



**Government of India  
Earth System Science Organization  
Ministry of Earth Sciences  
India Meteorological Department**

**Press Release  
Date: 30<sup>th</sup> April, 2021  
Time of Issue: 1545 hrs IST**

**Subject: Wet spell over East, Northeast and Peninsular India during 30<sup>th</sup> April to 06<sup>th</sup> May, 2021**

**Weather Systems & Forecast:**

**I. East & Northeast India-**

- ◆ A cyclonic circulation lies over northeast Madhya Pradesh & neighbourhood and an east-west trough runs from this circulation to West Bengal at lower levels. This east-west trough is very likely to persist over East India during next 4-5 days.
- ◆ A trough in westerlies runs roughly along longitude 88°E to the north of latitude 22°N in middle levels.
  
- ◆ Strong southerly/southwesterly winds from Bay of Bengal to east & northeast India at lower levels is likely from 02<sup>nd</sup> May.
  
- ◆ Under the influence of the above:
  - isolated to scattered rainfall/thunderstorm activity likely over east & northeast India on 30<sup>th</sup> April & 1<sup>st</sup> May, 2021.
  - Rain/thundershower activity is very likely to increase over east & northeast India from 2<sup>nd</sup> May with scattered to widespread rain/thundershower over these regions during 2<sup>nd</sup>-6<sup>th</sup> May.
  - Isolated **heavy rainfall** also likely over Assam & Meghalaya during 1<sup>st</sup>-3<sup>rd</sup> May; over Nagaland, Manipur, Mizoram & Tripura on 3<sup>rd</sup> & 4<sup>th</sup> May; and over Odisha and West Bengal & Sikkim from 3<sup>rd</sup> to 5<sup>th</sup> May, 2021.
  - Intense thunderstorm activity accompanied with strong gusty winds of the order of 40-60 kmph also likely during 30<sup>th</sup> April to 01<sup>st</sup> May over parts of east and northeast India.

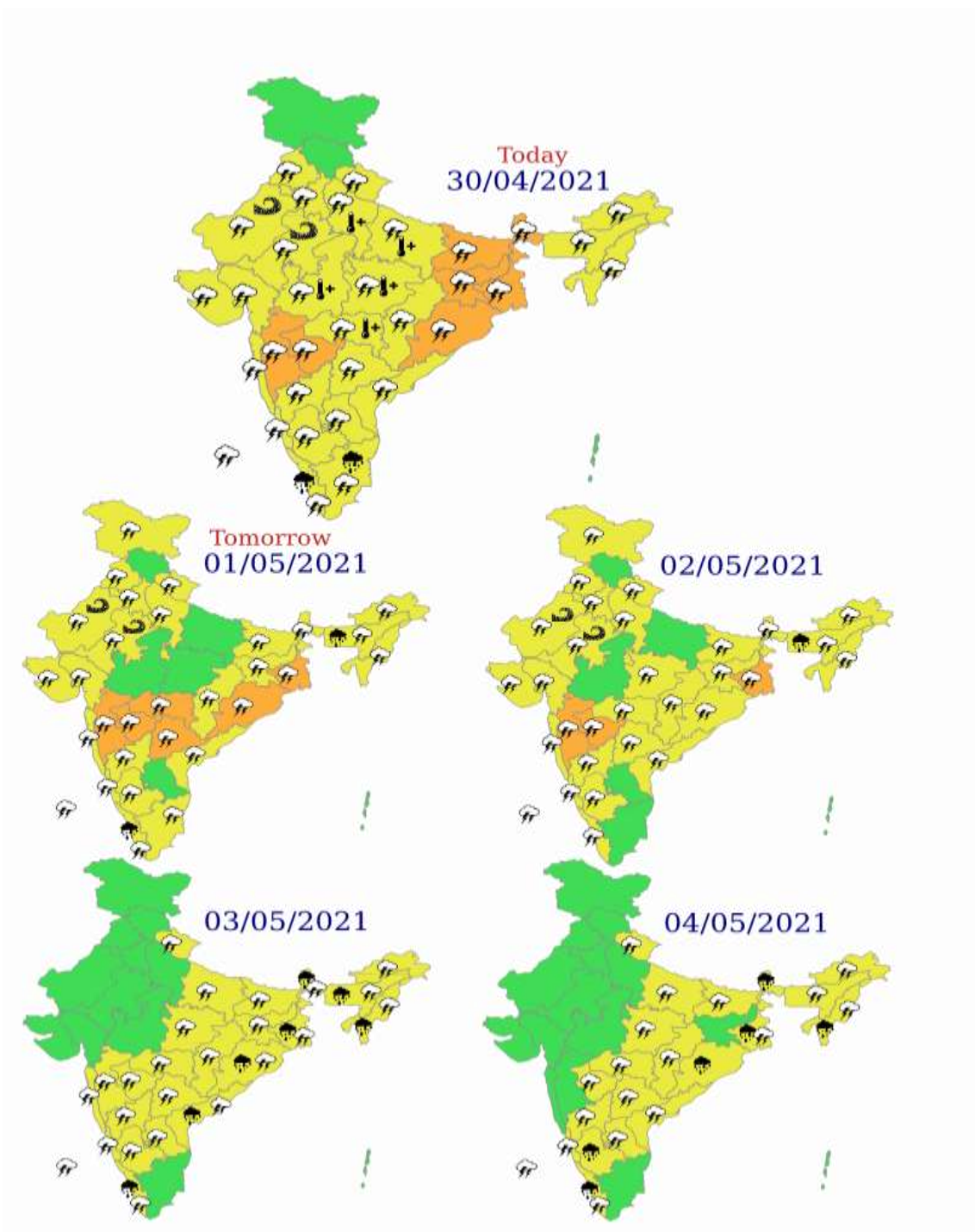
**II. south Peninsular India-**

- ◆ A cyclonic circulation lies over south Tamilnadu & neighbourhood at lower levels.
  
- ◆ A north-south trough/wind discontinuity likely to form over the region from tomorrow which is likely to persist for 3-4 days.
  
- ◆ Under their influence:
  - light/moderate scattered to fairly widespread rain/thunder is very likely over parts of Peninsular India (particularly over Kerala, South & coastal Karnataka) during next 5-6 days.
  - Isolated **heavy rainfall** is also likely over Kerala & Mahe on 30<sup>th</sup> April, 1<sup>st</sup> May and 3<sup>rd</sup>-4<sup>th</sup> May, over coastal Andhra Pradesh on 3<sup>rd</sup> May and over South Interior Karnataka on 4<sup>th</sup> May.

## Temperature Forecast:

◆ Due to the rain/thunderstorm activity expected across the country, no significant heat wave is likely over the country during next 5-6 days.

Multi-hazard warning Map for the next 5 days is given below:



**Impact expected and action suggested due to Thunderstorm with lightning/hail/gusty winds/ squall over Sub- Himalayan West Bengal & Sikkim, Jharkhand and Bihar on 30<sup>th</sup> April; Odisha on 30<sup>th</sup> April and 01<sup>st</sup> May; Gangetic West Bengal, Madhya Maharashtra and Marathwada during 30<sup>th</sup> April-02<sup>nd</sup> May and Vidarbha and Telangana on 01<sup>st</sup> May**

**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.
- Farming operations may be suspended during the event.

## LEGENDS

### WARNING

<b>WARNING (TAKE ACTION)</b>
<b>ALERT ( BE PREPARED)</b>
<b>WATCH (BE UPDATED)</b>
<b>NO WARNING ( NO ACTION)</b>

### 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  $4.5^{\circ}\text{C}$  to  $6.4^{\circ}\text{C}$ .

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  $40^{\circ}\text{C}$

Warm Night: When minimum temperature departure  $4.5^{\circ}\text{C}$  to  $6.4^{\circ}\text{C}$ .

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  $-4.5^{\circ}\text{C}$  to  $-6.4^{\circ}\text{C}$ .

Severe Cold Wave: Minimum Temperature Departure from normal  $\geq -6.5^{\circ}\text{C}$

**(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  $\leq -4.5^{\circ}\text{C}$  or 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  $-4.5^{\circ}\text{C}$  to  $-6.4^{\circ}\text{C}$ .

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)

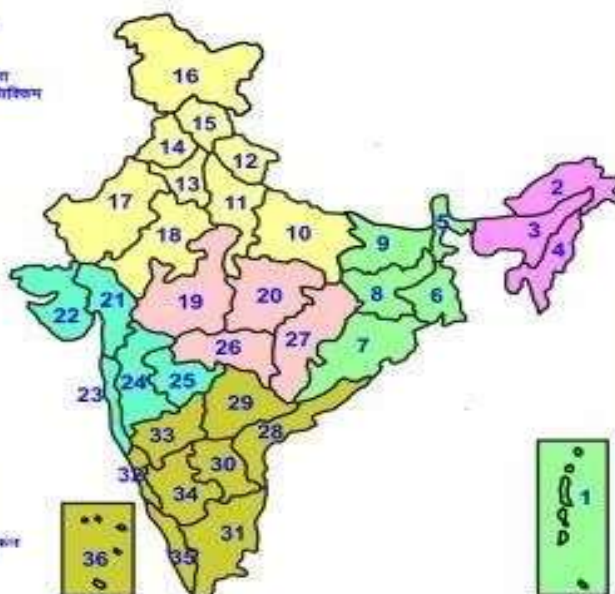
Very Severe Cyclonic Storm: Wind speed 118-165 kmph (64 - 89 knots)

Extremely Severe Cyclonic Storm: Wind speed 166-220 kmph (90 -119 knots)

Super Cyclone Storm: Wind speed  $>220$  kmph ( $>119$  knots)

## LEGENDS

- 1 अंडमान और निकोबार द्वीप समूह
- 2 अरुणाचल प्रदेश
- 3 असम और मेघालय
- 4 नागलैंड, मणिपुर, मिजोरम और त्रिपुरा
- 5 उप-हिमालय पश्चिम बंगाल, ऐंम, सिक्किम
- 6 गंगेयि पश्चिम बंगाल
- 7 ओडिशा
- 8 झारखंड
- 9 बिहार
- 10 पूर्वी उत्तर प्रदेश
- 11 पश्चिम उत्तर प्रदेश
- 12 उत्तराखंड
- 13 हरियाणा, हिंदू और दिल्ली
- 14 पंजाब
- 15 हिमाचल प्रदेश
- 16 जम्मू और कश्मीर (एवंक लद्दाख)
- 17 पश्चिम राजस्थान
- 18 पूर्वी राजस्थान
- 19 पश्चिम मध्य प्रदेश
- 20 पूर्वी मध्य प्रदेश
- 21 गुजरात
- 22 सौराष्ट्र
- 23 कर्नाक और गोवा
- 24 मध्य महाराष्ट्र
- 25 महाराष्ट्र
- 26 विदर्भ
- 27 उत्तरप्रदेश
- 28 उत्तर मध्य प्रदेश एवं मध्य
- 29 मराठवाड़ा
- 30 राजस्थान
- 31 तमिलनाडु, पुदुचेरी, एंमक कर्नाटक
- 32 कर्नाटक
- 33 उत्तरकनारा, उत्तरी कर्नाटक
- 34 उत्तरकनारा, दक्षिणी कर्नाटक
- 35 केरल एवं माहे
- 36 लक्षद्वीप



1. Andaman & Nicobar Islands
2. Arunachal Pradesh
3. Assam & Meghalaya
4. Nagaland, Manipur, Mizoram & Tripura
5. Sub-Himalayan West Bengal & Sikkim
6. Gangetic West Bengal
7. Orissa
8. Jharkhand
9. Bihar
10. East Uttar Pradesh
11. West Uttar Pradesh
12. Uttarakhand
13. Haryana, Chd & Delhi
14. Punjab
15. Himachal Pradesh
16. Jammu & Kashmir and Ladakh
17. West Rajasthan
18. East Rajasthan
19. West Madhya Pradesh
20. East Madhya Pradesh
21. Gujarat
22. Saurashtra
23. Konkan & Goa
24. Madhya Maharashtra
25. Maharashtra
26. Vidarbha
27. Chhattisgarh
28. Coastal Andhra Pradesh & Yanam
29. Telangana
30. Rayalaseema
31. Tamil Nadu, Puducherry & Karaikal
32. Coastal Karnataka
33. North Interior Karnataka
34. South Interior Karnataka
35. Kerala & Mahe
36. 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)

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Heavy Rain	Heavy Snow	Thunderstorm	Dust Storm
Strong Winds	Visibility	Cyclone	Squall/ Hail
Frost	Cold Wave	Heat Wave	Sea State

Kindly download **MAUSAMAPP** 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.