



Government of India
Ministry of Earth Sciences
India Meteorological Department



Press Release

Date: 03rd April, 2024.

Time of Issue: 1245 hours IST

Subject: i) Enhanced rainfall/thunderstorm activity likely to continue over Northeast India till 07th April, 2024.

ii) Heat wave conditions likely to prevail over parts of east & peninsular India during 03rd-06th April, 2024.

Realised weather during past 24 hours till 0830 hours IST of today: (details in Annexure I)

- ❖ **Heat wave conditions** prevailed in isolated pockets over North Interior Karnataka.
- ❖ **Light/Moderate rainfall/snowfall** accompanied with **thunderstorm** occurred at most places over Arunachal Pradesh. **Light rainfall/snowfall** occurred at isolated places over Uttarakhand.
- ❖ **Light/Moderate rainfall** accompanied with **thunderstorm and gusty wind** occurred at a few places over Assam & Meghalaya, Nagaland, Manipur, Mizoram; at isolated places over Sikkim and **Light/Moderate rainfall** at isolated places over South Interior Karnataka, Tamil Nadu and Kerala.
- ❖ **Hailstorms** occurred at isolated places over Mizoram.
- ❖ **Very heavy rainfall occurred** at isolated places over Assam & Meghalaya.

Weather Systems and Forecast & Warnings: (Annexure II)

- ❖ A Western Disturbance as a trough in middle & upper tropospheric westerlies runs roughly along long. 64°E to the north of lat. 30°N. A cyclonic circulation lies over West Rajasthan and adjoining Pakistan & neighbourhood in lower tropospheric level. Another fresh Western Disturbance is likely to affect Western Himalayan Region from 05th April, 2024. Under their influence:
 - ✓ Isolated to scattered light to moderate rainfall/snowfall very likely over Western Himalayan Region during next 3 days and isolated very light rainfall/drizzle over adjoining plains of Northwest India on 03rd April, 2024.
 - ✓ Isolated **thunderstorms & lightning** also likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh and Uttarakhand on 03rd April, 2024.
- ❖ The cyclonic circulation over north Bangladesh persists, another cyclonic circulation lies over east Assam & neighbourhood in lower tropospheric levels. Under the influence of these systems:
 - ✓ Fairly widespread to widespread light/moderate rainfall/snowfall with isolated **thunderstorms & lightning very likely** over Arunachal Pradesh; scattered to fairly widespread light to moderate rainfall over Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura during 03rd-09th April, 2024.
 - ✓ **Isolated heavy rainfall/snowfall very likely over Arunachal Pradesh during 03rd-07th April with possibility of very heavy falls on 06th April, 2024.**
 - ✓ **Isolated heavy rainfall over Assam & Meghalaya on 04th & 05th April.**

- ✓ Isolated to scattered light/moderate rainfall very likely over Sub-Himalayan West Bengal & Sikkim during next 7 days with isolated **thunderstorms & lightning** during 04th-07th April, 2024.
- ✓ Isolated to scattered light/moderate rainfall with isolated **thunderstorms & lightning** very likely over Gangetic West Bengal, Odisha, Jharkhand during 06th-09th April; over Bihar on 07th & 08th April, 2024.
- ❖ The trough/wind discontinuity continues to run from south Tamil Nadu to east Vidarbha in lower tropospheric levels. Under its influence; Isolated light rainfall likely over Madhya Maharashtra during 05th-09th April; over Konkan & Goa, Marathwada, Madhya Pradesh, Vidarbha, Chhattisgarh, Karnataka during 06th-09th April; over Coastal Andhra Pradesh & Yanam, Telangana, Rayalaseema during 07th-09th April, 2024.

Maximum temperature observation and forecast for next 5 days:

- ❖ Yesterday, Maximum temperatures were in the range of 40-43°C at isolated places over south Chhattisgarh, Vidarbha, Andhra Pradesh & Yanam and interior parts of Tamil Nadu, Maharashtra, Karnataka, Odisha. The temperatures were above normal by 1-4°C at many places over Indo-Gangetic planes, south peninsular India and West Bengal & Sikkim; at isolated places over north east India.
- ❖ Yesterday, the maximum temperature exceeded 95th percentile at a few places over north Odisha & adjoining Jharkhand and Marathwada, Vidarbha, Tamil Nadu, Puducherry & Karaikal, interior Karnataka, south Andhra Pradesh and north Tamil Nadu and at isolated places over East Madhya Pradesh and Kerala & Mahe. These areas are likely to experience above 95th percentile of maximum temperatures over many places from 03rd April.
- ❖ Maximum temperature likely to exceed 95th percentile over parts of Uttar Pradesh, Bihar and Madhya Pradesh from 03rd April. Similar conditions are likely to continue over the above regions during next 5 days and expand to more areas over these regions and over remaining parts of Uttar Pradesh, Madhya Pradesh and Bihar.
- ❖ Today, Minimum temperatures are **above normal by 3-5°C** at most places over Tripura; at isolated places over Sub-Himalayan West Bengal & Sikkim.
- ❖ Gradual rise in maximum temperatures by 2-3°C very likely over many parts of East India during next 3 days and no significant change thereafter.
- ❖ No significant change in maximum temperatures very likely over many parts of south peninsular India during next 5 days except parts of Telangana, Karnataka, Rayalaseema, Coastal Andhra Pradesh & Yanam where temperatures are likely to rise by 2-3°C during next 5 days.

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

- ❖ **Heat wave conditions** very likely in isolated pockets over North Interior Karnataka during 03rd-05th; Odisha, Gangetic West Bengal during 04th-07th; Jharkhand, Telangana, Rayalaseema during 04th-06th; Coastal Andhra Pradesh & Yanam during 03th-06th April, 2024.
- ❖ **Warm night conditions** very likely to prevail in isolated pockets over Odisha and North Interior Karnataka during 03rd-06th April, 2024.
- ❖ **Hot and humid weather** very likely to prevail over Kerala & Mahe, Tamil Nadu and Puducherry & Karaikal during 03rd-07th; over Coastal Karnataka during 03rd-05th; over Gangetic West Bengal, Odisha and Rayalaseema on 03rd April, 2024.

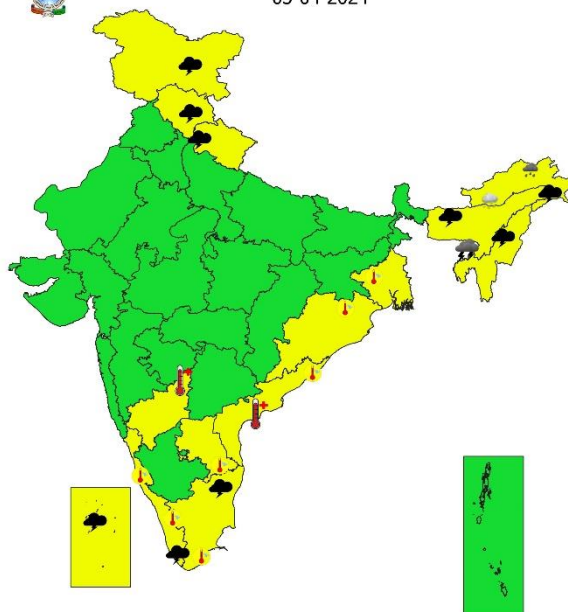
For more details, kindly refer: https://mausam.imd.gov.in/responsive/all_india_forecast_bulletin.php

Significant amount of rainfall (in cm):

- ❖ **Assam & Meghalaya:** Shella (dist East Khasi Hills) 14, B P Ghat (dist Karimganj) 6, Harinagar Arg (dist Karimganj) 4, Matijuri (dist Hailakandi) 4, Lakhipur (dist Cachar) 4, Gharmura (dist Hailakandi) 4, Lakhipur Arg (dist Cachar) 3, Silchar (dist Cachar) 3, Dholai (dist Cachar) 2, Udaipur (dist Tinsukia) 2;
- ❖ **Arunachal Pradesh:** Tuting (dist Upper Siang) 4, Miao (dist Changlang) 3, Deomali (dist Tirap) 3, Nachu Arg (dist Upper Subansiri) 2;
- ❖ **Nagaland, Manipur, Mizoram & Tripura:** Chottabekra (dist Imphal West) 3, Lengpui (dist Aizawl) 3, Kanchanpur (dist North Tripura) 2, Kolasib Agri (dist Kolasib) 2;
- ❖ **Tamil Nadu, Puducherry & Karaikal:** Thirparappu (dist Kanniyakumari) 4, Pamban (dist Ramanathapuram), Suralacode (dist Kanniyakumari) 3 each;
- ❖ **Kerala & Mahe:** Vilangankunnu ARG (Thrissur district) 4, Vellayani AWS, Palode AWS; Perumkadavila ARG (all in Thiruvananthapuram district) 3 each.



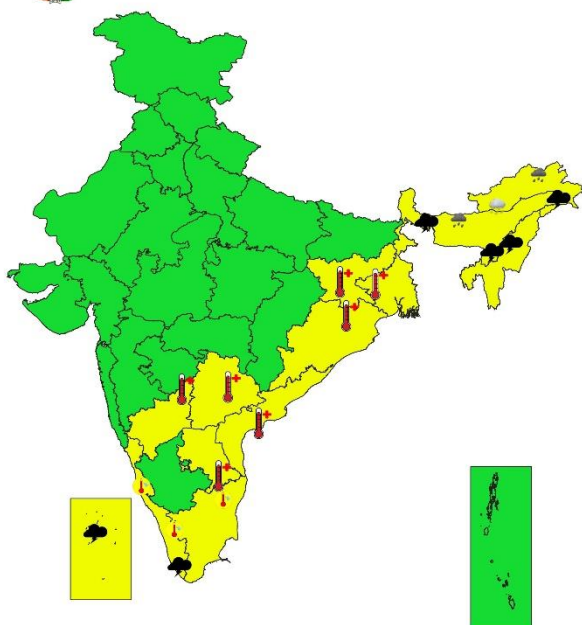
SUBDIVISIONWISE WEATHER WARNING FOR DAY 1 03-04-2024



Subdivision Warning



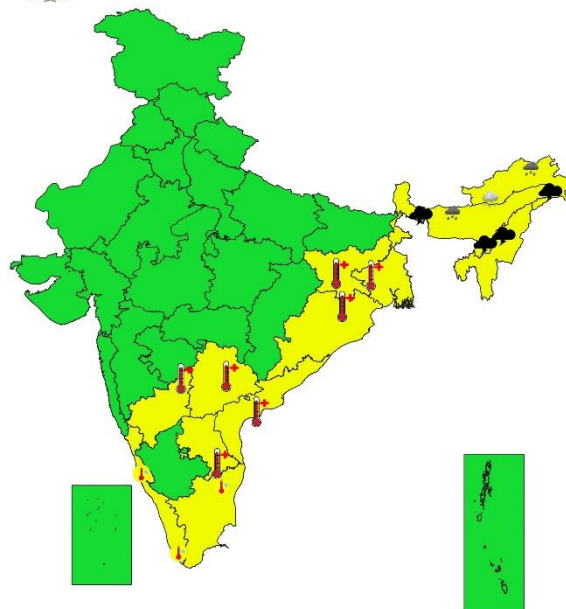
SUBDIVISIONWISE WEATHER WARNING FOR DAY 2 04-04-2024



Subdivision Warning



SUBDIVISIONWISE WEATHER WARNING FOR DAY 3 05-04-2024

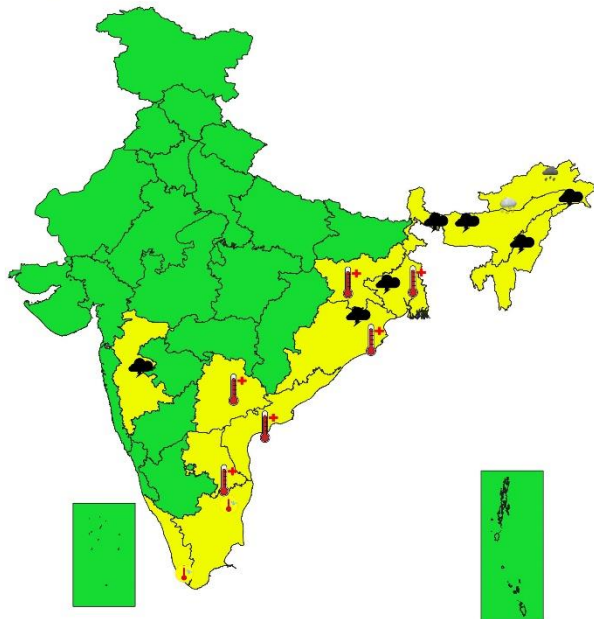


Subdivision Warning





SUBDIVISIONWISE WEATHER WARNING FOR DAY 4
06-04-2024

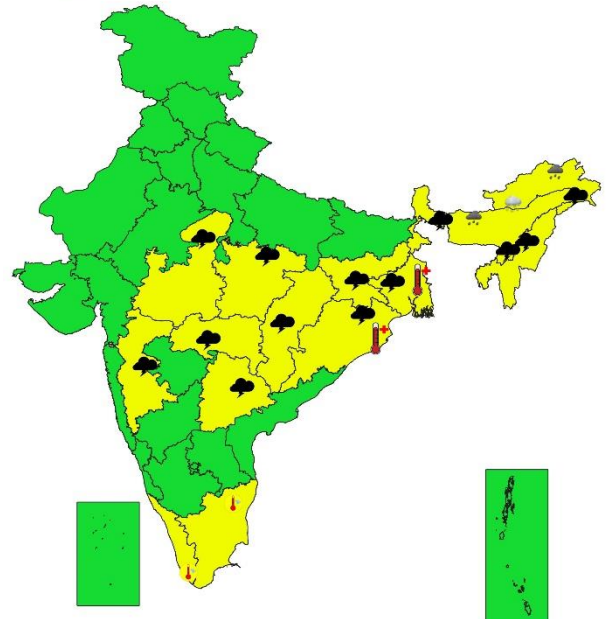


Subdivision Warning

Fog	Heavy Snow	Cold Day	Subdivision Colour
Heavy Rain	Hailstorm	Ground Frost	NO WARNING
Very Heavy Rain	Dust Storm	Strong Surface Winds	WATCH (BE UPDATED)
Extremely Heavy Rain	Heat Wave	Thunder & Lightning	ALERT (BE PREPARED)
	Cold Wave	Hot and Humid	WARNING (TAKE ACTION)



SUBDIVISIONWISE WEATHER WARNING FOR DAY 5
07-04-2024
















Subdivision Warning

Fog	Heavy Snow	Cold Day	Subdivision Colour
Heavy Rain	Hailstorm	Ground Frost	NO WARNING
Very Heavy Rain	Dust Storm	Strong Surface Winds	WATCH (BE UPDATED)
Extremely Heavy Rain	Heat Wave	Thunder & Lightning	ALERT (BE PREPARED)
	Cold Wave	Hot and Humid	WARNING (TAKE ACTION)

Legends & abbreviations:

- ❖ **Heavy Rain:** 64.5-115.5mm; **Very Heavy Rain:** 115.6-204.4mm; **Extremely Heavy Rain:** >204.4mm.
- ❖ **Obsy:** Observatory; **AWS:** Automatic Weather Station; **dist:** District; **NH:** National Highway; **KVK:** Krishi Vigyan Kendra; **DVC:** Damodar Valley Corporation; **PTO:** Part Time Office.
- ❖ **Region wise classification of meteorological Sub-Divisions:**
 - **Northwest India:** Western Himalayan Region (Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh and Uttarakhand); Punjab, Haryana-Chandigarh-Delhi; West Uttar Pradesh, East Uttar Pradesh, West Rajasthan and East Rajasthan.
 - **Central India:** West Madhya Pradesh, East Madhya Pradesh, Vidarbha and Chhattisgarh.
 - **East India:** Bihar, Jharkhand, Sub-Himalayan West Bengal & Sikkim; Gangetic West Bengal, Odisha and Andaman & Nicobar Islands.
 - **Northeast India:** Arunachal Pradesh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.
 - **West India:** Gujarat Region, Saurashtra & Kutch, Konkan & Goa, Madhya Maharashtra and Marathwada.
 - **South India:** Coastal Andhra Pradesh & Yanam, Telangana, Rayalaseema, Coastal Karnataka, North Interior Karnataka, South Interior Karnataka, Kerala & Mahe, Tamil Nadu, Puducherry & Karaikal and 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)

Subdivision Warning	 Dust Storm	Subdivision color
 Heavy Rain	 Strong Surface Winds	 NO WARNING
 Heavy Snow	 Heat Wave	 WATCH(BE UPDATED)
 Thunderstorms & Lightning	 Cold wave	 ALERT (BE PREPARED)
 Hailstorm	 Fog	 WARNING (TAKE ACTION)

Probabilistic Forecast	
Terms	Probability of Occurrence (%)
Unlikely	< 25
Likely	25 - 50
Very Likely	50 - 75
Most Likely	> 75

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 Strom: Wind speed > 220 kmph (> 119 knots)