



#### National Weather Forecasting Centre India Meteorological Department Ministry of Earth Sciences

Thursday, March 20, 2025 Time of Issue: 2000 hours IST (NIGHT)

### **All India Impact Based Weather Warning Bulletin**

Weather Warnings for next 7 days is given below: (Graphics for warnings & rainfall distribution (Table 1) are given below the text:

# 20th March (Day 1):

- ❖ Thunderstorm accompanied with squally winds (speed reaching 50-60 kmph), Hailstorm & lightning likely at isolated places over Gangetic West Bengal and Odisha; with squally winds (speed reaching 40-50 kmph), Hailstorm & lightning at isolated places over East Madhya Pradesh, Vidarbha, Chhattisgarh, Assam & Meghalaya and Jharkhand; with gusty winds (speed reaching 40-50 kmph) & lightning likely at isolated places over West Madhya Pradesh, Sub-Himalayan West Bengal & Sikkim and Nagaland, Manipur, Mizoram & Tripura; with gusty winds (speed reaching 30 40 kmph) lightning likely at isolated places over Uttar Pradesh, Rajasthan, Bihar, Marathwada and South Interior Karnataka; with lightning at isolated places over Punjab, Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand, Haryana-Chandigarh- Delhi, Arunachal Pradesh, Kerala & Mahe and Telangana.
- **Hot and Humid Conditions** very likely at isolated places over Tamil Nadu, Puducherry & Karaikal.
- ❖ Squally weather with wind speed 35 kmph to 45 kmph gusting to 55 kmph is likely to prevail along and off west Bengal coast and adjoining north Odisha coast. Fishermen are advised not to venture into these areas.

# 21st March (Day 2):

- **Heavy rainfall** very likely at isolated places over Arunachal Pradesh.
- Thunderstorm accompanied with squally winds (speed reaching 50-60 kmph), Hailstorm & lightning likely at isolated places over East Madhya Pradesh, Chhattisgarh, Gangetic West Bengal, Jharkhand and Odisha; with squally winds (speed reaching 40-50 kmph), Hailstorm & lightning at isolated places over Vidarbha, Assam & Meghalaya and Telangana; with squally winds (speed reaching 30-40 kmph), Hailstorm & lightning at isolated places over Bihar; with gusty winds (speed reaching 50-60 kmph) & lightning likely at isolated places over West Madhya Pradesh; with gusty winds (speed reaching 40 50 kmph) lightning at isolated places over East Uttar Pradesh, Marathwada and Nagaland, Manipur, Mizoram & Tripura; with gusty winds (speed reaching 30 40 kmph) lightning at isolated places over West Uttar Pradesh, Sub-Himalayan West Bengal & Sikkim, and South Interior Karnataka; with lightning at isolated places over Arunachal Pradesh, Coastal Andhra Pradesh & Yanam and Kerala & Mahe.
- ❖ Hot and Humid Conditions very likely at isolated places over Tamil Nadu, Puducherry & Karaikal.
- ❖ Squally weather with wind speed 35 kmph to 45 kmph gusting to 55 kmph is likely to prevail along and off west Bengal coast and north Odisha coast. Fishermen are advised not to venture into these areas.





### **22<sup>nd</sup> March (Day 3)**:

- **❖ Heavy rainfall** very likely at isolated places over Arunachal Pradesh.
- ❖ Thunderstorm accompanied with winds (speed reaching 50-60 kmph) Hailstorm & lightning likely at isolated places over Odisha; with gusty winds (speed reaching 40 50 kmph) Hailstorm & lightning likely at isolated places over East Madhya Pradesh, Vidarbha, Chhattisgarh, Sub-Himalayan West Bengal & Sikkim, Jharkhand and Telangana; with gusty winds (speed reaching 30 40 kmph), Hailstorm & lightning likely at isolated places over Bihar; with gusty winds (speed reaching 40 50 kmph) lightning likely at isolated places over East Uttar Pradesh, Gangetic West Bengal, Marathwada, Kerala & Mahe, Coastal Andhra Pradesh & Yanam, Rayalaseema and Karnataka; with gusty winds (speed reaching 30 40 kmph) & lightning likely at isolated places over Assam & Meghalaya; with lightning at isolated places over Arunachal Pradesh, Nagaland, Manipur, Mizoram & Tripura, and Tamil Nadu, Puducherry & Karaikal.
- **\Display Hot and Humid Conditions** very likely at isolated places over coastal Gujarat.

# 23rd March (Day 4):

- ❖ Thunderstorm accompanied with gusty winds (speed reaching 40 50 kmph) & lightning likely at isolated places over Kerala & Mahe, Coastal Andhra Pradesh & Yanam, Rayalaseema and Karnataka; with gusty winds (speed reaching 30 40 kmph)& lightning likely at isolated places over East Madhya Pradesh, Vidarbha and Assam & Meghalaya; with lightning at isolated places over Chhattisgarh, Gangetic West Bengal, Bihar, Odisha, Arunachal Pradesh, Telangana, Nagaland, Manipur, Mizoram & Tripura and Tamil Nadu, Puducherry & Karaikal.
- **\Display** Hot and Humid Conditions likely at isolated places over coastal Gujarat.

```
24<sup>th</sup> March (Day 5):
```

- ❖ Thunderstorm accompanied with gusty winds (speed reaching 30 40 kmph) & lightning likely at isolated places over Coastal Andhra Pradesh & Yanam; with lightning at isolated places over Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe and South Interior Karnataka.
- **\Delta Hot and Humid Conditions** likely at isolated places over coastal Gujarat.

```
25<sup>th</sup> March (Day 6):
```

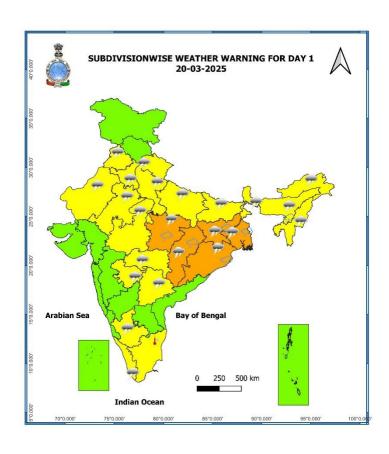
**❖** No Weather Warning.

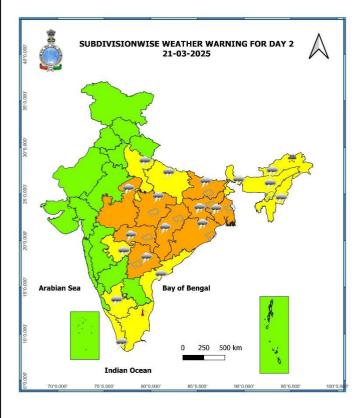
```
26th March (Day 7):
```

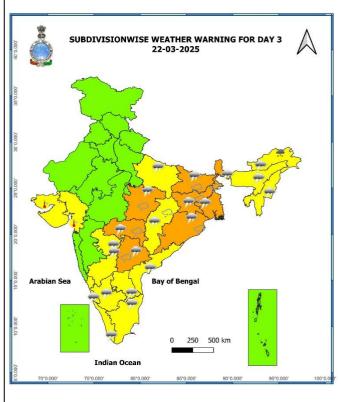
**No Weather Warning.** 







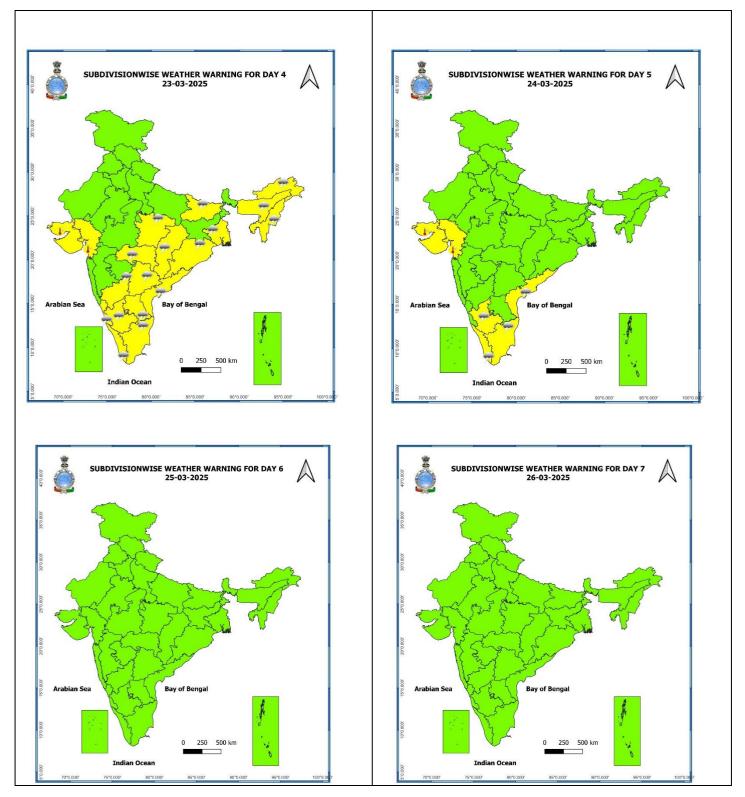








#### National Weather Forecasting Centre India Meteorological Department Ministry of Earth Sciences



- Action may be taken based on ORANGE AND RED COLOUR warnings.
- Vulnerable regions likely urban and hilly areas action may be initiated for heavy rainfall warning.
- As the lead period increases forecast accuracy decreases.





# National Weather Forecasting Centre India Meteorological Department Ministry of Earth Sciences

# Table-1

7 Days Rainfall Forecast								
S. No.	Subdivision	20-Mar	21-Mar	22-Mar	23-Mar	24-Mar	25-Mar	26-Mar
J. 140.		Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
1	ANDAMAN & NICOBAR ISLANDS	SCT	ISOL	SCT	SCT	SCT	SCT	FWS
2	ARUNACHAL PRADESH	SCT	FWS	SCT	SCT	SCT	SCT	ISOL
3	ASSAM & MEGHALAYA	ISOL	FWS	FWS	SCT	ISOL	DRY	DRY
4	NAGALAND, MANIPUR, MIZORAM & TRIPURA	FWS	SCT	SCT	ISOL	ISOL	ISOL	ISOL
5	SUB-HIMALAYAN WEST BENGAL & SIKKIM	ISOL	ISOL	SCT	ISOL	DRY	DRY	DRY
6	GANGETIC WEST BENGAL	FWS	FWS	FWS	SCT	ISOL	DRY	DRY
7	ODISHA	ISOL	SCT	FWS	SCT	ISOL	DRY	DRY
8	JHARKHAND	SCT	FWS	FWS	ISOL	DRY	DRY	DRY
9	BIHAR	ISOL	ISOL	SCT	SCT	DRY	DRY	DRY
10	EAST UTTAR PRADESH	ISOL	ISOL	ISOL	DRY	DRY	DRY	DRY
11	WEST UTTAR PRADESH	ISOL	ISOL	DRY	DRY	DRY	DRY	DRY
12	UTTARAKHAND	ISOL	ISOL	DRY	DRY	DRY	DRY	ISOL
13	HARYANA CHANDIGARH & DELHI	ISOL	DRY	DRY	DRY	DRY	DRY	DRY
14	PUNJAB	ISOL	DRY	DRY	DRY	DRY	DRY	DRY
15	HIMACHAL PRADESH	ISOL	ISOL	DRY	DRY	DRY	DRY	ISOL
16	JAMMU & KASHMIR AND LADAKH	ISOL	ISOL	DRY	DRY	ISOL	ISOL	SCT
17	WEST RAJASTHAN	ISOL	DRY	DRY	DRY	DRY	DRY	DRY
18	EAST RAJASTHAN	ISOL	DRY	DRY	DRY	DRY	DRY	DRY
19	WEST MADHYA PRADESH	ISOL	ISOL	DRY	DRY	DRY	DRY	DRY
20	EAST MADHYA PRADESH	SCT	SCT	SCT	ISOL	DRY	DRY	DRY
21	GUJARAT REGION	DRY						
22	SAURASHTRA & KUTCH	DRY						
23	KONKAN & GOA	DRY						
24	MADHYA MAHARASHTRA	ISOL	DRY	DRY	ISOL	ISOL	DRY	DRY
25	MARATHAWADA	ISOL	ISOL	ISOL	DRY	DRY	DRY	DRY
26	VIDARBHA	ISOL	SCT	SCT	ISOL	DRY	DRY	DRY
27	CHHATTISGARH	ISOL	SCT	SCT	ISOL	DRY	DRY	DRY
28	COASTAL ANDHRA PRADESH & YANAM	DRY	DRY	SCT	SCT	ISOL	DRY	DRY
29	TELANGANA	ISOL	ISOL	SCT	ISOL	DRY	DRY	DRY
30	RAYALASEEMA	DRY	DRY	ISOL	SCT	ISOL	DRY	DRY
31	TAMILNADU PUDUCHERRY & KARAIKAL	ISOL	ISOL	SCT	SCT	ISOL	ISOL	DRY
32	COASTAL KARNATAKA	ISOL	DRY	DRY	ISOL	ISOL	ISOL	ISOL
33	NORTH INTERIOR KARNATAKA	DRY	DRY	DRY	ISOL	ISOL	ISOL	DRY
34	SOUTH INTERIOR KARNATAKA	ISOL	DRY	DRY	ISOL	ISOL	ISOL	ISOL
35	KERALA & MAHE	ISOL	SCT	SCT	FWS	SCT	SCT	ISOL
36	LAKSHADWEEP	SCT	SCT	SCT	DRY	DRY	DRY	DRY

• As the lead period increases forecast accuracy decreases.





#### National Weather Forecasting Centre India Meteorological Department Ministry of Earth Sciences

Impact expected and action suggested due to thunderstorm accompanied with lightning/gusty winds over Northeast, Central & East India during next 4 days; Kerala & Mahe & South Interior Karnataka during next 5 days.

- Impact expected:
- Strong wind may damage plantation, horticulture and standing crops.
- 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.

# Agromet advisories for likely impact of Heavy Rainfall / Hailstorm

- ✓ In **Odisha**, apply light and frequent irrigation to the standing crops, vegetables and orchards in the evening to protect them from adverse impacts of high temperatures.
- ✓ To avoid the adverse impact of likely hailstorm, harvest the matured standing crops, vegetables and fruits and shift the harvested produce in safer places or cover the produce with tarpaulin sheets in the fields.
- ✓ Provide mechanical support to horticultural crops and staking to vegetables to avoid lodging.

#### Livestock

- ✓ Store feed and fodder in a safe place to prevent spoilage.
- ✓ To reduce the effect of heat wave/high temperature, cover the roof of poultry sheds with grass.
- ✓ Also provide clean, hygienic and plenty of drinking water to animals.



#### National Weather Forecasting Centre India Meteorological Department Ministry of Earth Sciences

# **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; ARG: Automatic Rain Gauge; dist.: District: NH: National Highway; KVK: Krishi Vigyan Kendra; DVC: Damodar Valley Corporation; PTO: Part Time Office, Aero: Aerodrome, IAF: Indian Air Force.

### **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 Marathawada.
- **South India:** Coastal Andhra Pradesh & Yanam, Telangana, Rayalaseema, Coastal Karnataka, North Interior Karnataka, South Interior Karnataka, Kerala & Mahe, Tamil Nadu, Puducherry & Karaikal and Lakshadweep.



#### National Weather Forecasting Centre India Meteorological Department Ministry of Earth Sciences

# **LEGENDS**



# SPATIAL DISTRIBUTION (% of Stations reporting)

	76-100	Widespread (WS/Most Places)	26-50	Scattered (SCT/A Few Places)	
	51-75	Fairly Widespread (FWS/Many Places)	1-25	Isolated (ISOL)	
	Fog	Heavy Snow	_ Cold Wa	COLOUR CODED WARNING	
_			<u>I</u>	No Warning (No Action)	n)
Reavy Rain		ain 🥞 Dust Storm	Cold Da	Watch (Be Aware)	
7	Nery Hea	yy Rain + Heat Wave	Ground	Frost Alert (Be Prepared To Take Action)	

% Stations

Very Heavy Rain

Fytromoly Heavy Rain

Warm Night

Category

Extremely Heavy Rain + Warm Night

Thunder & Lightning + Hot Day

% Stations

Probabilistic Forecast

Warning (Take Action)

Category



#### National Weather Forecasting Centre India Meteorological Department Ministry of Earth Sciences

	DEFINITION/CRITERIA
*	Heavy: 64.5 to 115.5 mm/cm *  Very Heavy: 115.6 to 204.4 mm/cm *
Rain/ Snow *	Extremely Heavy: > 204.4 mm/cm *
<u> </u>	When we will are to the state of a station we also a 100 C for plains and a 200 C for billion and
	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>Heat Wave</b>	(b). Based on Actual maximum temperature
	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
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.
Cold Wave	Severe Cold Wave: Minimum Temperature Departure from normal ≤ -6.5 °C
Cold wave	(b) Based on actual Minimum Temperature (for Plains only)
	Cold Wave : When Minimum Temperature is ≤ 4.0 °C  Severe Cold Wave: When Minimum Temperature is ≤ 2.0 °C
	(c) For Coastal Stations
	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
Cold Day	Based on departure
Cold Day	Cold Day: Maximum Temperature Departure from normal -4.5 °C to -6.4 °C.
	Severe Cold Day: Maximum Temperature Departure from normal ≤ -6.5 °C
	Phenomenon of small droplets suspended in air and the horizontal visibility < 1km
Fog	Moderate Fog: When the visibility between 500-200 metres
. 09	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.
	Ice deposits on ground
Frost	Air temperature ≤4°C ( over Plains)
1	
	A strong wind that rises suddenly, lasts for atleast 1 minute.
Squall	Moderate: Wind speed 52-61 kmph  Severe: Wind speed 62-87 kmph
	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
Sea State	High to very high: Wind speed 41-62 kmph (24-63 knots) & Wave height 6-14 metre
	Phenomenal: Wind speed >117 kmph (>63 knots) & Wave height >14 metre
	Cyclonic Storm: Wind speed 62-87 kmph (34-47 knots)
	Cyclonic Storm: Wind speed 62-87 kmph (34-47 knots)  Severe Cyclonic Storm: Wind speed 88-117 kmph (48-63 knots)
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)
Cyclone	Severe Cyclonic Storm: Wind speed 88-117 kmph (48-63 knots)