

Friday, May 16, 2025  
Time of Issue: 0800 hours IST  
(MORNING)

## ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

### Significant Weather Features:

#### Northeast India:

- ❖ Fairly widespread to widespread light/moderate rainfall accompanied with **thunderstorm, lightning & gusty winds speed 30-50 kmph** likely over Northeast India during next 5 days.
- ❖ **Isolated heavy rainfall** over Arunachal Pradesh, Nagaland, Manipur, Mizoram & Tripura during 16<sup>th</sup>-18<sup>th</sup>, Assam & Meghalaya during 16<sup>th</sup>-19<sup>th</sup> with isolated **very heavy rainfall** over Assam & Meghalaya during 16<sup>th</sup>-17<sup>th</sup> and Arunachal Pradesh on 16<sup>th</sup> May.

#### West India:

- ❖ **Isolated** light/moderate rainfall accompanied with **thunderstorm, lightning & gusty winds speed 30-50 kmph** likely over Konkan & Goa, Madhya Maharashtra, Marathawada during 16<sup>th</sup>-18<sup>th</sup> May.
- ❖ **Thundersquall wind speed reaching 50-60 kmph gusting to 70 kmph** likely over Madhya Maharashtra on 18<sup>th</sup> and Konkan & Goa on 19<sup>th</sup> May.

#### South peninsular India:

- ❖ **Scattered to fairly** light/moderate rainfall accompanied with **thunderstorm, lightning & gusty winds speed reaching 30-50 kmph** over Coastal Andhra Pradesh & Yanam, Rayalaseema, Telangana, Karnataka, Tamilnadu Puducherry & Karaikal, Kerala & Mahe during next 5 days.
- ❖ **Thundersquall wind speed reaching 50-60 kmph gusting to 70 kmph** likely over Telangana, Coastal Andhra Pradesh & Yanam, Rayalaseema, north Interior Karnataka on 16<sup>th</sup> May.
- ❖ **Isolated heavy rainfall** likely over Tamilnadu during 16<sup>th</sup>-17<sup>th</sup>; Interior Karnataka during 16<sup>th</sup>-19<sup>th</sup>; Coastal Andhra Pradesh, Telangana, Rayalaseema on 16<sup>th</sup>; Kerala & Mahe on 18<sup>th</sup> & 19<sup>th</sup> May.

#### East & Central India:

- ❖ **Isolated to Scattered** light/moderate rainfall accompanied with **thunderstorm, lightning & gusty winds speed reaching 30-50 kmph** likely over Madhya Pradesh, Vidarbha, Chhattisgarh, Jharkhand, Odisha, Bihar, West Bengal & Sikkim during next 5 days.
- ❖ **Thundersquall wind speed 50-60 kmph gusting to 70 kmph** likely over Bihar on 17<sup>th</sup> & 18<sup>th</sup> May.
- ❖ **Isolated heavy rainfall** likely over Sub-Himalayan West Bengal & Sikkim during 16<sup>th</sup>-19<sup>th</sup> May.

#### Northwest India:

- ✓ **Isolated to Scattered** light to moderate rainfall with **thunderstorm, lightning & gusty winds speed reaching 30-50 kmph** likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand, Uttar Pradesh during 18<sup>th</sup>-21<sup>st</sup>; Punjab, Haryana on 16<sup>th</sup> & during 19<sup>th</sup>-21<sup>st</sup>; East Rajasthan on 17<sup>th</sup> & 18<sup>th</sup> May.
- ✓ **Strong dust raising winds (25-35 kmph)** very likely over West Uttar Pradesh, Punjab and Haryana Chandigarh & Delhi on 16<sup>th</sup> & 17<sup>th</sup> and West Rajasthan during 16<sup>th</sup>-18<sup>th</sup> May.

#### Maximum Temperature Forecast:

- ❖ Gradual rise in maximum temperatures by 2-3°C likely over Northwest India during next 2 days and no large change thereafter for subsequent 4 days.
- ❖ No significant change in maximum temperatures likely over East India during next 24 hours; gradual fall by 2-3°C thereafter for subsequent 3 days and no large change thereafter for subsequent 2 days.
- ❖ Gradual rise in maximum temperatures by 2-3°C over Madhya Pradesh for next 3 days and no large change thereafter for subsequent 3 days.
- ❖ Gradual rise in maximum temperatures by 2-4°C over Gujarat State for next 2 days and no large change thereafter for subsequent 4 days.
- ❖ No significant change in maximum temperatures likely over rest parts of the country.

\* 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

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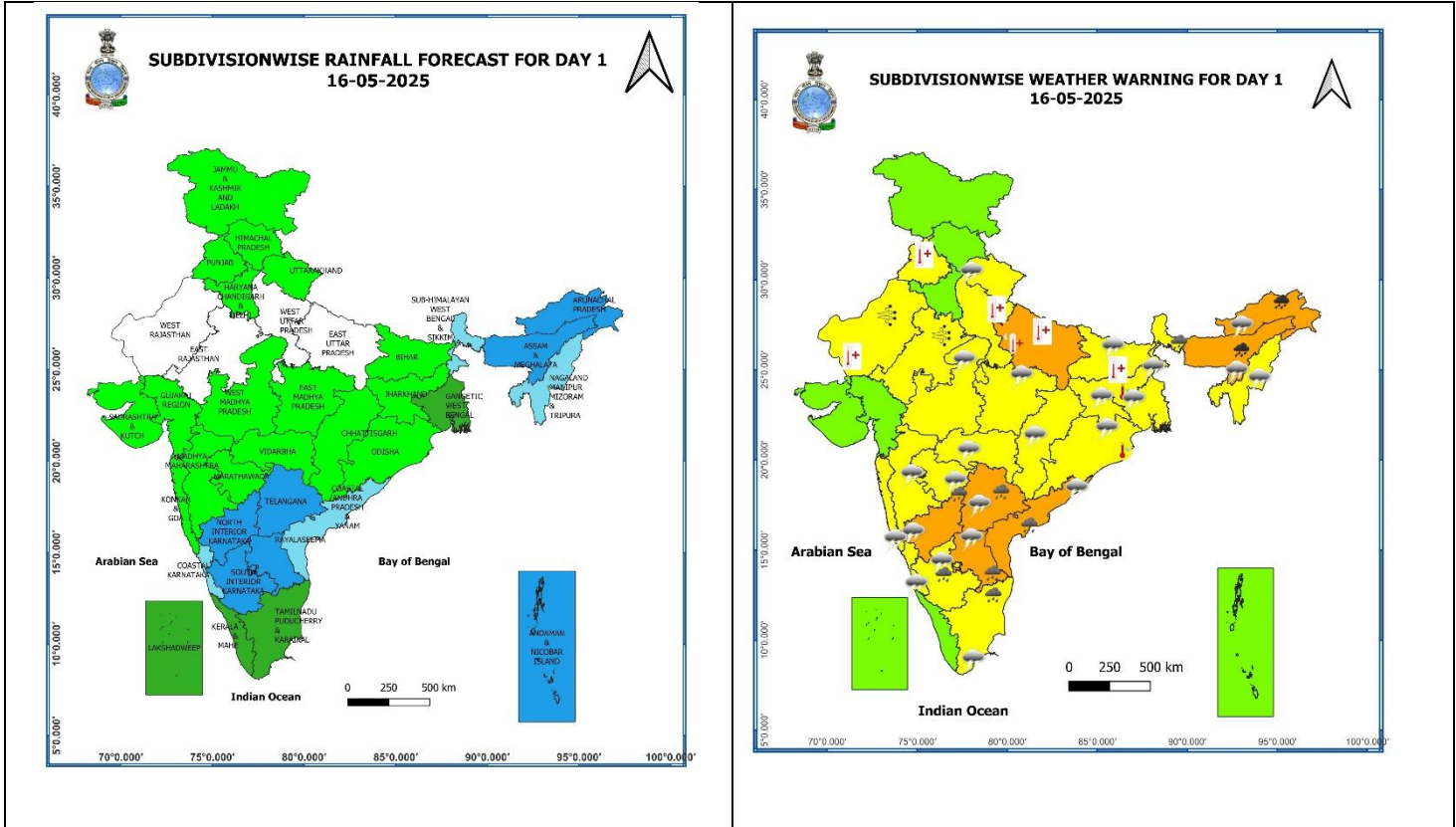
## Main Weather Observations:

- ❖ **Rainfall observed** (from 0830 hours IST to 1730 hours IST of yesterday): **at most places** over Andaman & Nicobar Islands and Arunachal Pradesh; **at many places** over West Uttar Pradesh, Tamilnadu Puducherry & Karaikal, East Rajasthan, Gujarat Region, Odisha, Jammu & Kashmir and Ladakh, Chhattisgarh, East Madhya Pradesh, Sub-Himalayan West Bengal & Sikkim, Vidarbha, Kerala & Mahe, Coastal Andhra Pradesh & Yanam, West Madhya Pradesh, Assam & Meghalaya, Madhya Maharashtra, South Interior Karnataka, Gangetic West Bengal, Jharkhand, North Interior Karnataka, Coastal Karnataka, Nagaland, Manipur, Mizoram & Tripura and Lakshadweep; **Dry** over rest of the country.
- ❖ **Significant amount of rainfall recorded** (from 0830 hours IST to 1730 hours IST of yesterday) (in cm): **Tamilnadu Puducherry & Karaikal:** Madurai AP (dist Madurai) 6, Valparai(upasitri) (dist Coimbatore) 3, Palayankottai (dist Tirunelveli) 1; **East Madhya Pradesh:** Seoni (dist Seoni) 4; **Andaman & Nicobar islands:** Port Blair (dist South Andaman) 3, Hut Bay (dist South Andaman) 2, Mayabandar (dist North And Middle Andaman), Nancowry (dist Nicobar) 1 Each; **Vidarbha:** Yeotmal (dist Yavatmal) 3, Amraoti (dist Amravati), Washim-obs (dist Washim) 1 Each; **Kerala & Mahe:** Palakkad (palghat) (dist Palakkad) 2; **Coastal Andhra Pradesh & Yanam:** Kakinada (dist Kakinada) 2; **West Madhya Pradesh:** Pachmarhi (dist Narmadapuram) 2; **Assam & Meghalaya:** Jorhat (dist Jorhat) 2, Dibrugarh (dist Dibrugarh), Silchar (dist Cachar), Golaghat (dist Golaghat) 1 Each; **Sub-Himalayan west Bengal & Sikkim:** Gangtok (dist Gangtok) 2; **Madhya Maharashtra :** Kolhapur (dist Kolhapur) 1; **South interior Karnataka:** Chitradurga (dist Chitradurga) 1; **Arunachal Pradesh:** Pasighat (dist East Siang) 1; **Gangetic West Bengal:** Midnapore (dist Paschim Medinipur) 1.
- ❖ **Minimum Temperature Departures (as on 15-05-2025):** Minimum temperatures were **appreciably above normal (3.1°C to 5.0°C)** at isolated places over Bihar, Gangetic West Bengal, East Madhya Pradesh, West Uttar Pradesh and West Rajasthan; **above normal (1.6°C to 3.0°C)** at most places over Jharkhand; at a few places over East Uttar Pradesh, Punjab, Sub-Himalayan West Bengal & Sikkim; at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand, Haryana-Chandigarh-Delhi, Gujarat state, Madhya Maharashtra, Odisha, Chhattisgarh. These were **appreciably below normal (-3.1°C to -5.0°C)** at isolated places over Telangana; **below normal (-1.6°C to -3.0°C)** at a few places over Rayalaseema, Tamil Nadu, Puducherry & Karaikal; at isolated places over Marathwada & Vidarbha and normal over rest parts of the country (**Fig. 4**). Yesterday, the **lowest minimum temperature of 20.4°C** was reported at **Medak (Telangana)** over the plains of the country.
- ❖ **Maximum Temperature Departures (as on 15-05-2025):** Maximum Temperatures were **markedly above normal (5.1°C or more)** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad; **appreciably above normal (3.1°C to 5.0°C)** at few places over Himachal Pradesh and East Uttar Pradesh; at isolated places over Haryana-Chandigarh, Uttarakhand and West Rajasthan; **above normal (1.6°C to 3.0°C)** at isolated places over Kerala & Mahe, Tamil Nadu, Puducherry & Karaikal, Konkan & Goa, East Rajasthan, East Uttar Pradesh, Punjab, Delhi, Bihar, Gangetic West Bengal, Odisha and Coastal Andhra Pradesh & Yanam. These were **markedly below normal (-5.1°C or less)** at a few places over Marathwada and Rayalaseema; at isolated places over West Madhya Pradesh, Madhya Maharashtra and Vidarbha; **appreciably below normal (-3.1°C to -5.0°C)** at a few places over Marathwada, Rayalaseema; at isolated places over Telangana; **below normal (-1.6°C to -3.0°C)** at isolated place over Gujarat Region, East Madhya Pradesh, Assam & Meghalaya, Interior Karnataka and normal over rest parts of the country. (**Fig. 2**). Yesterday, the highest **maximum temperature of 45.8°C** was reported at **Ganganagar (West Rajasthan)** over the country.

### Meteorological Analysis (Based on 0530 hours IST)

- ❖ The Northern Limit of Monsoon continues to pass through 5°N/70°E, 6°N/75°E, 6°N/80°E, 7°N/85°E, 8°N/87°E, 10°N/90°E, Long Island, 15°N/95°E and 17°N/97°E.
- ❖ Conditions are favorable for further advance of southwest Monsoon over some more parts of south Arabian Sea, Maldives & Comorin area; South Bay of Bengal, remaining parts of Andaman Islands and Andaman Sea; and some parts of central Bay of Bengal during next 2-3 days.
- ❖ The upper air **cyclonic circulation** over Northeast Assam & neighbourhood at 1.5 km above mean sea level persists.
- ❖ An upper air **cyclonic circulation** lies over central Assam at 0.9 km above mean sea level.
- ❖ A trough runs from East Uttar Pradesh to above cyclonic circulation over central Assam across Bihar, north West Bengal at 0.9 km above mean sea level.
- ❖ An upper air **cyclonic circulation** lies over West Uttar Pradesh & neighbourhood at 0.9 km above mean sea level.
- ❖ The upper air **cyclonic circulation** over North Interior Karnataka & neighbourhood now lies over Telangana & neighbourhood at 1.5 km above mean sea level.
- ❖ A trough runs from above cyclonic circulation over Telangana to north Tamil Nadu across Rayalaseema at 0.9 km above mean sea level.
- ❖ The upper air **cyclonic circulation** over Andaman Sea over southeast Bay of Bengal between 3.1 & 5.8 km above mean sea level tilting southwestwards with height persists.
- ❖ The upper air **cyclonic circulation** over north coastal Tamil Nadu & neighbourhood at 1.5 km above mean sea level persists.
- ❖ An upper air **cyclonic circulation** lies over Coastal Andhra Pradesh at 1.5 km above mean sea level.
- ❖ The upper air **cyclonic circulation** over south Gujarat & neighbourhood at 5.8 km above mean sea level has become less marked.
- ❖ The **trough** from Sub-Himalayan West Bengal & Sikkim to southeast Madhya Pradesh across north Chhattisgarh at 0.9 km above mean sea level has become less marked.

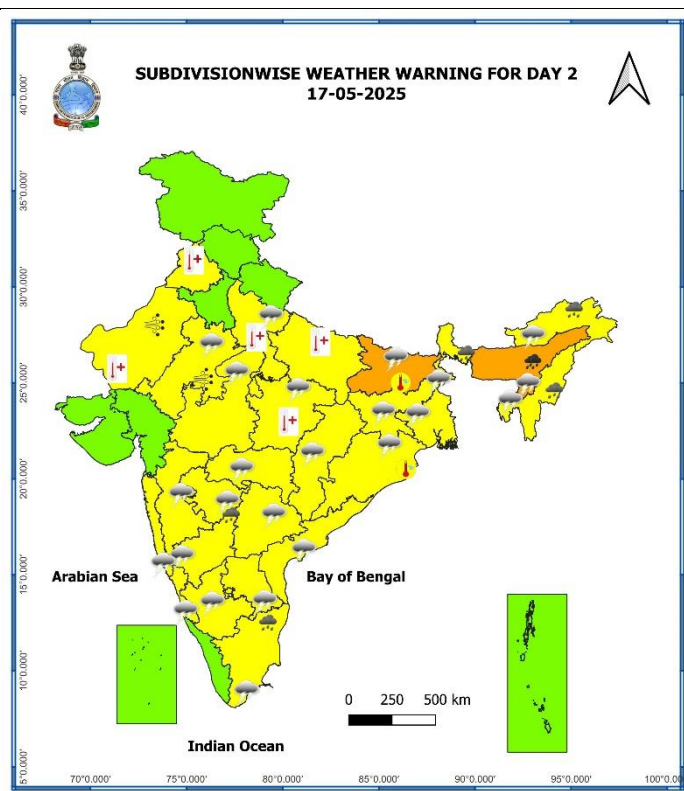
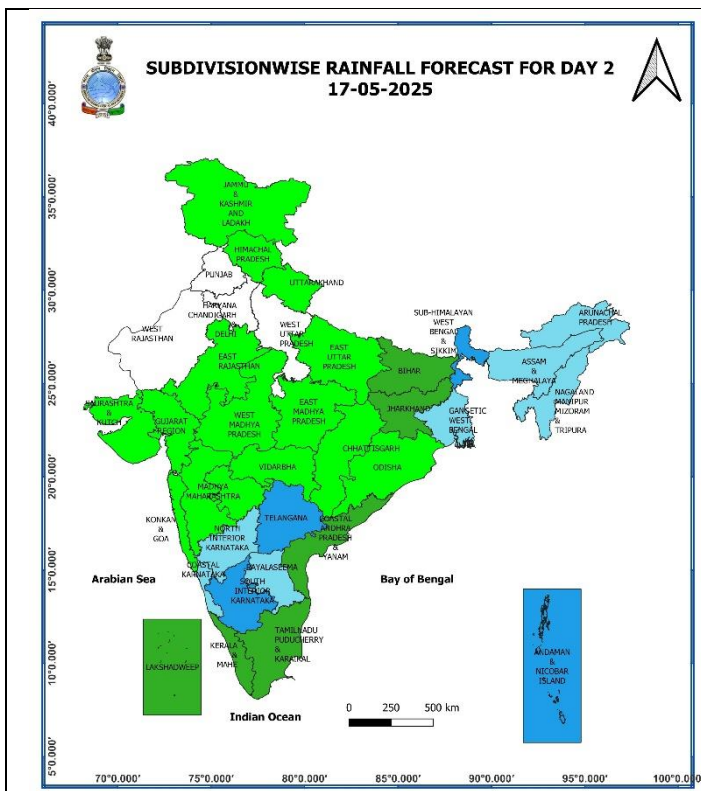
Weather Forecast & Warnings for next 7 days (Upto 0830 hours IST of 23<sup>rd</sup> May, 2025)



16<sup>th</sup> May (Day 1)

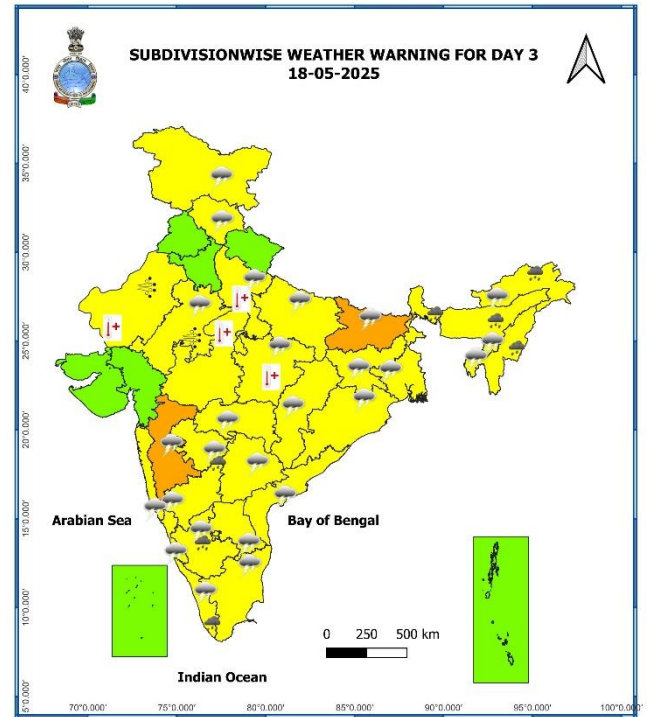
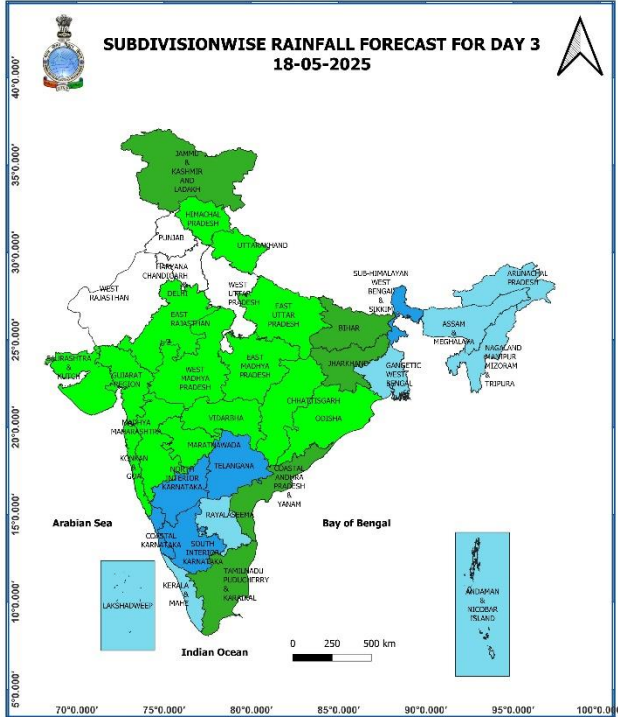
- ❖ **Heavy to Very Heavy Rainfall** very likely at isolated places over Arunachal Pradesh and Assam & Meghalaya.
- ❖ **Heavy Rainfall** very likely at isolated places over Andhra Pradesh, Interior Karnataka, Sub Himalayan West Bengal & Sikkim, Tamil Nadu Puducherry & Karaikal and Telangana.
- ❖ **Thundersquall with wind speed reaching(50-60kmph)** very likely at isolated places over Andhra Pradesh, North Interior Karnataka and Telangana.
- ❖ **Thunderstorm accompanied with lightning & gusty winds(40-50kmph)** very likely at isolated places over Assam & Meghalaya, Chhattisgarh, Gangetic West Bengal, Konkan & Goa, Madhya Pradesh, Maharashtra, Nagaland, Manipur, Mizoram and Tripura, Odisha, South Interior Karnataka and Tamil Nadu Puducherry & Karaikal.
- ❖ **Thunderstorm accompanied with lightning & gusty winds(30-40kmph)** very likely at isolated places over Bihar, Jharkhand, Sub Himalayan West Bengal & Sikkim and Uttarakhand.
- ❖ **Thunderstorm accompanied with Lightning** very likely at isolated places over Arunachal Pradesh and Costal Karnataka.
- ❖ **Dust Raising Winds** very likely at isolated places over Rajasthan.
- ❖ **Heat Wave conditions** very likely at isolated places over Bihar, Punjab, Uttar Pradesh and West Rajasthan.
- ❖ **Hot and Humid weather** very likely at isolated places over Jharkhand and Odisha.
- ❖ **Warm Night conditions** very likely at isolated places over East Uttar Pradesh.
- ❖ **Squally wind with speed 45 kmph to 50 kmph gusting to 55 kmph** very likely to prevail along and off Somalia coast, over Gulf of Mannar; adjoining Comorin area, along and off south Sri Lanka coast; adjoining southwest Bay of Bengal; **squally weather with wind speed 35 kmph to 45 kmph gusting to 55 kmph** prevailing over Andaman Sea; adjoining parts of southeast; eastcentral Bay of Bengal. Fishermen are advised not to venture into these areas.

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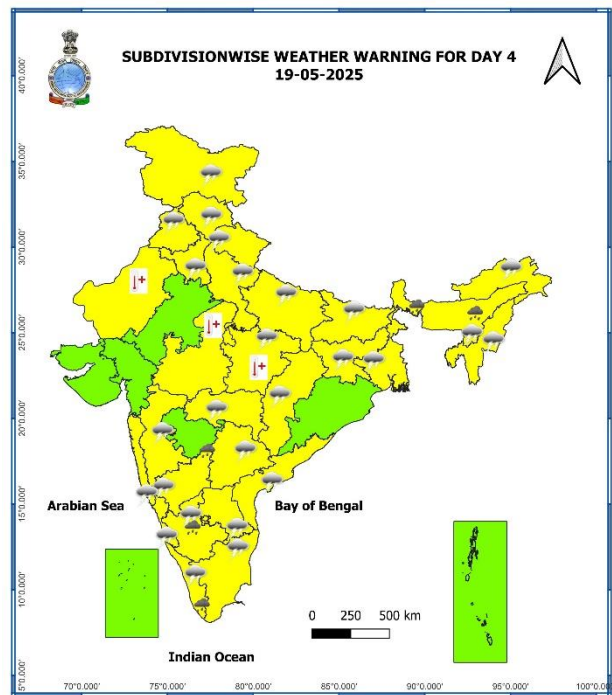
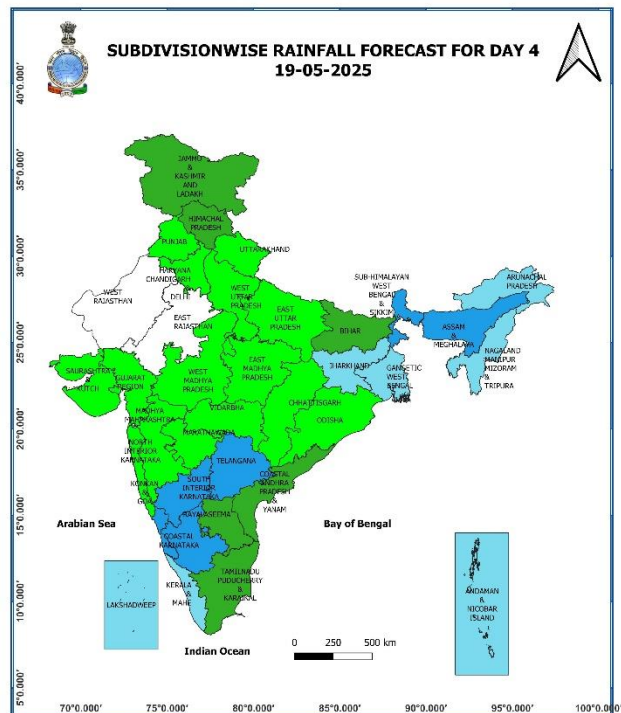
### 17<sup>th</sup> May (Day 2)

- ❖ **Heavy to Very Heavy Rainfall** very likely at isolated places over Assam & Meghalaya.
- ❖ **Heavy Rainfall** very likely at isolated places over Arunachal Pradesh, Nagaland, Manipur, Mizoram and Tripura, North Interior Karnataka, Sub Himalayan West Bengal & Sikkim and Tamil Nadu Puducherry & Karaikal.
- ❖ **Thunderquall with wind speed reaching(50-60kmph)** very likely at isolated places over Bihar.
- ❖ **Thunderstorm accompanied with lightning & gusty winds(40-50kmph)** very likely at isolated places over Andhra Pradesh, Assam & Meghalaya, East Rajasthan, Gangetic West Bengal, Interior Karnataka, Jharkhand, Konkan & Goa, Maharashtra, Nagaland, Manipur, Mizoram and Tripura, Tamil Nadu Puducherry & Karaikal, Telangana, West Madhya Pradesh and West Uttar Pradesh.
- ❖ **Thunderstorm accompanied with lightning & gusty winds(30-40kmph)** very likely at isolated places over Chhattisgarh, East Madhya Pradesh, Odisha and Sub Himalayan West Bengal & Sikkim.
- ❖ **Thunderstorm accompanied with Lightning** very likely at isolated places over Arunachal Pradesh and Costal Karnataka.
- ❖ **Dust Raising Winds** very likely at isolated places over Rajasthan.
- ❖ **Heat Wave conditions** very likely at isolated places over East Madhya Pradesh, Punjab, Uttar Pradesh and West Rajasthan.
- ❖ **Hot and Humid weather** very likely at isolated places over Bihar and Odisha.
- ❖ **Squally wind with speed 45 kmph to 50 kmph gusting to 55 kmph** very likely to prevail along and off Somalia coast, along and off Oman coast, over Gulf of Mannar; adjoining Comorin area, along and off south Sri Lanka coast; adjoining southwest Bay of Bengal. Fishermen are advised not to venture into these areas.



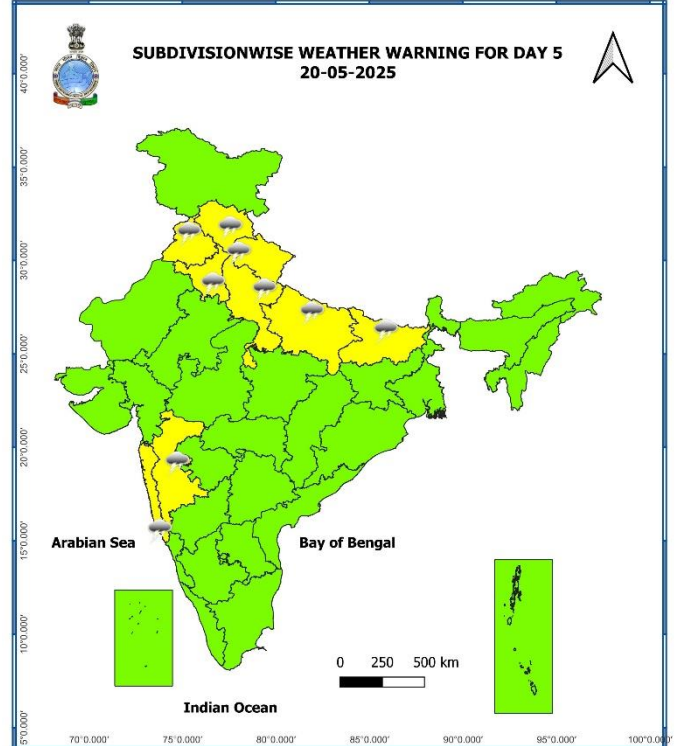
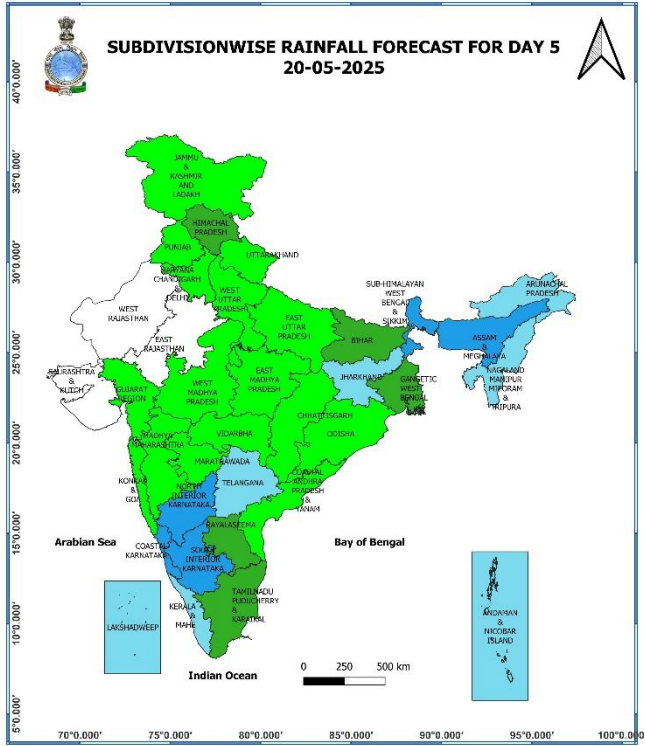
### 18th May (Day 3)

- ❖ **Heavy Rainfall** likely at isolated places over Arunachal Pradesh, Assam & Meghalaya, Interior Karnataka, Kerala & Mahe, Nagaland, Manipur, Mizoram and Tripura and Sub Himalayan West Bengal & Sikkim.
- ❖ **Thundersquall with wind speed reaching(50-60kmph)** likely at isolated places over Bihar and Madhya Maharashtra.
- ❖ **Thunderstorm accompanied with lightning & gusty winds(40-50kmph)** likely at isolated places over Andhra Pradesh, East Rajasthan, Gangetic West Bengal, Himachal Pradesh, Interior Karnataka, Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Jharkhand, Kerala & Mahe, Konkan & Goa, Marathwada, Tamil Nadu Puducherry & Karaikal, Telangana and Uttar Pradesh.
- ❖ **Thunderstorm accompanied with lightning & gusty winds(30-40kmph)** likely at isolated places over Assam & Meghalaya, Chhattisgarh, East Madhya Pradesh, Nagaland, Manipur, Mizoram and Tripura, Odisha and Vidarbha.
- ❖ **Thunderstorm accompanied with Lightning** likely at isolated places over Arunachal Pradesh and Costal Karnataka.
- ❖ **Dust Raising Winds** likely at isolated places over Rajasthan.
- ❖ **Heat Wave conditions** likely at isolated places over Madhya Pradesh, West Rajasthan and West Uttar Pradesh.
- ❖ **Squally wind with speed 45 kmph to 50 kmph gusting to 55 kmph** likely to prevail along and off Oman coast, over gulf of Mannar; adjoining Comorin area. Fishermen are advised not to venture into these areas.



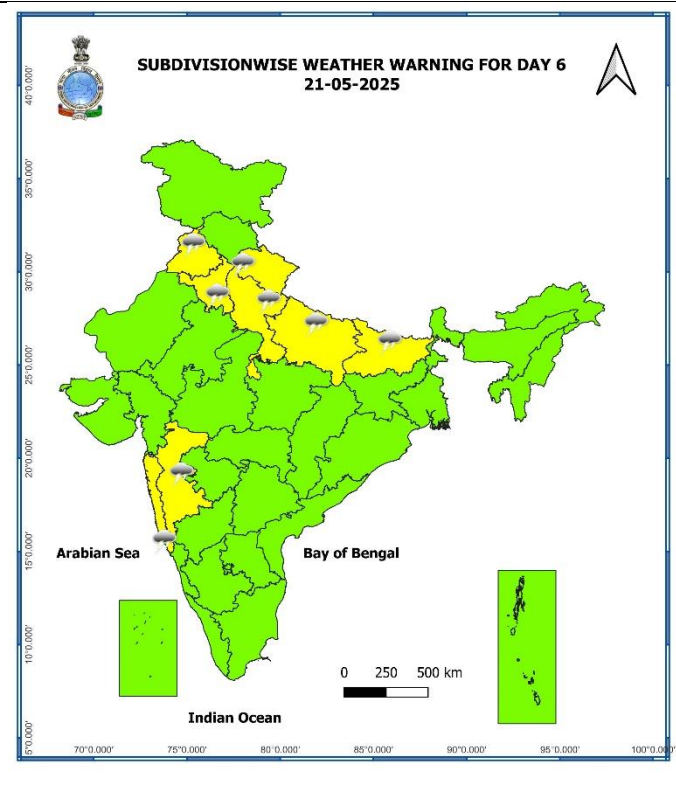
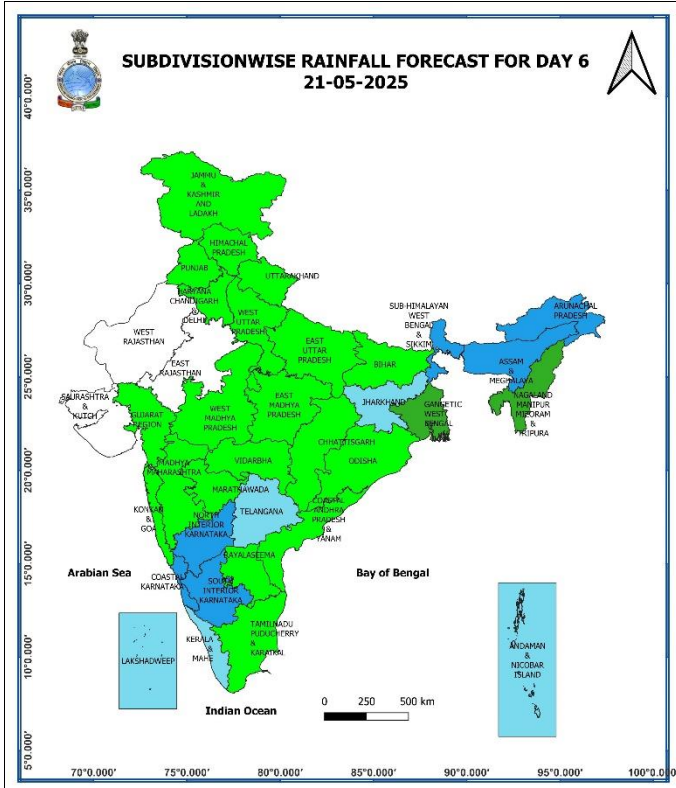
## 19<sup>th</sup> May (Day 4)

- ❖ **Heavy Rainfall** likely at isolated places over Assam & Meghalaya, Interior Karnataka, Kerala & Mahe and Sub Himalayan West Bengal & Sikkim.
- ❖ **Thundersquall with wind speed reaching(50-60kmph)** likely at isolated places over Konkan & Goa.
- ❖ **Thunderstorm accompanied with lightning & gusty winds(40-50kmph)** likely at isolated places over Andhra Pradesh, Haryana, Chandigarh & Delhi, Himachal Pradesh, Interior Karnataka, Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Jharkhand, Kerala & Mahe, Madhya Maharashtra, Punjab, Tamil Nadu Puducherry & Karaikal, Telangana and Uttar Pradesh.
- ❖ **Thunderstorm accompanied with lightning & gusty winds(30-40kmph)** likely at isolated places over Assam & Meghalaya, Bihar, Chhattisgarh, East Madhya Pradesh, Gangetic West Bengal, Nagaland, Manipur, Mizoram and Tripura, Uttarakhand and Vidarbha.
- ❖ **Thunderstorm accompanied with Lightning** likely at isolated places over Arunachal Pradesh and Coastal Karnataka.
- ❖ **Heat Wave conditions** likely at isolated places over Madhya Pradesh and West Rajasthan.
- ❖ **Squally wind with speed 45 kmph to 50 kmph gusting to 55 kmph** likely to prevail over Gulf of Mannar; adjoining Comorin area. Fishermen are advised not to venture into these areas.



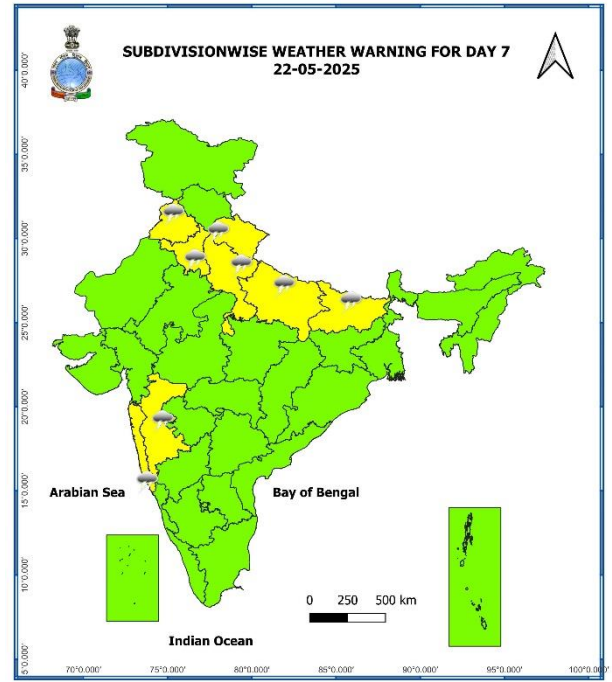
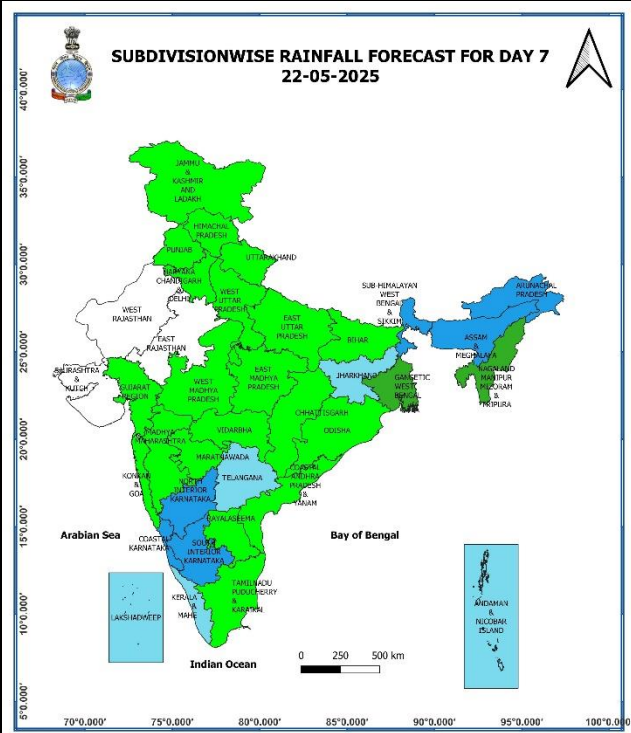
**20<sup>th</sup> May (Day 5)**

- ❖ **Thunderstorm accompanied with lightning & gusty winds(40-50kmph)** likely at isolated places over Haryana, Chandigarh & Delhi, Konkan & Goa, Madhya Maharashtra, Punjab and Uttarakhand.
- ❖ **Thunderstorm accompanied with lightning & gusty winds(30-40kmph)** likely at isolated places over Bihar, Himachal Pradesh and Uttar Pradesh.



## 21<sup>st</sup> May (Day 6)

- ❖ **Thunderstorm accompanied with lightning & gusty winds(40-50kmph)** likely at isolated places over Haryana, Chandigarh & Delhi, Konkan & Goa, Madhya Maharashtra, Punjab and Uttarakhand.
- ❖ **Thunderstorm accompanied with lightning & gusty winds(30-40kmph)** likely at isolated places over Bihar and Uttar Pradesh.



## 22<sup>nd</sup> May (Day 7)

- ❖ **Thunderstorm accompanied with lightning & gusty winds(40-50kmph)** likely at isolated places over Haryana, Chandigarh & Delhi, Konkan & Goa, Madhya Maharashtra, Punjab and Uttarakhand.
- ❖ **Thunderstorm accompanied with lightning & gusty winds(30-40kmph)** likely at isolated places over Bihar and Uttar Pradesh.

## Weather Outlook for subsequent 3 days (During 23<sup>rd</sup> May- 25<sup>th</sup> May, 2025)

- ❖ **Fairly widespread to widespread** rainfall activity likely over Northeast India.
- ❖ **Scattered to fairly widespread** rainfall activity likely over Chhattisgarh, Maharashtra, East and south peninsular India.
- ❖ **Isolated to scattered rainfall** likely over Jammu-Kashmir-Ladakh, Uttarakhand, Himachal Pradesh, Punjab, Haryana-Chandigarh-Delhi, Rajasthan, Uttar Pradesh, East Rajasthan and Madhya Pradesh.

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. 2: Departure of Maximum Temperatures

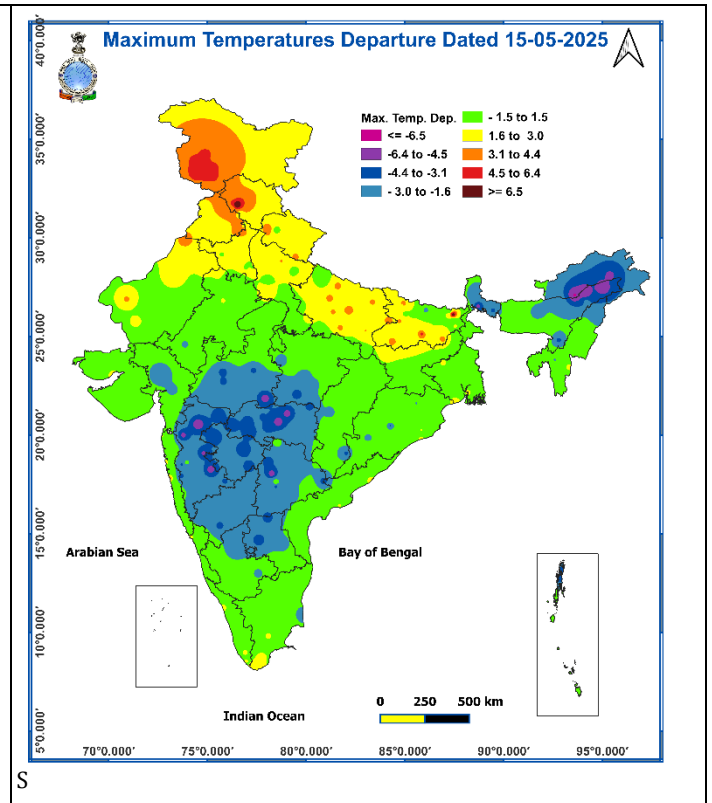
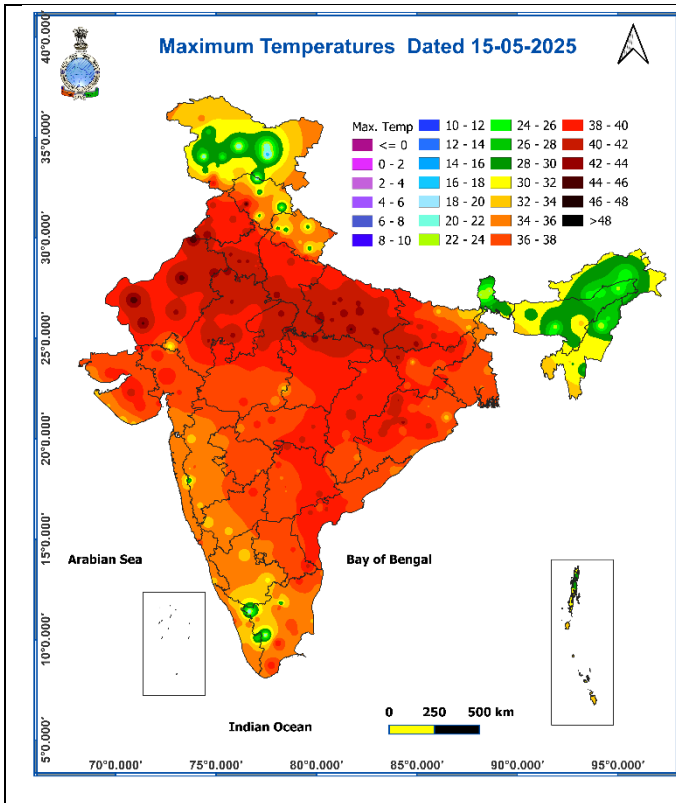


Fig. 3: Minimum Temperatures

Fig. 4: Departure of Minimum Temperatures

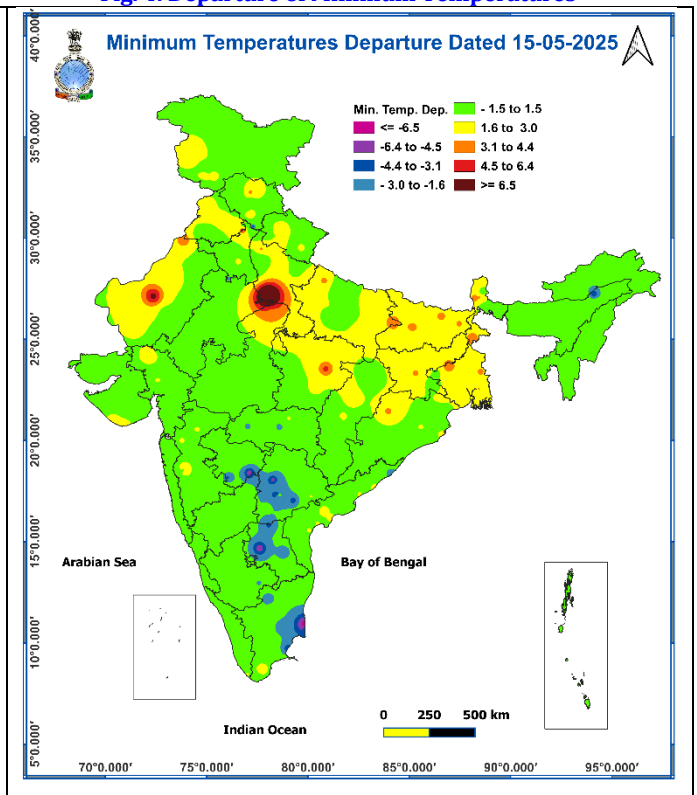
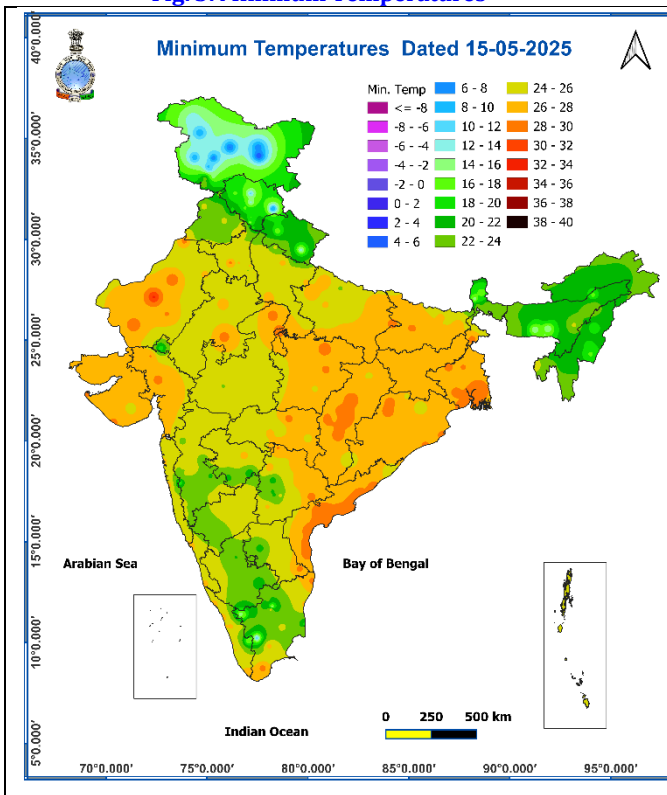
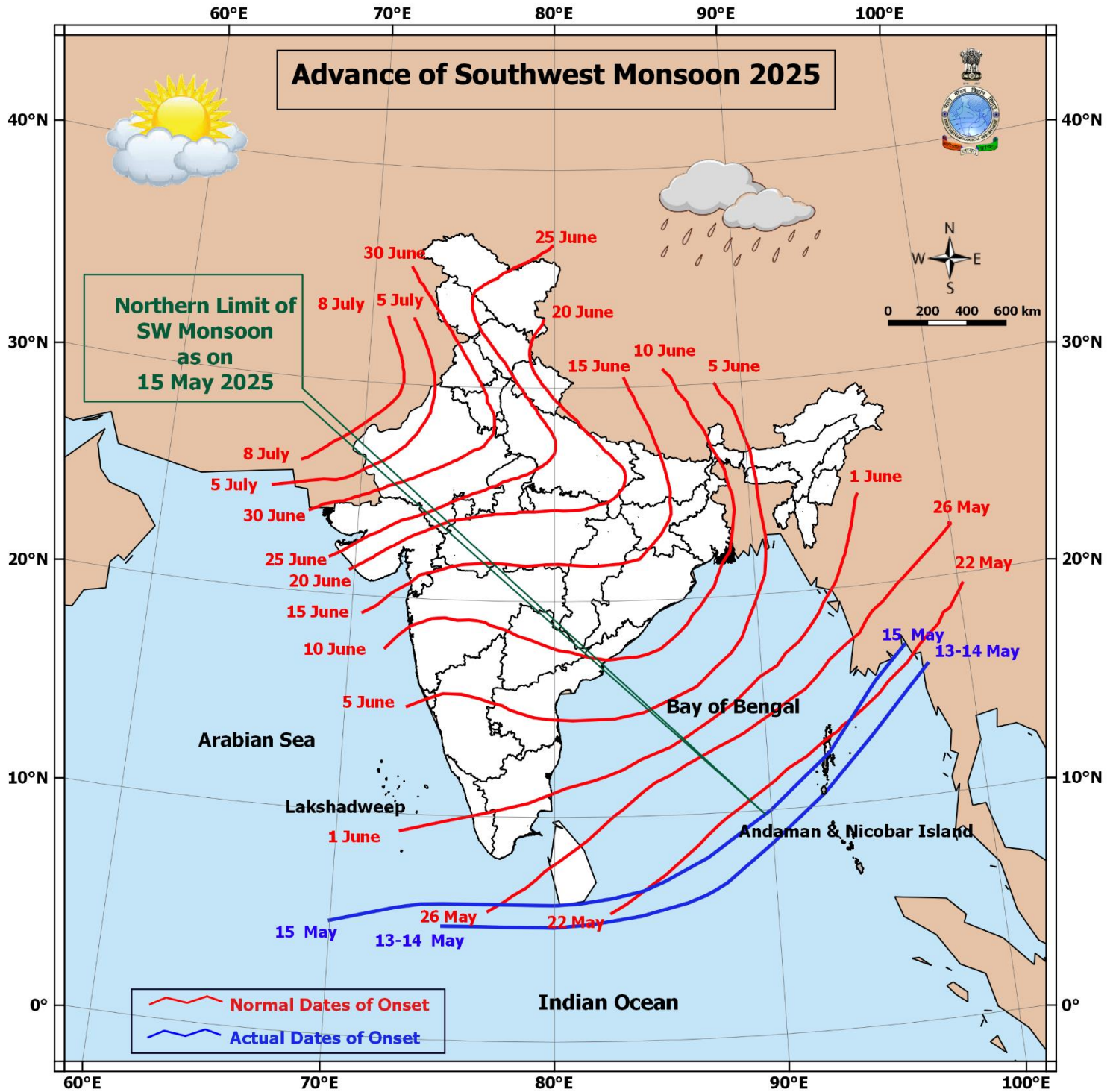
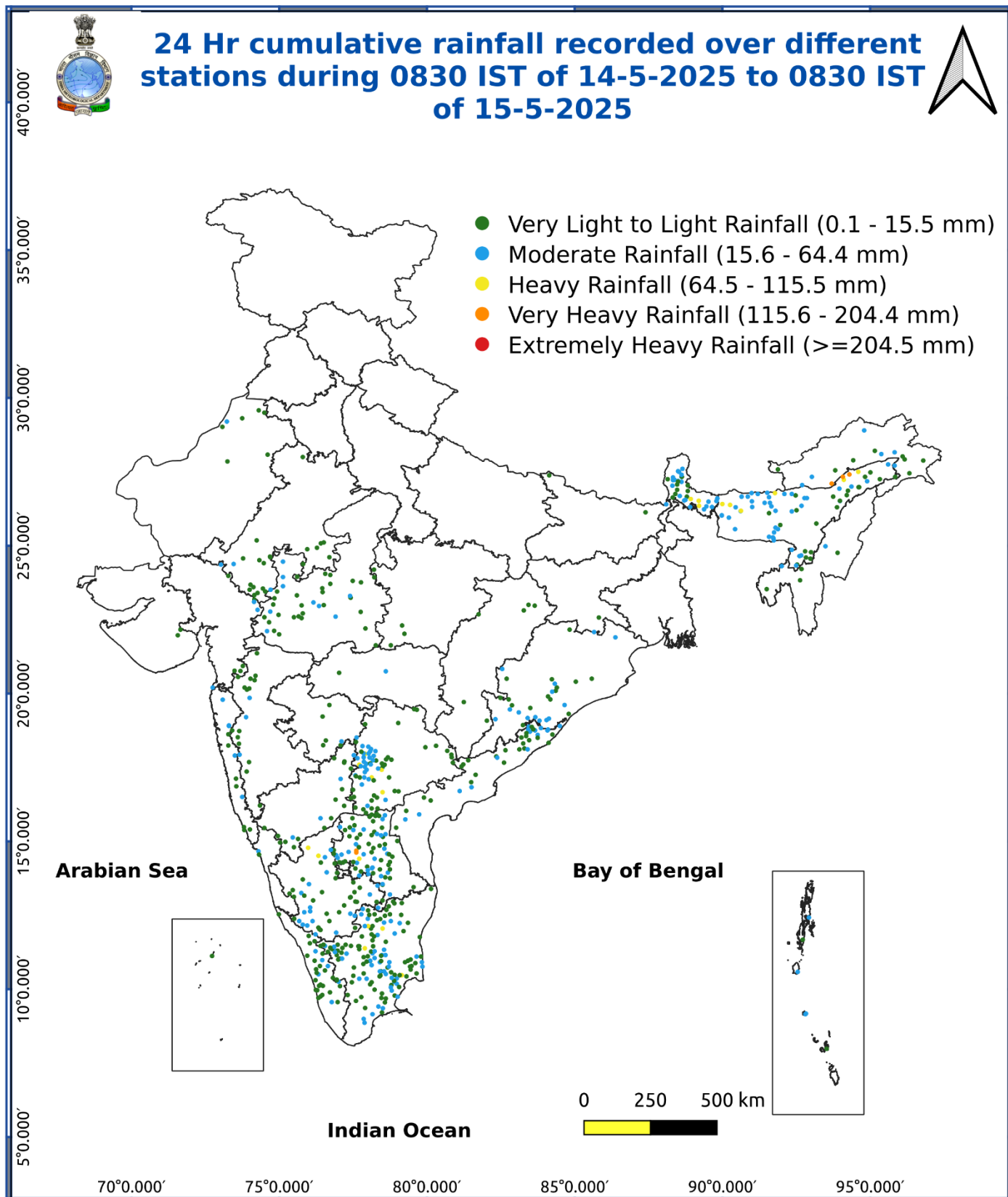


Fig. 5: Advance of Southwest Monsoon 2025



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Fig. 6: Accumulated Rainfall (mm) during past 24 hours



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### Impact & Action Suggested due to very heavy rainfall over

- ❖ **Very heavy rainfall** over Arunachal Pradesh on 16<sup>th</sup>; Assam & Meghalaya during 16<sup>th</sup>-17<sup>th</sup> May.

#### Impact Expected

- ❖ Localized Flooding of roads, water logging in low lying areas and closure of underpasses mainly in urban areas of the above region.
- ❖ Occasional reduction in visibility due to heavy rainfall.
- ❖ Disruption of traffic in major cities due to water logging in roads leading to increased travel time.
- ❖ Minor damage to kutchha roads.
- ❖ Possibilities of damage to vulnerable structure.
- ❖ Localized Landslides/Mudslides
- ❖ Damage to horticulture and standing crops in some areas due to inundation.
- ❖ It may lead to riverine flooding in some river catchments (for riverine flooding please visit Web page of CWC).

#### Action Suggested

- ❖ Check for traffic congestion on your route before leaving for your destination.
- ❖ Follow any traffic advisories that are issued in this regard.
- ❖ Avoid going to areas that face the water logging problems often.
- ❖ Avoid staying in vulnerable structure.

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

- ✓ **Thundersquall wind speed reaching 50-60 kmph gusting to 70 kmph** likely over Madhya Maharashtra on 18<sup>th</sup>, Bihar on 17<sup>th</sup> & 18<sup>th</sup> May. Telangana, Coastal Andhra Pradesh & Yanam, Rayalaseema, north Interior Karnataka on 16<sup>th</sup> and Konkan & Goa on 19<sup>th</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 kutchha 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** in isolated pockets of Bihar on 16<sup>th</sup>; Punjab on 16<sup>th</sup> & 17<sup>th</sup>; West Uttar Pradesh during 16<sup>th</sup>-18<sup>th</sup>; East Uttar Pradesh during 16<sup>th</sup>-17<sup>th</sup>; West Rajasthan during 15<sup>th</sup>-19<sup>th</sup>; East Madhya Pradesh during 17<sup>th</sup>-19<sup>th</sup>; West Madhya Pradesh on 18<sup>th</sup> & 19<sup>th</sup> May.

#### **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 Heavy Rainfall / Gusty Winds / Heat Wave**

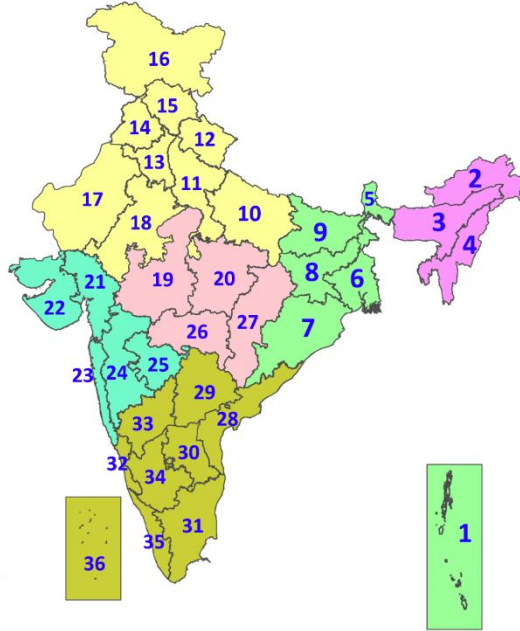
- In **North Eastern States, Andaman & Nicobar Islands, Sub Himalayan West Bengal & Sikkim, Madhya Maharashtra, Tamil Nadu, Kerala, Karnataka, Andhra Pradesh and Telangana**, make provision to drain out excess water from standing crop and vegetable fields.
- Shift the harvested produce in safer places 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.
- In **Bihar, Punjab, Uttar Pradesh and West Rajasthan**, apply light and frequent irrigation in the evening to protect standing crops, vegetables and orchards from the adverse effects of heat waves and high temperatures.

#### **Livestock / Poultry / Fishery**

- Keep the animals inside the shed during heavy rainfall and provide them balanced feed.
- Store feed and fodder in a safe place to prevent spoilage.
- Construct an outlet with proper netting around the ponds to drain out excess water, thereby preventing fish from escaping in case of overflow.
- 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.

## LEGENDS

1. अंडमान और निकोबार द्वीपसमूह
2. अरुणाचल प्रदेश
3. असम और मेघालय
4. नागालैंड, मणिपुर, मिजोरम और त्रिपुरा
5. उप-हिमालयी पश्चिम बंगाल और सिक्किम
6. गंगीय पश्चिम बंगाल
7. ओडिशा
8. झारखंड
9. बिहार
10. पूर्वी उत्तर प्रदेश
11. पश्चिम उत्तर प्रदेश
12. उत्तराखंड
13. हरियाणा, चंडीगढ़ और दिल्ली
14. पंजाब
15. हिमाचल प्रदेश
16. जम्मू और कश्मीर और लद्दाख
17. पश्चिम राजस्थान
18. पूर्वी राजस्थान
19. पश्चिम मध्य प्रदेश
20. पूर्वी मध्य प्रदेश
21. गुजरात
22. सौराष्ट्र
23. कोंकण और गोवा
24. मध्य महाराष्ट्र
25. मराठवाड़ा
26. विदर्भ
27. छत्तीसगढ़
28. तटीय आंध्र प्रदेश और यनम
29. तेलंगाना
30. रायलसीमा
31. तमिलनाडु, पुडुचेरी और कराईकल
32. तटीय कर्नाटक
33. आंतरिक उत्तरी कर्नाटक
34. आंतरिक दक्षिणी कर्नाटक
35. केरल और 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. Odisha
8. Jharkhand
9. Bihar
10. East Uttar Pradesh
11. West Uttar Pradesh
12. Uttarakhand
13. Haryana, Chandigarh & 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. 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
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)

- |                      |                      |              |
|----------------------|----------------------|--------------|
| Fog                  | Heavy Snow           | Cold Wave    |
| Heavy Rain           | Dust Storm           | Cold Day     |
| Very Heavy Rain      | Heat Wave            | Ground Frost |
| Extremely Heavy Rain | Warm Night           |              |
| Thunder & Lightning  | Hot Day              |              |
| Hailstorm            | Hot & Humid          |              |
| Dust Raising Winds   | Strong Surface Winds |              |

### COLOUR CODED WARNING

No Warning (No Action)
Watch (Be Aware)
Alert (Be Prepared To Take Action)
Warning (Take Action)

### Probabilistic Forecast

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

## DEFINITION/CRITERIA

### 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  $\leq -6.5^\circ\text{C}$

(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  $-4.5^\circ\text{C}$  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 Strom: Wind speed  $> 220$  kmph ( $> 119$  knots)