



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

Tuesday, April 29, 2025 Time of Issue: 1315 hours IST (MID-DAY)

#### ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

## **Significant Weather Features:**

## Weather Systems, Forecast and Warnings:

- ❖ A trough in westerlies runs roughly along Long. 84°E to the north of Lat. 15°N in middle & upper tropospheric levels and another trough runs along Long. 90°E to the north of Lat. 21°N in lower & middle tropospheric levels.
- An upper air cyclonic circulation lies over north Bangladesh in lower tropospheric levels.
- A cyclonic circulation lies over southwest Madhya Pradesh and a trough from this cyclonic circulation to south Tamil Nadu in lower tropospheric levels. A north-south trough from west Vidarbha to north Kerala in lower tropospheric levels.
- Under the influence of these systems:

#### **East & Central India:**

- ✓ **Scattered to fairly widespread** light/moderate rainfall accompanied with **thunderstorm, lightning & strong winds speed reaching 40-50 kmph gusting to 60 kmph** likely over East India, East Madhya Pradesh, Vidarbha, Chhattisgarh during 29th April-02nd May.
- ✓ Isolated hailstorm activity likely over Vidarbha, Chhattisgarh, Gangetic West Bengal, Jharkhand, Odisha on 29th April.
- ✓ **Isolated heavy rainfall** over Odisha during 29th April-01st May.

#### **Northwest India:**

- ❖ A fresh and active Western Disturbance likely to impact Northwest India from 02nd May, 2025. Under its influence:
  - ✓ **Scattered to fairly widespread** light to moderate rainfall with **thunderstorm, lightning & strong winds speed reaching 30-50 kmph** likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh and Uttarakhand during 30<sup>th</sup> April to 04<sup>th</sup> May.
  - ✓ Isolated to scattered rainfall with **thunderstorm**, **lightning & strong winds speed reaching 40-60 kmph** likely over Punjab, Haryana Chandigarh & Delhi, Uttar Pradesh, Rajasthan during 30<sup>th</sup> April to 04<sup>th</sup> May.
  - ✓ **Duststorm** very likely at isolated places over East Uttar Pradesh on 29<sup>th</sup> & 30<sup>th</sup> April; Punjab, Haryana, Chandigarh & Delhi on 01<sup>st</sup> May and Rajasthan during 01<sup>st</sup>-05<sup>th</sup> May.

#### South peninsular India:

✓ **Isolated to Scattered** light/moderate rainfall accompanied with **thunderstorm**, **lightning & strong winds speed reaching 30-40 kmph gusting to 50 kmph** likely over Karnataka, Coastal Andhra Pradesh & Yanam, Telangana, Rayalaseema, Kerala & Mahe, Tamil Nadu Puducherry & Karaikal during next 7 days with **thundersquall (wind speed reaching 50-60 kmph)** likely over North Interior Karnataka on 02<sup>nd</sup> & 03<sup>rd</sup> May.

#### Northeast India:

- ✓ **Fairly widespread to widespread** light/moderate rainfall accompanied with **thunderstorm**, **lightning & gusty winds speed reaching 40-50 kmph gusting to 60 kmph** likely over Northeast India during next 7 days.
- ✓ Heavy rainfall likely over Tripura, Arunachal Pradesh on 29th and Assam & Meghalaya on 29th & 30th April.

#### **Temperature Forecast:**

- No significant change in maximum temperatures likely over Northwest India during next 2 days and fall by 2-4°C for subsequent 5 days.
- No significant change in maximum temperatures likely over Gujarat during next 4 days and fall by 2-4°C for subsequent 3 days.
- ❖ No significant change in maximum temperatures likely over rest parts of the country.

## Heat wave, warm night and Hot & Humid weather warning:

- **Heat wave to severe heat wave conditions** very likely in isolated pockets of Saurashtra & Kutch on 29<sup>th</sup> and isolated heat wave conditions on 30<sup>th</sup> April.
- ♣ Heat wave conditions very likely in some parts of West Rajasthan on 29<sup>th</sup> & 30<sup>th</sup> April; in isolated pockets on 01<sup>st</sup> May; in isolated pockets over Jammu-Kashmir, Himachal Pradesh, East Rajasthan on 29<sup>th</sup> & 30<sup>th</sup> April.







#### Main Weather Observations:

- Rainfall observed (from 0830 hours IST of yesterday to 0830 hours IST of today): at most places over West Bengal & Sikkim; at many places over Assam & Meghalaya, Arunachal Pradesh, Nagaland, Manipur, Mizoram & Tripura, Kerala & Mahe; at a few places over Jharkhand, Odisha, Andaman & Nicobar Islands; at isolated places over East Uttar Pradesh, Bihar, Vidarbha, Chhattisgarh, Tamilnadu Puducherry & Karaikal, Karnataka, Rayalaseema, Coastal Andhra Pradesh & Yanam and Telangana.
- Significant rainfall (from 0830 hours IST of yesterday to 0830 hours IST of today):Sub-Himalayan West Bengal & Sikkim: Chepan (dist Alipurduar) 7, Mathabhanga (dist Cooch Behar) 6, Barobhisha (dist Alipurduar) 5; Assam & Meghalaya: Barpathar (dist Golaghat) 6, Marigaon Arg (dist Morigaon) 6, Laharighat Arg (dist Morigaon) 6, Resubelpara (dist North Garo Hills) 5, Haflong\_aws (dist Dima Hasao) 5; Nagaland, Manipur, Mizoram & Tripura: Belonia (dist South Tripura) 6, Teliamura arg (dist Khowai) 5, Wokha\_aws (dist Wokha) 5,
- Hailstorm occurred at isolated places over East Madhya Pradesh, Vidarbha, Chhattisgarh, Gangetic West Bengal, Odisha and Coastal Andhra Pradesh.
- **Heavy rainfall** recorded at isolated places over Assam & Meghalaya and Odisha.
- Minimum Temperature Departures (as on 29-04-2025): Minimum temperatures are appreciably above normal (3.1°C to 5.0°C) at many places over Punjab; at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Uttarakhand, East Rajasthan, East Uttar Pradesh; above normal (1.6°C to 3.0°C) at a few places over Madhya Maharashtra; at isolated places over Himachal Pradesh, Haryana-Chandigarh, West Rajasthan, Madhya Pradesh. These are markedly below normal (-5.1 or below) at isolated places over Gangetic West Bengal; appreciably below normal (-3.1°C to -5.0°C) at most places over Odisha; at many places over Chhattisgarh, Iharkhand; at isolated places over Vidarbha, Tamil Nadu, Puducherry & Karaikal; below normal (-1.6°C to -3.0°C) at a few places over Delhi; at isolated places over Bihar, Telangana, Assam, Mizoram, Kerala & Mahe and normal over rest parts of the country (Fig. 4). Today, the lowest minimum temperature of 21.2°C is reported at Nowgong (East **Madhya Pradesh)** over the plains of the country.
- Maximum Temperature Departures (as on 28-04-2025): Maximum Temperatures were markedly above normal (5.1°C or more) at a few places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad; appreciably above normal (3.1°C to 5.0°C) at isolated places over West Rajasthan, Saurashtra & Kutch; above normal (1.6°C to 3.0°C) at isolated places over Himachal Pradesh, Punjab, East Rajasthan, Gujarat Region, West Madhya Pradesh, Konkan & Goa, Madhya Maharashtra. These were markedly below normal (-5.1 or below) at many places over Bihar; at isolated places over East Uttar Pradesh, Jharkhand, Chhattisgarh, Odisha, West Bengal & Sikkim; appreciably below normal (-3.1°C to -5.0°C) at isolated places over Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura; **below normal (-1.6°C to -3.0°C)** at a few places over East Madhya Pradesh, West Uttar Pradesh; at isolated places over Telangana, Rayalaseema, Interior Karnataka and normal over rest parts of the country (Fig. 2). Yesterday, the highest maximum temperature of 46.4°C was reported at Barmer (West Rajasthan) over the country.





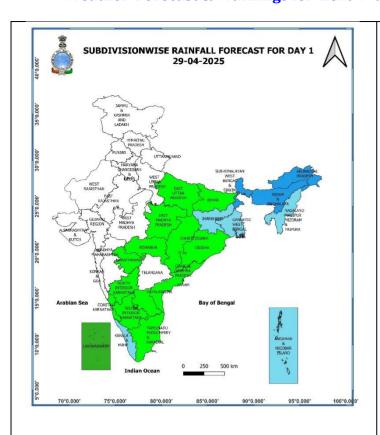
## Meteorological Analysis (Based on 0830 hours IST)

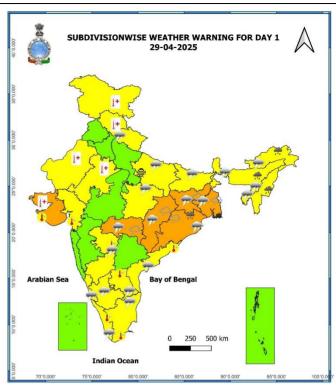
- ❖ The **trough in westerlies** roughly along Long. 84°E to the north of Lat. 15°N persist and now seen between 5.8 & 9.6 km above mean sea level.
- ❖ The **cyclonic circulation** over southwest Rajasthan & neighbourhood extending upto 1.5 km above mean sea level persists.
- ❖ The upper air **cyclonic circulation** over northwest Madhya Pradesh & neighbourhood extending upto 1.5 km above mean sea level persists.
- The north-south **trough** from above upper air cyclonic circulation over northwest Madhya Pradesh & neighbourhood to south Tamil Nadu across Vidarbha, Marathwada, Interior Karnataka, Tamil Nadu at 0.9 km above mean sea level persists.
- The upper air **cyclonic circulation** over Northeast Bangladesh now lies over north Bangladesh and extends upto 1.5 km above mean sea level.
- ❖ A **trough in westerlies** between 3.1 & 4.5 km above mean sea level runs roughly along Long. 90°E to the north of Lat. 21°N.
- ❖ An upper air **cyclonic circulation** lies over Lakshadweep & neighbourhood at 1.5 km above mean sea level.
- ❖ A fresh Western Disturbance is likely to affect Western Himalayan region from 02<sup>nd</sup> May, 2025.
- ❖ The upper air **cyclonic circulation** over northeast Assam & neighbourhood at 1.5 km above mean sea level has become less marked.
- ❖ The upper air **cyclonic circulation** over Comorin area & neighbourhood at 1.5 km above mean sea level has become less marked.





## Weather Forecast & Warnings for next 7 days (Upto 0830 hours IST of 05th May, 2025)



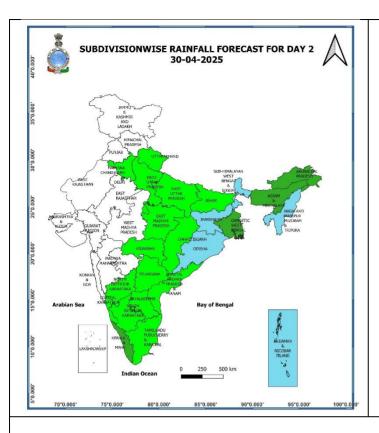


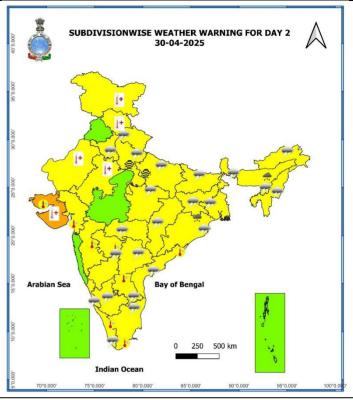
#### 29th April (Day 1)

- **Thundersquall with wind speed reaching 50-60kmph** very likely at isolated places over Vidarbha, Chhattisgarh, Gangetic West Bengal, Jharkhand.
- ❖ Thunderstorms with gusty winds(40-50kmph) very likely at isolated places over Uttarakhand, East Uttar Pradesh, Sub-Himalayan West Bengal & Sikkim, Bihar, Assam & Meghalaya, Kerala & Mahe, Coastal Andhra Pradesh & Yanam, Rayalaseema, North Interior Karnataka
- **❖ Thunderstorms with gusty winds(40-50kmph)** very likely at isolated places over Nagaland, Manipur, Mizoram & Tripura, Tamil Nadu, Puducherry & Karaikal, South Interior Karnataka.
- **❖ Thunderstorm & Lightning** very likely at isolated places over Arunachal Pradesh, Coastal Karnataka
- ❖ Hailstorm very likely at isolated places over Gangetic West Bengal, Jharkhand, Odisha, Vidarbha, Chhattisgarh.
- ❖ Heavy Rain very likely at isolated places over Odisha, Arunachal Pradesh, Assam & Meghalaya.
- ❖ Hot and Humid very likely at isolated places over coastal areas of Gujarat State, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe, Coastal Andhra Pradesh & Yanam, Rayalaseema.
- ❖ Heat Wave to severe heat wave very likely at isolated places over Saurashtra & Kutch; Heat Wave at a few places over West Rajasthan; at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, East Rajasthan.
- ❖ **Dust Storm** very likely at isolated places over East Uttar Pradesh.







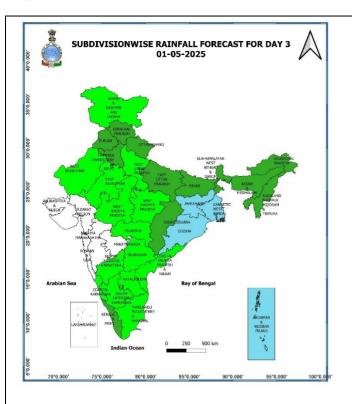


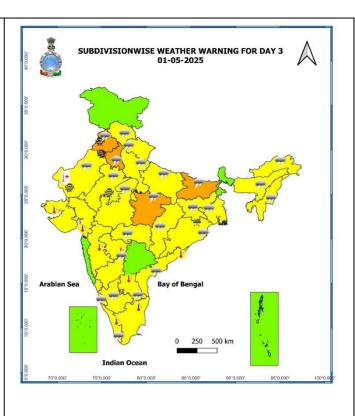
## 30th April (Day 2)

- **Thunderstorms with gusty winds(40-50kmph)** likely at isolated places over Uttarakhand, Uttar Pradesh, Jharkhand, Odisha, Telangana, North Interior Karnataka.
- Thunderstorms with gusty winds(30-40kmph) likely at isolated places over Haryana-Chandigarh-Delhi, Vidarbha, Chhattisgarh, West Bengal & Sikkim, Bihar, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe, Rayalaseema, South Interior Karnataka.
- **Thunderstorm & Lightning** likely at isolated places over Arunachal Pradesh, Coastal Karnataka.
- **Heavy Rain** very likely at isolated places over Odisha, Assam & Meghalaya.
- Hot and Humid very likely at isolated places over Madhya Maharashtra, Marathwada, coastal areas of Gujarat State, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe, Coastal Andhra Pradesh & Yanam, Rayalaseema.
- **Heat Wave** very likely at a few places over West Rajasthan; at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, East Rajasthan, Saurashtra & Kutch.
- **Dust Storm** very likely at isolated places over Uttar Pradesh.



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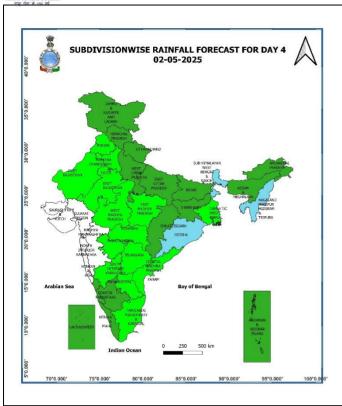


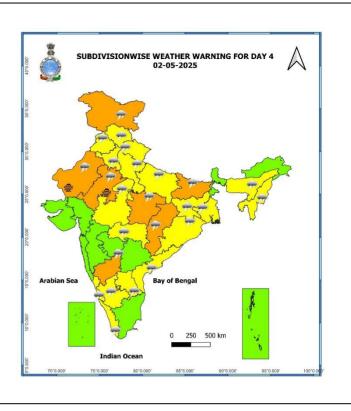


## 01st May (Day 3)

- **❖ Thundersquall with wind speed reaching 50-60kmph** likely at isolated places over Punjab, Haryana-Chandigarh-Delhi, East Madhya Pradesh, Bihar.
- ❖ Thunderstorms with gusty winds(40-50kmph) likely at isolated places over Himachal Pradesh, Uttarakhand, Uttar Pradesh, Rajasthan, West Madhya Pradesh, Chhattisgarh, Gangetic West Bengal, Iharkhand, Odisha, North Interior Karnataka, Coastal Andhra Pradesh & Yanam.
- **❖ Thunderstorms with gusty winds(30-40kmph)** likely at isolated places over Vidarbha, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Rayalaseema, South Interior Karnataka.
- ❖ Thunderstorm & Lightning likely at isolated places over Arunachal Pradesh, Kerala & Mahe, Coastal Karnataka
- ❖ Hot and Humid likely at isolated places over Madhya Maharashtra, Marathwada, coastal area of Gujarat State, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe, Coastal Andhra Pradesh & Yanam, Rayalaseema.
- **Heat Wave** very likely at isolated places over West Rajasthan.
- **Dust Storm** likely at isolated places over Punjab, Rajasthan.
- **\( \text{Heavy Rain} \)** likely at isolated places over Odisha.

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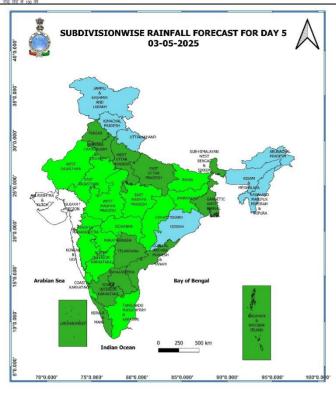


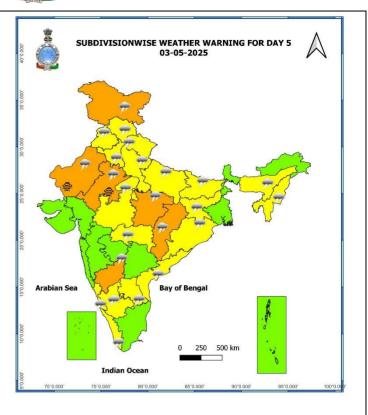


## 02nd May (Day 4)

- ❖ Thundersquall with wind speed reaching 50-60kmph likely at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Rajasthan, East Madhya Pradesh, Chhattisgarh, Bihar, North Interior Karnataka.
- Thunderstorms with gusty winds(40-50kmph) likely at isolated places over Himachal Pradesh, Uttarakhand, East Uttar Pradesh, West Madhya Pradesh, Vidarbha, Jharkhand, Odisha, Nagaland, Manipur, Mizoram & Tripura, Coastal Andhra Pradesh & Yanam, South Interior Karnataka.
- ❖ Thunderstorms with gusty winds(30-40kmph) likely at isolated places over Punjab, Haryana-Chandigarh-Delhi, West Uttar Pradesh, Gangetic West Bengal, Assam & Meghalaya, Rayalaseema, Coastal Karnataka.
- **Thunderstorm & Lightning** likely at isolated places over Kerala & Mahe.
- ❖ **Dust Storm** likely at isolated places over Rajasthan.

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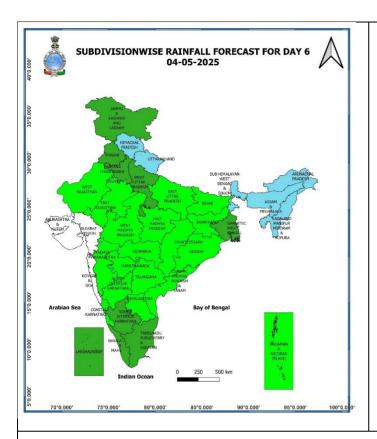
## 03rd May (Day 5)

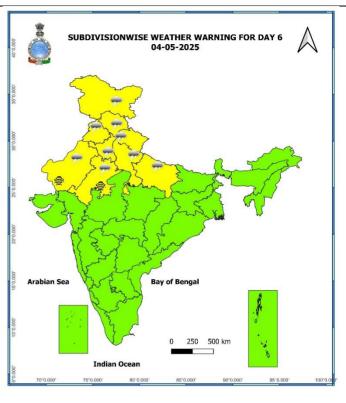
- ❖ Thundersquall with wind speed reaching 50-60kmph likely at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Rajasthan, East Madhya Pradesh, Chhattisgarh, North Interior Karnataka.
- Thunderstorms with gusty winds(40-50kmph) likely at isolated places over Himachal Pradesh, Uttarakhand, Uttar Pradesh, West Madhya Pradesh, Vidarbha, Bihar, Nagaland, Manipur, Mizoram & Tripura, Coastal Andhra Pradesh & Yanam and South Interior Karnataka.
- **Thunderstorms with gusty winds(30-40kmph)** likely at isolated places over Punjab, Haryana-Chandigarh-Delhi, Jharkhand, Odisha, Assam & Meghalaya, Rayalaseema,
- ❖ Thunderstorm & Lightning likely at isolated places over Coastal Karnataka.
- ❖ **Dust Storm** likely at isolated places over Rajasthan.









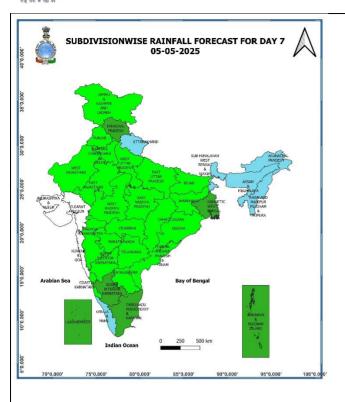


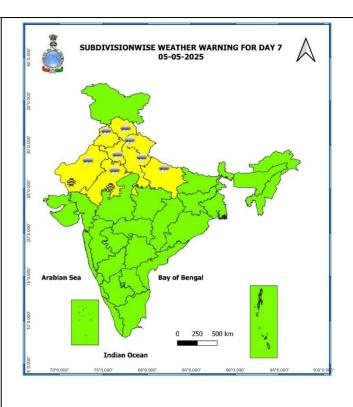
## 04th May (Day 6)

- Thunderstorms with gusty winds(40-50kmph) likely at isolated places over Uttar Pradesh, Rajasthan.
- Thunderstorms with gusty winds(30-40kmph) likely at isolated places over Himachal Pradesh, Uttarakhand, Punjab, Haryana-Chandigarh-Delhi.



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## 05th May (Day 7)

- Thunderstorms with gusty winds(40-50kmph) likely at isolated places over East Uttar Pradesh, Rajasthan.
- **❖ Thunderstorms with gusty winds(30-40kmph)** likely at isolated places over Himachal Pradesh, Uttarakhand, Punjab, Haryana-Chandigarh-Delhi, West Uttar Pradesh.

## Weather Outlook for subsequent 3 days (During 06th May- 08th May, 2025)

- ❖ Scattered to fairly widespread rainfall activity likely over east & northeast India, Kerala.
- ❖ Isolated to scattered rainfall likely over Northwest India, adjoining central India, Maharashtra, south peninsular India and Andaman & Nicobar Islands.

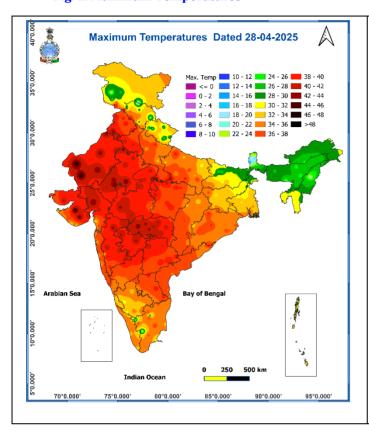
Action may be taken based on **ORANGE** AND **RED** COLOUR warnings.

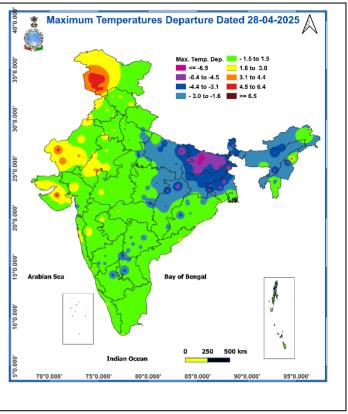
- Vulnerable regions likely urban and hilly areas action may be initiated for heavy rainfall warning.
- As the lead period increases forecast accuracy decreases.



Fig. 1: Maximum Temperatures







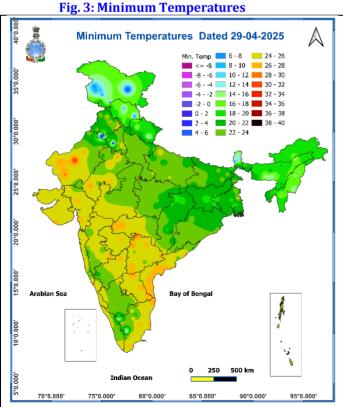


Fig. 4: Departure of Minimum Temperatures

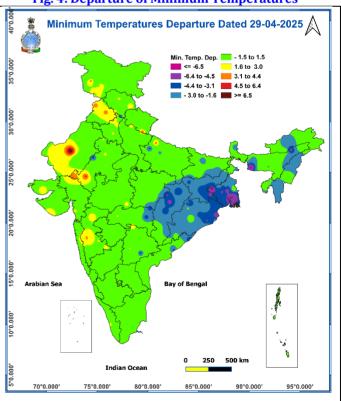
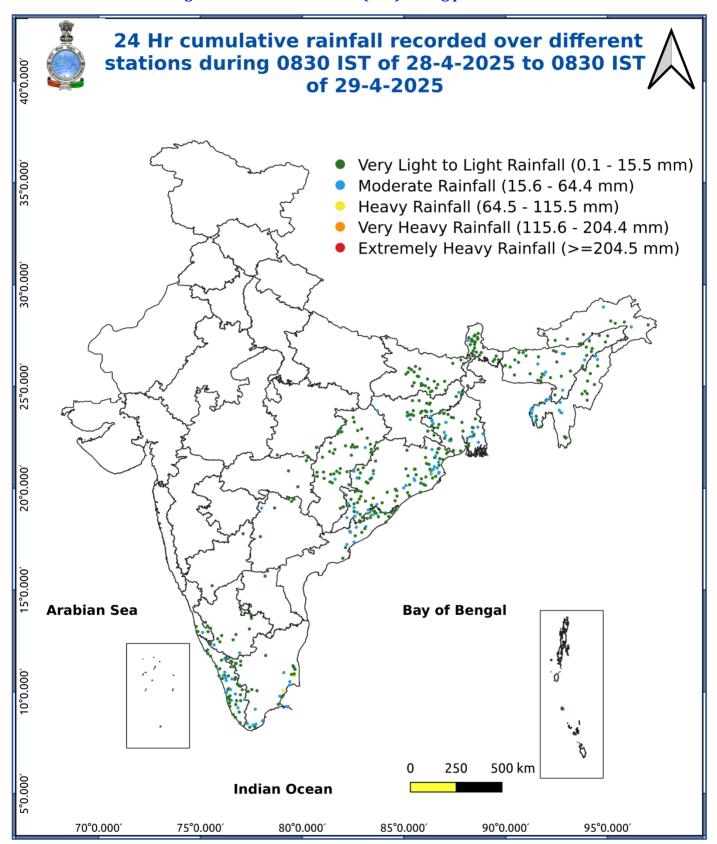






Fig. 5: Accumulated Rainfall (mm) during past 24 hours







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## Impact expected and action suggested due to isolated thunderstorm with lightning/gusty & Squally winds & Hailstorm over

- ✓ **Isolated hailstorm** activity likely over Vidarbha, Chhattisgarh, Gangetic West Bengal, Jharkhand, Odisha on 29<sup>th</sup> April.
- ✓ **Thundersquall (wind speed reaching 50-60 kmph)** likely over North Interior Karnataka, India on 01<sup>st</sup> & 02<sup>nd</sup> May; Punjab, Haryana Chandigarh & Delhi on 01<sup>st</sup> May; Rajasthan on 02<sup>nd</sup> & 03<sup>rd</sup> May; Jammu-Kashmir during 02<sup>nd</sup>-04<sup>th</sup> May; Vidarbha, Chhattisgarh, Gangetic West Bengal, Jharkhand, Odisha on 29<sup>th</sup> April and Bihar on 01<sup>st</sup> & 02<sup>nd</sup> May.

## Impact expected:

- > Breaking of tree branches, uprooting of large avenue trees. Large dead limbs blown from trees. Damage to Standing crops.
- ➤ Minor to Major damage to banana and papaya trees.
- Minor to major damage to power and communication lines due to breaking of branches.
- 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:**

- ➤ People are advised to keep a watch on the weather for worsening conditions and be ready to move to safer places accordingly.
- > 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 expected and action suggested due to Heat wave conditions over Jammu-Kashmir, Himachal Pradesh, East Rajasthan, Saurashtra & Kutch on 29<sup>th</sup> & 30<sup>th</sup> April; West Rajasthan during 29<sup>th</sup> April-01<sup>st</sup> May April.

### **Orange alert Areas**

- ➤ High temperature & increased likelihood of heat illness symptoms in people who are either exposed to sun for a prolonged period or doing heavy work.
- High health concern 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**

- 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.





## Agromet advisories for likely impact of Hailstorm / Heavy Rainfall / Gusty Winds / Heat wave

- ➤ In **North Eastern States** and **Odisha**, make provision to drain out excess water from standing crop and vegetable fields.
- ➤ In Gangetic West Bengal, Odisha, Jharkhand, Vidarbha and Chhattisgarh, use hail net and hail caps to prevent mechanical damage in vegetables and orchards due to the possibility of hailstorms.
- > To protect standing crops, vegetables and orchards from adverse effects of heat waves and high temperatures, apply light and frequent irrigation in the evening.
- > Shift the harvested produce in safer places or cover the produce with tarpaulin sheets in the fields. Tie the harvested crops properly and cover them to minimise the risk of displacement due to strong surface winds.
- Provide mechanical support to horticultural crops and staking to vegetables to avoid lodging.

## **Livestock / Poultry / Fishery**

- ➤ Keep the animals inside the shed during heavy rainfall / hailstorm and provide them balanced feed.
- > 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.

Construct an outlet with proper netting around the ponds to drain out excess water, thereby preventing fish from escaping in case of overflow

30. रायलसीमा

32. तटीय कर्नाटक

35. केरल और माहे

S Dust Raising Winds

36. लक्षद्वीप

33. आतंरिक उत्तरी कर्नाटक

34. आतंरिक दक्षिणी कर्नाटक

31. तमिलनाडु, पुडुचेरी और कराईकल

## राष्ट्रीय मौसम पूर्वानुमान केन्द्र भारत मौसम विज्ञान विभाग पृथ्वी विज्ञान मंत्रालय



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## **LEGENDS**



- 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. Odisha
- 8. Jharkhand
- 9. Rihar
- 10. East Uttar Pradesh
- 11. West Uttar Pradesh
- 12. Uttarakhand
- 13. Haryana, Chandigarh & Delhi
- 14. Puniab
- 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. Marathwada
- 26. Vidarbha
- 27. Chhattisgarh
- 28. Coastal Andhra Pradesh & Yanam
- 29. Telangana
- 30. Rayalaseema
- 31. Tamilnadu, Puducherry & Karaikal
- 32. Coastal Karnataka
- 33. North Interior Karnataka
- 34. South Interior Karnataka
- 35. Kerala & Mahe

Most Likely

> 75

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)



Strong Surface Winds





	DEFINITION/CRITERIA		
	<b>Heavy:</b> 64.5 to 115.5 mm/cm *		
Rain/ Snow *	Very Heavy: 115.6 to 204.4 mm/cm*		
	Extremely Heavy: > 204.4 mm/cm *		
	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	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: 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		
Varm 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		
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  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		
	Dhannan of and the plate are and disciplined the basic and the basic and the basic and the second of		
	Phenomenon of small droplets suspended in air and the horizontal visibility < 1km  Moderate Fog: When the visibility between 500-200 metres		
Fog	Dense Fog: when the visibility between 50- 200 metres		
	Very Dense Fog: when the visibility < 50 metres		
hunderstorm	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 ≤4°C ( over Plains)		
	A strong wind that rises suddenly, lasts for atleast 1 minute		
	A strong wind that rises suddenly, lasts for atleast 1 minute.  Moderate: Wind speed 52-61 kmph		
Squall	Moderate: Wind speed 52-61 kmph Severe: Wind speed 62-87 kmph		
Squall	Moderate: Wind speed 52-61 kmph		
Squall	Moderate: Wind speed 52-61 kmph Severe: Wind speed 62-87 kmph		
	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		
Squall Sea State	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 High to very high: Wind speed 63-117 kmph ( 34-63 knots) & Wave height 6-14 metre		
	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		
	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 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  Cyclonic Storm: Wind speed 62-87 kmph (34-47 knots)		
Sea State	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 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  Cyclonic Storm: Wind speed 62-87 kmph (34-47 knots) Severe Cyclonic Storm: Wind speed 88-117 kmph (48-63 knots)		
	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 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  Cyclonic Storm: Wind speed 62-87 kmph (34-47 knots)		