



Government of India
Ministry of Earth Sciences
India Meteorological Department



Press Release

Date: 15th December, 2024

Time of Issue: 1350 hours IST

Subject: (i) A low pressure area is likely to form over southeast Bay of Bengal during next 24 hours. Thereafter, it is likely to become more marked and move west-northwestwards towards Tamil Nadu coast during subsequent two days.
(ii) Cold wave conditions likely to continue to prevail over northwest India during next 5 days and over central India next 3 days.

i. Realised weather during past 24 hours till 0830 hours IST of today (Annexure I)

- ❖ **Heavy to very heavy rainfall** observed at isolated places over Tamil Nadu; **heavy rainfall** at isolated places over Andaman & Nicobar Islands.
- ❖ **Cold wave to severe cold wave conditions** observed in many parts of Punjab; in some parts of Haryana-Chandigarh, East Rajasthan and Madhya Pradesh; in isolated pockets of West Rajasthan and Gangetic West Bengal; **cold wave conditions** in isolated pockets of Uttar Pradesh, Vidarbha, Chhattisgarh, Bihar, Jharkhand and Odisha.
- ❖ **Dense fog (50-200 m)** reported in isolated pockets of Odisha, Meghalaya and Tripura.
- ❖ **Visibility reported (≤ 200 m)** (in meter): **Odisha:** Rourkela-50; **Meghalaya:** Barapani 50; **Tripura:** Agartala Airport 100.

Weather Systems:

- ❖ Yesterday's **upper air cyclonic circulation** over south Andaman Sea & adjoining area lay over south Andaman Sea & adjoining south east Bay of Bengal in lower tropospheric levels at 0530 hours IST of today 15th and persisted over the same region at 0830 hours IST of today, the 15th December, 2024. Under its influence, a **low pressure area** is likely to form over southeast Bay of Bengal during next 24 hours. Thereafter, it is likely to become more marked and move west-northwestwards towards Tamil Nadu coast during subsequent two days.
- ❖ A **Western disturbance** as a trough in middle and upper tropospheric westerlies runs roughly along Long. 55°E to the north of Lat. 30°N and a **cyclonic circulation** lies over central Pakistan & adjoining Jammu division in lower tropospheric levels.

Forecast & Warnings (upto 7 days) (Annexure II & III):

- ❖ **Tamil Nadu:** Isolated **heavy to very heavy rainfall** likely on 17th & 18th December. Isolated **heavy rainfall** on 19th December.
- ❖ **Kerala:** Isolated **heavy rainfall** likely on 18th & 19th December.
- ❖ **Coastal Andhra Pradesh & Rayalaseema:** Isolated **heavy rainfall** likely during 17th - 19th December.
- ❖ **Andaman & Nicobar Islands:** Isolated **heavy rainfall** very likely on 15th December.
- ❖ Light to moderate rainfall at isolated places accompanied with isolated thunderstorm & lightning likely over Tamil Nadu, Puducherry, Coastal Andhra Pradesh and Rayalaseema during 17th-19th December.

ii. Temperature, Cold Wave and Fog Forecast:

Temperature Conditions during past 24 hours till 0830 hours IST of today (Annexure IV):

Minimum temperatures are in the range of 4-8°C in the plains of Northwest India, in many parts of Central India and in the range of 8-14°C in many parts of east and Western India. Minimum temperatures have fallen by 1-2°C over most parts of the country in the past 24 hours except some parts of West Uttar Pradesh, west Madhya Pradesh, Northeast Bihar, Sub-Himalayan West Bengal, Saurashtra & Kutch, Konkan, Madhya Maharashtra and west Assam where there is a rise by about 1-2°C.

Minimum temperatures were below normal over most parts of the country except South Peninsular India, where it was near normal. These are **markedly below normal (-5 °C or less)** at isolated places over East Uttar Pradesh, East Rajasthan, Madhya Pradesh, Vidarbha, Chhattisgarh, Gangetic West Bengal; **appreciably below normal (-3°C to -5°C)** at a few places over Gangetic West Bengal; at isolated places over West Rajasthan, West Uttar Pradesh, Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Punjab, Delhi, Madhya Maharashtra, Telangana ; **below normal (-2°C to -3°C)** at many places over Saurashtra & Kutch; at isolated places over Haryana, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Bihar, Konkan & Goa, Interior Karnataka, Tamil Nadu, Puducherry & Karaikal and near normal over rest parts of the country. Today, **the lowest minimum temperature** of 1.3°C is reported at **Adampur IAF (Punjab)** over the plains of the country.

Fishermen Warnings (Annexure V):

Fishermen are advised not to venture into Andaman Sea on 15th; Comorin area during 15th -18th; along & off Somalia coast & adjoining westcentral Arabian Sea on 16 & 17; Southeast & adjoining eastcentral Bay of Bengal on 15th & 16th; Southwest & adjoining westcentral Bay of Bengal on 16th & 17th; Tamil Nadu and Sri Lanka coast during 17th – 19th; South Coastal Andhra Pradesh on 19th December

Forecast of temperature:

- ❖ No significant change in minimum temperatures likely over Northwest India during next 5 days.
- ❖ No significant change in minimum temperatures likely over Central India during 48 hours and gradual rise by 2-3°C during subsequent 3 days.
- ❖ No significant change in minimum temperatures likely over East India during 24 hours and gradual rise by 2-3°C during subsequent 4 days.
- ❖ No significant change in minimum temperatures likely over West India during during next 5 days.

Cold Wave Warnings:

Cold wave to severe cold wave conditions very likely in some parts of Madhya Pradesh on 15th; in isolated pockets of Madhya Pradesh on 16th; in isolated pockets of East Rajasthan during 17th -20th December.

Cold wave conditions very likely in isolated pockets over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Punjab, Haryana-Chandigarh-Delhi and West Rajasthan during 15th -19th; Uttar Pradesh on 15th & 16th; Uttarakhand during 17th -19th; East Rajasthan on 15th, 16th & 21st; Madhya Pradesh on 17th; Vidarbha, Odisha, Madhya Maharashtra, Marathwada, Saurashtra & Kutch and Telangana on 15th & 16th; Chhattisgarh, Gangetic West Bengal, Bihar and Jharkhand on 15th December.

Cold Day Warnings:

Cold Day conditions very likely in some parts of West Madhya Pradesh on 15th and in isolated pockets on 16th December.

Dense Fog Warnings:

Dense fog conditions very likely to prevail during late night/early morning hours in isolated pockets of Punjab and Haryana-Chandigarh on 16th & 17th; Uttar Pradesh during 15th - 17th; Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura on 15th & 16th December.

Ground Frost Warnings:

Ground Frost conditions very likely in isolated pockets of Madhya Pradesh on 15th December.

iii. Weather conditions and forecast over Delhi/NCR during 15th to 18th Dec. 2024 (Annexure VI)

For more details, kindly refer National Weather Bulletin:

https://mausam.imd.gov.in/responsive/all_india_forecast_bulletin.php

For District wise warnings refer: <https://mausam.imd.gov.in/responsive/districtWiseWarningGIS.php>

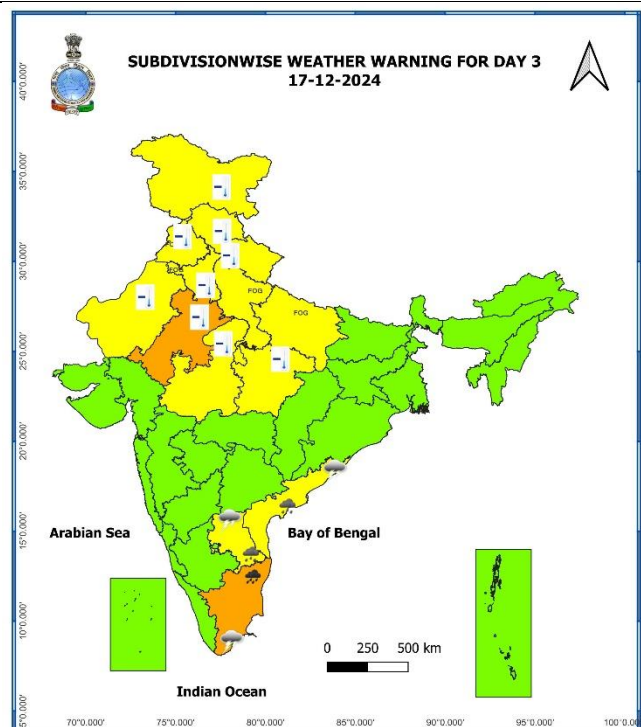
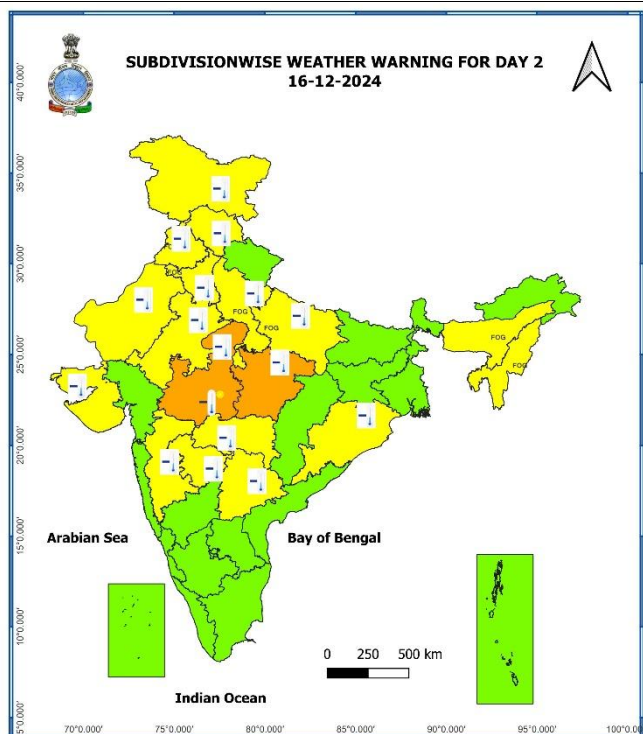
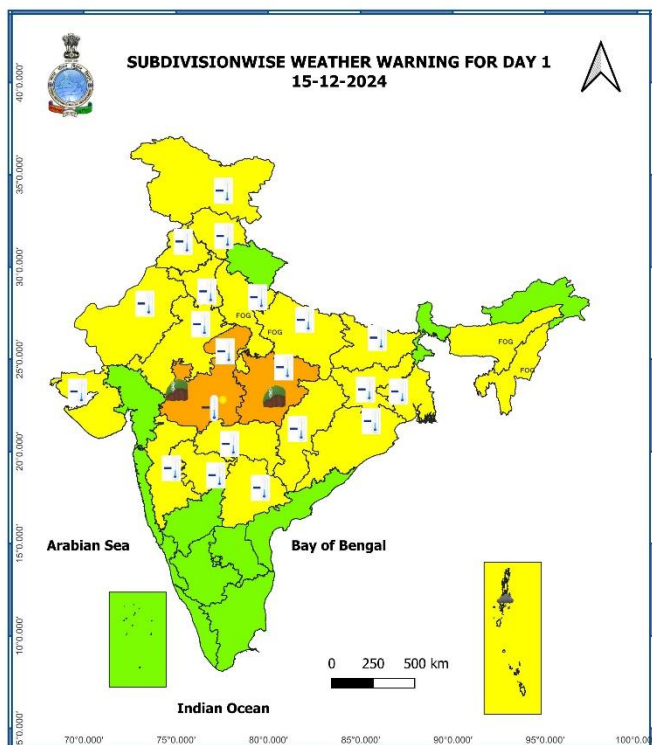
Significant Rainfall recorded during past 24 hours till 0830 hours IST of today 15.12.2024 (in cm):

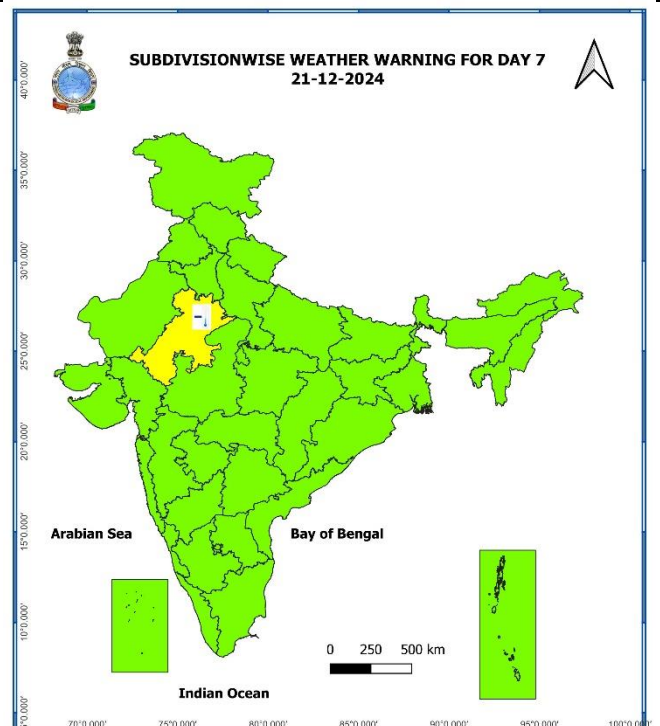
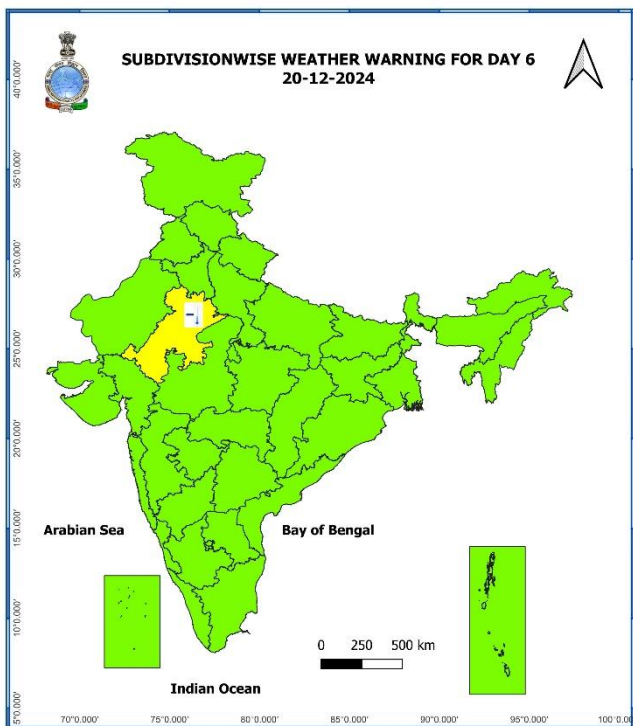
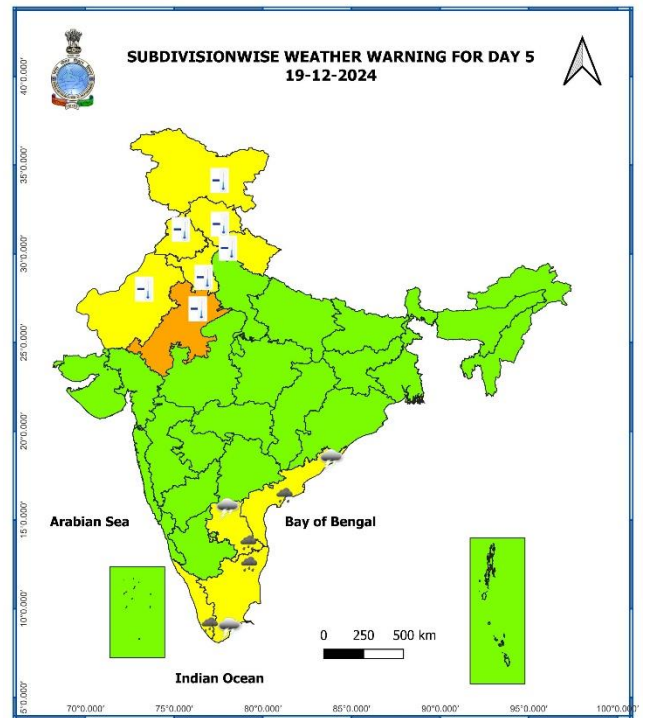
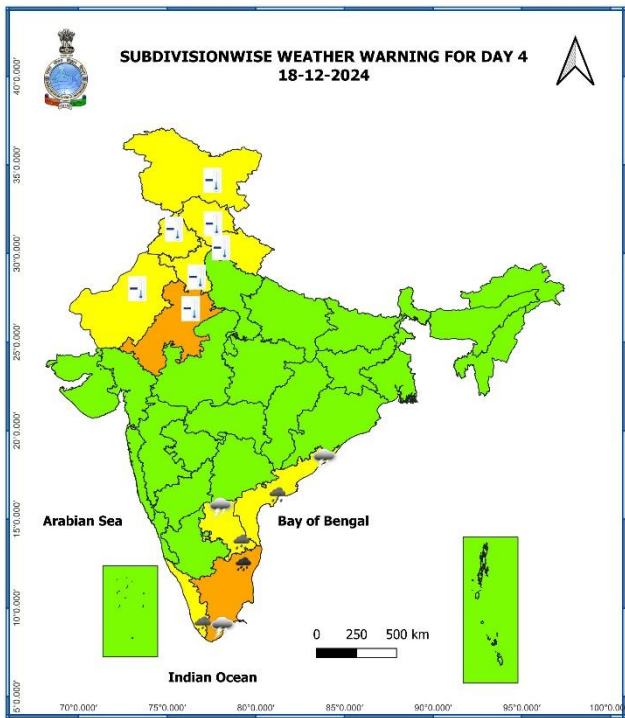
- ❖ **Tamil Nadu:** Papanasam (dist Tirunelveli) 13, Manimutharu (dist Tirunelveli) 10, Kodaikannal Boat Club (dist Dindigul) 9, Oothu (dist Tirunelveli), Kayalpattinam (dist Thoothukudi) 8 each, Tuticorin (dist Thoothukudi), Servalar Dam (dist Tirunelveli), Nalumukku (dist Tirunelveli) 7 each.
- ❖ **Andaman & Nicobar Islands:** Long Island (dist North & Middle Andaman) 8, Iaf Carnicobar (dist Nicobar) 7, Car Nicobar (dist Nicobar) 5.

ANNEXURE II

7 Days Rainfall Forecast								
S. No.	Subdivision	15-Dec	16-Dec	17-Dec	18-Dec	19-Dec	20-Dec	21-Dec
		Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
1	ANDAMAN & NICOBAR ISLANDS	WS	WS	FWS	FWS	SCT	SCT	SCT
2	ARUNACHAL PRADESH	DRY	DRY	DRY	DRY	DRY	DRY	DRY
3	ASSAM & MEGHALAYA	DRY	DRY	DRY	DRY	DRY	DRY	DRY
4	NAGALAND, MANIPUR, MIZORAM & TRIPURA	DRY	DRY	DRY	DRY	DRY	DRY	DRY
5	SUB-HIMALAYAN WEST BENGAL & SIKKIM	DRY	DRY	DRY	DRY	DRY	ISOL	ISOL
6	GANGETIC WEST BENGAL	DRY	DRY	DRY	DRY	DRY	DRY	DRY
7	ODISHA	DRY	DRY	ISOL	ISOL	ISOL	DRY	DRY
8	JHARKHAND	DRY	DRY	DRY	DRY	DRY	ISOL	ISOL
9	BIHAR	DRY	DRY	DRY	DRY	DRY	DRY	DRY
10	EAST UTTAR PRADESH	DRY	DRY	DRY	DRY	DRY	DRY	DRY
11	WEST UTTAR PRADESH	DRY	DRY	DRY	DRY	DRY	DRY	DRY
12	UTTARAKHAND	DRY	DRY	ISOL	DRY	DRY	DRY	DRY
13	HARYANA CHANDIGARH & DELHI	DRY	DRY	DRY	DRY	DRY	DRY	DRY
14	PUNJAB	DRY	DRY	DRY	DRY	DRY	DRY	DRY
15	HIMACHAL PRADESH	DRY	DRY	DRY	DRY	DRY	DRY	DRY
16	JAMMU & KASHMIR AND LADAKH	ISOL	ISOL	DRY	DRY	DRY	DRY	DRY
17	WEST RAJASTHAN	DRY	DRY	DRY	DRY	DRY	DRY	DRY
18	EAST RAJASTHAN	DRY	DRY	DRY	DRY	DRY	DRY	DRY
19	WEST MADHYA PRADESH	DRY	DRY	DRY	DRY	DRY	DRY	DRY
20	EAST MADHYA PRADESH	DRY	DRY	DRY	DRY	DRY	DRY	DRY
21	GUJARAT REGION	DRY	DRY	DRY	DRY	DRY	DRY	DRY
22	SAURASHTRA & KUTCH	DRY	DRY	DRY	DRY	DRY	DRY	DRY
23	KONKAN & GOA	DRY	DRY	DRY	DRY	ISOL	ISOL	ISOL
24	MADHYA MAHARASHTRA	DRY	DRY	DRY	DRY	ISOL	ISOL	ISOL
25	MARATHAWADA	DRY	DRY	DRY	DRY	DRY	DRY	DRY
26	VIDARBHA	DRY	DRY	DRY	DRY	DRY	DRY	ISOL
27	CHHATTISGARH	DRY	DRY	DRY	ISOL	ISOL	ISOL	ISOL
28	COASTAL ANDHRA PRADESH & YANAM	DRY	ISOL	SCT	FWS	FWS	SCT	SCT
29	TELANGANA	DRY	DRY	DRY	DRY	ISOL	ISOL	ISOL
30	RAYALASEEMA	DRY	ISOL	SCT	FWS	FWS	SCT	SCT
31	TAMILNADU PUDUCHERRY & KARAIKAL	ISOL	ISOL	SCT	FWS	SCT	SCT	ISOL
32	COASTAL KARNATAKA	DRY	DRY	DRY	DRY	ISOL	SCT	ISOL
33	NORTH INTERIOR KARNATAKA	DRY	DRY	DRY	DRY	ISOL	ISOL	ISOL
34	SOUTH INTERIOR KARNATAKA	DRY	DRY	ISOL	SCT	SCT	SCT	ISOL
35	KERALA & MAHE	ISOL	ISOL	ISOL	SCT	SCT	SCT	SCT
36	LAKSHADWEEP	SCT	DRY	DRY	DRY	DRY	DRY	SCT

- As the lead period increases forecast accuracy decreases.





- 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

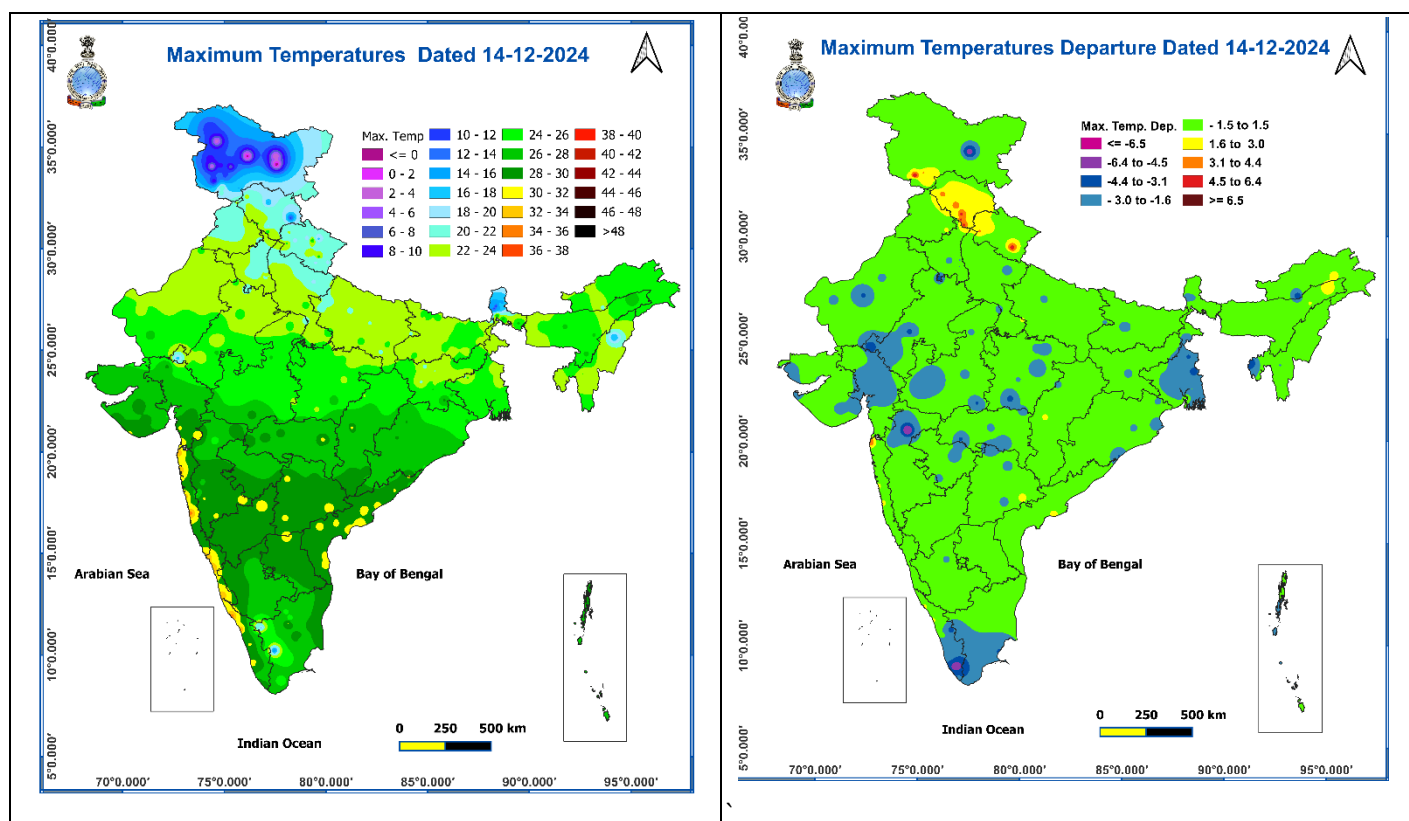
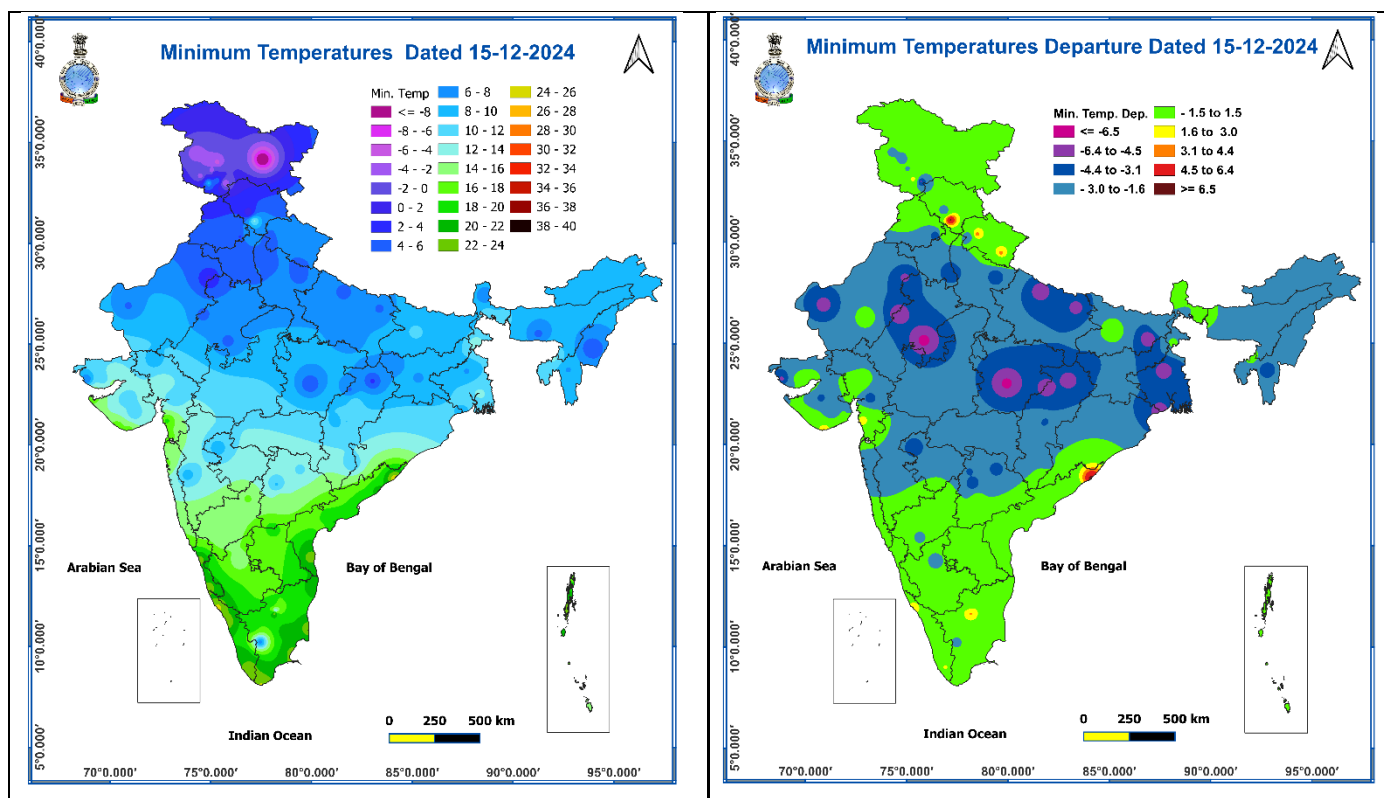


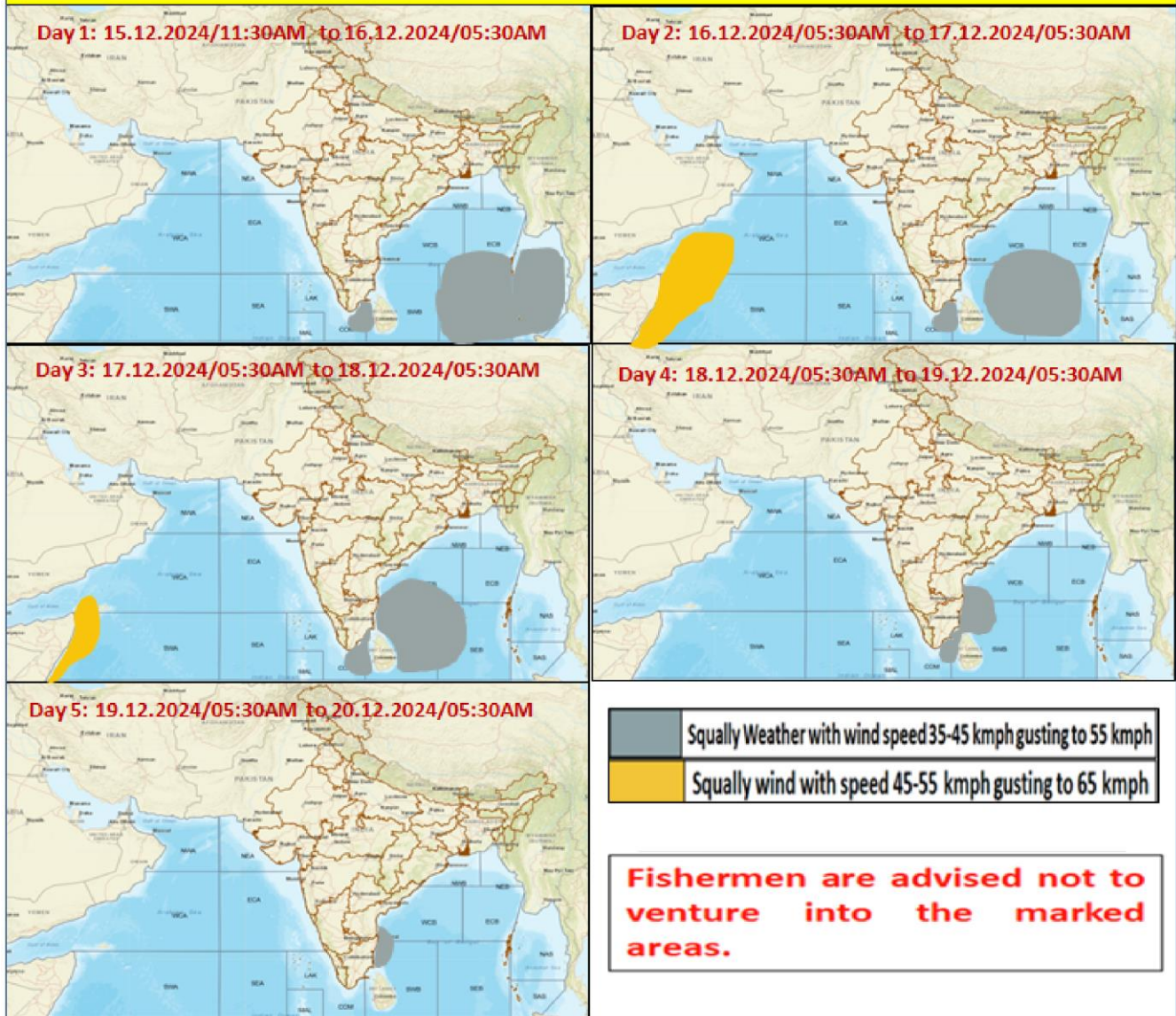
Fig. 3: Minimum Temperatures

Fig. 4: Departure of Minimum Temperatures





Fishermen Warning Graphics



Weather Realised (past 24 hours) & forecast (during 15th Dec. to 18th Dec. 2024) over Delhi/NCR**Past Weather:**

There has been a fall in minimum temperature upto 03°C over Delhi/NCR during past 24hr. The Maximum and Minimum temperature over Delhi is in the range of 21 to 23°C and 05 to 07°C respectively. The minimum temperature was below normal upto 3 to 4°C and maximum temperature was near normal over most places. Mainly smog/ mist condition with predominant surface wind from northwest direction with wind speed reaching 10 to 16 kmph prevailed on 14.12.2024. Mainly clear sky condition with wind speed less than 06 kmph west direction prevailed over the region in the forenoon today.

Weather Forecast:

15.12.2024: Mainly clear sky. The predominant surface wind is likely to be northwest direction with wind speed less than 08 kmph till evening. It would decrease thereafter becoming less than 04 kmph from northwest direction during night. Smog/mist is likely in the evening/night.

16.12.2024: Mainly clear sky. The predominant surface wind is likely to be from north direction with speed less than 04 kmph during morning hours. Smog/shallow to moderate is likely in the morning. The wind speed will increase thereafter becoming less than 06 kmph from northeast direction during afternoon. It will decrease thereafter becoming less than 04 kmph from variable direction during evening and night. Smog/mist is likely in the evening/night.

17.12.2024: Mainly clear sky. The predominant surface wind is likely to be from southeast direction with speed less than 04 kmph during morning hours. Smog/shallow to moderate fog is likely in the morning. The wind speed will gradually increase becoming 04-06 kmph from variable direction during afternoon. It will decrease thereafter becoming less than 04 kmph from variable direction during evening and night. Smog/shallow fog is likely in the evening/night.

18.12.2024: Mainly clear sky. The predominant surface wind is likely to be from northwest direction with wind speed less than 04 kmph during morning hours. Smog/shallow fog is likely in the morning. The wind speed will increase thereafter becoming 06-08 kmph from variable direction during afternoon. It will gradually decrease becoming less than 04 kmph from variable direction during evening and night. Smog/mist is likely in the evening/night.

Impact & Action Suggested due to

❖ **Isolated heavy to very heavy rainfall** over Tamil Nadu on 17th & 18th December.

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 kutchra 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 due to dense/very dense fog in the night /morning hour:

- ❖ Transport and Aviation:
 - May affect some airports, highways and railway routes in the areas of met- sub-division.
 - Difficult driving conditions with slower journey times.
 - Unless taken precautionary measures, it may lead to some road traffic collisions.
- ❖ Power Sector:
 - Chances of Tripping of Power lines in the very dense fog routes.
- ❖ Human Health:
 - Lung related health impacts: Dense fog contains particulate matter and other pollutants and in case exposed it gets lodged in the lungs, clogging them and decreasing their functional capacity which increases episodes of wheezing, coughing and shortness of breath.
 - Impact on people having asthma bronchitis: Long time exposure to dense fog may cause respiratory problem for people having asthma bronchitis and other lung related health problems.
 - Eye Irritation: Dense fog contains pollutions of various types and these Pollutants in the air if exposed may tend to irritate the membranes of the eye causing various infections leading to redness or swelling of the eye.

Action suggested:

- ❖ Transport and Aviation:
 - Be careful while driving or outing through any transport.
 - Use fog lights during driving.
 - Be in touch with airlines, railways and state transport for schedule of your journey.
- ❖ Power Sector:
 - To keep ready Maintenance Team.
 - Human Health: To avoid outing until unless emergency and to cover the face.

Impact expected due to cold wave/severe cold wave conditions over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Punjab, Haryana, Chandigarh, Uttar Pradesh, Rajasthan, Madhya Pradesh, Vidarbha, Chhattisgarh, Gangetic West Bengal, Bihar, Odisha, Jharkhand and Telangana

- An increased likelihood of various illnesses like flu, running/ stuffy nose or nosebleed, which usually set in or get aggravated due to prolonged exposure to cold.
- Do not ignore shivering. It is the first sign that the body is losing heat. Get Indoors.
- Frostbite can occur due to prolonged exposure to cold. The skin turns pale, hard and numb and eventually black blisters appear on exposed body parts such as fingers, toes, nose and or earlobes. Severe frostbite needs immediate medical attention and treatment.
- Impact on agriculture, crop, livestock, water supply, transport and power sector at some places.

Action suggested:

- Wear several layers of loose fitting, light weight; warm woolen clothing.
- Cover your head, neck, hands and toes adequately as majority of heat loss occurs through these body parts. Wear several layers of loose fitting, light weight; warm woolen clothing rather than one layer of heavy cloth.
- Eat vitamin-C rich fruits & vegetable and drink sufficient fluids preferably warm fluids to maintain adequate immunity.
- Avoid or limit outdoor activities.
- Keep dry, if wet, change cloths immediately to prevent loss of body heat. Wear insulated/waterproof shoes.
- Warm the affected area of the body slowly with lukewarm water; do not rub the skin vigorously.
- If the affected skin area turns black, immediately consult a doctor.
- Maintain ventilation while using Heaters to avoid inhaling toxic fumes.
- Take safety measures while using electrical and gas heating devices.
- Extreme care needed for vulnerable people.
- Seek medical attention as soon as possible for someone suffering from frostbite/ Hypothermia.
- Protect livestock from cold weather.

Agromet advisories for Heavy Rainfall / Cold Wave likely over various parts of the country

- Drain out excess water from rice, sugarcane, cotton, turmeric, vegetables, and other standing crop fields, as well as coconut and banana orchards in **Tamil Nadu**.
- Provide adequate drainage facilities for removal of excess water from standing crop fields and fruit orchards in **Andaman & Nicobar Islands**.
- 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.
- In **North-West India, Central India, East India, Telangana, Vidarbha, Marathwada** and **north Madhya Maharashtra**, apply light and frequent irrigation to the standing crops in the evening to protect the crops from low-temperature stress or cold injuries. Use mulching and cover vegetable nurseries and young fruit plants with straw/polythene sheets to maintain optimum soil temperature.

Livestock and Fishery

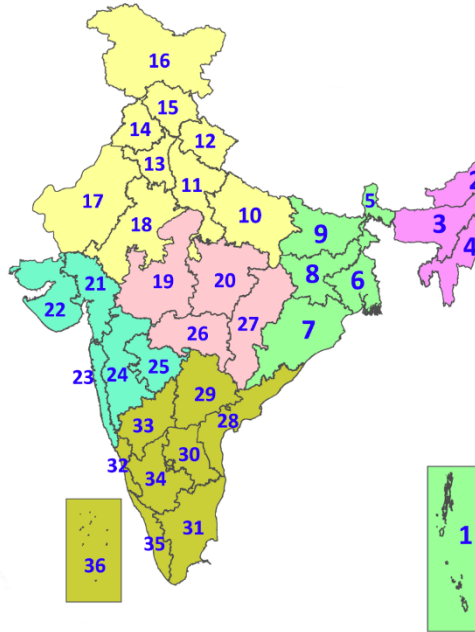
- Keep the animals inside the shed during heavy rainfall and provide balanced feed.
- Store the feed and fodder at safer place to avoid spoilage from rainfall.
- Check and disinfect poultry houses to prevent disease outbreaks due to dampness.
- Check the huts and other weaker structures before relocation of the animals.
- Remove excess water from fish ponds to avoid losses of fish (if feasible).
- To protect from cold, keep cattle inside the sheds during night and provide dry bedding.
- Also keep the chicks warm by providing artificial light in the poultry sheds.

Legends & abbreviations:

- ❖ **Heavy Rain:** 64.5-115.5mm; **Very Heavy Rain:** 115.6-204.4mm; **Extremely Heavy Rain:** >204.4mm.
- ❖ **Obsy:** Observatory; **AWS:** Automatic Weather Station; **ARG:** Automatic Rain Gauge; **dist:** District; **NH:** National Highway; **KVK:** Krishi Vigyan Kendra; **DVC:** Damodar Valley Corporation; **PTO:** Part Time Office, **Aero:** Aerodrome, **IAF:** Indian Air Force.
- ❖ **Region wise classification of meteorological Sub-Divisions:**
 - **Northwest India:** Western Himalayan Region (Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh and Uttarakhand); Punjab, Haryana-Chandigarh-Delhi; West Uttar Pradesh, East Uttar Pradesh, West Rajasthan and East Rajasthan.
 - **Central India:** West Madhya Pradesh, East Madhya Pradesh, Vidarbha and Chhattisgarh.
 - **East India:** Bihar, Jharkhand, Sub-Himalayan West Bengal & Sikkim; Gangetic West Bengal, Odisha and Andaman & Nicobar Islands.
 - **Northeast India:** Arunachal Pradesh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.
 - **West India:** Gujarat Region, Saurashtra & Kutch, Konkan & Goa, Madhya Maharashtra and Marathwada.
 - **South India:** Coastal Andhra Pradesh & Yanam, Telangana, Rayalaseema, Coastal Karnataka, North Interior Karnataka, South Interior Karnataka, Kerala & Mahe, Tamil Nadu, Puducherry & Karaikal and Lakshadweep.

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

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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 $\geq 40^\circ \text{C}$ 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 Storm: Wind speed > 220 kmph (> 119 knots)

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