

Thursday, March 28, 2024 Time of Issue: 1345 hours IST (MID-DAY)

ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

Significant Weather Features:

Weather Systems and Forecast & Warnings:

- A cyclonic circulation lies over Bihar and another over south Assam in lower tropospheric levels. Under the influence of these systems:
 - Isolated to scattered rainfall rainfall/snowfall with isolated thunderstorms & lightning very likely over Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura on 28th & 29th and increase thereafter with fairly widespread to widespread light to moderate rainfall/snowfall with isolated thunderstorms & lightning very likely over Arunachal Pradesh and scattered to fairly widespread over Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura and Sub-Himalayan West Bengal & Sikkim during 30th March-03rd April, 2024.
 - Isolated heavy rainfall/snowfall very likely over Arunachal Pradesh and isolated heavy rainfall over Assam & Meghalaya on 30th March & 01st April and isolated heavy to very heavy over Arunachal Pradesh & Assam & Meahalava on 31st March, 2024.
 - Isolated light to moderate rainfall with thunderstorms & lightning very likely over Gangetic West Bengal and Odisha during 28th March-01st April, 2024.
 - Isolated light to moderate rainfall very likely over Bihar on 28th, 30th and over Jharkhand with thunderstorms & lightning on 28th, 30th & 31st March, 2024.
- * A Western Disturbance as a trough in lower & middle tropospheric westerlies runs roughly along Long. 56°E to the north of Lat. 22°N. A cyclonic circulation lies over northwest Rajasthan & neighbourhood in lower tropospheric levels. Under their influence:
 - Fairly widespread to widespread light rainfall/snowfall with isolated thunderstorms & lightning likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh and Uttarakhand during 28th-31st March, 2024.
 - Isolated heavy rainfall/snowfall very likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad and Himachal Pradesh on 29th & 30th March, 2024.
 - Isolated light to moderate rainfall with thunderstorms & lightning likely over Punjab, Harvana, Chandigarh, West Uttar Pradesh during 28th -31st; Rajasthan and East Uttar Pradesh on 29th & 30th March, 2024.
 - Isolated hailstorm also likely over Jammu & Kashmir on 29th; over Himachal Pradesh on 28th & 29th; over Uttarakhand during 29th-31st, Punjab and Haryana & Chandigarh on 29th & 30th March, 2024.

Maximum temperature observation and forecast for next 5 days:

- Yesterday's, the maximum temperatures were in the range 40-42°C at some places over West Madhya Pradesh, Vidarbha, Gujarat Region, Marathwada, Madhya Maharashtra and West Rajasthan; at isolated places over North Interior Karnataka, Telangana, Rayalaseema, East Madhya Pradesh and East Rajasthan which were above normal by 3-4°C, in the range 36-39°C over at many parts of peninsular & central India and Odisha; at some parts over south Uttar Pradesh, Delhi and Saurashtra & Kutch and at isolated pockets over south Haryana, south Gangetic West Bengal, Jharkhand and south Bihar which were above normal by 1-2°C and in the range 32-35°C over states of Indo-Gangetic plane comprising of Punjab and remaining parts of north Haryana and north Uttar Pradesh, north Bihar at isolated pockets of remaining parts of Tripura, and south Assam which were below normal by
- Currently, the maximum temperatures are exceeding 95th percentile of climatological value at many places over Delhi and adjoining south Haryana; at few pockets of West Madhya Pradesh and adjoining East Madhya Pradesh, Marathwada and adjoining Vidarbha, Madhya Maharashtra; isolated pockets over Rajasthan, West Uttar Pradesh, Saurashtra & Kutch and adjoining Gujarat Region, Kerala & Mahe, costal Tamil Nadu. These are likely to continue to exceed 95th percentile of climatological value over extended areas of Rajasthan, Madhya Pradesh, Maharashtra, interior Odisha, interior Karnataka and Kerala & Mahe on 28th & 29th March.
- No significant change in maximum temperatures very likely over Northwest India during next 24 hours and fall by 2-3°C thereafter.
- Gradual rise in maximum temperatures by 2-3°C very likely over Central & East India during next 2 days and no significant change thereafter.
- No significant change in maximum temperatures very likely over rest part of the country during next 5 days.
- Heat wave conditions very likely in isolated pockets over West Madhya Pradesh on 28th; North Interior Karnataka on 28th & 29th and Vidarbha on 29th & 30th March, 2024.
- Warm night very likely to prevail in isolated pockets over Gujarat, Marathwada and Madhya Maharashtra on 28th & 29th March,
- Hot and humid weather very likely to prevail over Saurashtra & Kutch on 28th & 29th; over Rayalaseema, Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe during 28th March-01st April, 2024.







Main Weather Observations:

- ❖ Rainfall/snowfall distribution (from 0830 hours IST of yesterday to 0830 hours IST of today): at a few places over Sikkim and at isolated places over Arunachal Pradesh, Jammu-Kashmir and Himachal Pradesh.
- * Rainfall distribution (from 0830 hours IST of yesterday to 0830 hours IST of today): at a few places over Sub-Himalayan West Bengal; at isolated places over Punjab, Haryana, West Rajasthan, Odisha, Gangetic West Bengal, Vidarbha, Chhattisgarh, Marathwada, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura and Tamil Nadu.
- ❖ Significant amount of rainfall (from 0830 hours IST of yesterday to 0830 hours IST of today): Assam & Meghalaya: B P Ghat (dist Karimganj) 2, Umrangso (dist N. C. Hills) 2, Umrangshu Arg (dist N. C. Hills) 1, Silchar (dist Cachar) 1, Kheronighat (dist Karbi Anglong) 1; Nagaland, Manipur, Mizoram & Tripura: Tamenglong (dist Tamenglong) 2, Senapati (dist Senapati) 2, Chottabekra (dist Imphal West) 1; Gangetic West Bengal: Kalyani SMO (dist Nadia) 1; Odisha: Udala (dist Mayurbhanj) 2, Jaipur (dist Balasore) 1.
- ❖ Warm night conditions prevailed in isolated pockets over north Gujarat, Marathwada and Madhya Maharashtra.
- **\Display Heat wave conditions** prevailed in isolated pockets over West Rajasthan.
- ❖ Minimum Temperature Departures (as on 28-03-2024): Minimum temperatures are appreciably above normal (3.1°C to 5.0°C) at most places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh and Uttarakhand; at many places over West Uttar Pradesh and Haryana-Chandigarh-Delhi; at a few places over Punjab, Rajasthan, Madhya Maharashtra and Saurashtra & Kutch; at isolated places over West Madhya Pradesh and Bihar; above normal (1.6°C to 3.0°C) at most places over East Uttar Pradesh, at many places over East Madhya Pradesh; at a few places over Gujarat Region, Konkan & Goa, Vidarbha, Marathwada, Chhattisgarh and North Interior Karnataka; at isolated places over West Bengal & Sikkim, Telangana, Tamil Nadu, Puducherry & Karaikal. These are below normal (-1.6°C to 3.0°C) at isolated places over Assam & Meghalaya, South Interior Karnataka and near normal over rest parts of the country. Today, the lowest minimum temperature of 15.8°C is reported at Ludhiana (Punjab) over the plains of the country.
- ❖ Maximum Temperature Departures (as on 27-03-2024): Maximum temperatures were appreciably above normal (3.1°C to 5.0°C) at a few places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh and Rajasthan; at isolated places over Haryana-Chandigarh-Delhi and Vidarbha; above normal (1.6°C to 3.0°C) at most places over Punjab, Uttarakhand, West Uttar Pradesh, Madhya Pradesh; at many places over Gujarat Region; at a few places over Madhya Maharashtra, Marathwada; at isolated places over Saurashtra & Kutch, North Interior Karnataka, Kerala & Mahe, Tamil Nadu, Puducherry & Karaikal, Chhattisgarh and Jharkhand. These were appreciably below normal (-3.1°C to -5.0°C) at a few places over Sub-Himalayan West Bengal & Sikkim; at isolated places over Assam & Meghalaya; below normal (-1.6°C to -3.0°C) at isolated places over Bihar, Gangetic West Bengal, Nagaland, Manipur, Mizoram & Tripura and Arunachal Pradesh and near normal over rest parts of the country. Yesterday, the highest maximum temperature of 42.8°C was reported at Akola (Vidarbha) over the country.

राष्ट्रीय मौसम पूर्वानुमान केन्द्र भारत मौसम विज्ञान विभाग पृथ्वी विज्ञान मंत्रालय



National Weather Forecasting Centre India Meteorological Department Ministry of Earth Sciences

Meteorological Analysis (Based on 0830 hours IST)

- ❖ The Western Disturbance now seen as a trough in middle to upper tropospheric westerlies with its axis at 5.8 km above mean sea level runs roughly along Long. 56°E to the north of Lat. 22°N.
- The cyclonic circulation over west Rajasthan & adjoining Pakistan now lies over northwest Rajasthan & adjoining Pakistan and extends upto 1.5 km above mean sea level.
- ❖ A cyclonic circulation lies over south Assam & neighbourhood and extends upto 1.5 km above mean sea level.
- ❖ Another cyclonic circulation lies over north Bihar at 0.9 km above mean sea level.
- The trough/wind discontinuity from South Interior Karnataka to east Vidarbha now runs from North Interior Karnataka to central parts of Madhya Pradesh and extends upto 1.5 km above mean sea level.
- The cyclonic circulation over Kerala & neighbourhood at 1.5 km above mean sea level has become less marked.
- ❖ The trough from northwest Bihar to southeast Assam extended upto 1.5 km above mean sea level has become less marked.
- ❖ The trough in westerlies roughly along Long. 87 °E to the north of Lat. 21°N at 1.5 km above mean sea level has moved away eastwards.

Weather Forecast for next 7 days (Upto 0830 hours IST of 04th April, 2024)

- ❖ Meteorological sub-division wise detailed 7 days rainfall forecast is given in Table-1.
- ❖ No significant change in maximum temperatures very likely over Northwest India during next 24 hours and fall by 2-3°C thereafter.
- ❖ Gradual rise in maximum temperatures by 2-3°C very likely over Central & East India during next 2 days and no significant change thereafter.
- ❖ No significant change in maximum temperatures very likely over rest part of the country during next 5 days.

Weather Outlook for subsequent 3 days (During 04th-06th April, 2024)

- Scattered to fairly widespread light to moderate rainfall/snowfall likely over Northeast India and Isolated to scattered light rainfall/snowfall over Western Himalayan Region.
- ❖ Isolated light rainfall likely over Kerala & Mahe and Tamil Nadu.
- ❖ Dry weather likely to prevail over rest parts of the country.



राष्ट्रीय मौसम पूर्वानुमान केन्द्र भारत मौसम विज्ञान विभाग पृथ्वी विज्ञान मंत्रालय



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Table-1

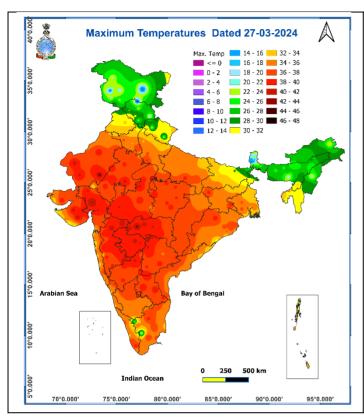
7 Days Rainfall Forecast								
S. No.	Subdivision	28- Mar Day 1	29- Mar Day 2	30- Mar Day 3	31- Mar Day 4	01- Apr Day 5	02- Apr Day 6	03- Apr Day 7
1	ANDAMAN & NICOBAR ISLANDS	ISOL	ISOL	ISOL	SCT	ISOL	DRY	DRY
2	ARUNACHAL PRADESH	ISOL	SCT	FWS	WS	WS	FWS	FWS
3	ASSAM & MEGHALAYA	ISOL	SCT	FWS	WS	FWS	FWS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

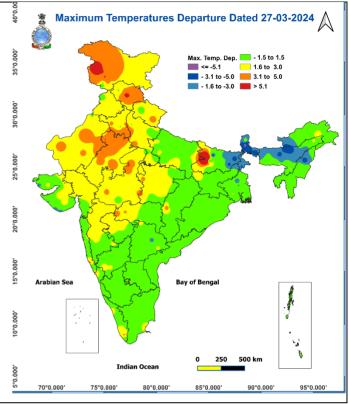
Legend	Legend Category	
WS	Widespread/Most Places	76-100
FWS	Fairly Widespread/Many Places	51-75
SCT	Scattered/ A Few Places	26-50
ISOL	Isolated Places	1-25
DRY	No Rain	0



Fig. 1: Maximum Temperatures







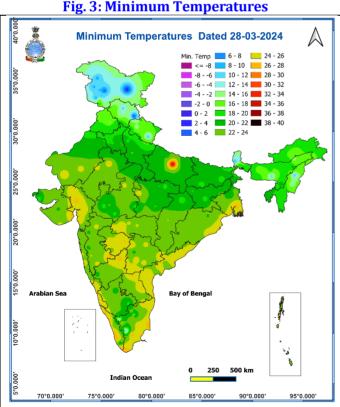


Fig. 4: Departure of Minimum Temperatures

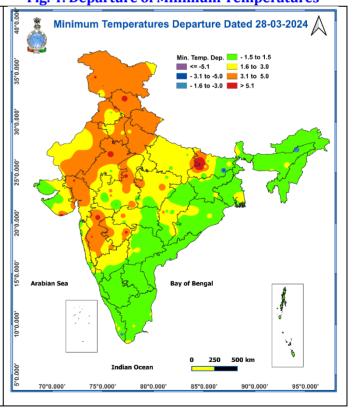


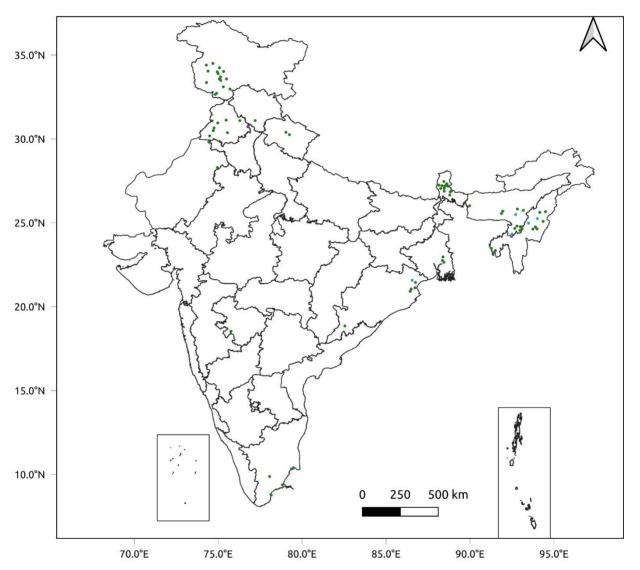




Fig. 5: Accumulated Rainfall (mm) during past 24 hours



24 Hr cumulative rainfall recorded over different stations during 0830 IST of 27-3-2024 to 0830 IST of 28-3-2024

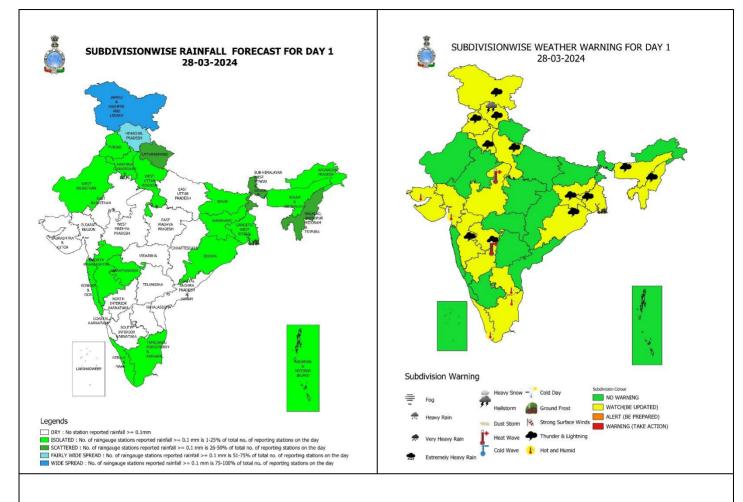


Legends

- 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)





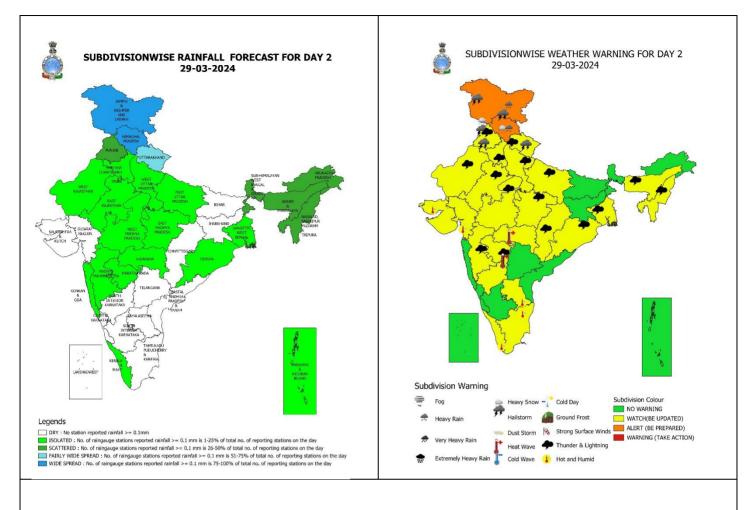


28 March (Day 1):

- ❖ Thunderstorm accompanied with lightning & hailstorm very likely at isolated places over Himachal Pradesh; with lightning & gusty winds (speed reaching 40-50 kmph) at isolated places over Gangetic West Bengal; with lightning & gusty winds (speed reaching 30-40 kmph) at isolated places over Punjab, Haryana, Chandigarh; with lightning at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, West Uttar Pradesh, Jharkhand, Odisha, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Madhya Maharashtra, Marathwada.
- **Heat wave conditions** very likely at isolated places over West Madhya Pradesh and North Interior Karnataka.
- ❖ Hot and humid weather very likely to prevail over Saurashtra & Kutch, Rayalaseema, Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe.





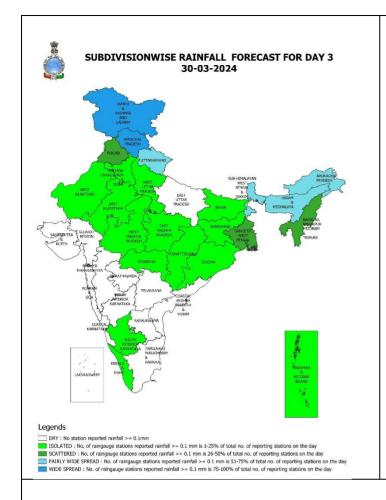


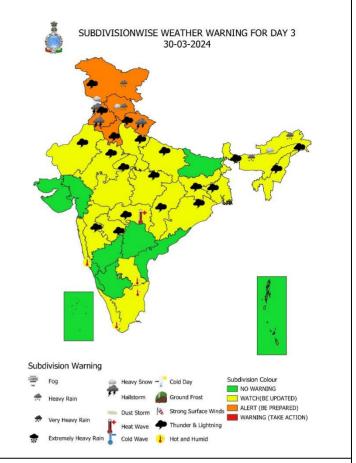
29 March (Day 2):

- ❖ Thunderstorm accompanied with lightning, gusty winds (speed reaching 40-50 kmph) & hailstorm very likely at isolated places over Uttarakhand, Punjab, Haryana, Chandigarh; with lightning & hailstorm at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh; with lightning & gusty winds (speed reaching 40-50 kmph) at isolated places over East Rajasthan; with lightning & gusty winds (speed reaching 30-40 kmph) at isolated places over Uttar Pradesh, West Rajasthan, Gangetic West Bengal; with lightning at isolated places over Madhya Pradesh, Odisha, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Madhya Maharashtra, Marathwada.
- * Heavy rainfall/snowfall very likely at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh.
- **\Display Heat wave conditions** very likely at isolated places over Vidarbha and North Interior Karnataka.
- ❖ Hot and humid weather very likely to prevail over Saurashtra & Kutch, Rayalaseema, Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe.







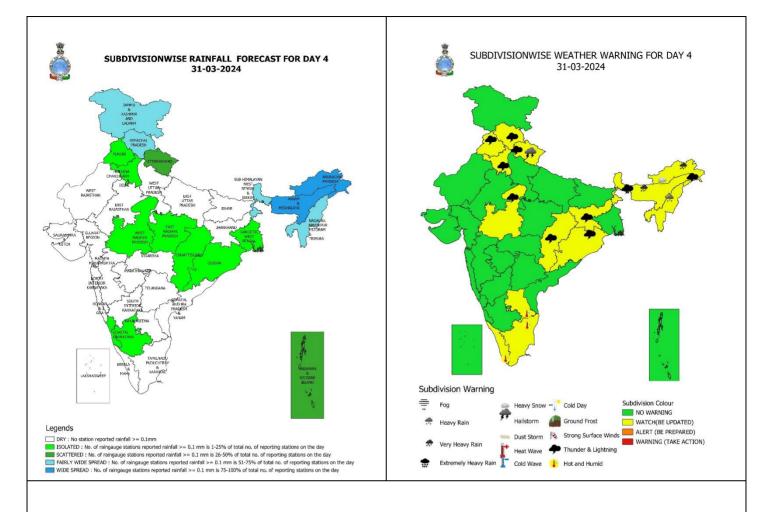


30 March (Day 3):

- Thunderstorm accompanied with lightning, gusty winds (speed reaching 40-50 kmph) & hailstorm very likely at isolated places over Uttarakhand, Haryana, Chandigarh; with lightning, gusty winds (speed reaching 30-40 kmph) & hailstorm at isolated places over Punjab; with lightning & gusty winds (speed reaching 30-40 kmph) at isolated places over Uttar Pradesh, Rajasthan, Madhya Pradesh, Vidarbha, Chhattisgarh, Bihar, West Bengal & Sikkim, Nagaland, Manipur, Mizoram & Tripura; with lightning at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Jharkhand, Odisha, Arunachal Pradesh, Assam & Meghalaya, Madhya Maharashtra and Marathwada.
- * Heavy rainfall/snowfall very likely at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Arunachal Pradesh; Heavy rainfall at isolated places over Assam & Meghalaya.
- **\Delta Heat wave conditions** very likely at isolated places over Vidarbha.
- ❖ Hot and humid weather very likely to prevail over Konkan & Goa, Rayalaseema, Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe.





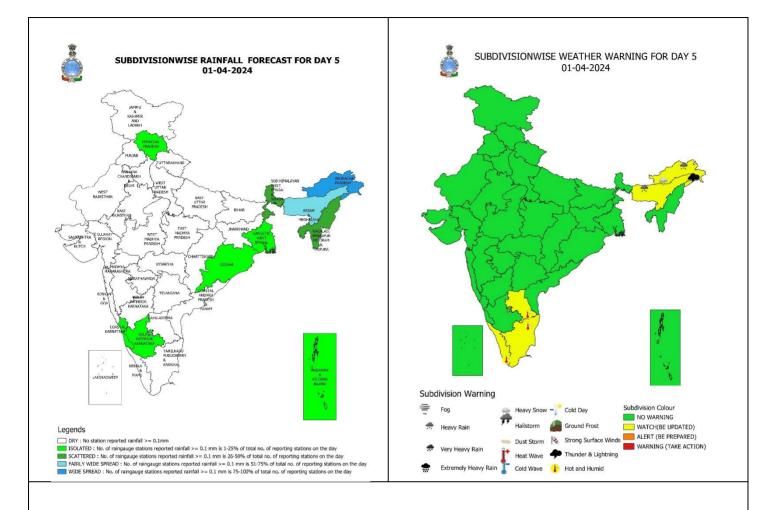


31 March (Day 4):

- Thunderstorm accompanied with lightning, gusty winds (speed reaching 30-40 kmph) & hailstorm likely at isolated places over Uttarakhand; with lightning & gusty winds (speed reaching 30-40 kmph) at isolated places over Punjab, Haryana, Chandigarh, West Madhya Pradesh, Sub-Himalayan West Bengal & Sikkim; with lightning at isolated places over Jharkhand, Odisha and Arunachal Pradesh.
- * Heavy to very heavy rainfall/ snowfall likely at isolated places over Arunachal Pradesh; Heavy to very heavy rainfall at isolated places over Assam & Meghalaya; Heavy rainfall at isolated places over Nagaland.
- ❖ Hot and humid weather likely to prevail over Rayalaseema, Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe.







01 April (Day 5):

- **Thunderstorm accompanied with lightning** likely at isolated places over Arunachal Pradesh.
- ❖ Heavy rainfall/snowfall likely at isolated places over Arunachal Pradesh; Heavy rainfall at isolated places over Assam & Meghalaya.
- ❖ Hot and humid weather likely to prevail over Rayalaseema, Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe.







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 Widespred (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





LEGENDS Probabilistic Forecast WARNING Probability of Occurrence (%) WARNING (TAKE ACTION) Terms ALERT (BE PREPARED) Likely WATCH (BE UPDATED) Very Likely Most Likely > 75 Heavy: 64.5 to 115.5 mm/cm * Very Heavy: 115.6 to 204.4 mm/cm* Extremely Heavy: > 204.4 mm/cm Rain/ Snow When maximum temperature of a station reaches ≥40° C for plains and ≥30° 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 ≥6.5° C (b). Based on Actual maximum temperature **Heat Wave** Heat Wave: When actual maximum temperature ≥45°C Severe Heat Wave: When actual maximum temperature ≥47°C (c). Criteria for heat wave for coastal stations When maximum temperature departure is >4.5°C from normal. Heat Wave may be described provided maximum temperature ≥37°C When maximum temperature remains 40°C **J+**Warm Night Warm Night: When minimum temperature departure 4.5 °C to 6.4 °C Severe Warm Night: When minimum temperature departure >6.4 °C. When minimum temperature of a station ≤10°C for plains and ≤0°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 ≤ -6.5 °C (b) Based on actual Minimum Temperature (for Plains only) Cold Wave Cold Wave : When Minimum Temperature is ≤ 4.0 °C Severe Cold Wave: When Minimum Temperature is ≤ 2.0 °C When Minimum Temperature departure is ≤-4.5 °C & actual Minimum Temperature is ≤ 15 °C When minimum temperature of a station ≤10°C for plains and ≤0°C for hilly regions Based on departure Cold Day: Maximum Temperature Departure from normal -4.5 °C to -6.4 °C. **Cold Day** Severe Cold Day: Maximum Temperature Departure from normal ≤ -6.5 °C Phenomenon of small droplets suspended in air and the horizontal visibility < 1km Moderate Fog: When the visibility between 500-200 metres 0 Dense Fog: when the visibility between 50-200 metres Fog Very Dense Fog: when the visibility < 50 metres 44 Sudden electrical discharges manifested by a flash of light (Lightning) and a sharp rumbling sound (thunder) Thunderstorm An ensemble of particles of dust or sand energetically lifted to great heights by a strong and **Dust/Sand** turbulent wind. Storm Ice deposits on ground 55 Air temperature ≤4°C (over Plains) Frost A strong wind that rises suddenly, lasts for atleast 1 minute. Moderate: Wind speed 52-61 kmph 4 Severe: Wind speed 62-87 kmph Squall Very Severe: Wind speed >87 kmph 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 Sea State Phenomenal: Wind speed >117 kmph (>63 knots) & Wave height >14 metre Cyclonic Storm: Wind speed 62-87 kmph (34-47 knots) Severe Cyclonic Storm: Wind speed 88-117 kmph (48-63 knots) 9 Very Severe Cyclonic Storm: Wind speed 118-165 kmph (64 - 89 knots) Extremely Severe Cyclonic Storm: Wind speed 166-220 kmph (90 -119 knots) Cyclone Super Cyclone Strom: Wind speed >220 kmph (>119 knots)