

Tuesday, May 13, 2025
Time of Issue: 0800 hours IST
(MORNING)

ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

Significant Weather Features:

Advancement of Southwest Monsoon:

- ❖ The widespread rainfall with isolated heavy rainfall recorded over the Nicobar Islands during past 24 hours. Rainfall activity over Nicobar Islands is very likely to continue with isolated heavy to very heavy rainfall during next 24 hours. With expected continuance of rainfall activity over these areas, conditions are favourable for advance of southwest monsoon into some parts of Andaman Sea, South Bay of Bengal and Andaman & Nicobar Islands by today, the 13th May, 2025.
- ❖ Conditions are also becoming favorable for further advance over some parts of south Arabian Sea, Maldives & Comorin area; some more parts of South Bay of Bengal, entire Andaman & Nicobar Islands and Andaman Sea; and some parts of central Bay of Bengal during subsequent 3-4 days.

Forecast and Warnings

Northwest India:

- ✓ **Isolated to Scattered** light to moderate rainfall with **thunderstorm, lightning & gusty winds speed reaching 40-50 kmph gusting to 60 kmph** likely over; Punjab, Haryana Chandigarh & Delhi on 13th; Himachal Pradesh during 16th-17th; **with winds speed reaching 30-40 kmph gusting to 50 kmph** over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad on 14th May.

West India:

- ❖ **Isolated** light/moderate rainfall accompanied with **thunderstorm, lightning & gusty winds speed reaching 40-50 kmph gusting to 60 kmph** likely over Konkan & Goa on 13th & 14th; Madhya Maharashtra, Marathwada during 14th-16th May.
- ❖ **Thundersquall wind speed reaching 50-60 kmph gusting to 70 kmph** likely over Madhya Maharashtra, Marathwada on 13th May.

East & Central India:

- ❖ **Isolated to Scattered** light/moderate rainfall accompanied with **thunderstorm, lightning & gusty winds speed reaching 40-50 kmph gusting to 60 kmph** likely over Chhattisgarh on 13th; Madhya Pradesh during 13th-16th; Sub-Himalayan West Bengal & Sikkim during 13th-15th; Gangetic West Bengal on 13th & 14th; Jharkhand on 16th; **with winds speed reaching 30-40 kmph gusting to 50 kmph** over Vidarbha on 13th; Andaman & Nicobar Islands during 13th-15th; Sub-Himalayan West Bengal & Sikkim on 16th; Bihar during 14th-16th; Jharkhand on 15th; Odisha on 13th & 14th May.
- ❖ **Thundersquall wind speed reaching 50-60 kmph gusting to 70 kmph** likely over Gangetic West Bengal on 15th & 16th May.
- ❖ **Isolated heavy rainfall** likely over Nicobar Islands, Sub-Himalayan West Bengal & Sikkim during 13th-16th; with **isolated very heavy rainfall** on Nicobar Islands on 13th May.

South peninsular India:

- ❖ **Scattered to fairly light/moderate** rainfall accompanied with **thunderstorm, lightning & gusty winds speed reaching 40-50 kmph gusting to 60 kmph** over Kerala & Mahe, Interior Karnataka during 13th-14th; Tamil Nadu Puducherry & Karaikal, Rayalaseema during 14th-16th; Telangana on 13th & 16th; Coastal Andhra Pradesh & Yanam on 16th; **with winds speed reaching 30-40 kmph gusting to 50 kmph** likely over Tamilnadu Puducherry & Karaikal, Coastal Andhra Pradesh & Yanam, Rayalaseema on 13th; Interior Karnataka on 15th & 16th; with **lightning** over Lakshadweep on 13th and over Coastal Karnataka during 13th-16th May.
- ❖ **Thundersquall wind speed reaching 50-60 kmph gusting to 70 kmph** likely over Coastal Andhra Pradesh & Yanam and Telangana on 14th & 15th May.
- ❖ **Isolated heavy rainfall** likely over Tamilnadu Puducherry & Karaikal during 14th-16th; Kerala & Mahe on 13th & 14th; Coastal Andhra Pradesh & Yanam on 14th & 15th; Rayalaseema during 13th-16th; Coastal Karnataka on 14th; North Interior Karnataka on 13th & 14th and South Interior Karnataka during 13th-16th 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 4 days with **gusty winds speed reaching 50-60 kmph gusting to 70 kmph** likely over Assam & Meghalaya on 13th May.
- ❖ **Isolated heavy rainfall** over Arunachal Pradesh, Assam & Meghalaya during 13th-16th and over Nagaland, Manipur, Mizoram & Tripura during 13th-15th with **isolated very heavy rainfall** over Arunachal Pradesh, Assam & Meghalaya on 13th-14th and over Tripura on 13th May.
- ❖ **Extremely heavy rainfall** at isolated places over Meghalaya on 13th May.

Maximum Temperature Forecast:

- ❖ Gradual rise in maximum temperatures by 3-5°C likely over Northwest India and Gujarat State during next 7 days.
- ❖ Gradual rise in maximum temperatures by 2-3°C likely over Central India during next 7 days.
- ❖ Gradual rise in maximum temperatures by 2-3°C likely over Jharkhand and north interior Odisha during next 3 days.
- ❖ No significant change in maximum temperatures likely over interior Maharashtra during next 2 days and gradual rise by 2-4°C thereafter for subsequent 5 days.
- ❖ No significant change in maximum temperatures likely over rest parts of the country.

Heat wave and Hot & Humid weather warning:

- ❖ **Heat wave conditions** very likely in isolated pockets of Gangetic West Bengal during 13th-15th; Sub-Himalayan West Bengal on 14th & 15th; Jharkhand during 13th-15th; West Uttar Pradesh & West Rajasthan during 15th-18th; East Uttar Pradesh during 14th-18th May.
- ❖ **Hot & humid weather** is likely to prevail over Sub-Himalayan West Bengal and Tamil Nadu Puducherry & Karaikal on 13th; Odisha during 13th-15th; Bihar during 13th-16th May.
- ❖ **Warm Night conditions** likely to prevail at isolated locations over East Uttar Pradesh on 13th May.

* 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.

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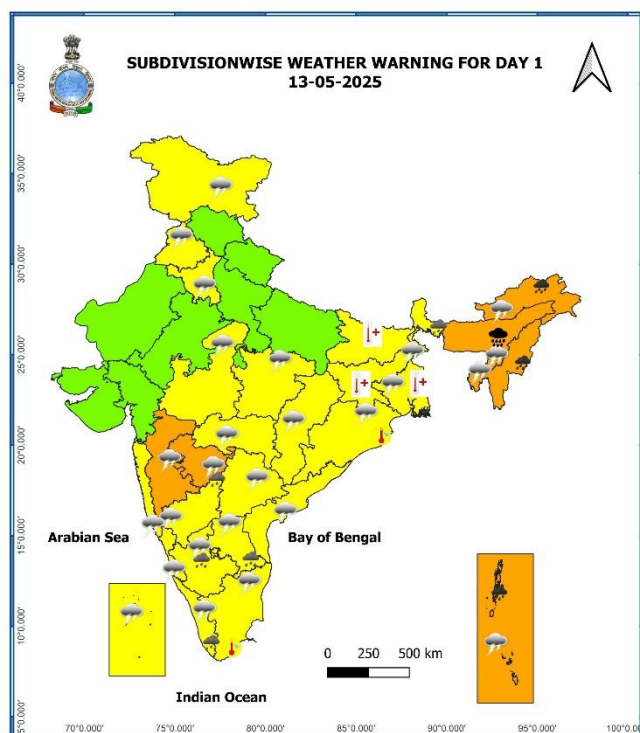
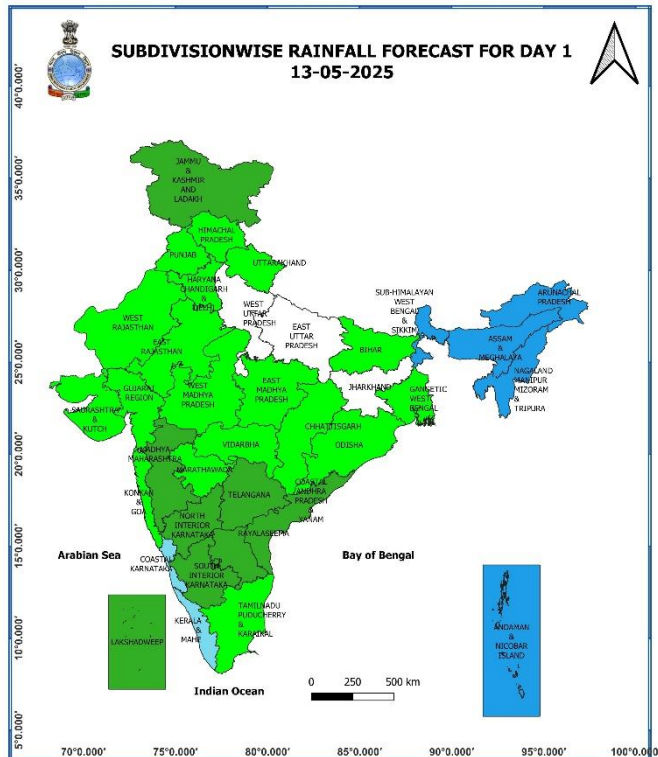
Main Weather Observations:

- ❖ **Rainfall observed** (from 0830 hours IST to 1730 hours IST of yesterday): **at many places** over Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura; **at a few places** over Andaman & Nicobar Islands, Madhya Maharashtra; **at isolated places** over Kerala & Mahe, South Interior Karnataka, Lakshadweep, Telangana, Odisha, Gangetic West Bengal, Jharkhand, Arunachal Pradesh, Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand.
- ❖ **Significant amount of rainfall recorded** (from 0830 hours IST to 1730 hours IST of yesterday) (in cm): **Sub-Himalayan West Bengal & Sikkim:** Gangtok 9; **Andaman & Nicobar Islands:** Car Nicobar (IAF) 8; Car Nicobar 7; Nancowry, Hut Bay 2 each; Nagaland, Manipur, Mizoram & Tripura: Agartala 3; South Interior Karnataka: Chitra Durga 3; Madhya Maharashtra: Kolhapur, Mahabaleshwar, Nashik 2 each.
- ❖ **Heat wave conditions** prevailed in isolated pockets of Gangetic West Bengal.
- ❖ **Heavy rainfall** recorded at isolated places over Andaman & Nicobar Islands.
- ❖ **Minimum Temperature Departures (as on 12-05-2025):** Minimum temperatures were **appreciably above normal (3.1°C to 5.0°C)** at isolated places over Himachal Pradesh, East Uttar Pradesh, Bihar, Gangetic West Bengal and Odisha; **above normal (1.6°C to 3.0°C)** at few places over Jharkhand; at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, West Uttar Pradesh, Assam & Meghalaya, Konkan & Goa, West Rajasthan. These were **appreciably below normal (-5.0°C to -3.1°C)** at a few places over Lakshadweep; at a few places over West Madhya Pradesh; **below normal (-1.6°C to -3.0°C)** at a few places over East Rajasthan and Vidarbha; at isolated places Delhi, Tamil Nadu, Puducherry & Karaikal and normal over rest parts of the country (**Fig. 4**). Yesterday, the **lowest minimum temperature** of 20.0°C was reported at **Rajgarh (West Madhya Pradesh)** over the plains of the country.
- ❖ **Maximum Temperature Departures (as on 12-05-2025):** Maximum Temperatures were **above normal (1.6°C to 3.0°C)** at many places over Tamil Nadu, Puducherry & Karaikal, Gangetic West Bengal; at a few places over Odisha, Coastal Andhra Pradesh & Yanam, Coastal Karnataka; at isolated places over Kerala & Mahe, West Uttar Pradesh. These were **markedly below normal (-5.1 or below)** at a few places over Nagaland, Manipur, Mizoram & Tripura; **appreciably below normal (-3.1°C to -5.0°C)** at a few places over Gujarat state, West Madhya Pradesh; at isolated places over Vidarbha, Madhya Maharashtra, Marathwada; **below normal (-1.6°C to -3.0°C)** at many places over Sub-Himalayan West Bengal & Sikkim; at few places over East Madhya Pradesh; at isolated places over Telangana, Interior Karnataka, Rayalaseema, Punjab, Himachal Pradesh, East Rajasthan and normal over rest parts of the country. (**Fig. 2**). Yesterday, the highest **maximum temperature** of 43.4°C was reported at **Banda (East Uttar Pradesh)** over the country.

Meteorological Analysis (Based on 0530 hours IST)

- ❖ The widespread rainfall with isolated heavy rainfall recorded over the Nicobar Islands during past 24 hours. Rainfall activity over Nicobar Islands is very likely to continue with isolated heavy to very heavy rainfall during next 24 hours. With expected continuance of rainfall activity over these areas, conditions are favourable for advance of southwest monsoon into some parts of Andaman Sea, South Bay of Bengal and Andaman & Nicobar Islands by today, the 13th May, 2025.
- ❖ Conditions are also becoming favorable for further advance over some parts of south Arabian Sea, Maldives & Comorin area; some more parts of South Bay of Bengal, entire Andaman & Nicobar Islands and Andaman Sea; and some parts of central Bay of Bengal during subsequent 3-4 days.
- ❖ The **Western Disturbance** as a trough aloft in middle & upper tropospheric westerlies with its axis at 5.8 km above mean sea level now runs roughly along Long. 73°E to the north of Lat. 30°N.
- ❖ The **trough** from Saurashtra to eastcentral Arabian Sea across North East Arabian Sea at 3.1 km above mean sea level persists.
- ❖ The **cyclonic circulation** over Northwest Uttar Pradesh & neighbourhood now lies over Uttarakhand & neighbourhood and extends upto 1.5 km above mean sea level.
- ❖ A **cyclonic circulation** lies over southern parts of Marathwada & neighbourhood and extends upto 1.5 km above mean sea level.
- ❖ The **cyclonic circulation** over central Pakistan & adjoining west Rajasthan at 1.5 km above mean sea level persists.
- ❖ The upper air **cyclonic circulation** over Northeast Assam & neighbourhood persists & now extends upto 1.5 km above mean sea level.
- ❖ The **trough** from Central parts of Bihar to south Jharkhand extending upto 1.5 km above mean sea level has become less marked.

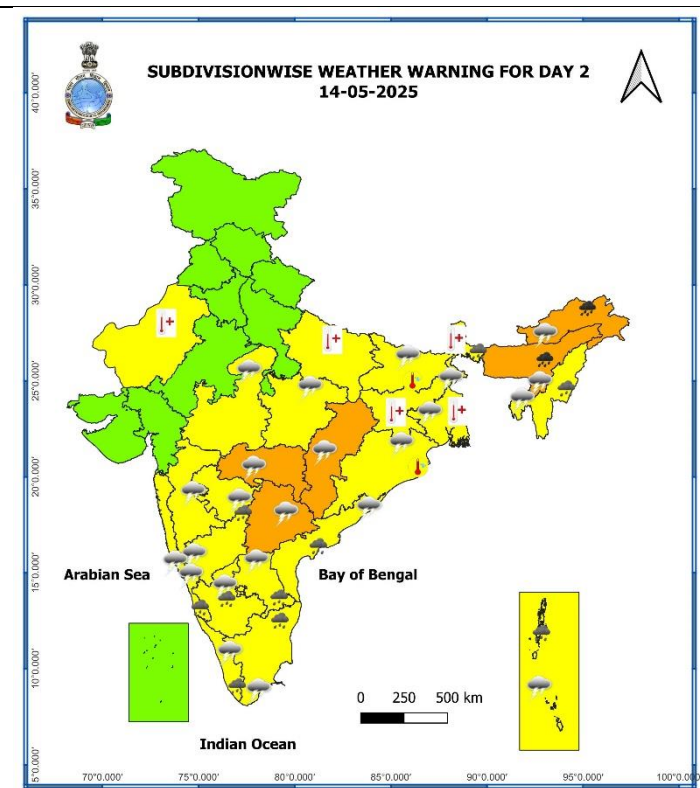
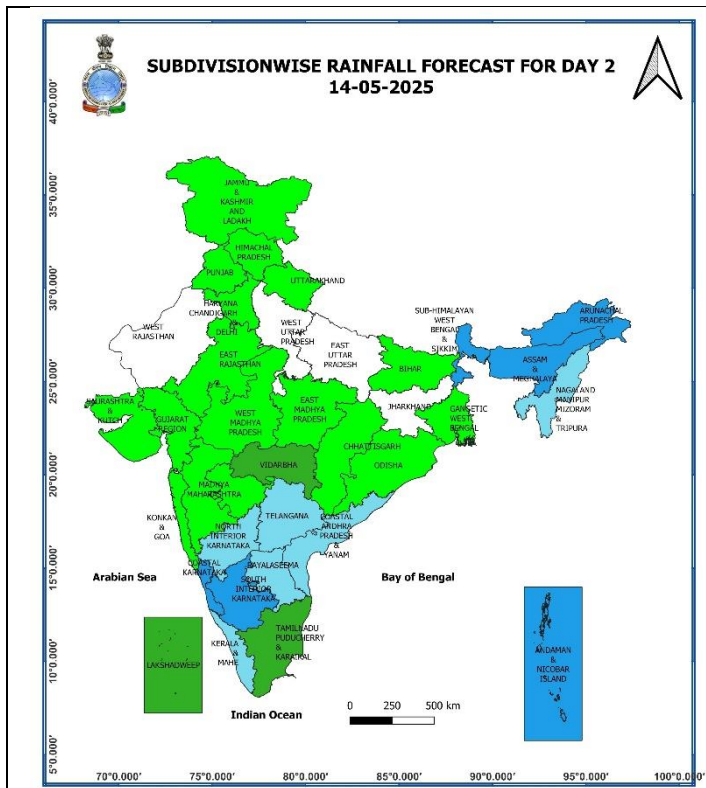
Weather Forecast & Warnings for next 7 days (Upto 0830 hours IST of 20th May, 2025)



13th May (Day 1)

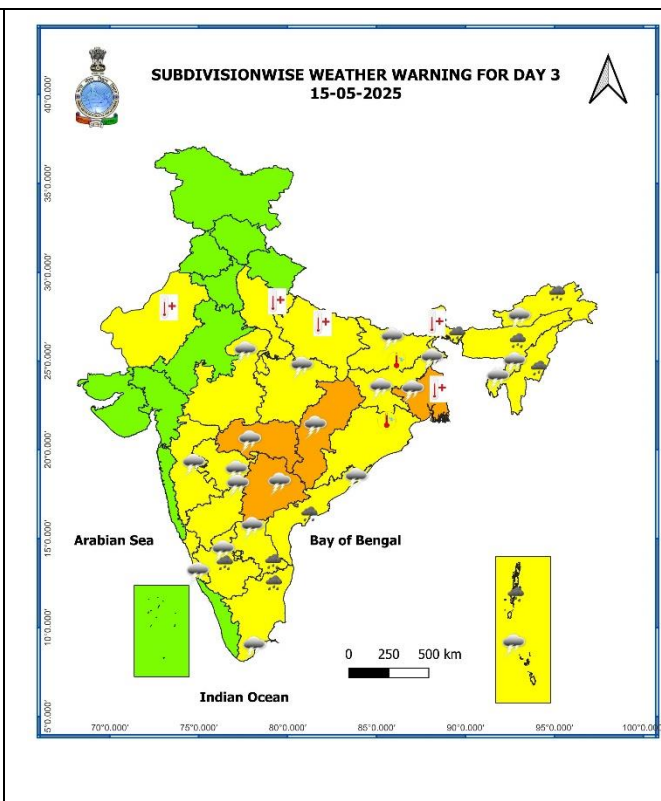
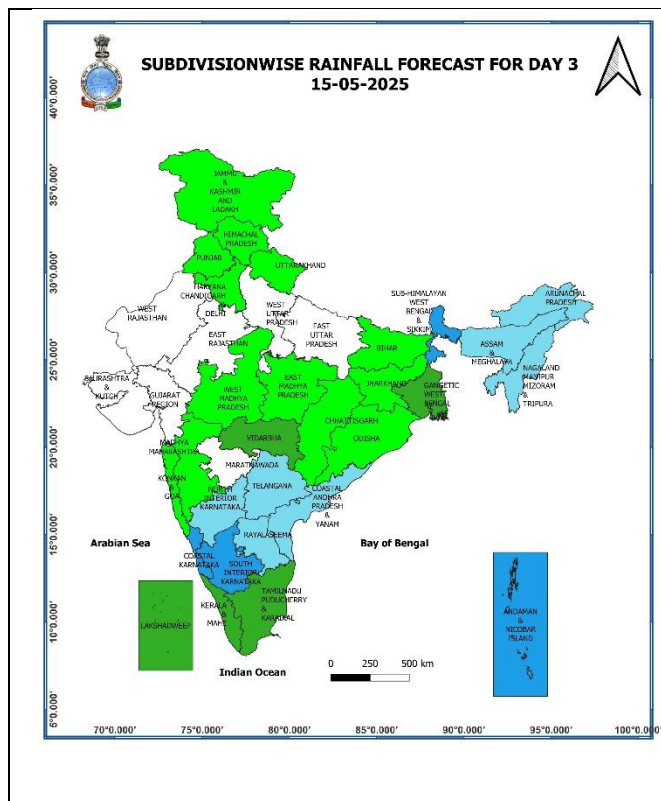
- ❖ **Heavy to Very Heavy Rainfall with isolated Extremely Heavy Rainfall** very likely at isolated places over Meghalaya.
- ❖ **Heavy to Very Heavy Rainfall** very likely at isolated places over Nicobar Islands, Arunachal Pradesh, Assam and Tripura.
- ❖ **Heavy Rainfall** very likely at isolated places over Interior Karnataka, Kerala & Mahe, Rayalaseema and Sub-Himalayan West Bengal & Sikkim.
- ❖ **Thunderstorm accompanied with Lightning** very likely at isolated places over Arunachal Pradesh, Coastal Karnataka and Lakshadweep.
- ❖ **Thunderstorm accompanied with lightning & gusty winds(30-40kmph)** very likely at isolated places over Andaman & Nicobar Islands, Andhra Pradesh, Jammu and Kashmir and Ladakh, Odisha, Tamilnadu & Puducherry and Vidarbha.
- ❖ **Thunderstorm accompanied with lightning & gusty winds(40-50kmph)** very likely at isolated places over Chhattisgarh, Haryana, Chandigarh & Delhi, Interior Karnataka, Kerala and Mahe, Konkan & Goa, Madhya Pradesh, Nagaland, Manipur, Mizoram and Tripura, Punjab, Telangana and West Bengal & Sikkim.
- ❖ **Thundersquall with wind speed reaching(50-60kmph)** very likely at isolated places over Assam & Meghalaya, Madhya Maharashtra and Marathwada.
- ❖ **Heat Wave condition** very likely at isolated places over Bihar, Jharkhand and Gangetic West Bengal.
- ❖ **Hot and Humid weather** very likely at isolated places over Jharkhand, Kerala and Mahe and Tamilnadu & Puducherry.
- ❖ **Squally wind with speed 45 kmph to 50 kmph gusting to 55 kmph** likely to prevail along and off Somalia coast, over Gulf of Mannar & adjoining Comorin area, 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 south Andaman sea & adjoining southeast Bay of Bengal.

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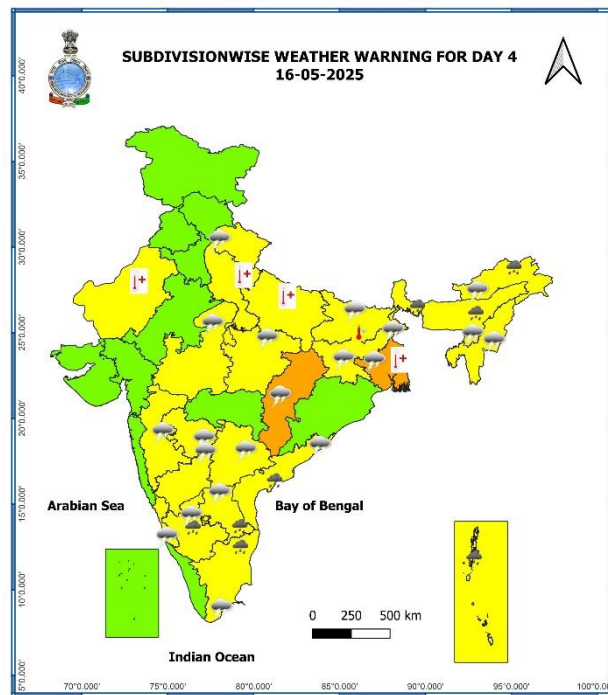
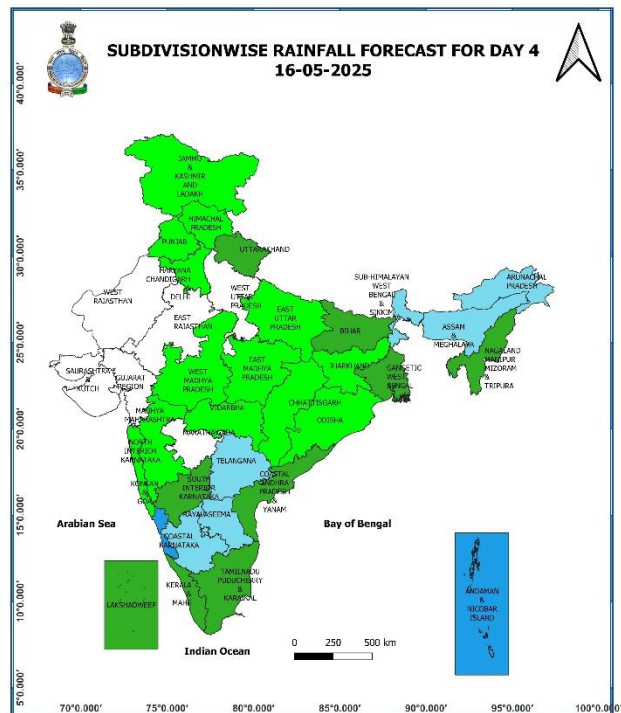
14th May (Day 2)

- ❖ **Heavy to Very Heavy Rainfall** likely at isolated places over Arunachal Pradesh and Assam & Meghalaya.
- ❖ **Heavy Rainfall** likely at isolated places over Andaman & Nicobar Islands, Andhra Pradesh, Costal Karnataka, Interior Karnataka, Kerala and Mahe, Nagaland, Manipur, Mizoram and Tripura, Sub Himalayan West Bengal & Sikkim and Tamilnadu & Puducherry.
- ❖ **Thunderstorm accompanied with Lightning** very likely at isolated places over Arunachal Pradesh and Costal Karnataka.
- ❖ **Thunderstorm accompanied with lightning & gusty winds(30-40kmph)** very likely at isolated places over Andaman & Nicobar Islands, Bihar and Odisha.
- ❖ **Thunderstorm accompanied with lightning & gusty winds(40-50kmph)** very likely at isolated places over Assam & Meghalaya, Interior Karnataka, Kerala and Mahe, Konkan & Goa, Madhya Maharashtra, Madhya Pradesh, Marathwada, Nagaland, Manipur, Mizoram and Tripura, Rayalaseema, Tamilnadu & Puducherry and West Bengal & Sikkim.
- ❖ **Thundersquall with wind speed reaching(50-60kmph)** very likely at isolated places over Chhattisgarh, Coastal Andhra Pradesh, Telangana and Vidarbha.
- ❖ **Heat Wave conditions** likely at isolated places over East Uttar Pradesh, Jharkhand, West Bengal & Sikkim and West Rajasthan.
- ❖ **Squally wind with speed 45 kmph to 50 kmph gusting to 55 kmph** likely to prevail along and off Somalia coast, over Gulf of Mannar & adjoining Comorin area, 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 south Andaman sea & adjoining southeast Bay of Bengal.



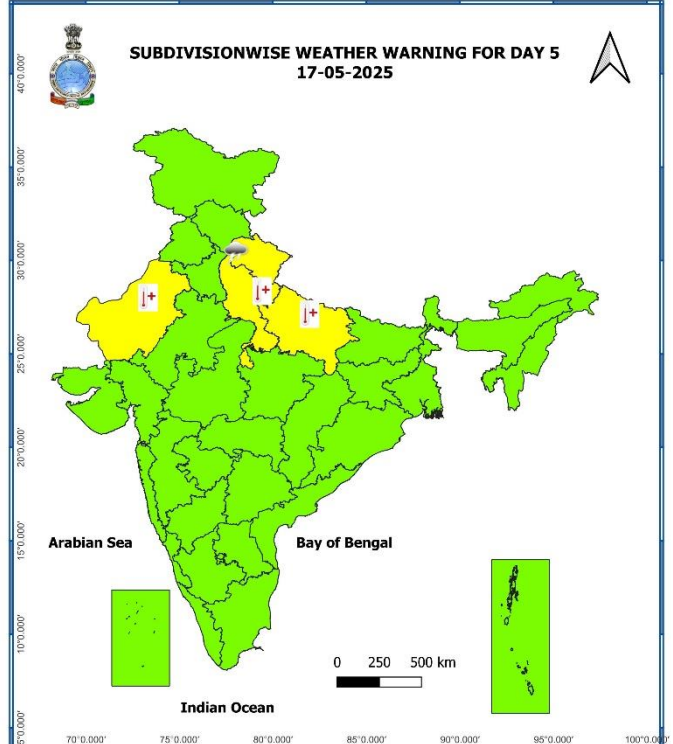
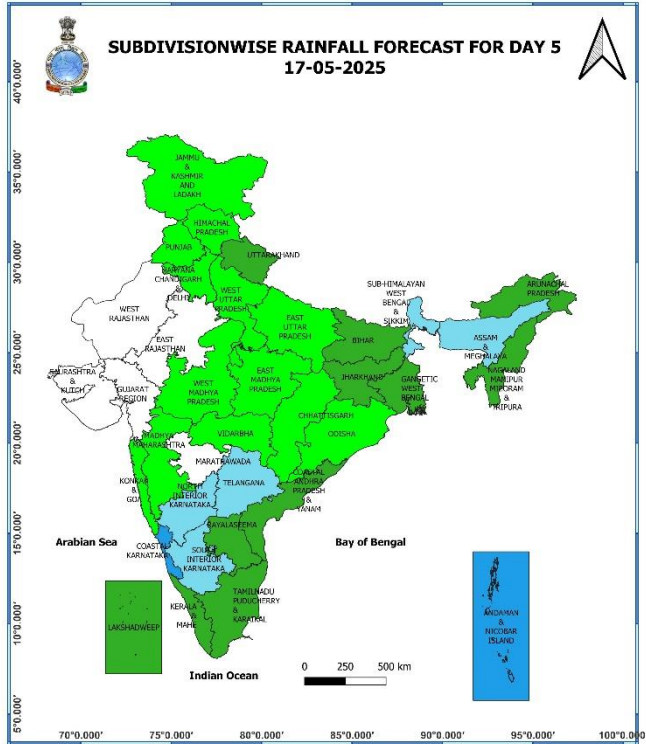
15th May (Day 3)

- ❖ **Heavy Rainfall** likely at isolated places over Andaman & Nicobar Islands, Andhra Pradesh, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram and Tripura, South Interior Karnataka, Sub Himalayan West Bengal & Sikkim and Tamilnadu & Puducherry.
- ❖ **Thunderstorm accompanied with Lightning** likely at isolated places over Arunachal Pradesh and Coastal Karnataka.
- ❖ **Thunderstorm accompanied with lightning & gusty winds(30-40kmph)** likely at isolated places over Andaman & Nicobar Islands, Bihar, Interior Karnataka and Jharkhand.
- ❖ **Thunderstorm accompanied with lightning & gusty winds(40-50kmph)** likely at isolated places over Assam & Meghalaya, Madhya Maharashtra, Madhya Pradesh, Marathwada, Nagaland, Manipur, Mizoram and Tripura, Rayalaseema, Sub Himalayan West Bengal & Sikkim and Tamilnadu & Puducherry.
- ❖ **Thundersquall with wind speed reaching(50-60kmph)** likely at isolated places over Chhattisgarh, Coastal Andhra Pradesh, Gangetic West Bengal, Telangana and Vidarbha.
- ❖ **Heat Wave conditions** likely at isolated places over Gangetic West Bengal, Uttar Pradesh and West Rajasthan.
- ❖ **Hot and Humid weather** likely at isolated places over Bihar and Odisha.
- ❖ **Squally wind with speed 45 kmph to 50 kmph gusting to 55 kmph** likely to prevail along and off Somalia coast, over Gulf of Mannar & adjoining Comorin area, south Sri Lanka coast & adjoining southwest Bay of Bengal.



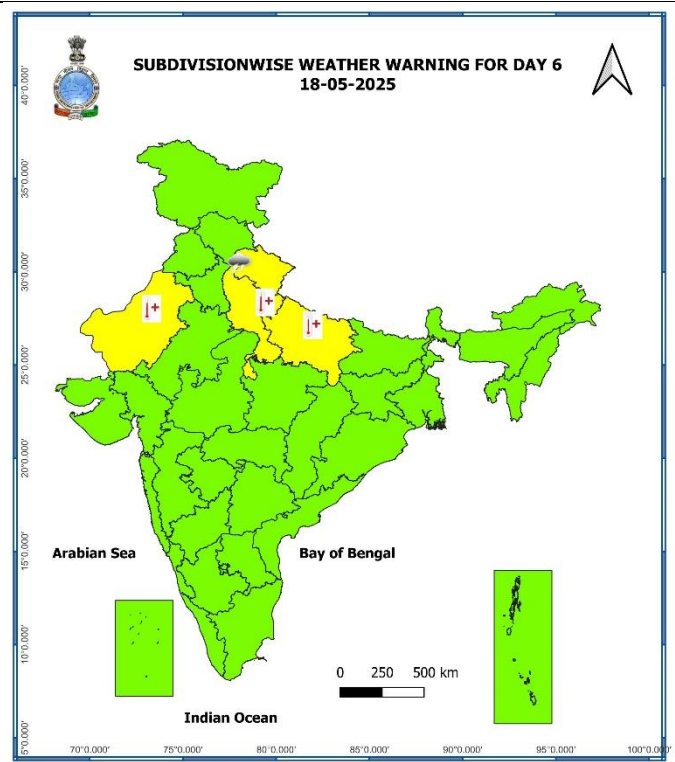
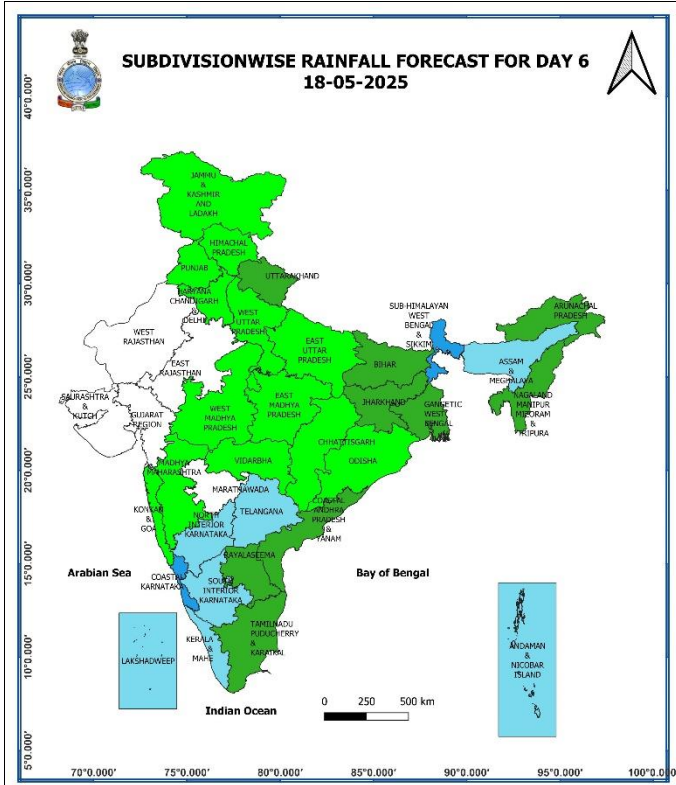
16th May (Day 4)

- ❖ **Heavy Rainfall** likely at isolated places over Andaman & Nicobar Islands, Andhra Pradesh, Arunachal Pradesh, Assam & Meghalaya, South Interior Karnataka, Sub Himalayan West Bengal & Sikkim and Tamilnadu & Puducherry.
- ❖ **Thunderstorm accompanied with Lightning** likely at isolated places over Arunachal Pradesh and Costal Karnataka.
- ❖ **Thunderstorm accompanied with lightning & gusty winds(30-40kmph)** likely at isolated places over Assam & Meghalaya, Bihar, Interior Karnataka, Jharkhand, Nagaland, Manipur, Mizoram and Tripura and Sub Himalayan West Bengal & Sikkim.
- ❖ **Thunderstorm accompanied with lightning & gusty winds(40-50kmph)** likely at isolated places over Andhra Pradesh, Madhya Maharashtra, Madhya Pradesh, Marathwada, Tamilnadu & Puducherry, Telangana and Uttarakhand.
- ❖ **Thundersquall with wind speed reaching(50-60kmph)** likely at isolated places over Chhattisgarh and Gangetic West Bengal.
- ❖ **Heat Wave conditions** likely at isolated places over Gangetic West Bengal, Uttar Pradesh and West Rajasthan.
- ❖ **Hot and Humid weather** likely at isolated places over Bihar.
- ❖ **Squally wind with speed 45 kmph to 50 kmph gusting to 55 kmph** likely to prevail along and off Somalia coast, over Gulf of Mannar & adjoining Comorin area, south Sri Lanka coast & adjoining southwest Bay of Bengal.



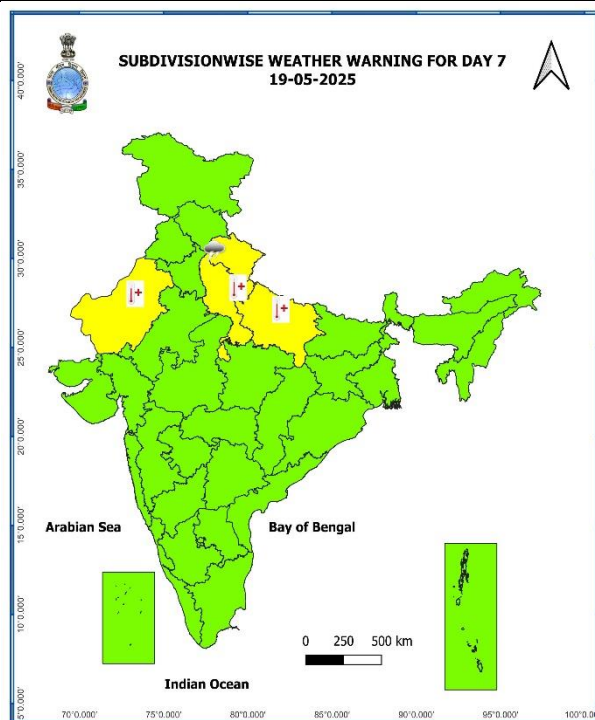
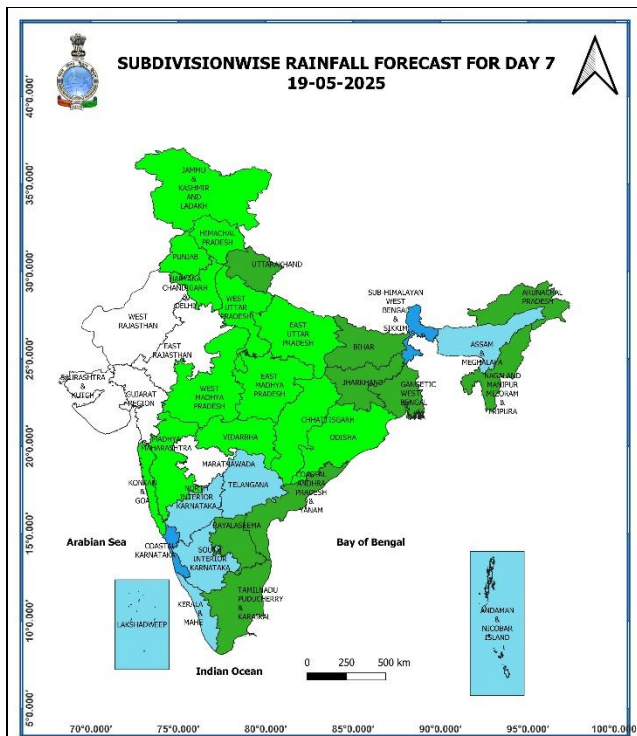
17th May (Day 5)

- ❖ **Thunderstorm accompanied with lightning & gusty winds(40-50kmph)** likely at isolated places over Uttarakhand.
- ❖ **Heat Wave conditions** likely at isolated places over Uttar Pradesh and West Rajasthan.



18th May (Day 6)

- ❖ **Thunderstorm accompanied with lightning & gusty winds(40-50kmph)** likely at isolated places over Uttarakhand.
- ❖ **Heat Wave conditions** likely at isolated places over Uttar Pradesh and West Rajasthan.



19th May (Day 7)

- ❖ **Thunderstorm accompanied with lightning & gusty winds(40-50kmph)** likely at isolated places over Uttarakhand.
- ❖ **Heat Wave conditions** likely at isolated places over Uttar Pradesh and West Rajasthan.

Weather Outlook for subsequent 3 days (During 20th May- 22nd May, 2025)

- ❖ **Fairly widespread to widespread** rainfall activity likely over northeast India.
- ❖ **Scattered to fairly widespread** rainfall activity likely over south peninsular India.
- ❖ **Isolated to scattered rainfall** likely over East India, Chhattisgarh, Vidarbha, Madhya Pradesh and Maharashtra.

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

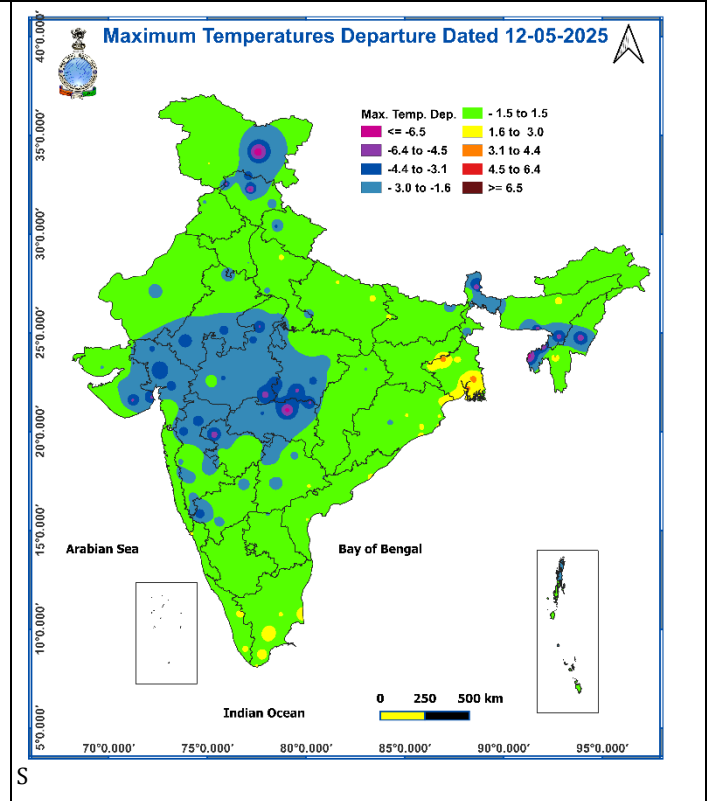
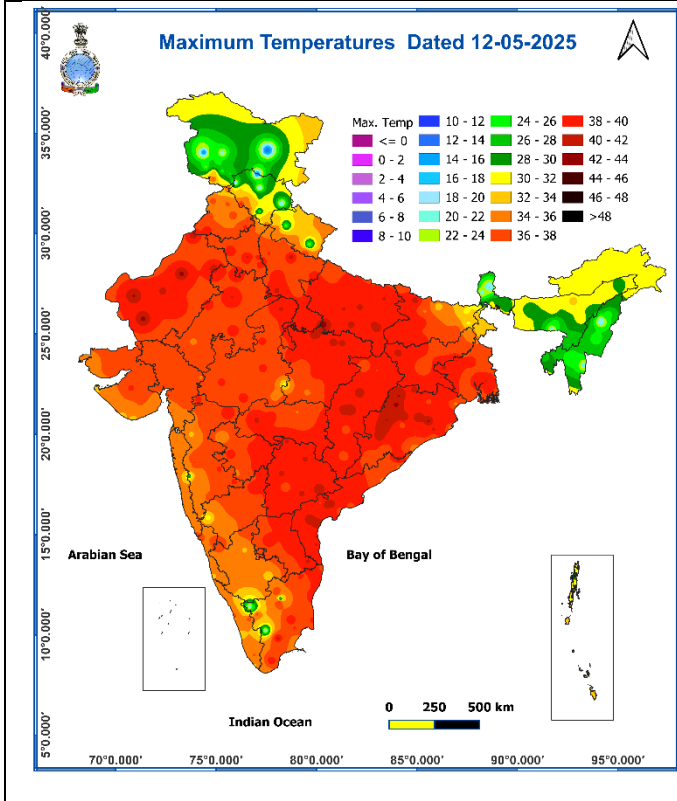
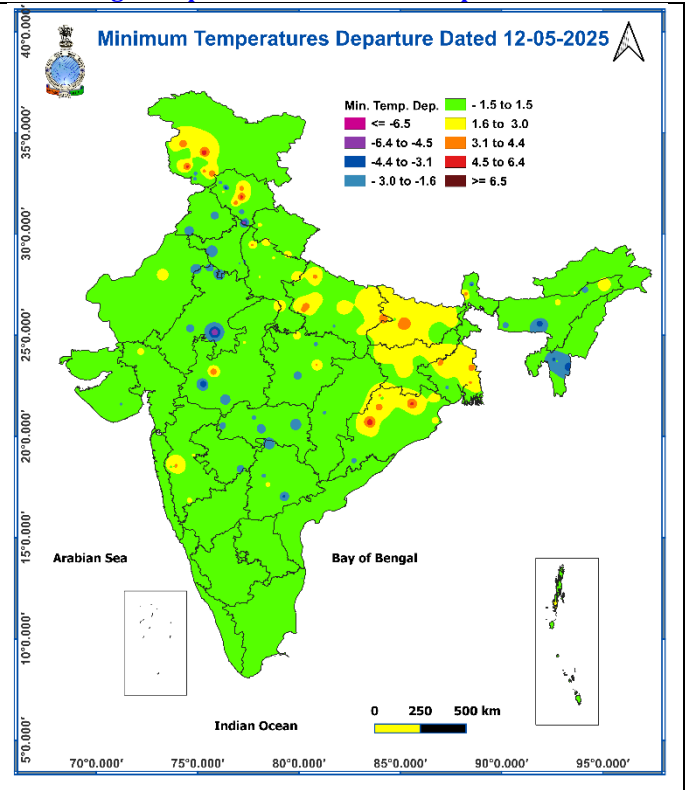
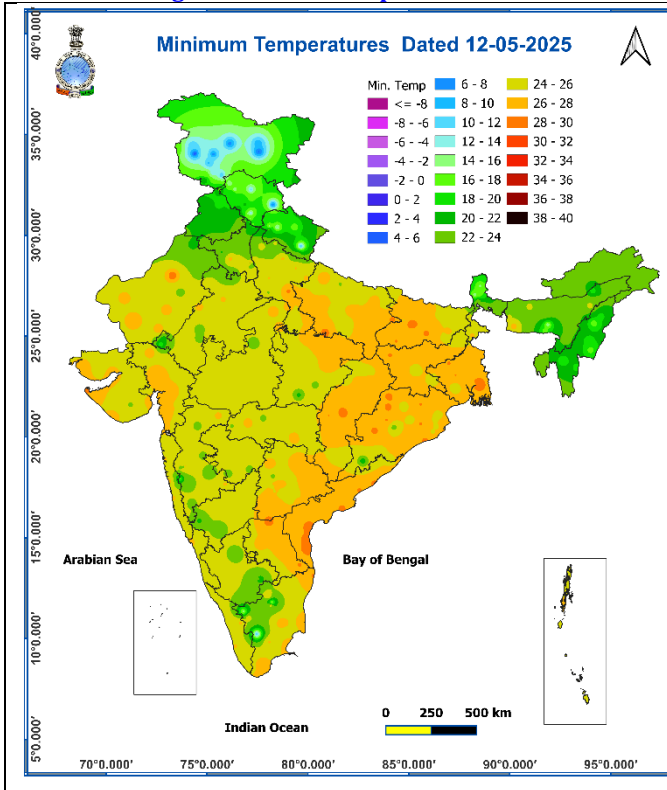


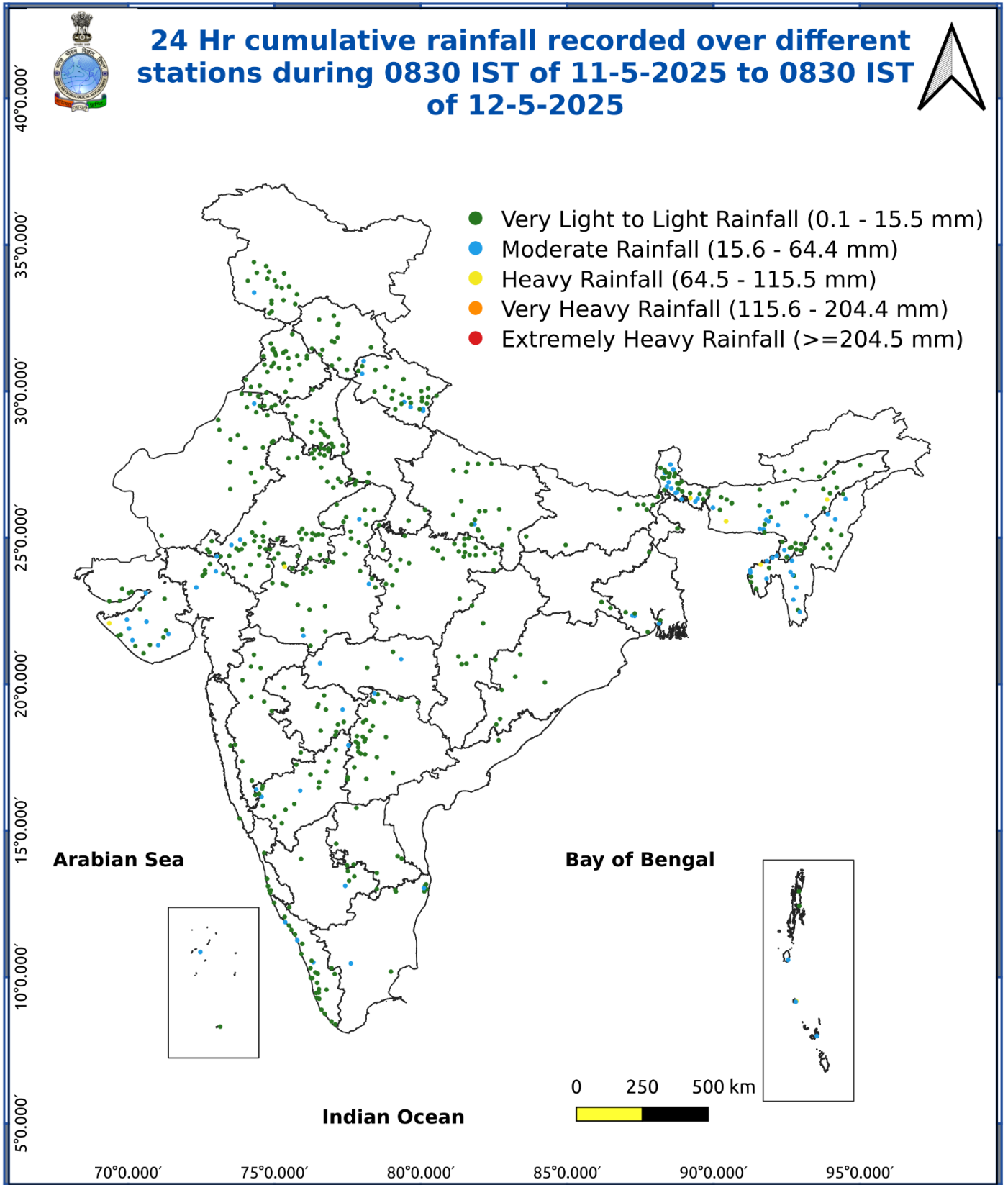
Fig. 3: Minimum Temperatures

Fig. 4: Departure of Minimum Temperatures



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



Impact & Action Suggested due to very heavy rainfall over

- ❖ **Very heavy rainfall** over Arunachal Pradesh, Assam & Meghalaya on 13th-14th; Tripura & Nicobar Islands on 13th May.
- ❖ **Extremely heavy rainfall** at isolated places over Meghalaya on 13th 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 kutcha 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, Marathwada on 13th May; Gangetic West Bengal on 15th & 16th May; Coastal Andhra Pradesh & Yanam and Telangana on 14th & 15th May, Assam & Meghalaya on 13th 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 in isolated pockets of Gangetic West Bengal during 13th-15th; Sub-Himalayan West Bengal on 14th & 15th; Jharkhand during 13th-15th; West Uttar Pradesh & West Rajasthan during 15th-18th; East Uttar Pradesh during 14th-18th 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, Saurashtra & Kutch, Tamil Nadu, Kerala, North Interior Karnataka, South Interior Karnataka and Rayalaseema, make provision to drain out excess water from standing crop and vegetable fields.
- In East Madhya Pradesh, use hail nets and hail caps to prevent mechanical damage in vegetables and orchards due to the possibility of hailstorms.
- 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.
- To protect standing crops, vegetables and orchards from the adverse effects of heat waves and high temperatures, apply light and frequent irrigation in the evening.

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.
- 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)



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°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 $< 1\text{km}$

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)