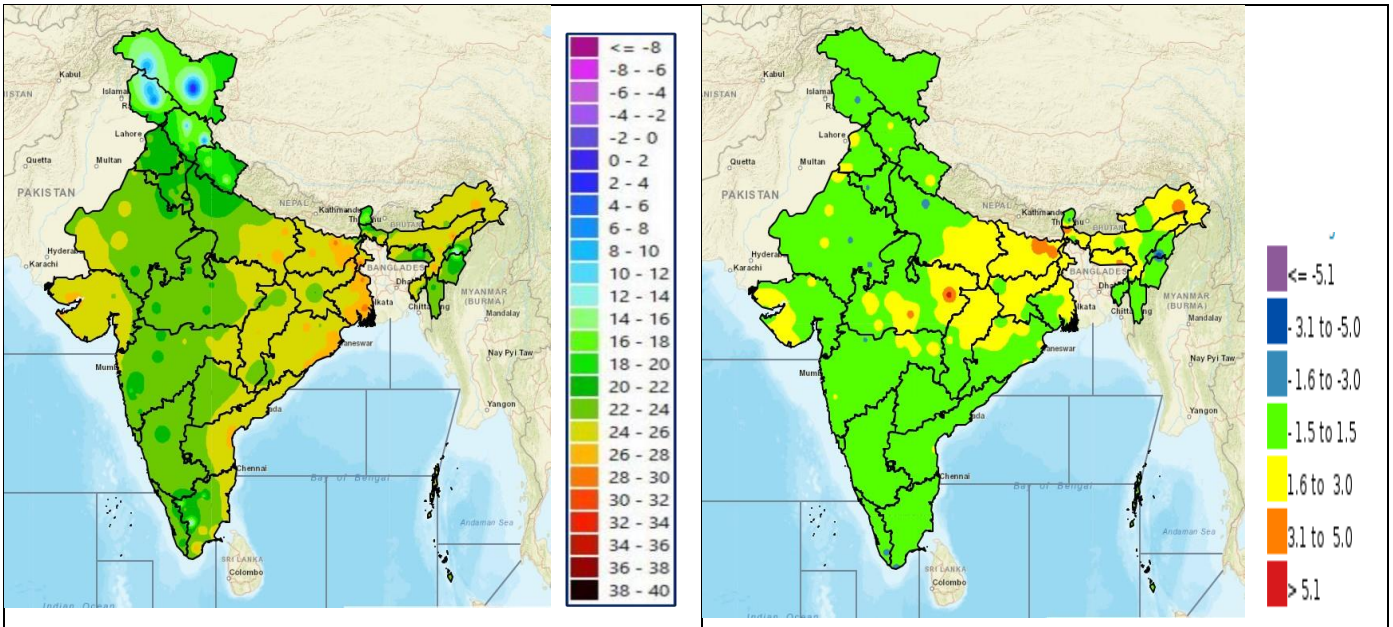


Fig. 3: Minimum Temperatures Dated 29.09.2023

Fig. 4: Departure of Minimum Temp. Dated 29.09.2023

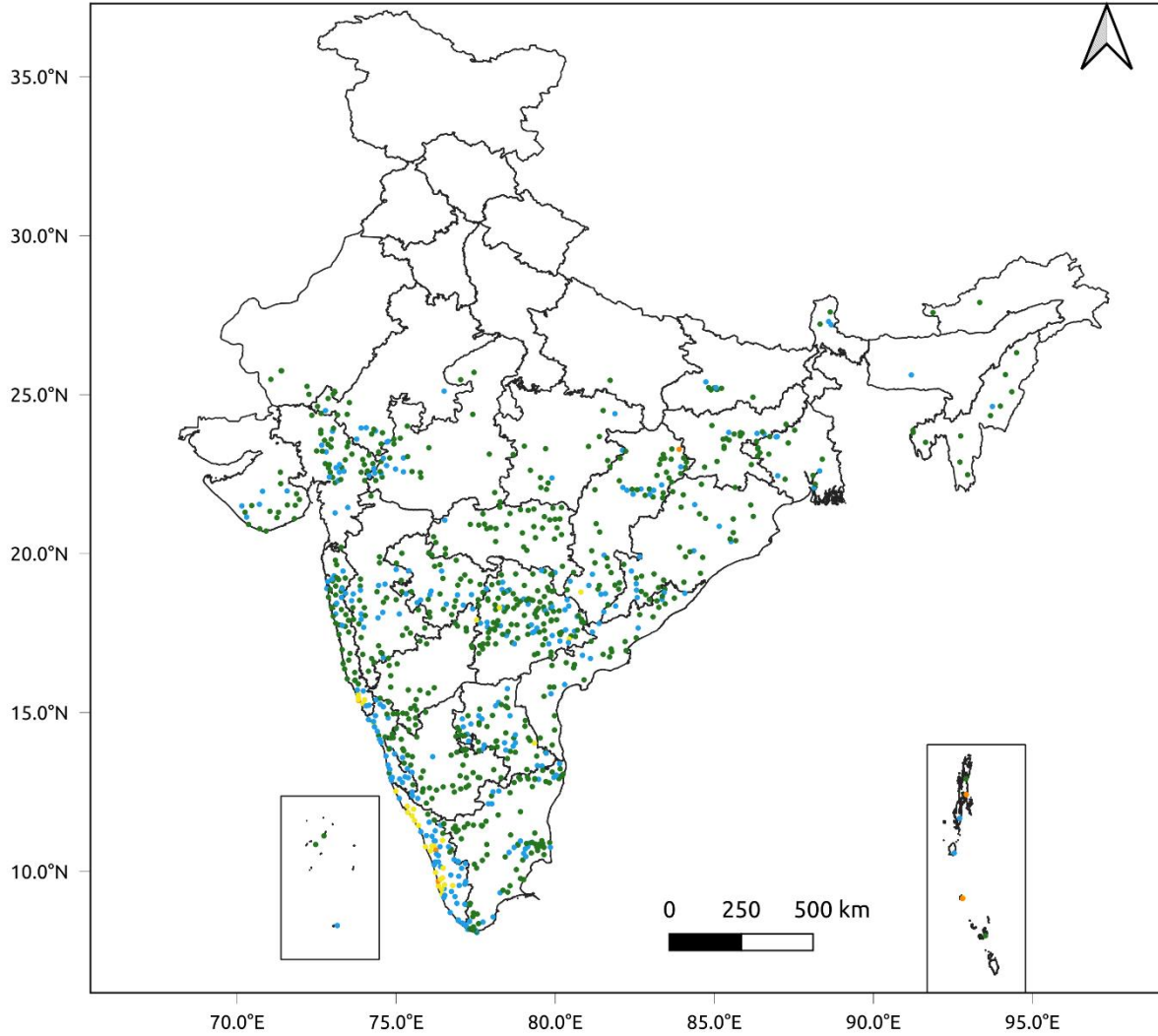


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Fig. 5: Accumulated Rainfall (mm) during past 24 hours

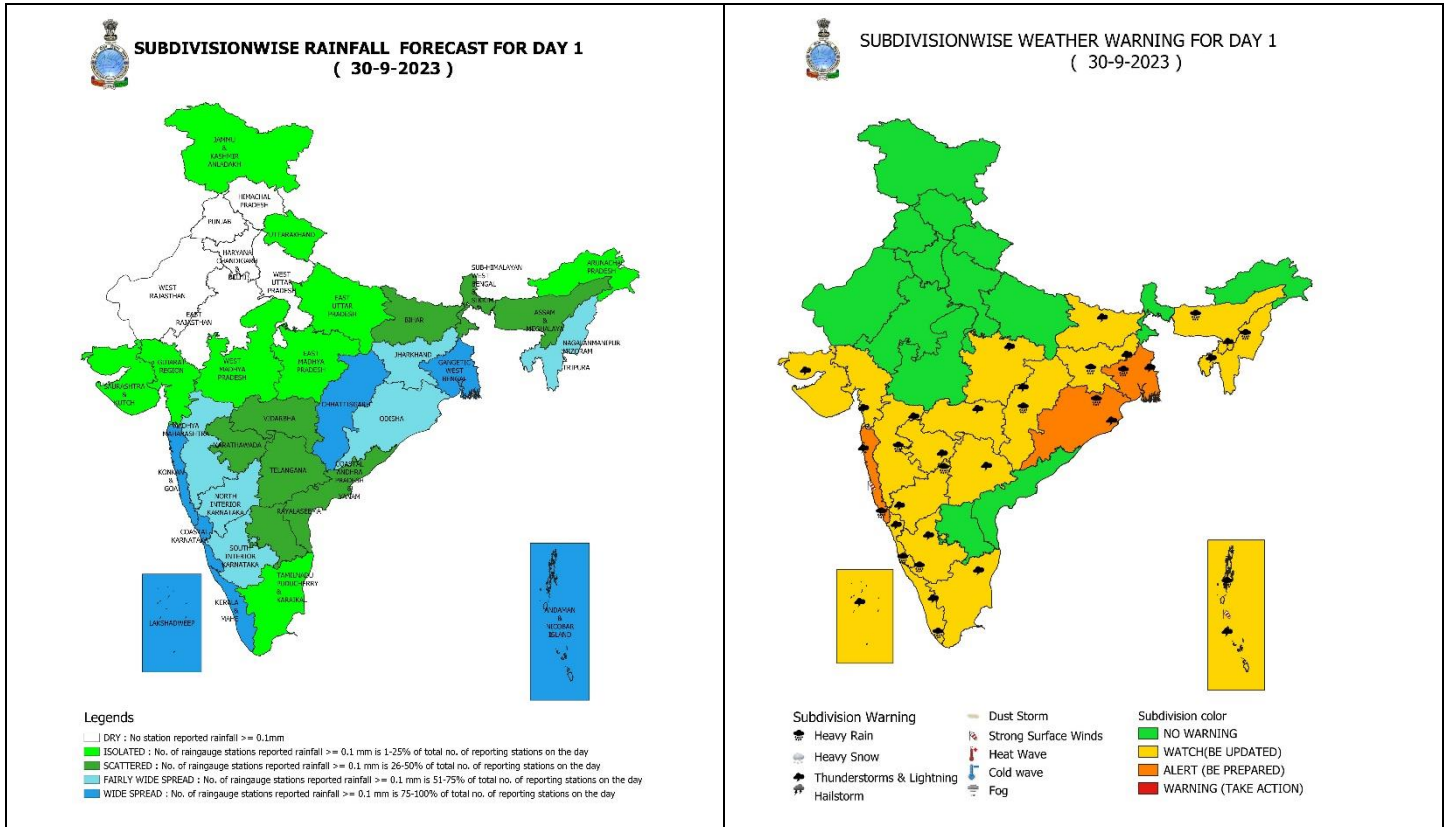


24 Hr cumulative rainfall recorded over different stations during 0830 IST of 28-9-2023 to 0830 IST of 29-9-2023



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)

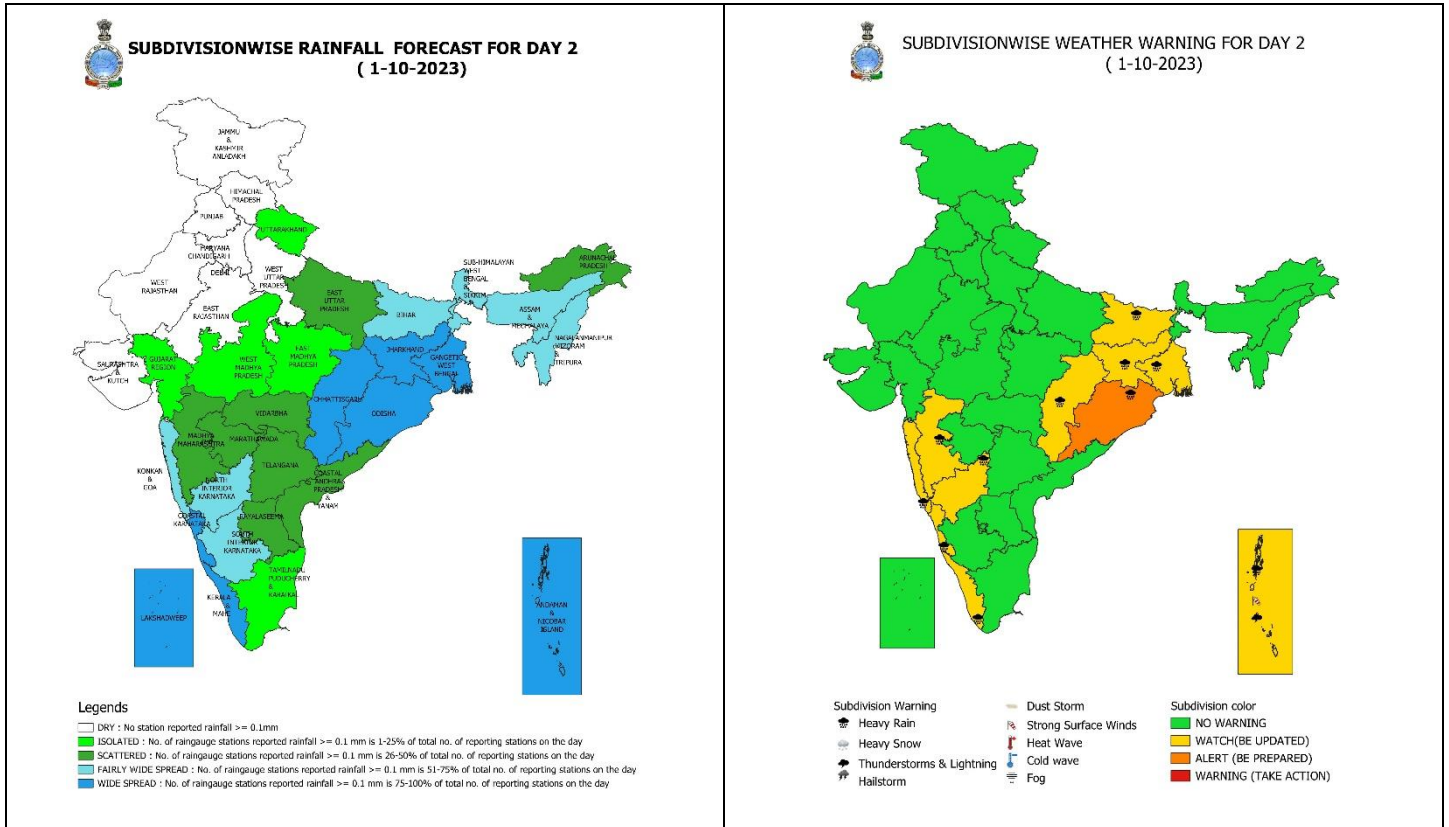


30 September (Day 1): -

- ❖ **Heavy to very heavy rainfall** very likely at isolated places over Gangetic West Bengal, Odisha, Konkan & Goa; **Heavy rainfall** at isolated places over Chhattisgarh, Andaman & Nicobar Islands, Jharkhand, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Madhya Maharashtra, Karnataka, 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, Gangetic West Bengal, Bihar, Jharkhand, Odisha, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Konkan & Goa, Madhya Maharashtra, Marathwada, Saurashtra & Kutch, Gujarat Region, Telangana, Karnataka, Lakshadweep.
- ❖ **Squally winds speed reaching 40-50 kmph gusting to 60 kmph** are prevailing over Eastcentral Arabian Sea along & off Maharashtra-Goa coasts. It is likely to increase becoming **45-55 kmph gusting to 65 kmph** from today evening and likely to continue till tomorrow morning. **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 Karnataka coasts and Lakshadweep areas. **Fishermen are advised not to venture into these areas.**

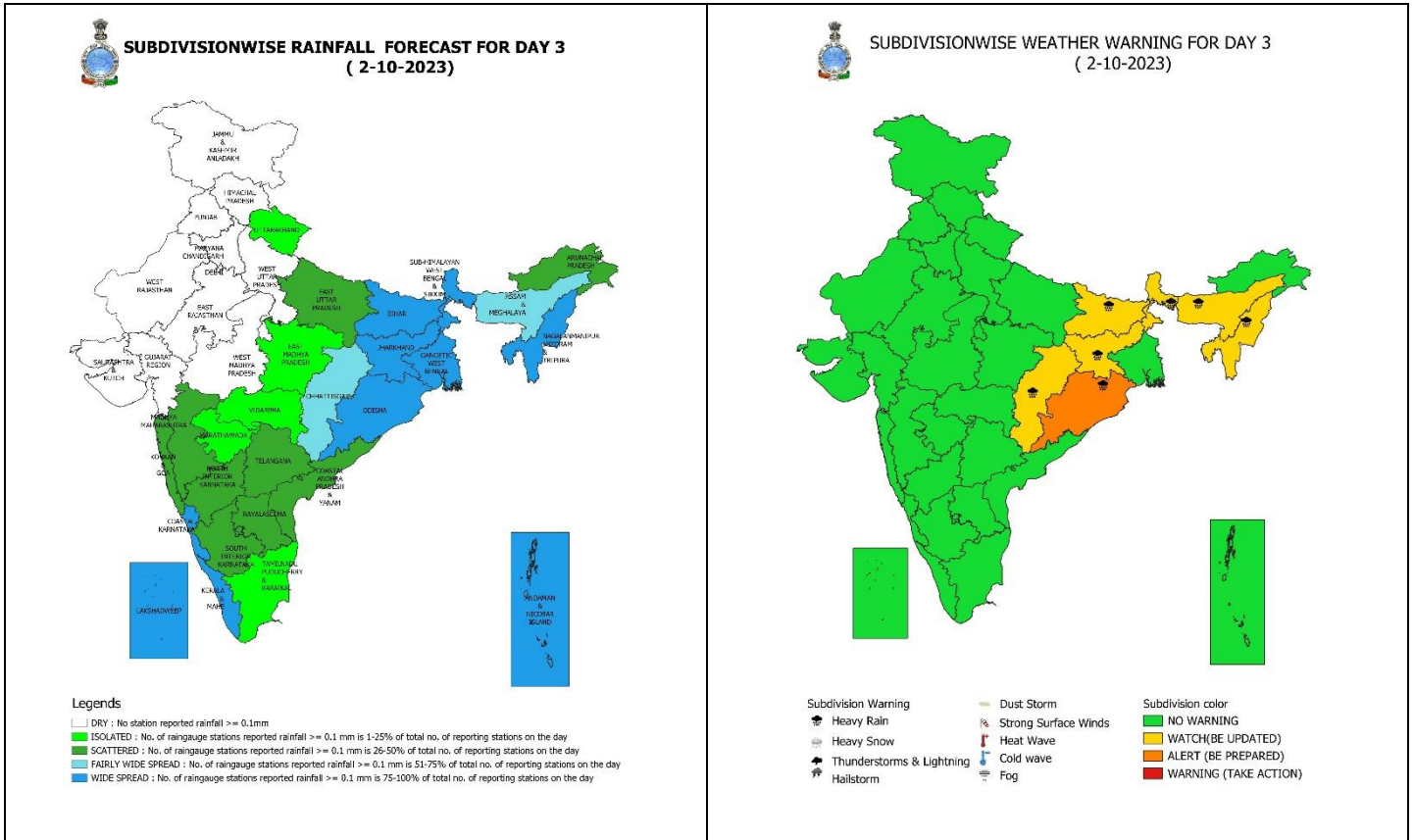
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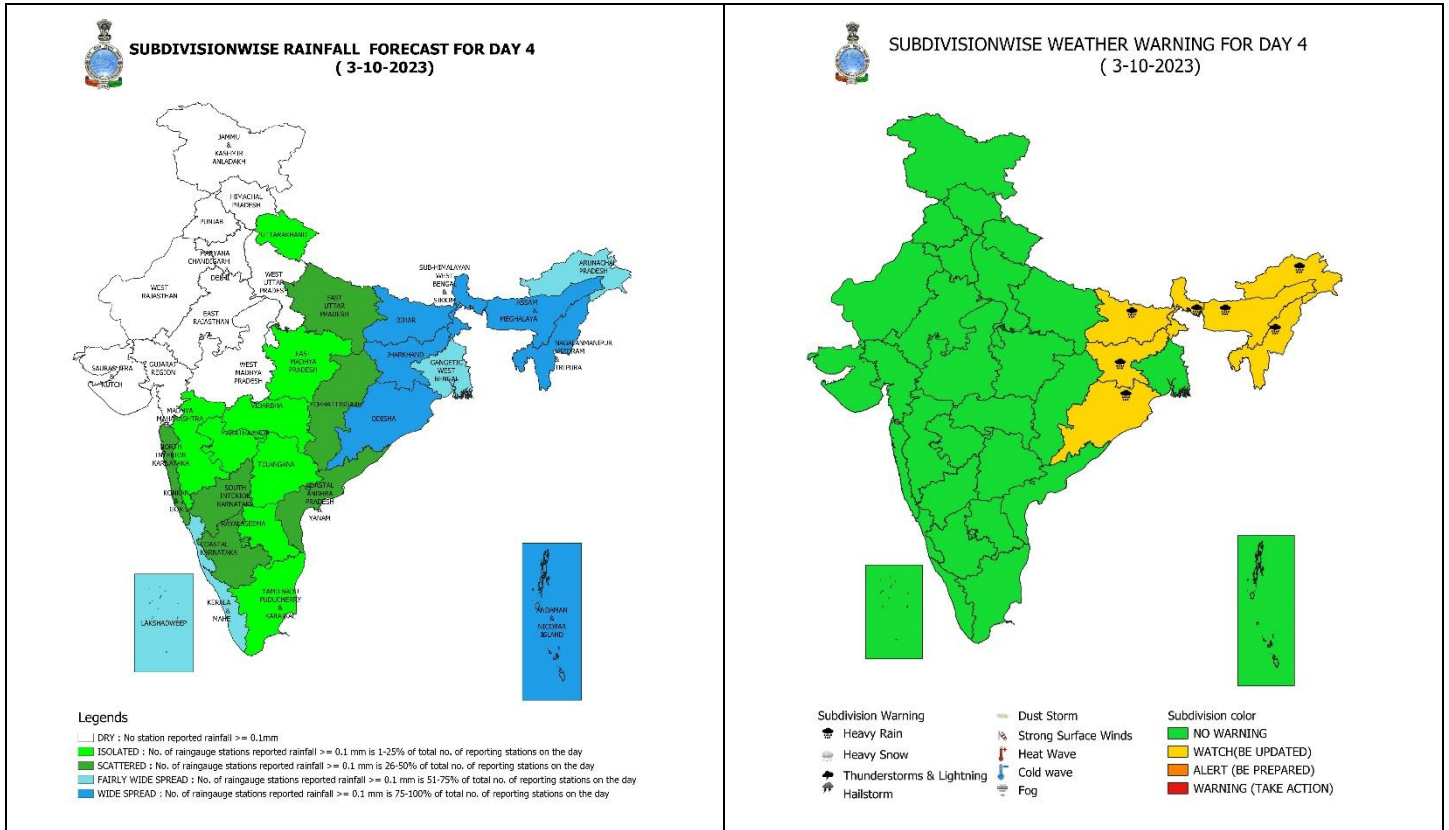
01 October (Day 2): -

- ❖ **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.
- ❖ **Squally wind speed of 45-55 kmph gusting to 65 kmph** very likely over Eastcentral Arabian Sea along & off Maharashtra-Goa coasts, Southwest and adjoining Westcentral Arabian Sea **and Squally weather speed of 45-55 kmph gusting to 65 kmph** likely over Northwest Bay of Bengal along & off north Odisha-Bengal coasts; **Squally weather speed of 40-45 kmph gusting to 55 kmph** over South & adjoining Central Bay of Bengal, North Andaman Sea. **Fishermen are advised not to venture into these areas.**



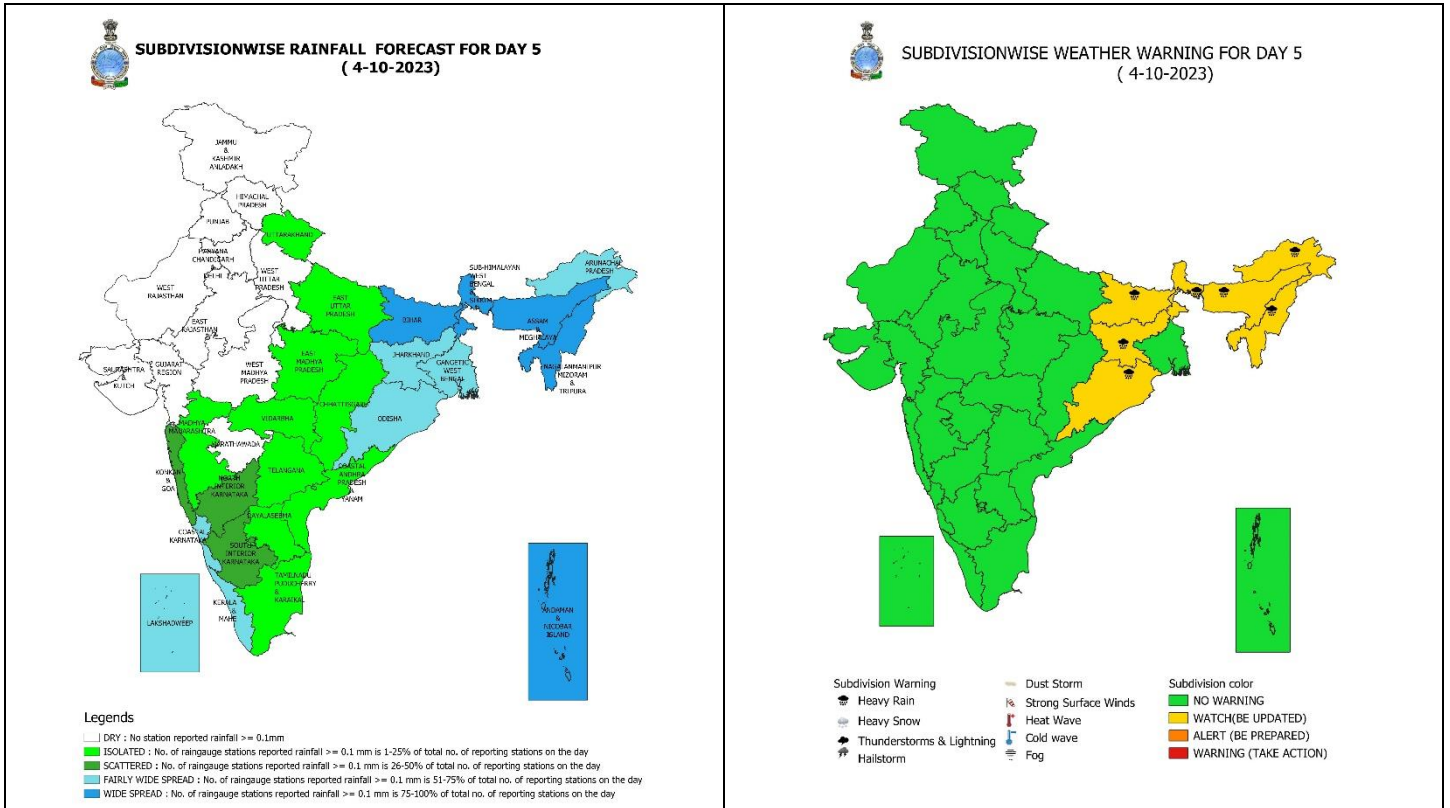
02 October (Day 3): -

- ❖ **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, Nagaland, Manipur, Mizoram & Tripura.
- ❖ **Squally wind speed of 45-55 kmph gusting to 65 kmph** likely over Southwest and adjoining Westcentral Arabian Sea and **Squally weather speed of 40-45 kmph gusting to 55 kmph** likely over South, Central and Northwest Bay of Bengal along & off north Odisha-Bengal coasts and Gulf of Mannar. **Fishermen are advised not to venture into these areas.**



03 October (Day 4): -

- ❖ **Heavy to very heavy rainfall** likely at isolated places over Sub-Himalayan West Bengal & Sikkim; **Heavy rainfall** at isolated places over Bihar, Jharkhand, Odisha, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura.
- ❖ **Squally wind speed of 45-55 kmph gusting to 65 kmph** likely over Southwest and adjoining Westcentral Arabian Sea and **Squally weather speed of 40-45 kmph gusting to 55 kmph** likely over Southwest & adjoining Westcentral and Northwest Bay of Bengal along & off north Odisha-Bengal coasts. **Fishermen are advised not to venture into these areas.**



04 October (Day 5): -

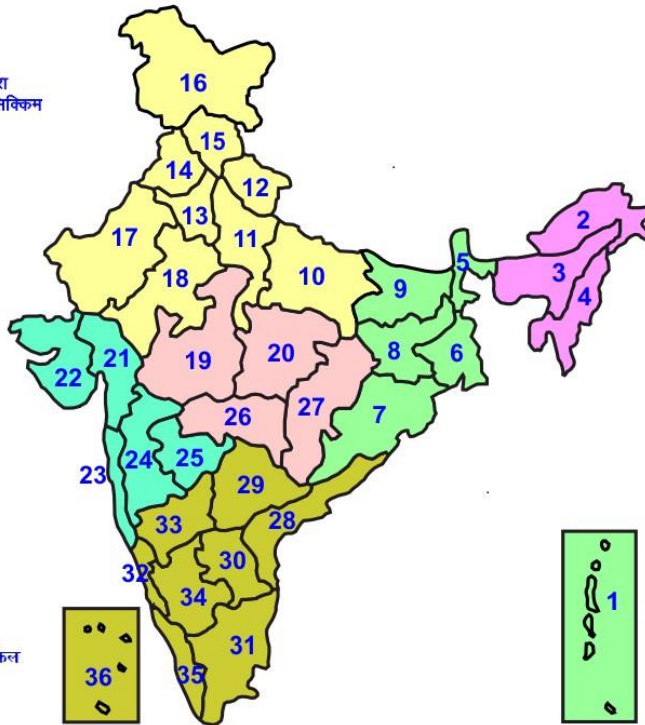
- ❖ **Heavy to very heavy rainfall** likely at isolated places over Sub-Himalayan West Bengal & Sikkim; **Heavy rainfall** at isolated places over Bihar, Jharkhand, Odisha, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura.
- ❖ **Squally wind speed of 45-55 kmph gusting to 65 kmph** likely over Southwest and adjoining Westcentral Arabian Sea and **Squally weather speed of 40-45 kmph gusting to 55 kmph** likely over Southwest & adjoining Westcentral and Northwest Bay of Bengal along & off north Odisha-Bengal coasts. **Fishermen are advised not to venture into these areas.**

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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

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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)

* 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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