

पृथ्वी विज्ञान विभाग India Meteorological D पृथ्वी विज्ञान मंत्रालय Ministry of Earth So

> Sunday, April 21, 2024 Time of Issue: 1630 hours IST (EVENING)

ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

Significant Weather Features:

Weather Systems and Forecast & Warnings:

- A cyclonic circulation lies over northeast Assam, another over northeast Bangladesh and a north-south trough runs from the cyclonic circulation over northeast Bangladesh to north Bay of Bengal in lower tropospheric levels. Under their influence:
 - ✓ Fairly widespread to widespread light to moderate rainfall/snowfall accompanied with isolated **thunderstorm & lightning & gusty winds (30-40 kmph)** very likely over Arunachal Pradesh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura during 21st-24th and isolated to scattered rainfall over Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura during 25th-27th April, 2024.
 - ✓ Isolated to scattered light/moderate rainfall accompanied with isolated **thunderstorm & lightning & gusty winds (30-40 kmph)** very likely over Sub-Himalayan West Bengal & Sikkim during 21st-24th; Odisha during 21st-23th; Gangetic West Bengal and Jharkhand on 23rd April, 2024.
 - ✓ **Isolated heavy rainfall** very likely over Arunachal Pradesh during 21st-25th; Assam & Meghalaya during 21st-23rd and Nagaland, Manipur on 21st April, 2024. **Isolated very heavy rainfall** also very likely over Arunachal Pradesh on 23rd April, 2024.
- ❖ A Western Disturbance as a trough runs along Long. 70°E to the north of Lat. 28°N and another Western Disturbance as a cyclonic circulation lies over east Iran in middle tropospheric levels. Under their influence:
 - ✓ Isolated to scattered light to moderate rainfall/snowfall accompanied with **thunderstorm**, **lightning** very likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad on 21st & 22nd; Himachal Pradesh during 21st-23rd and Uttarakhand on 22nd & 23rd April, 2024.
 - ✓ Isolated to scattered rainfall accompanied with **thunderstorm, lightning & gusty winds (30-40 kmph)** very likely over East Raiasthan and West Uttar Pradesh on 22nd April. 2024.
 - ✓ Thunderstorm/Duststorm accompanied with lightning very likely over West Rajasthan on 21st & 22nd April, 2024.
 - ✓ **Strong surface winds (20-30 kmph)** very likely to prevail over Uttar Pradesh during 21st-22nd April, 2024.
- ❖ A fresh Western Disturbance is likely to affect Western Himalayan Region from 26th April, 2024.
- A trough runs from south Chhattisgarh to south Tamil Nadu across Telangana, Coastal Andhra Pradesh and Rayalaseema in lower tropospheric levels. Under its influence:
 - ✓ Isolated light rainfall accompanied with isolated **thunderstorm & lightning** very likely over Madhya Maharashtra and Marathwada on 21st, 22nd & 24th and Konkan & Goa on 21st April, 2024.
 - ✓ Isolated light to moderate rainfall accompanied with **thunderstorm, lightning & gusty winds (30-40 kmph)** very likely over East Madhya Pradesh, Vidarbha and Chhattisgarh during 21st-23rd; West Madhya Pradesh on 21st & 22nd April, 2024.
 - ✓ Isolated to Scattered light/moderate rainfall accompanied with isolated **thunderstorm & lightning** very likely over Tamil Nadu, Kerala & Mahe and Karnataka on 21st & 22nd and isolated rainfall accompanied with **thunderstorm & lightning & gusty winds (40-60 kmph)** over Coastal Andhra Pradesh & Yanam and Telangana during 21st-24th April, 2024

Maximum temperature observation:

❖ Yesterday, maximum temperatures were in the range of 42-46°C over many parts of Gangetic West Bengal over some parts of, Chhattisgarh and Jharkhand and in isolated pockets over East Uttar Pradesh, Vidarbha, Bihar and East Madhya Pradesh. These are in the range of 40-42°C at many parts of Coastal Andhra Pradesh & Yanam and Rayalaseema and at some parts of Odisha and Tamil Nadu, Puducherry & Karaikal and at isolated pockets over Gujarat state and Marathwada. These were above normal by 2-4°C over many parts of Gangetic West Bengal and in isolated pockets over Chhattisgarh, Jharkhand, Bihar, East Uttar Pradesh, East Madhya Pradesh, Coastal Andhra Pradesh & Yanam, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe, Rayalaseema, Telangana, Vidarbha and Odisha.

Heat Wave, Warm Night and Hot & Humid weather warning for next 5 days:

- Heat Wave conditions very likely to prevail in many/some parts of Gangetic West Bengal during next 5 days and over Odisha on 21st & 22nd; heat wave conditions in isolated pockets over East Uttar Pradesh and Bihar during next 5 days; over Sub-Himalayan West Bengal on 21st, 24th & 25th and over Jharkhand on 21st & 25th April. Severe Heat Wave conditions also likely in isolated pockets of Odisha on 21st & 22nd and Gangetic West Bengal during 21st-25th April, 2024.
- Hot and humid weather very likely to prevail over Sub-Himalayan West Bengal, Coastal Andhra Pradesh & Yanam, Rayalaseema, Tamil Nadu, Puducherry & Karaikal, Coastal Karnataka and Kerala & Mahe during 21st -25th April, 2024.
- **❖ Warm night conditions** with day maximum temperature exceeding 40°C very likely to prevail over Gangetic West Bengal and Odisha on 21st & 22nd April, 2024.



राष्ट्रीय मौसम पूर्वानुमान केन्द्र भारत मौसम विज्ञान विभाग पृथ्वी विज्ञान मंत्रालय



National Weather Forecasting Centre India Meteorological Department Ministry of Earth Sciences

Main Weather Observations:

- ❖ Rainfall/snowfall distribution (from 0830 hours IST of yesterday to 0830 hours IST of today): at many places over Arunachal Pradesh and Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad; at isolated places over Himachal Pradesh.
- ❖ Rainfall distribution (from 0830 hours IST of yesterday to 0830 hours IST of today): at many places over Sub-Himalayan West Bengal & Sikkim; at a few places over Nagaland, Manipur, Mizoram & Tripura, Assam & Meghalaya and Coastal Karnataka and at isolated places over Konkan & Goa, Madhya Maharashtra, Marathwada, Chhattisgarh, Odisha, Madhya Pradesh, Vidarbha, South Interior Karnataka, Telangana, Coastal Andhra Pradesh & Yanam, Rayalaseema, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe and Telangana.
- Significant amount of rainfall (from 0830 hours IST of yesterday to 0830 hours IST of today) (in cm): Assam & Meghalaya: Sarupathar Arg (dist Golaghat) 14, Lakhipur Arg (dist Cachar) 8, Silchar (dist Cachar) 5, Barpathar (dist Golaghat) 4, Golaghat_pto (dist Golaghat) 3, Cacher Kvk Aws (dist Cachar) 3, Majbat (dist Udalguri) 3, Cherrapunji (dist East Khasi Hills) 2, Shella (dist East Khasi Hills) 2, Jorhat (dist Jorhat) 2; Nagaland, Manipur, Mizoram & **Tripura:** Mokokchang (dist Mokokchung) 12, Jiribam_ Aws (dist Imphal East) 7, Mangkolemba (dist Mokokchung) 7, Bishnupur (dist Bishnupur) 3, Zunheboto (dist Zunheboto) 2, Bishnupur_ Aws (dist Bishnupur) 2; Arunachal Pradesh: Ziro (dist Lower Subansiri) 4, Tawang_ Aws (dist Tawang) 3, Tawang Chamgbu Kvk Aws (dist Tawang) 3, Tawang (dist Tawang) 2, Kamba Aws (dist West Siang) 1, Anini aws (dist Dibang Valley) 1, Itanagar (dist Papumpara) 1, Nachu Arg (dist Upper Subansiri) 1; Odisha: Kotpad (Koraput) 11, Kolnara (Rayagada) 2, Rayagada (Rayagada) 2; Goa: Panjim - Imd Obsy (dist North Goa) 9, Ponda (dist North Goa) 5, Mormugao - Pmo Imd (dist South Goa) 4, Quepem (dist South Goa) 3, Sanguem (dist South Goa) 2; North Interior Karnataka: Khajuri (dist Kalaburgi) 9, Gadag Pbo Obsy (dist Gadag) 7, Kuknoor (dist Koppal) 5, Shiggaon (dist Haveri) 5, Savanur (dist Haveri) 4, Kalaburgi Obsy (dist Kalaburgi) 3, Shirahatti (dist Gadag) 3, Afzalpur Hms (dist Kalaburgi) 2, Aland (dist Kalaburgi) 2, Kalghatgi (dist Dharwad) 2; Marathwada: Tuljapur (dist Dharashiv) 6, Ausa (dist Latur) 4, Dharashiv Imd Parttime (dist Dharashiv) 3, Renapur (dist Latur) 3, Sambhajinagar-imd Obsy (dist Chh. Sambhajinagar) 2; Telangana: Narmetta (dist Jangaon) 5, Ghanpur (dist Jangaon) 3, Esci_gachibowli(a) (dist Rangareddy) 3, Siddipet(arg) (dist Siddipet) 2, Doultabad (dist Siddipet) 2, Himayatnagar (dist Hyderabad) 2; Kerala: Kuppady (Wayanad district) 5, Poonjar AWS (Kottayam district) 3, Mananthayady (Wayanad district) 2.
- ❖ Heavy rainfall recorded (from 0830 hours IST of yesterday to 0830 hours IST of today): Heavy to very heavy rainfall observed at isolated places over Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura and heavy rainfall at isolated places over Odisha, Goa and North Interior Karnataka.
- Yesterday, Heat Wave conditions prevailed in many parts with severe heat wave conditions in some parts over Gangetic West Bengal; Heat Wave conditions in isolated places over Odisha, Chhattisgarh and Bihar.
- ❖ Warm Night conditions with day maximum temperature exceeding 40°C (from 0830 hours IST of yesterday to 0830 hours IST of today): prevailed in isolated pockets over East Madhya Pradesh, Bihar, Gangetic West Bengal, Odisha and Chhattisgarh.
- ❖ Minimum Temperature Departures (as on 21-04-2024): Minimum temperatures are appreciably above normal (3.1°C to 5.0°C) at a few places over Gangetic West Bengal; at isolated places over Bihar, Odisha, East Madhya Pradesh and Nagaland, Manipur, Mizoram & Tripura; above normal (1.6°C to 3.0°C) at most places over Jharkhand and Tamil Nadu, Puducherry & Karaikal; at many places over Sub-Himalayan West Bengal & Sikkim and Kerala & Mahe; at a few places over Arunachal Pradesh, Assam & Meghalaya, Coastal Andhra Pradesh & Yanam and Rayalaseema; at isolated places over East Uttar Pradesh, West Madhya Pradesh, Chhattisgarh, Madhya Maharashtra and South Interior Karnataka. These are below normal (-1.6°C to -3.0°C) at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad and Himachal Pradesh and near normal over rest parts of the country. Today, the lowest minimum temperature of 20.0°C is reported at Rajgarh (West Madhya Pradesh) over the plains of the country.
- ❖ Maximum Temperature Departures (as on 20-04-2024): Maximum temperatures were markedly above normal(5.1°C or more) at a few places over Gangetic West Bengal; appreciably above normal (3.1°C to 5.0°C) at a few places over Jharkhand and Bihar; above normal (1.6°C to 3.0°C) at many places over Odisha, Tamil Nadu, Puducherry & Karaikal Kerala & Mahe; at a few places over Arunachal Pradesh and East Uttar Pradesh; at isolated places over Assam & Meghalaya, Coastal Andhra Pradesh & Yanam, Rayalaseema, West Uttar Pradesh, Vidarbha and East Madhya Pradesh. These were appreciably below normal (-3.1°C to -5.0°C) at many places over West Rajasthan; at a few places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad and Himachal Pradesh; at isolated places over Uttarakhand, Gujarat state, Madhya Maharashtra, Telangana, Karnataka and Haryana-Chandigarh-Delhi and near normal over rest parts of the country. Yesterday, the highest maximum temperature of 45.2°C was reported at Baripada & Boudh (Odisha) over the country.





Meteorological Analysis (Based on 1430 hours IST)

- ❖ The Western Disturbance as a trough with its axis at 3.1 km above mean sea level roughly along Long. 70°E to the north of Lat. 28°N persists.
- ❖ The Western Disturbance as a cyclonic circulation over east Iran & neighbourhood at 5.8 km above mean sea level persists.
- ❖ The cyclonic circulation over northeast Bangladesh & neighbourhood at 0.9 km above mean sea level persists.
- ❖ The north-south trough from cyclonic circulation over northeast Bangladesh to north Bay of Bengal at 0.9 km above mean sea level persists.
- ❖ The cyclonic circulation over northeast Assam & neighbourhood between 1.5 & 3.1 km above mean sea level persists.
- The trough/wind discontinuity from south Chhattisgarh to south Tamil Nadu across Telangana, Coastal Andhra Pradesh & Rayalaseema at 0.9 km above mean sea level persists.
- ❖ The cyclonic circulation over Gulf of Mannar & neighbourhood at 0.9 km above mean sea level persists.
- ❖ A fresh Western Disturbance is likely to affect Western Himalayan Region from 26th April, 2024.

Weather Forecast for next 7 days (Upto 0830 hours IST of 28th 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 rise gradually by 2-3°C thereafter.
- ❖ No significant change in maximum temperatures very likely over East India during next 24 hours and fall by about 2°C during subsequent 2 days and rise by 2-3°C thereafter.
- ❖ No significant change in maximum temperatures very likely over West India during next 3 days and rise by 2-3°C thereafter.
- ❖ No significant change in maximum temperatures very likely over rest parts of the country.

Weather Outlook for subsequent 3 days (During 28th-30th April, 2024)

- ❖ Isolated to scattered light/moderate rainfall/snowfall likely over Northeast and Northwest India.
- ❖ Isolated light rainfall likely over plains of central India and Kerala & Mahe.
- ❖ Dry weather likely to prevail over rest parts of the country.



राष्ट्रीय मौसम पूर्वानुमान केन्द्र भारत मौसम विज्ञान विभाग पृथ्वी विज्ञान मंत्रालय



National Weather Forecasting Centre India Meteorological Department Ministry of Earth Sciences

Table-1

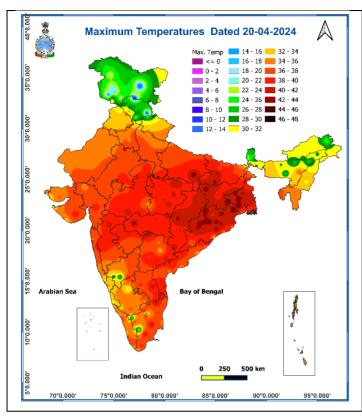
7 Days Rainfall Forecast								
S. No.	Subdivision	21- Apr Day 1	22- Apr Day 2	23- Apr Day 3	24- Apr Day 4	25- Apr Day 5	26- Apr Day 6	27- Apr Day 7
1	ANDAMAN & NICOBAR ISLANDS	ISOL	DRY	DRY	DRY	DRY	DRY	DRY
2	ARUNACHAL PRADESH	WS	WS	WS	WS	FWS	FWS	FWS
3	ASSAM & MEGHALAYA	FWS	FWS	SCT	SCT	SCT	SCT	SCT
4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

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

National Weather Forecasting Centre India Meteorological Department Ministry of Earth Sciences

Fig. 1: Maximum Temperatures Fig. 2: Departure of Maximum Temperatures





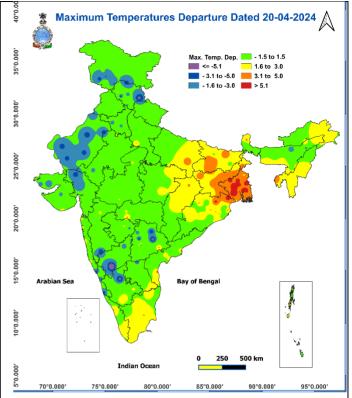
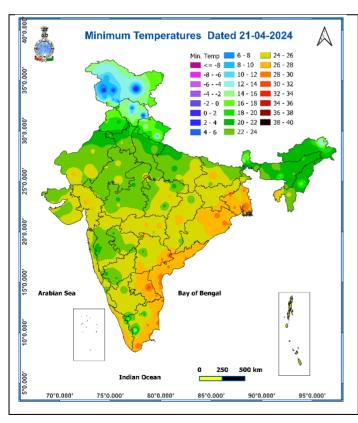


Fig. 3: Minimum Temperatures

Fig. 4: Departure of Minimum Temperatures



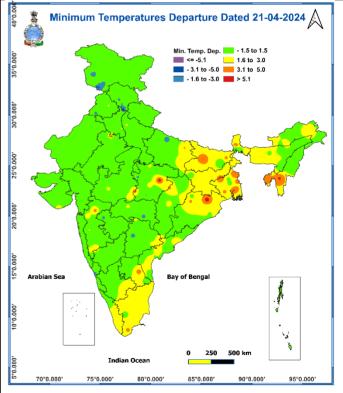


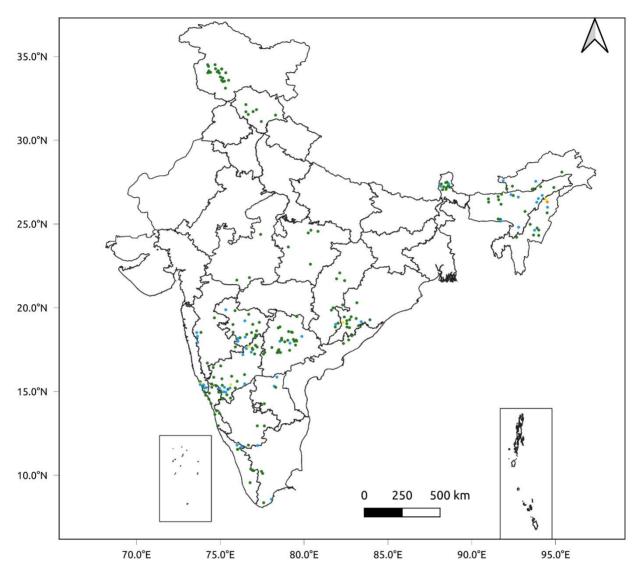




Fig. 5: Accumulated Rainfall (mm) during past 24 hours



24 Hr cumulative rainfall recorded over different stations during 0830 IST of 20-4-2024 to 0830 IST of 21-4-2024

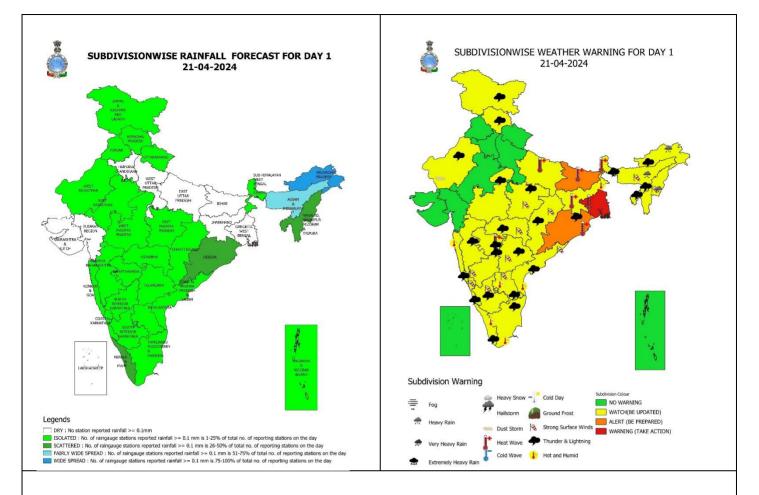


Legends

- 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)





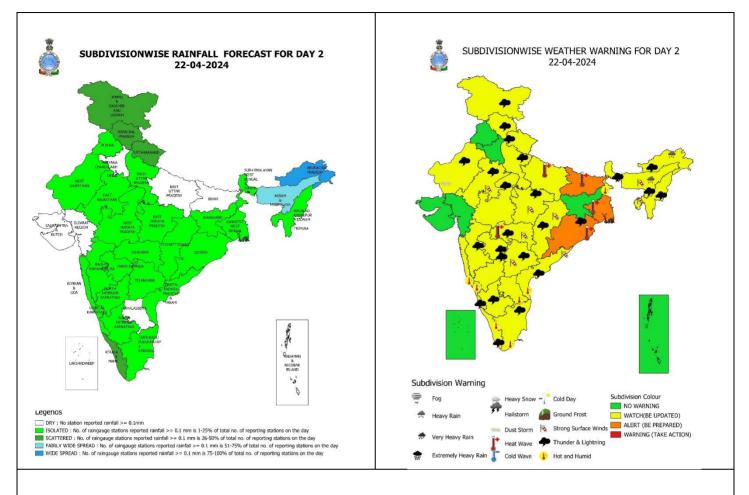


21 April (Day 1):

- Thunderstorm accompanied with lightning & gusty winds (speed reaching 40-50 kmph) very likely at isolated places over East Madhya Pradesh, Odisha, Assam & Meghalaya, Vidarbha, Chhattisgarh, Coastal Andhra Pradesh & Yanam and Rayalaseema; with lightning &gusty winds (speed reaching 30-40 kmph) at isolated places over Nagaland, Manipur, Mizoram & Tripura, Telangana and Karnataka; with lightning & hail at isolated places over Marathwada; with lightning at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, West Madhya Pradesh, Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh, Konkan & Goa, Madhya Maharashtra and Kerala & Mahe.
- **Thunderstorm/Duststorm accompanied with lightning** very likely at isolated places over West Rajasthan.
- **Heavy rainfall** very likely at isolated places over Arunachal Pradesh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.
- ♦ Hot and humid weather very likely to prevail over Sub-Himalayan West Bengal, Konkan & Goa, Coastal Andhra Pradesh & Yanam, Rayalaseema, Kerala & Mahe and Tamil Nadu, Puducherry & Karaikal.
- **\Delta Heat wave conditions in many parts with severe heat wave conditions** in isolated pockets very likely to prevail over Gangetic West Bengal; **Heat wave conditions in some parts with severe heat wave conditions** in isolated pockets over Odisha; **heat wave conditions** in isolated pockets over East Uttar Pradesh, Sub-Himalayan West Bengal, Bihar and Jharkhand.
- Warm Night conditions very likely to prevail in isolated pockets over Gangetic West Bengal and Odisha.





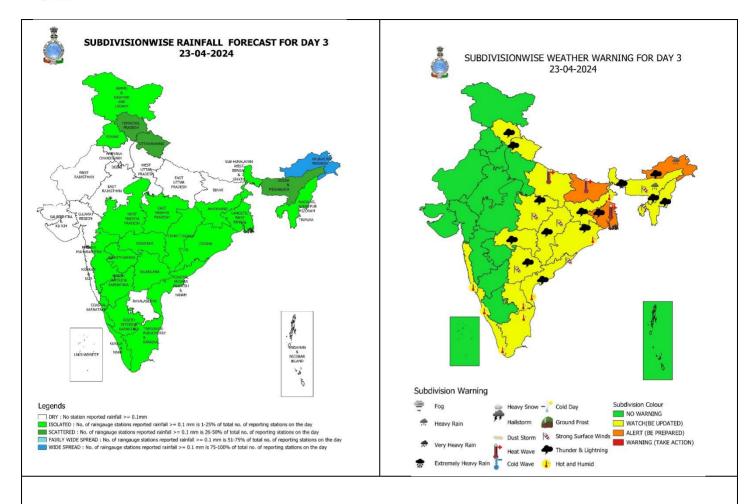


22 April (Day 2):

- ❖ Thunderstorm accompanied with lightning & gusty winds (speed reaching 40-50 kmph) with hail very likely at isolated places over Vidarbha; with lightning & gusty winds (speed reaching 40-50 kmph) at isolated places over East Madhya Pradesh, Chhattisgarh, Coastal Andhra Pradesh & Yanam and Odisha; with lightning & gusty winds (speed reaching 30-40 kmph) at isolated places over East Rajasthan, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura and Telangana; with lightning & hail at isolated places over Himachal Pradesh; with lightning at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Uttarakhand, West Uttar Pradesh, West Madhya Pradesh, Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh, Madhya Maharashtra, Marathwada Karnataka and Kerala & Mahe
- **❖ Thunderstorm/Duststorm accompanied with lightning** very likely at isolated places over West Rajasthan.
- **Heavy to very heavy rainfall** very likely at isolated places over Arunachal Pradesh and **heavy rainfall** at isolated places over Assam & Meghalaya.
- ❖ Hot and humid weather very likely to prevail over Sub-Himalayan West Bengal, Konkan & Goa, Coastal Andhra Pradesh & Yanam, Rayalaseema, Coastal Karnataka, Kerala & Mahe and Tamil Nadu, Puducherry & Karaikal.
- ❖ Heat wave conditions in some parts with severe heat wave conditions in isolated pockets very likely to prevail over Gangetic West Bengal; heat wave conditions in isolated pockets over East Uttar Pradesh, Bibar and Odisha
- ❖ Warm Night conditions very likely to prevail in isolated pockets over Gangetic West Bengal and Odisha.





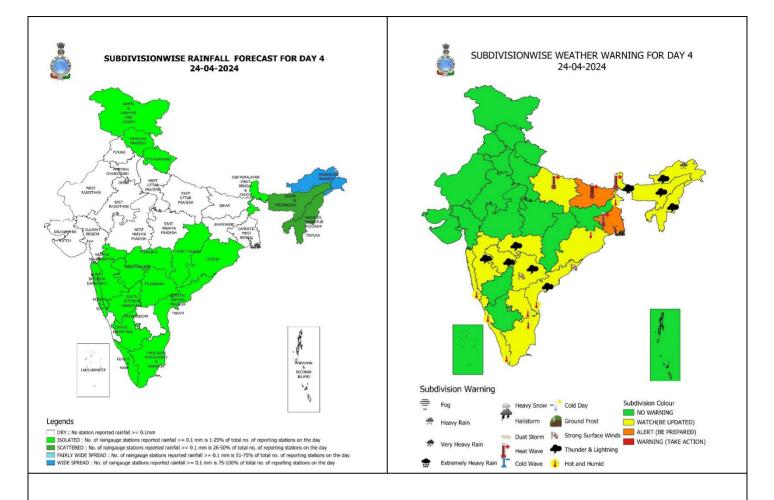


23 April (Day 3):

- Thunderstorm accompanied with lightning & gusty winds (speed reaching 40-50 kmph) likely at isolated places over Chhattisgarh; with lightning & gusty winds (speed reaching 30-40 kmph) at isolated places over East Madhya Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Coastal Andhra Pradesh & Yanam and Telangana; with lightning & hail at isolated places over Himachal Pradesh; with lightning at isolated places over Uttarakhand, West Bengal & Sikkim, Vidarbha, Arunachal Pradesh, Jharkhand and Odisha.
- **\Display** Heavy to very heavy rainfall/snowfall likely at isolated places over Arunachal Pradesh and Heavy rainfall at isolated places over Assam & Meghalaya.
- ❖ Hot and humid weather very likely to prevail over Sub-Himalayan West Bengal & Sikkim, Odisha, Konkan & Goa, Coastal Andhra Pradesh & Yanam, Rayalaseema, Coastal Karnataka, Kerala & Mahe and Tamil Nadu, Puducherry & Karaikal.
- **Heat wave conditions in some parts with severe heat wave conditions in isolated pockets** very likely to prevail over Gangetic West Bengal; **heat wave conditions** in isolated pockets over East Uttar Pradesh and Bihar.





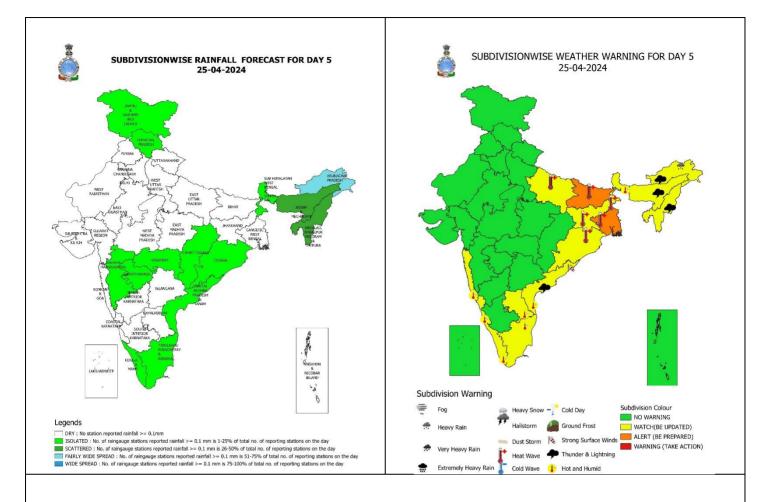


24 April (Day 4):

- Thunderstorm accompanied with lightning & gusty winds (speed reaching 30-40 kmph) likely at isolated places over Coastal Andhra Pradesh & Yanam, Telangana; with lightning at isolated places over Sub-Himalayan West Bengal & Sikkim, Vidarbha, Madhya Maharashtra, Marathwada, Arunachal Pradesh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.
- **Heavy rainfall** very likely at isolated places over Arunachal Pradesh.
- * Hot and humid weather very likely to prevail over Sub-Himalayan West Bengal & Sikkim, Odisha, Konkan & Goa, Coastal Andhra Pradesh & Yanam, Rayalaseema, Coastal Karnataka, Kerala & Mahe and Tamil Nadu, Puducherry & Karaikal.
- Heat wave conditions in some parts with severe heat wave conditions in isolated pockets likely to prevail over Gangetic West Bengal; heat wave conditions in isolated pockets over East Uttar Pradesh, Sub-Himalayan West Bengal & Sikkim and Bihar.







25 April (Day 5):

- Thunderstorm accompanied with lightning & gusty winds (speed reaching 30-40 kmph) likely at isolated places over Coastal Andhra Pradesh & Yanam; with lightning at isolated places over Arunachal Pradesh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.
- **Heavy rainfall** very likely at isolated places over Arunachal Pradesh.
- ❖ Hot and humid weather very likely to prevail over Sub-Himalayan West Bengal & Sikkim, Konkan & Goa, Coastal Andhra Pradesh & Yanam, Rayalaseema, Coastal Karnataka, Kerala & Mahe and Tamil Nadu, Puducherry & Karaikal.
- Heat wave conditions in some parts with severe heat wave conditions in isolated pockets likely to prevail over Gangetic West Bengal; heat wave conditions in isolated pockets over East Uttar Pradesh, Sub-Himalayan West Bengal & Sikkim, Jharkhand, Odisha and Bihar.







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)