राष्ट्रीय मौसम पूर्वानुमान केन्द्र
भारत मौसम विज्ञान विभाग
पृथ्वी विज्ञान मंत्रालय

National Weather Forecasting Centre
India Meteorological Department
Ministry of Earth Sciences

Friday, February 28, 2025
Time of Issue: 0800 hours IST
(MORNING)

ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

Significant Weather Features:

i. Weather Systems, Forecast and warning:

- The **Western Disturbance** as a trough in lower to upper tropospheric levels with its axis at 5.8 km above mean sea level runs roughly along Long. 57°E to the north of Lat. 28°N. There is a Divergence of the order of 20-40 x 10^{-6} s^{-1} in the forward sector of the trough over Northwest India. High moisture feeding is also taking place over northwest India in lower tropospheric levels from Arabian Sea. As a result;
  - ✓ **Widespread** light to moderate rainfall/snowfall accompanied with thunderstorm & lightning likely over Western Himalayan region on 28th February
  - ✓ **Heavy rainfall/snowfall** at isolated places likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad & Uttarakhand on 28th February; with isolated **very heavy rainfall/snowfall** at isolated places over Himachal Pradesh on 28th February.
  - ✓ **Fairly widespread** to **widespread** light to moderate rainfall accompanied with thunderstorm & lightning likely over Punjab, Haryana, Chandigarh on 28th February; **Isolated** to **Scattered** light to moderate rainfall accompanied with thunderstorm & lightning likely over West Uttar Pradesh & Rajasthan during 28th February- 01st March; East Uttar Pradesh in 28th February & 01st march with **gusty winds (speed 30-40 kmph)** very likely over Punjab & Haryana and Rajasthan on 28th February.
  - ✓ **Heavy rainfall** at isolated places likely over Punjab on 28th February.
  - ✓ **Isolated Hailstorm activity also likely over Uttarakhand, Punjab & Haryana and West Uttar Pradesh on 28th February.**
- **Isolated to Scattered** light/moderate rainfall/snowfall accompanied with **thunderstorm, lightning** very likely over Arunachal Pradesh on 28th February & 01st March; **Isolated to scattered** light/moderate rainfall accompanied with **thunderstorm & lightning** likely over Sub-Himalayan West Bengal & Sikkim on 28th February; Assam & Meghalaya on 28th February & 01st March with **gusty winds (speed 30-40 kmph)** on 28th February. Isolated **Heavy rainfall** likely over Arunachal Pradesh on 01st March.
- Under the influence of an active easterly wave;
  - ✓ **Isolated to Scattered** light/moderate rainfall accompanied with **thunderstorm & lightning** very likely over Tamilnadu Puducherry & Karaikal during 28th February – 01st March; Kerala & Mahe during 28th February-02nd March; Lakshadweep on 28th February & 01st March with isolated **heavy rainfall** on Tamilnadu Puducherry & Karaikal on 28th February & 01st March and Kerala & Mahe 01st March.
  - ✓ A fresh **Western Disturbance** is likely to affect Northwest India from 02nd March. Under its influence; **Isolated to Scattered** light/moderate rainfall/snowfall very likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad & Himachal Pradesh during 02nd -05th; Uttarakhand during 02nd-04th; **Isolated** light/moderate rainfall/snowfall likely over Punjab, Haryana, Chandigarh on 03rd March.

Temperature Forecast:

Forecast of temperature:

Minimum Temperature:

- No significant change in minimum temperatures likely over Northwest India during next 2 days and gradual fall by 2-4°C thereafter.
- No significant change in minimum temperatures likely over rest parts of India during next 4-5 days.

Maximum temperature:

- Gradual fall in maximum temperatures by 3-5°C likely over Northwest India during next 2 days and gradual rise by 4-6°C thereafter.
- No significant change in maximum temperatures likely over Konkan & Goa during next 24 hours and gradual fall by 2-3°C thereafter.
- No significant change in maximum temperatures likely over West India during next 24 hours and gradual fall by 2-3°C thereafter.
- No significant change in maximum temperatures likely over rest parts of India during next 4-5 days.

Heat Wave and Hot & Humid weather warnings:

- **Heat wave conditions** very likely in isolated pockets over Konkan & Goa and Coastal Karnataka on 28th February.
- **Hot and humid weather** very likely to prevail over Konkan & Goa on 28th February and Coastal Karnataka on 01st March.

Main Weather Observations:

- **Rainfall/snowfall distribution** (from 0830 hours IST to 1730 hours IST of yesterday): **at most places** over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad and Himachal Pradesh; **at many places** over Uttarakhand.

- **Rainfall distribution** (from 0830 hours IST to 1730 hours IST of yesterday): **at most places** over Punjab; at **isolated places** over Haryana-Chandigarh, West Uttar Pradesh and West Rajasthan.

- **Significant amount of rainfall** (from 0830 hours IST to 1730 hours IST of yesterday) (in cm): **Himachal Pradesh:** Manali & Kangra 2 each; **Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad:** Batote & Banihal 4 each; Kukernag, Qazigund, Gulmarg & Kupwara 2 each.

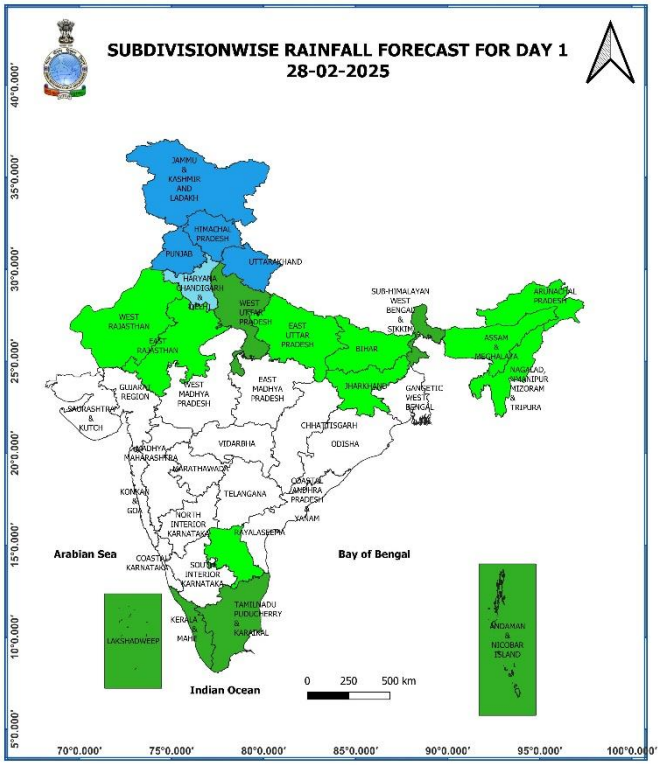
- **Minimum Temperature Departures (as on 27-02-2025):** Minimum temperatures were **markedly above normal (5.1°C or more)** over many parts of Punjab & Delhi; at a few places over Haryana, West Uttar Pradesh & Rajasthan; **appreciably above normal (3.1°C to 5.0°C)** over many places over Gujarat State; at isolated places over Jammu-Kashmir & Himachal Pradesh; **above normal (1.6°C to 3.0°C)** at many places over Madhya Pradesh, Bihar, Odisha, Tamilnadu Puducherry & Karaikal; at a few places over East Uttar Pradesh, Maharashtra, Coastal Andhra Pradesh & Yanam, Kerala & Mahe; at isolated places over Gangetic West Bengal, Coastal & North Interior Karnataka and Andaman & Nicobar Islands. These were **below normal (-3.0°C to -1.6°C)** most parts of Assam & Meghalaya, Vidarbha & Telangana and near normal over rest parts of the country **(Fig. 4)**. Yesterday, the **lowest minimum temperature** of **10.0°C** was reported at **Ayodhya (Uttar Pradesh)** over the plains of the country.

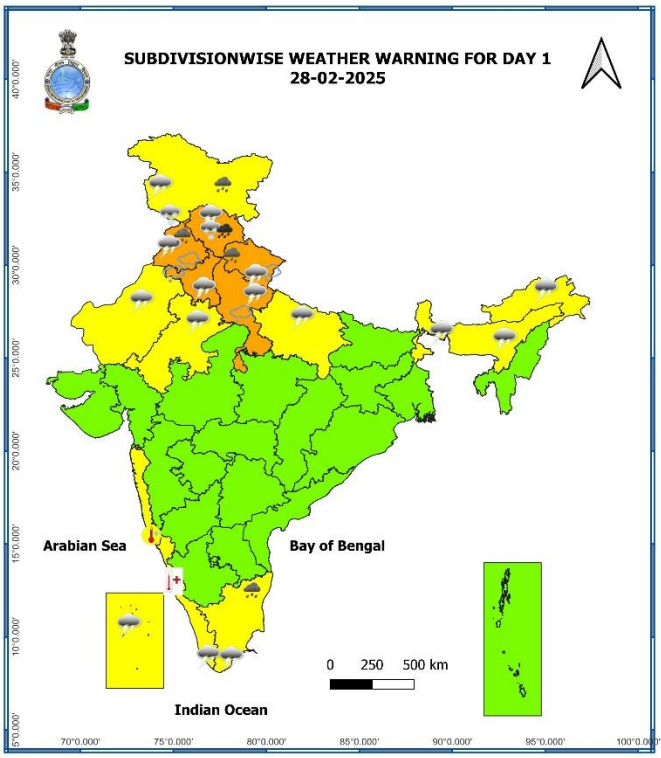
- **Maximum Temperature Departures (as on 27-02-2025)**: Maximum temperatures were **markedly above normal (5.1°C or more)** at a few places over Konkan & Goa; at isolated places over East Madhya Pradesh; **appreciably above normal (3.1°C to 5.0°C)** at most places over Saurashtra & Kutch; at many places over Gujarat Region and East Rajasthan; at a few places over West Madhya Pradesh and Vidarbha; at isolated places over East Uttar Pradesh; **above normal (1.6°C to 3.0°C)** at a few places over Chhattisgarh, Odisha, Assam & Meghalaya, Coastal Karnataka and Kerala & Mahe; at isolated places over Gangetic West Bengal, Nagaland, Manipur, Mizoram & Tripura, Lakshadweep and Tamil Nadu, Puducherry & Karaikal. These were **markedly below normal (-5.1°C or less)** at a few places over Himachal Pradesh and Uttarakhand; **appreciably below normal (-5.0°C to -3.1°C)** at a few places over Punjab and Haryana-Chandigarh; at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, West Uttar Pradesh and Andaman & Nicobar Islands; **below normal (-3.0°C to -1.6°C)** at a few places over Rayalaseema and North Interior Karnataka; at isolated places over Delhi and near normal over rest parts of the country **(Fig. 2).** Yesterday, the highest **maximum temperature of 39.8°C** was reported at **Kannur Airport (Kerala)** over the country.

Meteorological Analysis (Based on 0530 hours IST)

- The **Western Disturbance** as a trough in lower to upper tropospheric levels with its axis at 5.8 km above mean sea level now runs roughly along Long. 57°E to the north of Lat. 28°N. There is a **Divergence** of the order of 20-40 x 10^{-6} s^{-1} in the forward sector of the trough over Northwest India.
- The induced **cyclonic circulation** over northwest Rajasthan & neighbourhood persists and now extends upto 1.5 km above mean sea level.
- The **trough** from the above cyclonic circulation over northwest Rajasthan & neighbourhood to northeast Arabian Sea at 1.5 km above mean sea level persists.
- A fresh **Western Disturbance** is likely to affect Northwest India from 02nd March.

Weather Forecast & Warnings for next 7 days (Upto 0830 hours IST of 06th March, 2025)





28th February (Day 1):

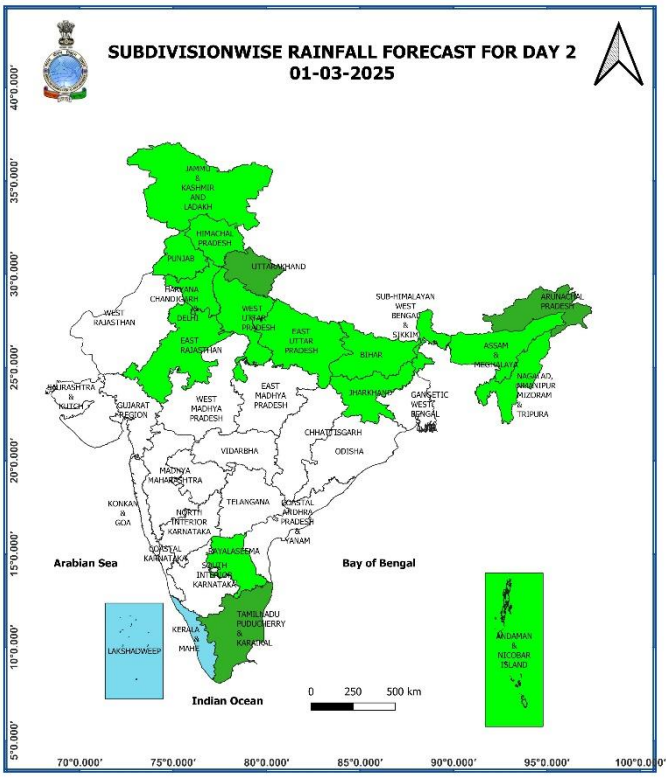
- **Heavy to very heavy Rainfall/Snowfall (≥ 12 cm)** very likely at isolated places of Himachal Pradesh; **Heavy Rainfall/Snowfall (≥ 7 cm)** likely at isolated places over and Uttarakhand; **Heavy Rainfall (≥ 7 cm)** likely at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Punjab and Tamil Nadu, Puducherry & Karaikal.

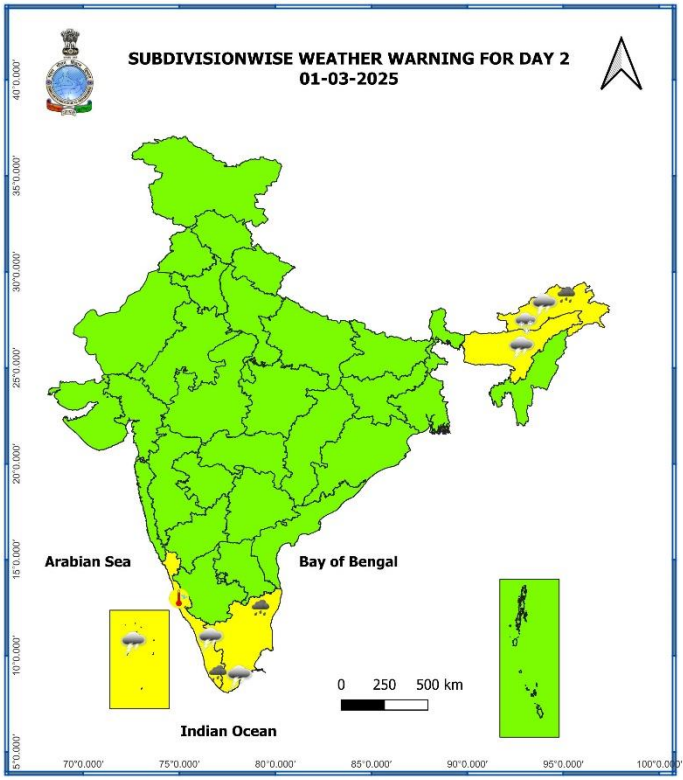
- **Thunderstorm accompanied with gusty wind (30-40 kmph), Hailstorm and lightning** very likely at isolated places over Punjab, Rajasthan and Haryana-Chandigarh-Delhi; **Thunderstorm accompanied with Hailstorm** at isolated places over Uttarakhand, West Uttar Pradesh**; Thunderstorm accompanied with gusty wind (30-40 kmph) with lightning** at isolated places over Assam & Meghalaya, Rajasthan; **with lightning** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, East Uttar Pradesh, Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh, Kerala & Mahe, Tamil Nadu, Puducherry & Karaikal and Lakshadweep.

- **Heat wave conditions** very likely in isolated pockets of Coastal Karnataka.

- **Hot & Humid conditions** very likely at isolated pockets of Konkan & Goa.

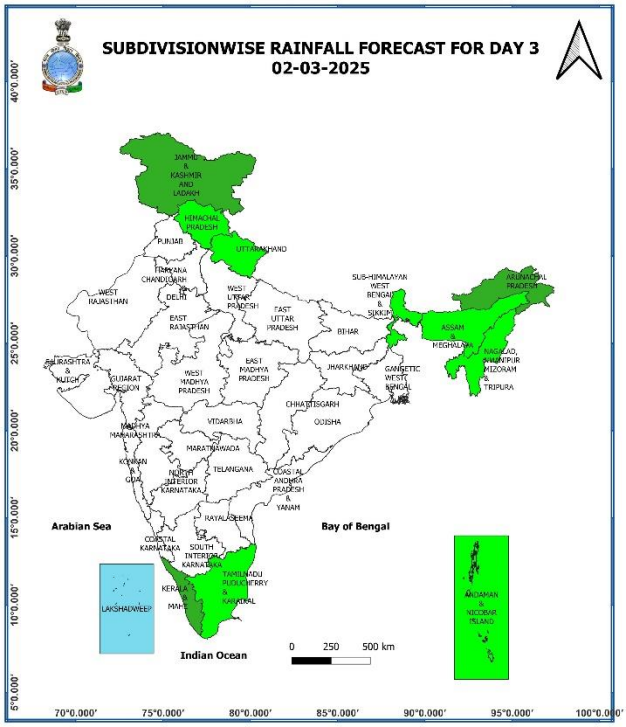
- **Squally weather with wind (speed 35 kmph to 45 kmph gusting to 55 kmph)** very likely to prevail over gulf of Mannar & adjoining Comorin area along and off south Tamil Nadu coast**,** over south Andaman Sea & adjoining north Andaman sea, over many parts of southeast Bay of Bengal, northern parts of southwest Bay of Bengal. Fishermen are advised not to venture into these areas.

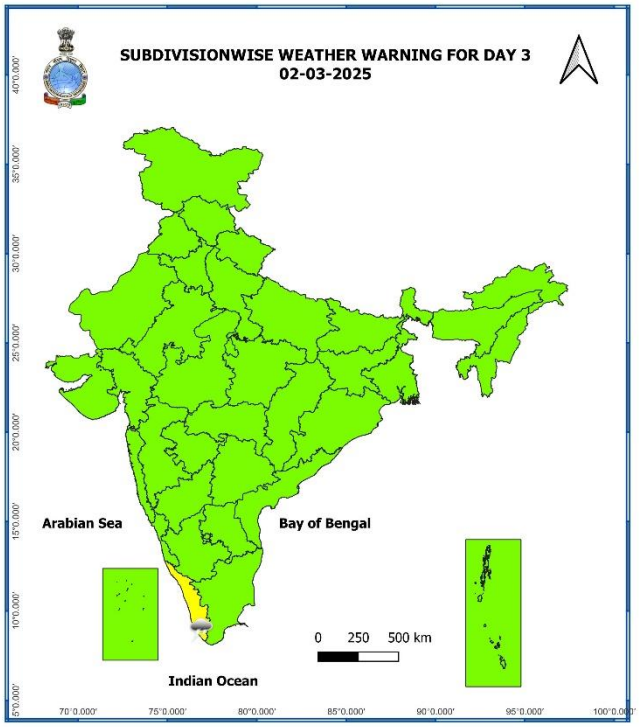




01st March (Day 2):

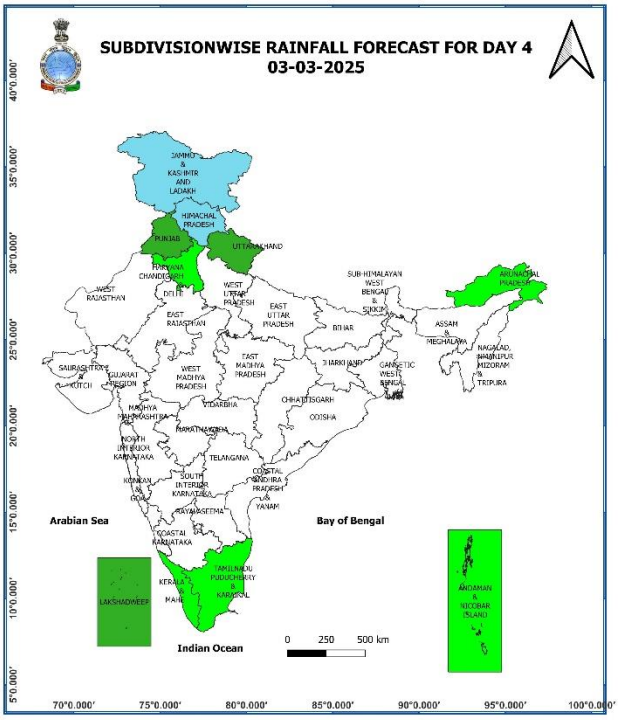
- **Heavy Rainfall (≥ 7 cm)** very likely at isolated places of Arunachal Pradesh, Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe.
- **Thunderstorm accompanied with lightning** very likely at isolated pockets of Arunachal Pradesh, Assam & Meghalaya, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe.
- **Hot & Humid conditions** very likely at isolated pockets of Coastal Karnataka.
- **Squally weather with wind speed 35 kmph to 45 kmph gusting to 55 kmph** very likely to prevail over along and off South Kerala coast and adjoining Lakshadweep area, Gulf of Mannar & adjoining Comorin area, along and off South Tamil Nadu coast. Fishermen are advised not to venture into these areas.

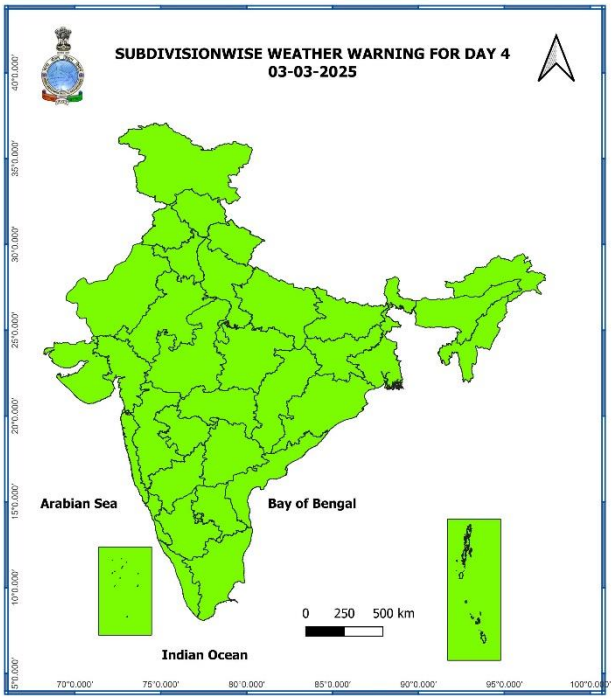




02nd March (Day 3):

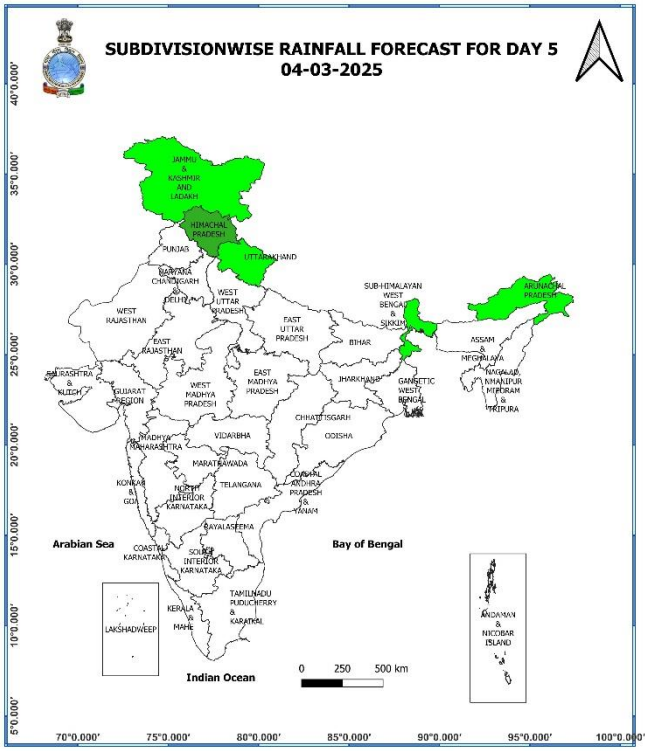
- **Thunderstorm accompanied with lightning** likely at isolated pockets of Kerala & Mahe.
- **Squally weather with wind speed 35 kmph to 45 kmph gusting to 55 kmph** likely to prevail over Lakshadweep area.

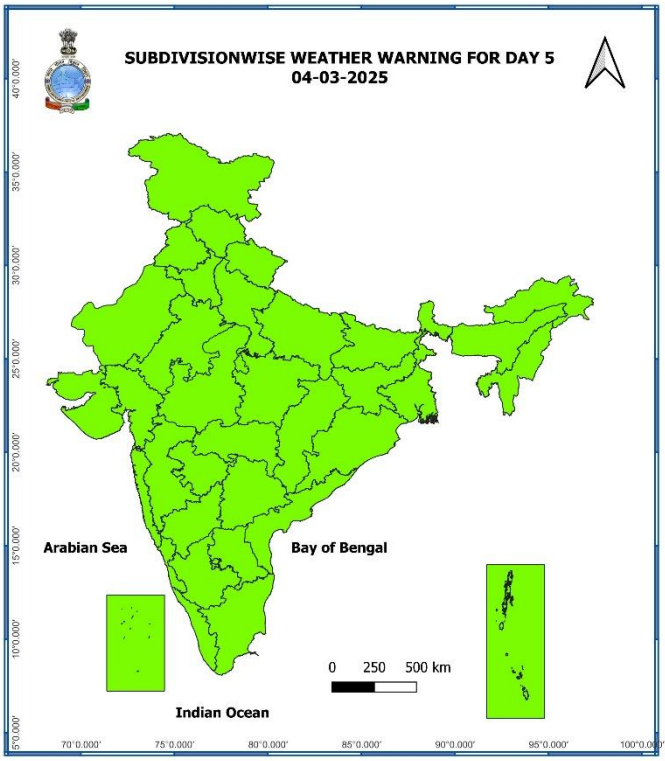




03rd March (Day 4):

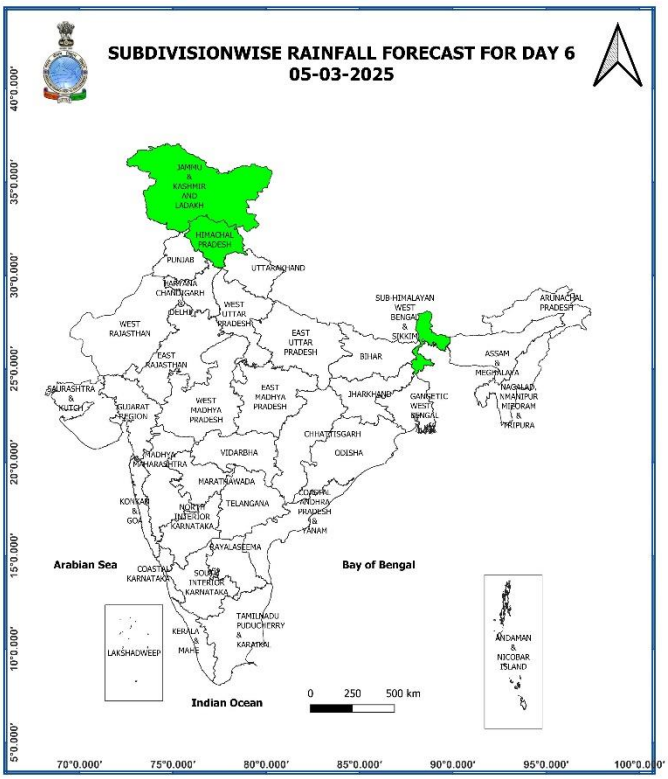
❖ **No Weather Warning.**

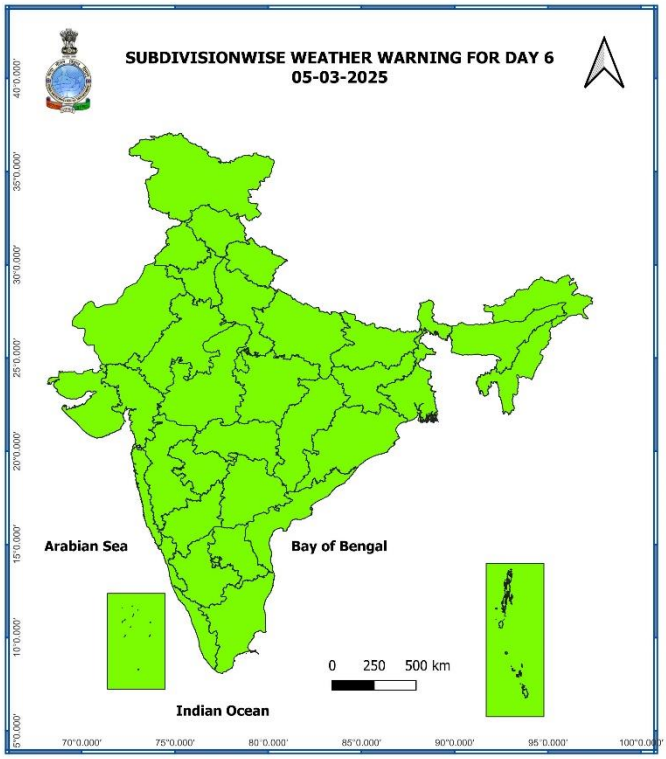




04th March (Day 5):

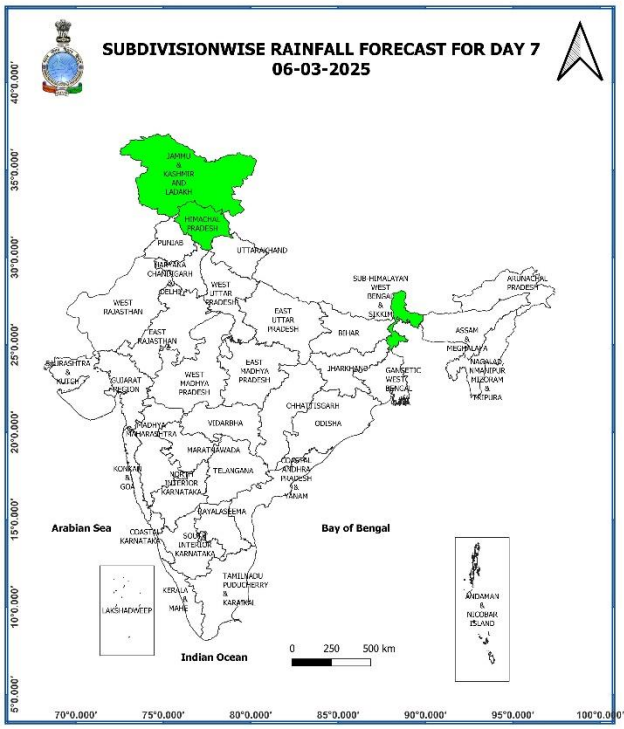
❖ **No Weather Warning.**

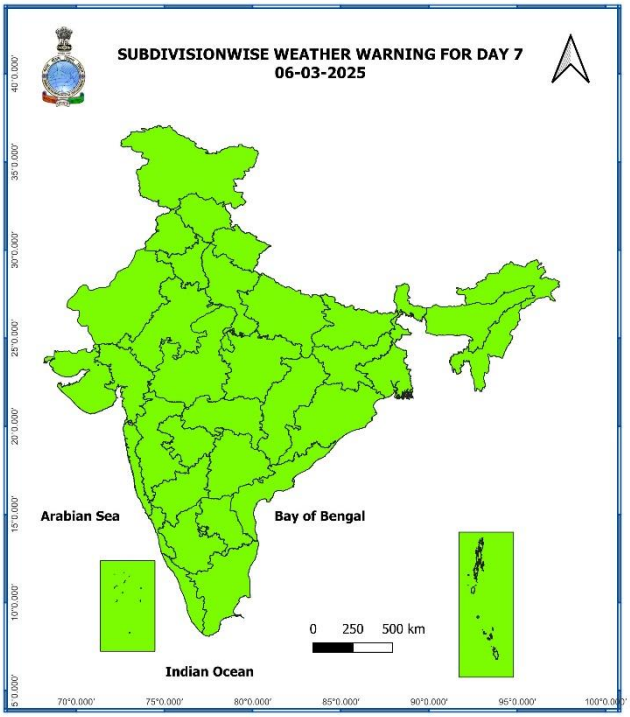




05th March (Day 6):

- **No Weather Warning.**





06th March (Day 7):

- **No Weather Warning.**

Weather Outlook for subsequent 3 days (During 07th March- 09th March, 2025)

- **Scattered to fairly widespread rainfall/snowfall** likely over Western Himalayan region.
- **Isolated to scattered rainfall** likely over plains of Northwest India, Kerala & Mahe, Tamil Nadu, Puducherry & Karaikal 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

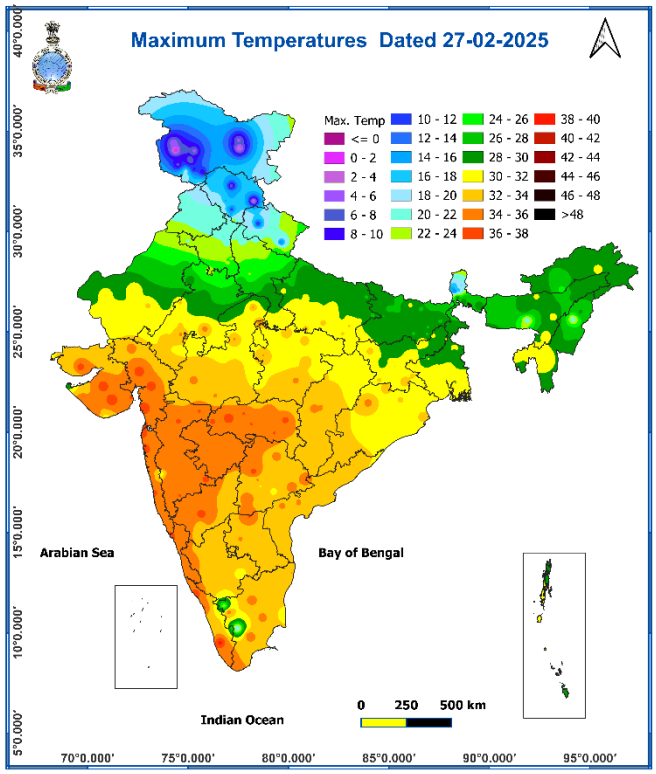


Fig. 2: Departure of Maximum Temperatures

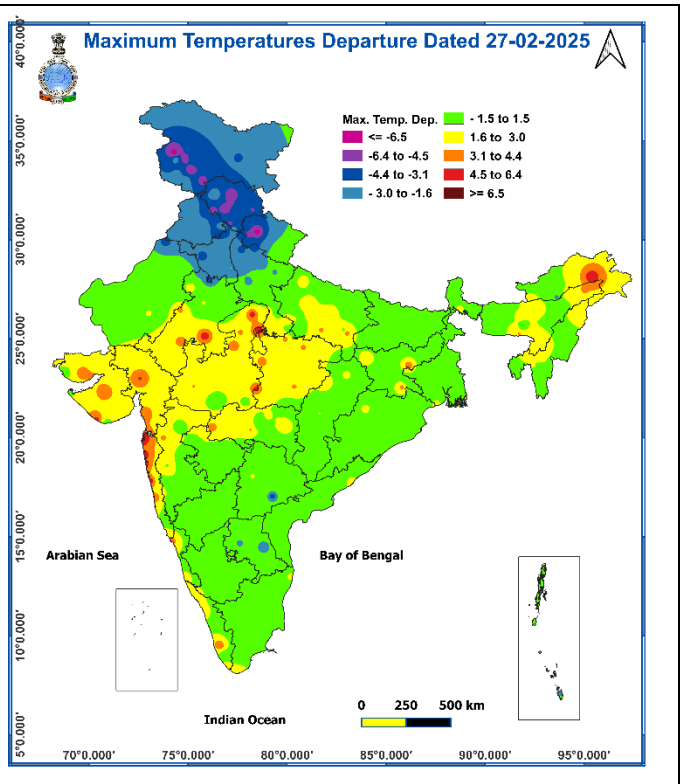


Fig. 3: Minimum Temperatures

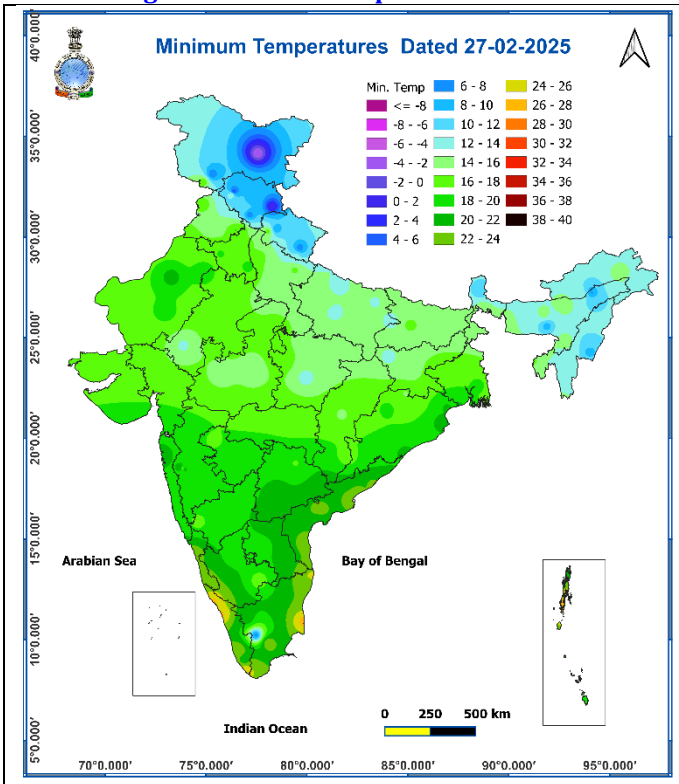
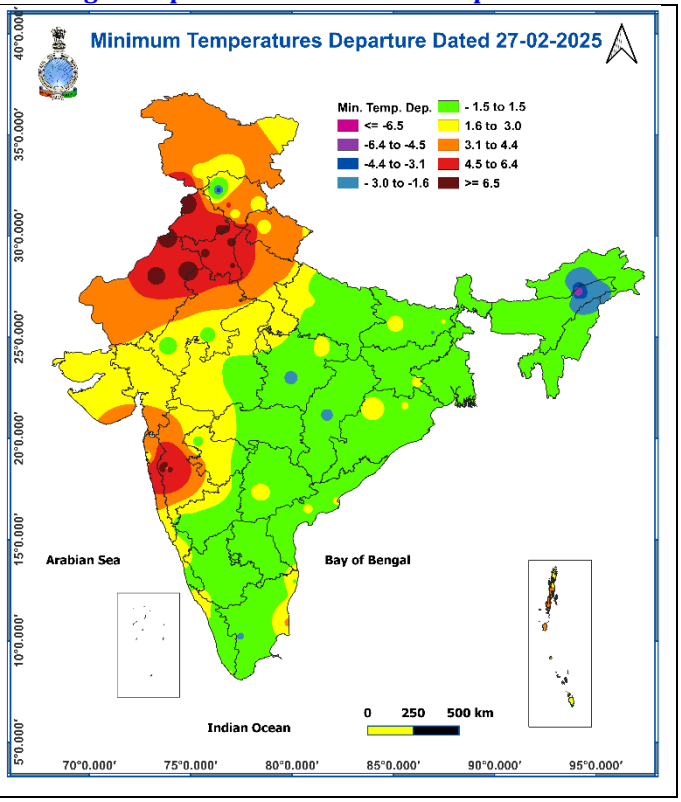


Fig. 4: Departure of Minimum Temperatures



* 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
(Service to the Nation since 1875)

Impact & Action Suggested due to heavy to very heavy rainfall/ snowfall over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh & Uttarakhand on 28th February.

A. 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).

B. 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 winds & Hailstorm over Northwest India on 28th February and Northeast India on 28th February & 01st March.

Impact expected:

- Strong wind/hail may damage plantation, horticulture and standing crops.
- Hail may injure people and cattle at open places.
- Partial damage to vulnerable structures due to strong winds.
- Minor damage to kutcha houses/walls and huts.
- Loose objects may fly.

Action suggested:

- Stay indoors, close windows & doors and avoid travel if possible.
- Take safe shelters; do not take shelter under trees.
- Do not lie on concrete floors and do not lean against concrete walls.
- Unplug electrical/ electronic appliances.
- Immediately get out of water bodies.
- Keep away from all the objects that conduct electricity.

Impact expected and action suggested due to Heat Wave conditions over Konkan and Coastal Karnataka.

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 / Snowfall / Hailstorm / Heat Wave

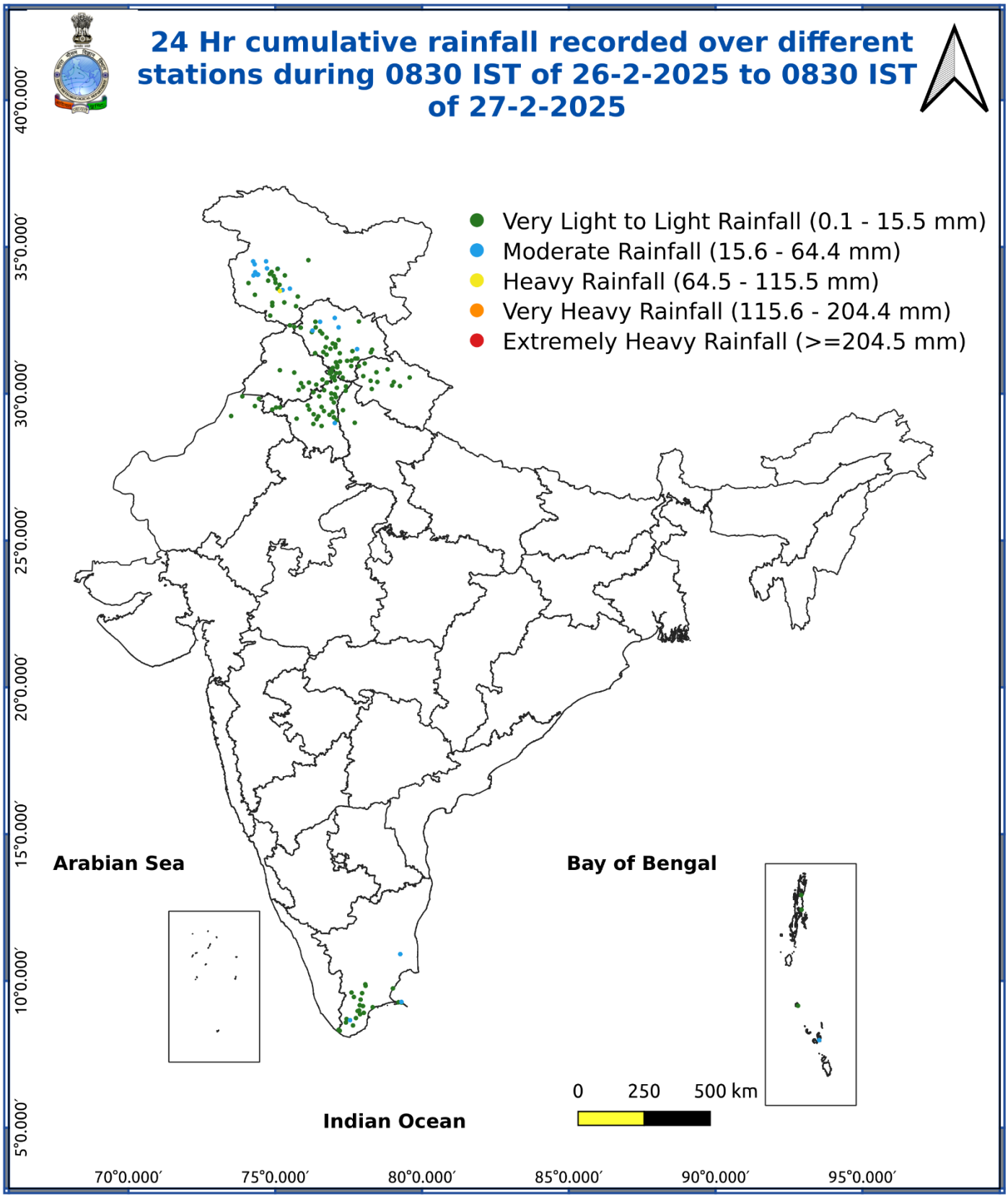
- Use hail nets or hail caps in fruit orchards and vegetable plants to protect them from mechanical damage in **Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Punjab, Haryana** and **West Uttar Pradesh**.
- Complete harvesting of matured paddy in **Tamil Nadu** and **Kerala.**
- Make provision for draining out excess water from the standing crop fields in **Jammu and Kashmir, Himachal Pradesh, Uttarakhand, Punjab, Tamil Nadu and Kerala.** In the regions of heavy snowfall, shake the fruit bearing trees to remove snow immediately from the branches.
- In **Konkan** and **Coastal Karnataka,** apply light and frequent irrigation to the standing crops in the evening to protect them from heat wave**.**
- Keep the harvested produce in safer places or cover the produce with tarpaulin sheets in the fields.
- Provide mechanical support to horticultural crops and staking to vegetables to avoid lodging.

Livestock

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

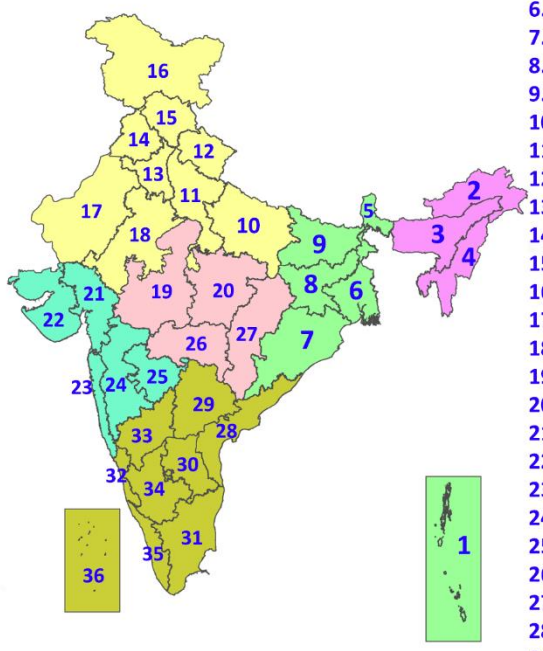
Store feed and fodder in a safe place to prevent spoilage.

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



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

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

* 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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(Service to the Nation since 1875)

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 ≥40° C for plains and ≥30° C for hilly regions** **(a) Based on Departure from normal** **Heat Wave:** Maximum Temperature Departure from normal 4.5° C to 6.4° C. **Severe Heat Wave:** Maximum Temperature Departure from normal ≥6.5° C **(b). 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
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 °C.
Cold Wave	**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 **(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
Cold Day	**When minimum temperature of a station ≤10°C for plains and ≤0°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 ≤ -6.5 °C
Fog	**Phenomenon of small droplets suspended in air and the horizontal visibility < 1km** **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 ≤4°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)

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