

Saturday, April 20, 2024
Time of Issue: 2000 hours IST
(NIGHT)

All India Impact Based Weather Warning Bulletin

20 April (Day 1):

- ❖ **Thunderstorm accompanied with lightning & gusty winds (speed reaching 50-60 kmph) & hail** very likely at isolated places over Telangana; **with lightning & gusty winds (speed reaching 50-60 kmph)** at isolated places over Rayalaseema, Interior Karnataka with **gusty winds (speed reaching 40-50 kmph)** at isolated places over Vidarbha, Chhattisgarh, Nagaland, Manipur, Mizoram & Tripura; with **gusty winds (speed reaching 30-40 kmph)** at isolated places over Odisha, Assam & Meghalaya, Kerala & Mahe, Lakshadweep, Coastal Andhra Pradesh & Yanam; **with lightning** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh, Konkan & Goa, Madhya Maharashtra, Marathwada.
- ❖ **Heavy rainfall/snowfall** very likely at isolated places over Arunachal Pradesh; **Heavy rainfall** at isolated places over Assam & Meghalaya, Nagaland, Manipur, Goa and Karnataka.
- ❖ **Hot and humid weather** very likely to prevail over Coastal Andhra Pradesh & Yanam, Rayalaseema, Tamil Nadu, Kerala & Mahe, Konkan and Madhya Maharashtra.
- ❖ **Heat wave conditions in some parts with severe heat wave conditions** very likely to prevail in isolated pockets over Gangetic West Bengal; **Heat wave to severe heat wave conditions** in isolated pockets over Odisha; **heat wave conditions** in isolated pockets over East Uttar Pradesh, Bihar, Jharkhand & interior Tamil Nadu.
- ❖ **Warm Night conditions** very likely to prevail in isolated pockets over East Uttar Pradesh, north Madhya Pradesh and Madhya Maharashtra.
- ❖ **Squally weather** with wind speed 40 kmph to 45 kmph gusting to 55 kmph likely to prevailing over along and off Karnataka, Goa and Konkan coasts, over Lakshadweep area and adjoining southeast Arabian sea.

21 April (Day 2):

- ❖ **Thunderstorm accompanied with lightning & gusty winds (speed reaching 40-50 kmph)** very likely at isolated places over Madhya Pradesh, Vidarbha, Chhattisgarh, Odisha, Coastal Andhra Pradesh & Yanam, Telangana, North Interior Karnataka; **with gusty winds (speed reaching 30-40 kmph)** at isolated places over West Rajasthan, Assam & Meghalaya, Kerala & Mahe, Rayalaseema and Coastal and South Interior Karnataka; **with lightning** at isolated places over Konkan & Goa, Madhya Maharashtra, Marathwada and Arunachal Pradesh.
- ❖ **Heavy rainfall/snowfall** very likely at isolated places over Arunachal Pradesh; **Heavy rainfall** at isolated places over Assam & Meghalaya and Manipur.
- ❖ **Hot and humid weather** very likely to prevail over Coastal Andhra Pradesh & Yanam, Rayalaseema, Kerala & Mahe and Tamil Nadu, Puducherry & Karaikal.
- ❖ **Heat wave conditions in some parts with severe heat wave conditions** very likely to prevail in isolated pockets over Gangetic West Bengal; **Heat wave to severe heat wave conditions** in isolated pockets over Odisha; **heat wave conditions** in isolated pockets over Bihar and Jharkhand.
- ❖ **Warm Night conditions** very likely to prevail in isolated pockets over East Uttar Pradesh and north Madhya Pradesh.

22 April (Day 3):

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

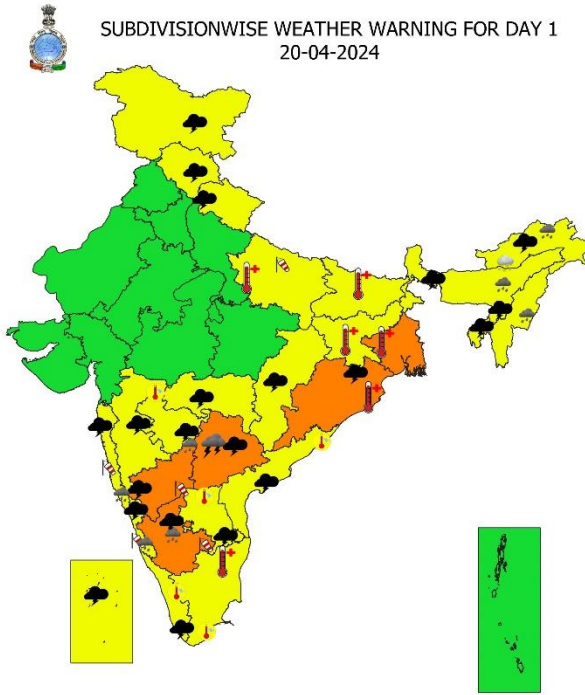
23 April (Day 4):

- ❖ **Thunderstorm accompanied with lightning & gusty winds (speed reaching 40-50 kmph)** likely at isolated places over Chhattisgarh; **with gusty winds (speed reaching 30-40 kmph)** at isolated places over East Madhya Pradesh, Vidarbha, Coastal Andhra Pradesh & Yanam and Telangana; **with lightning** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Sub-Himalayan West Bengal & Sikkim, Jharkhand, Odisha, Arunachal Pradesh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.
- ❖ **Heavy to very 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 Kerala & Mahe, Coastal Andhra Pradesh & Yanam, Rayalaseema and Tamil Nadu, Puducherry & Karaikal.
- ❖ **Heat wave conditions** very likely to prevail **in some parts** over Gangetic West Bengal; **heat wave conditions** in isolated pockets over Bihar.

24 April (Day 5):

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

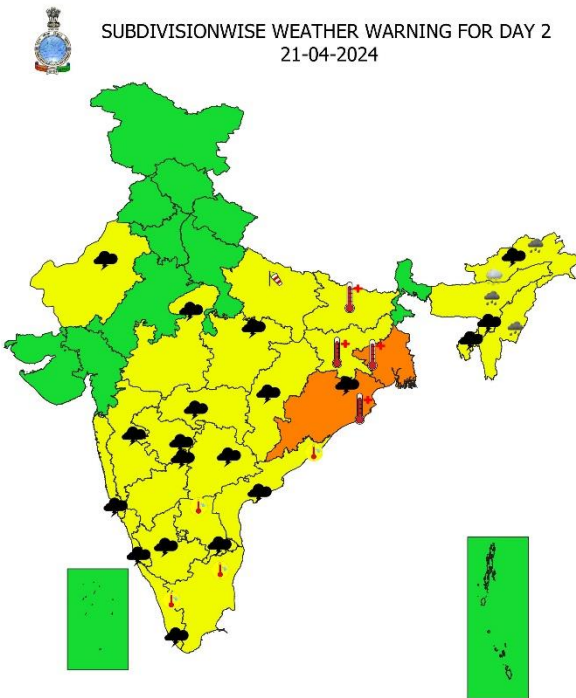
**SUBDIVISIONWISE WEATHER WARNING FOR DAY 1
 20-04-2024**



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)

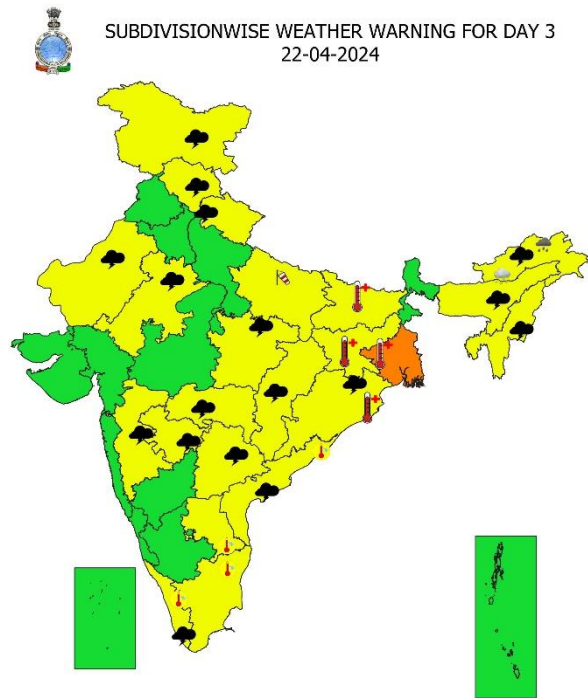
**SUBDIVISIONWISE WEATHER WARNING FOR DAY 2
 21-04-2024**



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)

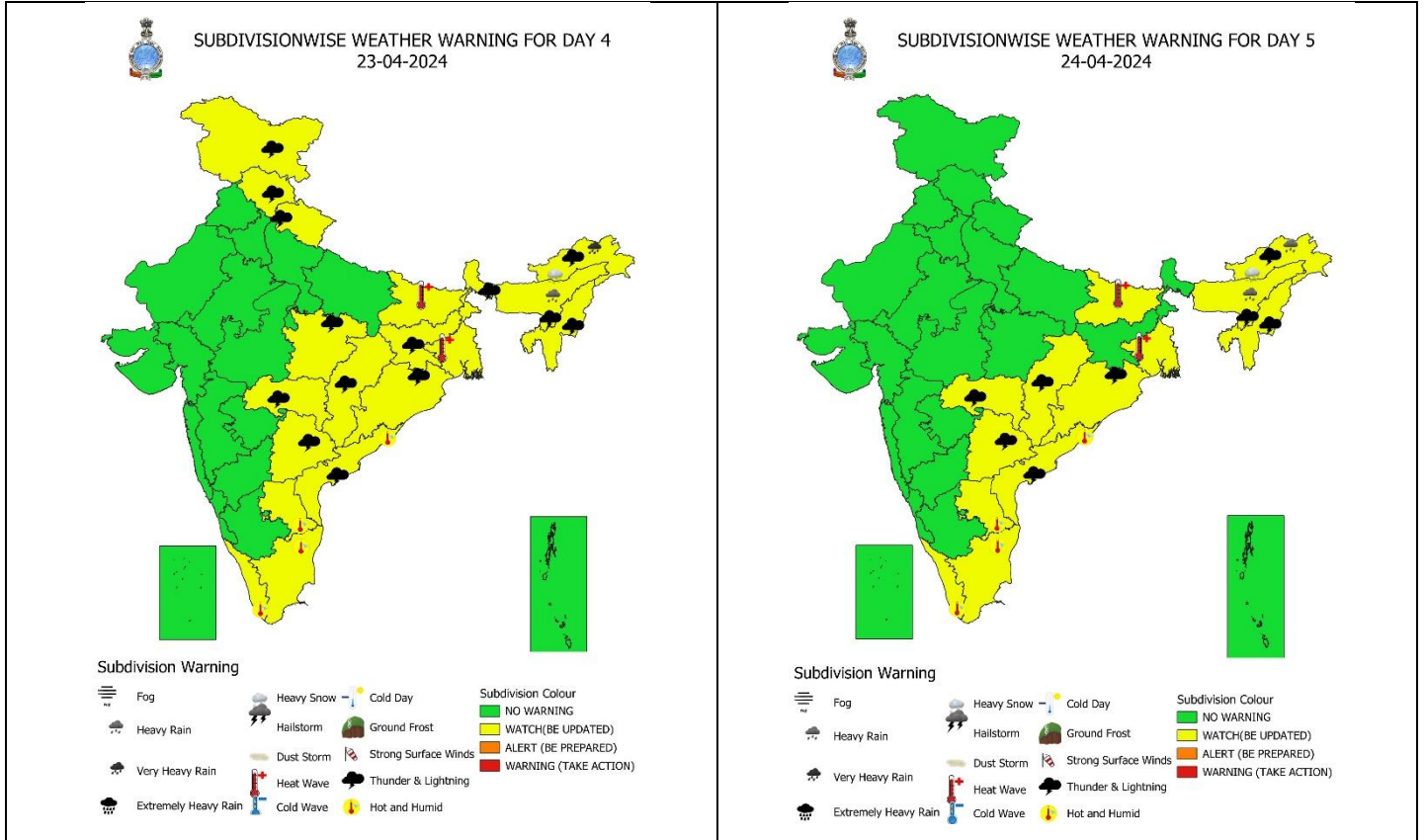
**SUBDIVISIONWISE WEATHER WARNING FOR DAY 3
 22-04-2024**



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)

*** Red colour warning does not mean "Red Alert", Red colour 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)**



Impact expected and action suggested due to thunderstorm accompanied with lightning/gusty winds & Hailstorm over Telangana, Karnataka on 20th April, 2024.

Impact expected:

- Strong wind/hail may damage plantation, horticulture and standing crops.
- Hail may injure people and cattle at open places.
- Partial damage to vulnerable structures due to strong winds.
- Minor damage to kutcha houses/walls and huts.
- Loose objects may fly.

Action suggested:

- Stay indoors, close windows & doors and avoid travel if possible.
- Take safe shelters; do not take shelter under trees.
- Do not lie on concrete floors and do not lean against concrete walls.
- Unplug electrical/ electronic appliances.
- Immediately get out of water bodies.
- Keep away from all the objects that conduct electricity.

Impact & Action Suggested due to heavy rainfall/snowfall over Arunachal Pradesh during 20th-24th; Assam & Meghalaya on 20th, 21st, 23rd & 24th April, 2024.

Impacts Expected for Rainfall/Snowfall over above regions:

- Disruption of Electricity.
- Landslide, rock fall and mudslides, Blocking/washout of roads/highways/bridges Nallahs.
- Disruption of traffic flow.
- Damage to Kuccha and unsecured structures.

Suggested Actions

- Avoid roadway underpasses, drainage ditches, low lying areas and areas where water collects – they can unexpectedly flood or overflow.
- Stay away from power lines or electrical wires.
- Don't stay in kuchcha houses during heavy rainfall as it may collapse anytime soon.
- Drive carefully.

IMPACT & ACTION SUGGESTED due to Heat Wave Conditions:

Orange alert Areas (Odisha & Gangetic West Bengal)

- ❖ Moderate temperature & heat is tolerable for general public but moderate health concern likely for vulnerable people e.g. infants, elderly, people with chronic diseases.
- ❖ Avoid heat exposure– keep cool. Avoid dehydration.
- ❖ Drink sufficient water- even if not thirsty.
- ❖ Use ORS, homemade drinks like lassi, torani (rice water), lemon water, buttermilk, etc. to keep yourself hydrated

Yellow alert Areas (Jharkhand, Bihar, East Uttar Pradesh, interior Tamil Nadu)

- ❖ Moderate temperature & heat is tolerable for general public but moderate health concern likely for vulnerable people e.g. infants, elderly, people with chronic diseases.
- ❖ Avoid heat exposure.
- ❖ Wear lightweight, light colour, loose, cotton clothes.
- ❖ Cover your head, use a cloth, hat or umbrella.

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 < 1km
 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)

Kindly download MAUSAM APP for location specific forecast & warning, MEGHDOOT APP for Agromet advisory and DAMINI APP for Lightning Warning & visit state MC/RMC websites for district wise warning.

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