

National Weather Forecasting Centre India Meteorological Department Ministry of Earth Sciences

Thursday 22 December 2022 NIGHT

Time of Issue: 2100 hours IST

ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

Significant Weather Features

- ♦ Due to moisture and light winds at lower tropospheric levels over Indo-Gangetic plains, **Dense to very dense fog** in many/most pockets very likely over Punjab, Haryana, Chandigarh and Uttar Pradesh in night/morning hours during next 48 hours; Subsequently, **Dense fog** in isolated pockets very likely over Punjab and Haryana & Chandigarh for subsequent 3 days. **Dense Fog** in isolated pockets also very likely over Himachal Pradesh, Uttarakhand, north Rajasthan, Bihar, Sub-Himalayan West Bengal & Sikkim and Tripura in night/morning hours during next 2-3 days.
- ♦ Due to dry north/northwesterly winds from Himalayas over plains of northwest India, **Cold Wave Conditions** very likely in isolated pockets over Punjab, Haryana and north Rajasthan during 24th-26th December; **Cold Day to severe cold day Conditions** also very likely in isolated pockets over Punjab, Haryana and west Uttar Pradesh; Cold Day Condition also very likely in isolated pockets over east Uttar Pradesh during next 2 days.
- ♦ The **Depression** over Southwest and adjoining Southeast Bay of Bengal moved northwestwards with a speed of 07 kmph during past 6 hours and lay centered at 1730 hours IST of today, the 22nd December over southwest Bay of Bengal near latitude 9.8°N and longitude 84.5°E about 380 km east-northeast of Trincomalee (Sri Lanka), 520 km east-southeast of Nagappattinam (Tamil Nadu) and 590 km east-southeast of Chennai (Tamil Nadu). It is likely to continue to move northwestwards for some more time and gradually recurve west-southwestwards from 23rd morning towards Comorin Area across Sri Lanka during subsequent 48 hours.
- ⇒ **Fishermen are advised not to venture into** Southwest Bay of Bengal and along & off Sri Lanka coast during 22nd 25th December; Gulf of Mannar and Comorin Area along & off south Tamil Nadu and west Sri Lanka coasts during 23rd-26th December.
- ⇒ **Heavy rainfall** likely at isolated places over south Coastal Tamil Nadu on 25th & 26th December and over south Kerala on 26th December.

Main Weather Observations

- Rainfall/thundershower observed (from 0830 hours IST to 1730 hours IST of today): at isolated places over Tamil Nadu and Andaman & Nicobar Islands.
- ◆ Chief rainfall amount recorded (from 0830 hours IST to 1730 hours IST of today):(in cm): Car Nicobar-1.
- ♦ Fog observed (at 1730 hours IST of today): Moderate fog in many pockets over Punjab and in isolated pockets over West Rajasthan, Delhi, Bihar and Meghalaya.
- ♦ Visibility recorded (at 1730 hours IST of today)(in meter): Amritsar, Ganganagar, Shillong, Ludhiana, Supaul and Safdarjung-500 each.
- ♦ Cold day to severe cold day conditions prevailed in isolated pockets over Punjab, Haryana and northwest Rajasthan.
- ◆ Cold wave conditions prevailed in isolated pockets over Punjab.
- ♦ Minimum Temperature Departures (as on 22-12-2022): Minimum temperatures are appreciably above normal (3.1°C to 5.0°C) at many places over West Madhya Pradesh; at a few places over Bihar and Arunachal Pradesh; above normal (1.6°C to 3.0°C) at most places over East Rajasthan, Andaman & Nicobar, Assam & Meghalaya and Sub Himalayan West Bengal; at many places over Punjab; at a few places over Gujarat state, Coastal Andhra Pradesh & Yanam and Madhya Maharashtra; at isolated places over East Madhya Pradesh, Vidarbha, Telangana and Tamilnadu, Puducherry & Karaikal. They are below normal (-1.6°C to -3.0°C) at most places over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad, Himachal Pradesh and South Interior Karnataka; at a few places over Rayalaseema; at isolated places over Uttar Pradesh, Gangetic West Bengal, West Rajasthan and Bihar and near normal over rest parts of the country. Today, the lowest minimum temperature of 4.6°C is reported at Bikaner (West Rajasthan) over plains of the country.
- ♦ Maximum Temperature Departures (as on 22-12-2022): Maximum temperatures are appreciably above normal (3.1 °C to 5.1 °C) at many places over Vidarbha; at a few places over East Uttar Pradesh, East Madhya Pradesh, Madhya Maharashtra, Telangana; at isolated places over West Madhya Pradesh, Tamil Nadu, Puducherry & Karaikal; above normal (1.6 °C to 3.0 °C) at most places over Assam & Meghalaya, Marathwada; at many places over Uttarakhand, Chhattisgarh, Coastal Karnataka; at a few places over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad, Himachal Pradesh, Jharkhand, Arunachal Pradesh, Saurashtra & Kutch, Konkan & Goa, Kerala & Mahe; at isolated places over Gujarat Region and Coastal Andhra Pradesh & Yanam. They are markedly below normal (-5.1 °C or less) at many places over Punjab; appreciably below normal (-3.1 °C to -5.1 °C) at most places over Haryana, Chandigarh & Delhi; at a few places over Bihar; at isolated places over West Rajasthan; below normal (-1.6 °C to -3.0 °C) at a few places over West Uttar Pradesh, Sub-Himalayan West Bengal & Sikkim and near normal over rest parts of the country. Today, the highest maximum temperature of 36.2°C is reported at Honavar (Coastal Karnataka) over the country.



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Meteorological Analysis (Based on 1730 hours IST)

- ♦ The **Depression** over Southwest and adjoining Southeast Bay of Bengal moved northwestwards with a speed of 07 kmph during past 6 hours and lay centered at 1730 hours IST of today, the 22nd December over southwest Bay of Bengal near latitude 9.8°N and longitude 84.5°E about 380 km east-northeast of Trincomalee (Sri Lanka), 520 km east-southeast of Nagappattinam (Tamil Nadu) and 590 km east-southeast of Chennai (Tamil Nadu). It is likely to continue to move northwestwards for some more time and gradually recurve west-southwestwards from 23rd morning towards Comorin Area across Sri Lanka during subsequent 48 hours.
- ♦ The Western Disturbance as a trough in lower & middle tropospheric westerlies with its axis at 3.1 km above mean sea level roughly along longitude 63°E to the north of latitude 26°N persists.

Weather Forecast for next 5 days * upto 0830 hours IST of 27th December, 2022

- ♦ Meteorological sub-division wise detailed 5 days precipitation forecast is given in Table-1.
- ♦ No significant change in minimum temperatures likely over East India during next 3 days and rise by 2-3°C thereafter.
- ♦ No significant change in minimum temperatures likely over Madhya Pradesh and Maharashtra during next 2-3 days and fall by 2-3°C thereafter.
- ♦ Fall by 2-4°C in minimum temperatures likely over Gujarat state during next 3 days and no significant change thereafter.
- ♦ Shallow to moderate fog likely at isolated pockets over parts of Assam, Meghalaya, Nagaland, Manipur, Mizoram & Tripura during next 5 days and over Gangetic West Bengal & Odisha during next 2 days.

Weather Outlook for subsequent 2 days during 27th-29th December, 2022

- ♦ Scattered to fairly Widespread light/moderate rainfall over Tamil Nadu & Kerala and isolated to scattered light/moderate rainfall over Coastal Andhra Pradesh, Rayalaseema, Karnataka and Islands.
- ♦ Isolated to scattered light rainfall/snowfall likely over Northeast India.
- ◆ Dry weather likely over rest parts of the country.



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Weather Warning during next 5 days *

- **22 Dec (Day 1): ♦ Cold day to severe cold day conditions** in isolated pockets very likely over Punjab, Haryana and West Uttar Pradesh and **cold day conditions** in isolated pockets over East Uttar Pradesh.
- ♦ Dense to very dense fog in most pockets very likely over Punjab; in many pockets over Haryana, Chandigarh; in some pockets over Uttar Pradesh and dense fog in isolated pockets over Delhi, north Rajasthan, Himachal Pradesh, Uttarakhand, Bihar, Sub-Himalayan West Bengal & Sikkim, Assam & Meghalaya and Tripura.
- ♦ **Squally weather** with speed reaching 45-55 kmph gusting to 65 kmph likely over Southwest Bay of Bengal, along and off Tamil Nadu-Sri Lanka coasts; wind speed reaching 40-50 kmph gusting to 60 kmph over adjoining areas of southeast & westcentral Bay of Bengal. Fishermen are advised not to venture into these areas.
- **23 Dec (Day 2): Cold day to severe cold day conditions** in isolated pockets very likely over Punjab, Haryana and West Uttar Pradesh and **cold day conditions** in isolated pockets over East Uttar Pradesh.
- ♦ Dense to very dense fog in some pockets very likely over Punjab, Haryana, Chandigarh and dense fog in isolated pockets over Delhi, north Rajasthan, Uttar Pradesh, Himachal Pradesh, Uttarakhand, Bihar, Sub-Himalayan West Bengal & Sikkim and Tripura.
- ♦ **Squally weather** with speed reaching 45-55 kmph gusting to 65 kmph likely over Southwest Bay of Bengal, along and off Tamil Nadu-Sri Lanka coasts; wind speed reaching 40-50 kmph gusting to 60 kmph over adjoining areas of southeast & westcentral Bay of Bengal. Fishermen are advised not to venture into these areas.
- **24 Dec (Day 3): ♦ Thunderstorm accompanied with lightning** at isolated places very likely over Tamil Nadu, Puducherry & Karaikal.
- ◆ Cold wave conditions in isolated pockets very likely over Punjab, Haryana and north Rajasthan.
- ♦ Dense fog in isolated pockets very likely over Punjab, Haryana & Chandigarh, Uttar Pradesh, Himachal Pradesh and Uttarakhand.
- ♦ **Squally weather** with speed reaching 45-55 kmph gusting to 65 kmph likely over Southwest Bay of Bengal, along and off Tamil Nadu-Sri Lanka coasts; wind speed reaching 40-50 kmph gusting to 60 kmph over Gulf of Mannar and Comorin Area along & off south Tamil Nadu & west Sri Lanka coasts. Fishermen are advised not to venture into these areas.
- **25 Dec (Day 4): ♦ Heavy rainfall** at isolated places likely over south coastal Tamil Nadu.
- ♦ Thunderstorm accompanied with lightning at isolated places likely over Coastal Andhra Pradesh & Yanam, Kerala & Mahe and Tamil Nadu, Puducherry & Karaikal.
- ◆ **Cold wave conditions** in isolated pockets likely over Punjab, Haryana and north Rajasthan.
- ♦ **Dense fog** in isolated pockets likely over Punjab and Haryana & Chandigarh.
- ♦ **Squally weather** with speed reaching 45-55 kmph gusting to 65 kmph likely over Gulf of Mannar and Comorin Area along & off south Tamil Nadu & west Sri Lanka coasts. Fishermen are advised not to venture into these areas.
- **26 Dec (Day 5): ♦ Heavy rainfall** at isolated places likely over south coastal Tamil Nadu and south Kerala.
- ♦ **Thunderstorm accompanied with lightning** at isolated places likely over Kerala & Mahe and Tamil Nadu, Puducherry & Karaikal.
- ◆ Cold wave conditions in isolated pockets likely over Punjab, Haryana and north Rajasthan.
- ♦ **Dense fog** in isolated pockets likely over Punjab and Haryana & Chandigarh.
- ♦ **Squally weather** with speed reaching 45-55 kmph gusting to 65 kmph likely over Gulf of Mannar and Comorin Area along & off south Tamil Nadu & west Sri Lanka coasts. Fishermen are advised not to venture into these areas.

Kindly download MAUSAM APP for location specific forecast & warning, MEGHDOOT APP for Agromet advisory and DAMINI APP for Lightning Warning & visit state MC/RMC websites for district wise warning.



Table-1

5 Day Rainfall Forecast (NIGHT)

22-December-2022

Met-Sub-Division	22-Dec Today	23Dec Fri	24Dec Sat	25Dec Sun	26Dec Mon
1. Andaman & Nicobar Islands	ISOL	ISOL	ISOL	ISOL	ISOL
2. Arunachal Pradesh	ISOL	ISOL	SCT	SCT	FWS
3. Assam & Meghalaya	DRY	DRY	ISOL	ISOL	SCT
4. N. M. M. & T.	DRY	DRY	DRY	ISOL	ISOL
5. S.H. West Bengal & Sikkim	DRY	DRY	ISOL	ISOL	ISOL
6. Gangetic West Bengal	DRY	DRY	DRY	DRY	DRY
7. Odisha	DRY	DRY	DRY	DRY	DRY
8. Jharkhand	DRY	DRY	DRY	DRY	DRY
9. Bihar	DRY	DRY	DRY	DRY	DRY
10. East Uttar Pradesh	DRY	DRY	DRY	DRY	DRY
11. West Uttar Pradesh	DRY	DRY	DRY	DRY	DRY
12. Uttarakhand	DRY	DRY	DRY	ISOL	ISOL
13. Haryana, Chd & Delhi	DRY	DRY	DRY	DRY	DRY
14. Punjab	DRY	DRY	DRY	DRY	DRY
15. Himachal Pradesh	DRY	DRY	DRY	ISOL	ISOL
16. J & K and Ladakh	DRY	DRY	DRY	ISOL	ISOL
17. West Rajsthan	DRY	DRY	DRY	DRY	DRY
18. East Rajasthan	DRY	DRY	DRY	DRY	DRY
19. West Madhya Pradesh	DRY	DRY	DRY	DRY	DRY
20. East Madhya Pradesh	DRY	DRY	DRY	DRY	DRY
21. Gujarat Region	DRY	DRY	DRY	DRY	DRY
22. Saurashtra & Kutch	DRY	DRY	DRY	DRY	DRY
23. Konkan & Goa	DRY	DRY	DRY	DRY	DRY
24. Madhya Maharashtra	DRY	DRY	DRY	DRY	DRY
25. Marathawada	DRY	DRY	DRY	DRY	DRY
26. Vidharbha	DRY	DRY	DRY	DRY	DRY
27. Chhattisgarh	DRY	DRY	DRY	DRY	DRY
28. Coastal A. P. & Yanam	DRY	ISOL	ISOL	ISOL	ISOL
29. Telangana	DRY	DRY	DRY	DRY	DRY
30. Rayalaseema	DRY	DRY	DRY	ISOL	ISOL
31. T.N., Puducherry & Karaikal	ISOL	ISOL	ISOL	SCT	SCT
32. Coastal Karnataka	DRY	DRY	DRY	DRY	DRY
33. North Interior Karnataka	DRY	DRY	DRY	DRY	DRY
34. South Interior Karnataka	DRY	DRY	DRY	DRY	ISOL
35. Kerala & Mahe	ISOL	DRY	ISOL	SCT	SCT
36. Lakshadweep	DRY	DRY	DRY	SCT	SCT

% Station Reporting Rainfall

% Stations	Category	% Stations	Category
76-100		26-50	Scattered (SCT/ A Few Places)
51-75	Fairly Widespred (FWS/ Many Places)	1-25	Isolated (ISOL)
No Rain	Dry		



Fig. 1: Accumulated Rainfall (mm) during past 24 hours

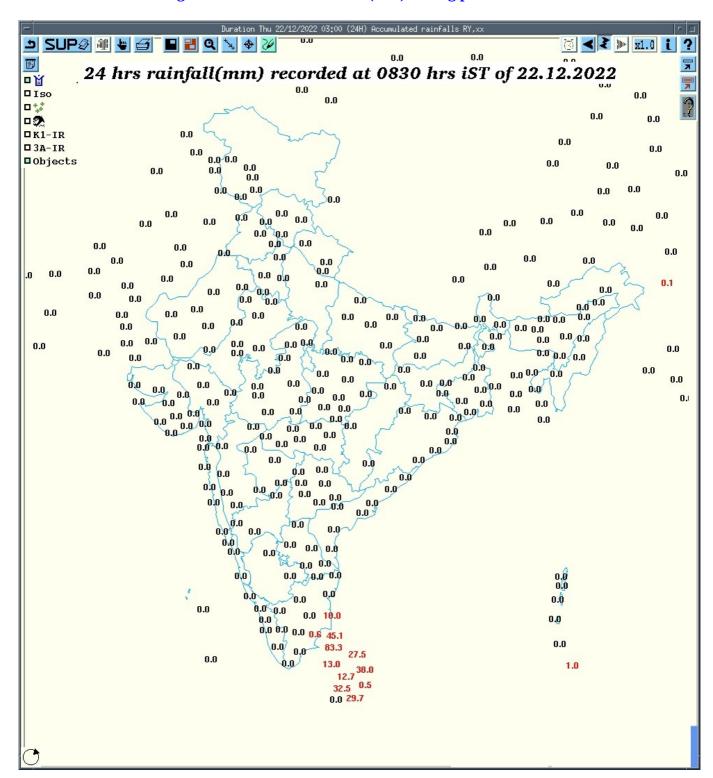




Fig. 2: Maximum Temperature during past 24 hours

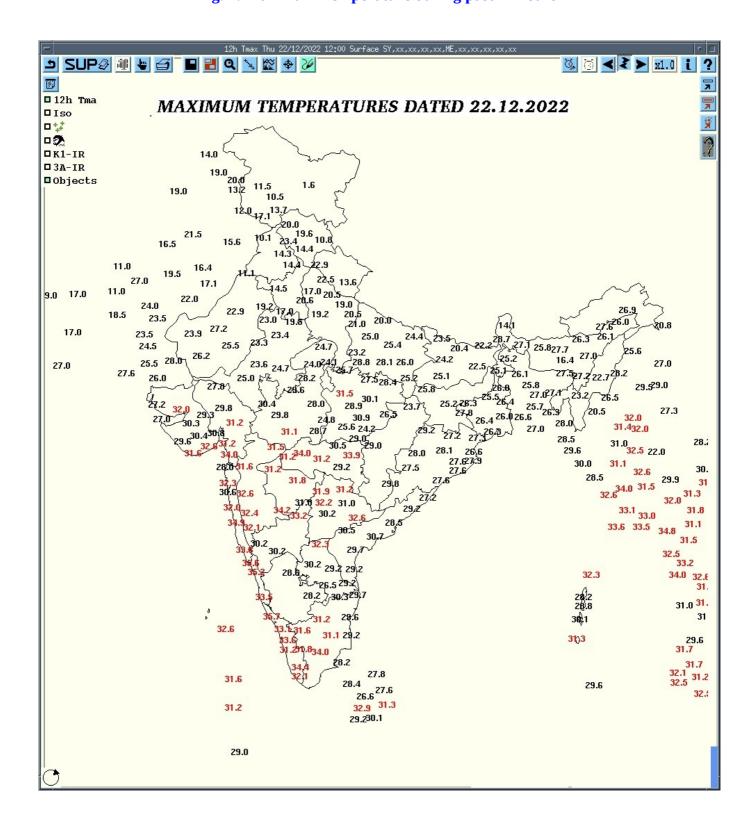




Fig. 3: Minimum Temperature during past 24 hours

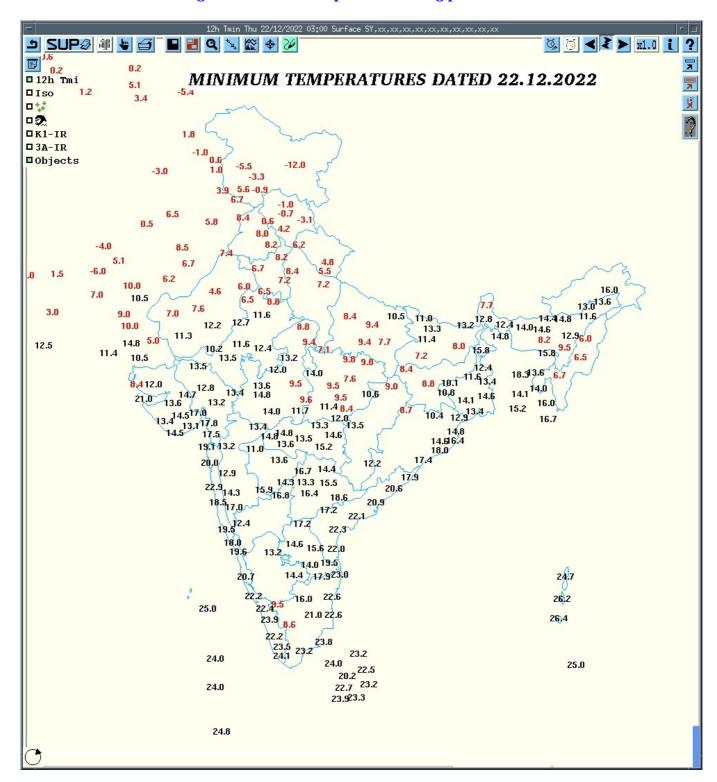




Fig. 4: Departure from Normal of Maximum Temperatures

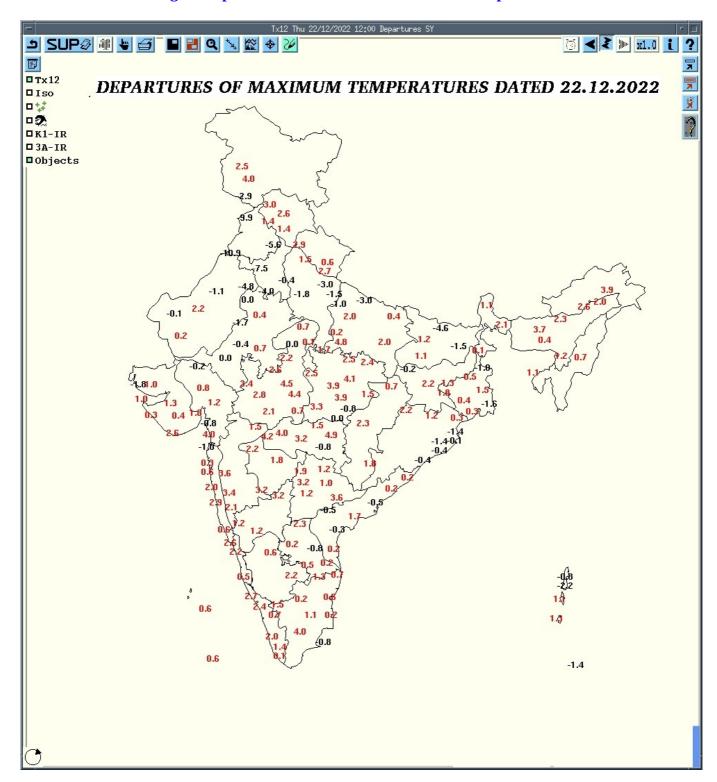
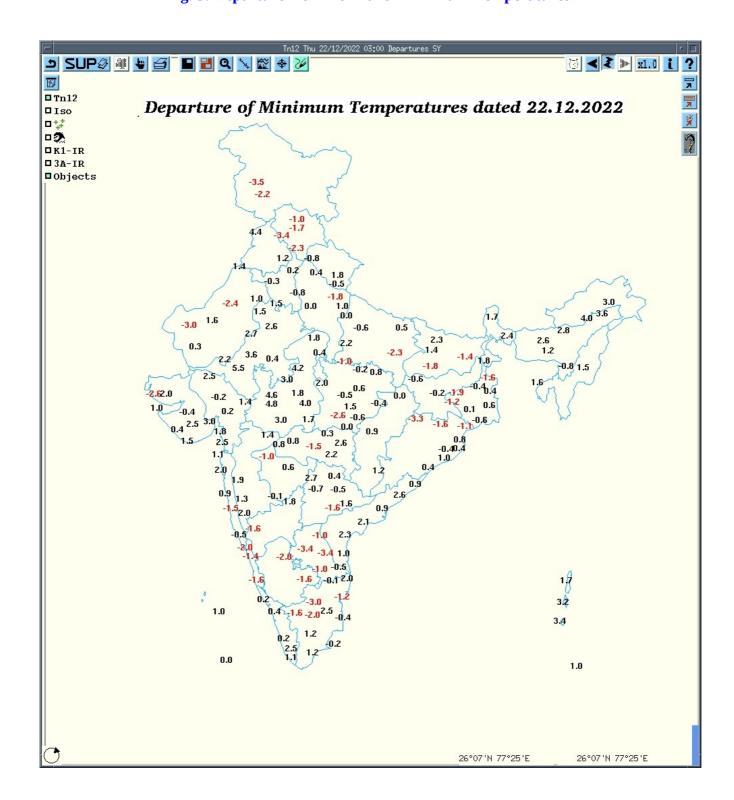


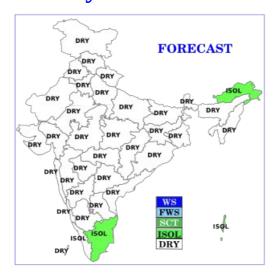


Fig. 5: Departure from Normal of Minimum Temperatures





Thursday 22 December 2022



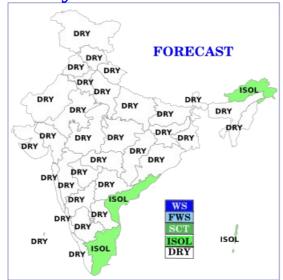


22 Dec (Day 1): ♦ Cold day to severe cold day conditions in isolated pockets very likely over Punjab, Haryana and West Uttar Pradesh and **cold day conditions** in isolated pockets over East Uttar Pradesh.

- ♦ Dense to very dense fog in most pockets very likely over Punjab; in many pockets over Haryana, Chandigarh; in some pockets over Uttar Pradesh and dense fog in isolated pockets over Delhi, north Rajasthan, Himachal Pradesh, Uttarakhand, Bihar, Sub-Himalayan West Bengal & Sikkim, Assam & Meghalaya and Tripura.
- ♦ **Squally weather** with speed reaching 45-55 kmph gusting to 65 kmph likely over Southwest Bay of Bengal, along and off Tamil Nadu-Sri Lanka coasts; wind speed reaching 40-50 kmph gusting to 60 kmph over adjoining areas of southeast & westcentral Bay of Bengal. Fishermen are advised not to venture into these areas.



Friday 23 December 2022

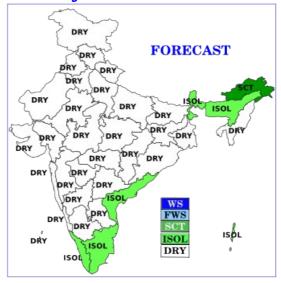




- **23 Dec (Day 2): ◆ Cold day to severe cold day conditions** in isolated pockets very likely over Punjab, Haryana and West Uttar Pradesh and **cold day conditions** in isolated pockets over East Uttar Pradesh.
- ♦ Dense to very dense fog in some pockets very likely over Punjab, Haryana, Chandigarh and dense fog in isolated pockets over Delhi, north Rajasthan, Uttar Pradesh, Himachal Pradesh, Uttarakhand, Bihar, Sub-Himalayan West Bengal & Sikkim and Tripura.
- ◆ **Squally weather** with speed reaching 45-55 kmph gusting to 65 kmph likely over Southwest Bay of Bengal, along and off Tamil Nadu-Sri Lanka coasts; wind speed reaching 40-50 kmph gusting to 60 kmph over adjoining areas of southeast & westcentral Bay of Bengal. Fishermen are advised not to venture into these areas.



Saturday 24 December 2022





24 Dec (Day 3): ♦ Thunderstorm accompanied with lightning at isolated places very likely over Tamil Nadu, Puducherry & Karaikal.

- ♦ **Cold wave conditions** in isolated pockets very likely over Punjab, Haryana and north Rajasthan.
- ♦ Dense fog in isolated pockets very likely over Punjab, Haryana & Chandigarh, Uttar Pradesh, Himachal Pradesh and Uttarakhand.
- ♦ **Squally weather** with speed reaching 45-55 kmph gusting to 65 kmph likely over Southwest Bay of Bengal, along and off Tamil Nadu-Sri Lanka coasts; wind speed reaching 40-50 kmph gusting to 60 kmph over Gulf of Mannar and Comorin Area along & off south Tamil Nadu & west Sri Lanka coasts. Fishermen are advised not to venture into these areas.



Sunday 25 December 2022



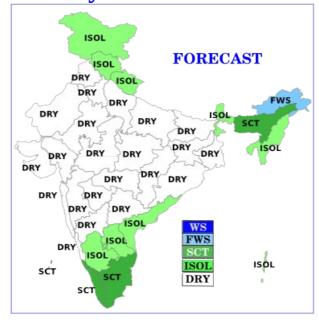


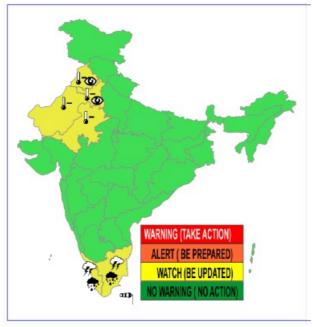
25 Dec (Day 4): ♦ Heavy rainfall at isolated places likely over south coastal Tamil Nadu.

- ♦ **Thunderstorm accompanied with lightning** at isolated places likely over Coastal Andhra Pradesh & Yanam, Kerala & Mahe and Tamil Nadu, Puducherry & Karaikal.
- ♦ **Cold wave conditions** in isolated pockets likely over Punjab, Haryana and north Rajasthan.
- ♦ **Dense fog** in isolated pockets likely over Punjab and Haryana & Chandigarh.
- **Squally weather** with speed reaching 45-55 kmph gusting to 65 kmph likely over Gulf of Mannar and Comorin Area along & off south Tamil Nadu & west Sri Lanka coasts. Fishermen are advised not to venture into these areas.



Monday 26 December 2022



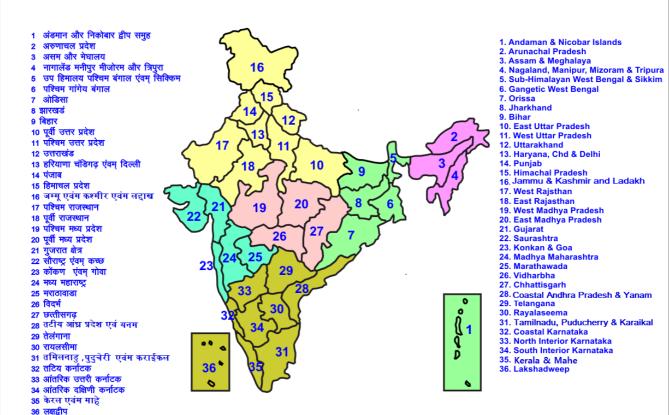


26 Dec (Day 5): ♦ Heavy rainfall at isolated places likely over south coastal Tamil Nadu and south Kerala.

- ♦ **Thunderstorm accompanied with lightning** at isolated places likely over Kerala & Mahe and Tamil Nadu, Puducherry & Karaikal.
- ♦ **Cold wave conditions** in isolated pockets likely over Punjab, Haryana and north Rajasthan.
- ♦ **Dense fog** in isolated pockets likely over Punjab and Haryana & Chandigarh.
- ♦ **Squally weather** with speed reaching 45-55 kmph gusting to 65 kmph likely over Gulf of Mannar and Comorin Area along & off south Tamil Nadu & west Sri Lanka coasts. Fishermen are advised not to venture into these areas.



LEGENDS



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 Widespred (FWS/ Many Places)	1-25	Isolated (ISOL)

WARNING

WARNING (TAKE ACTION) ALERT (BE PREPARED) WATCH (BE UPDATED)

NO WARNING (NO ACTION)

Probabilistic Forecast

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



Heavy Rain



Heavy Snow



77 Thunderstorm



Dust Storm



Strong Winds



Visibility



Cyclone





Squall/ Hail



Sea State





LEGENDS Probabilistic Forecast WARNING **WARNING (TAKE ACTION)** Probability of Occurrence (%) ALERT (BE PREPARED) WATCH (BE UPDATED) Very Likely Most Likely NO WARNING (NO ACTION > 75 Heavy: 64.5 to 115.5 mm/cm * Very Heavy: 115.6 to 204.4 mm/cm* Rain/ Snow * Extremely Heavy: > 204.4 mm/cm When maximum temperature of a station reaches ≥40° C for plains and ≥30° C for hilly regions (a) Based on Departure from normal Heat Wave: 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** Heat Wave: When actual maximum temperature ≥45°C. Severe Heat Wave: When actual maximum temperature ≥47°C (c). Criteria for heat wave for coastal stations When maximum temperature departure is >4.5°C from normal. Heat Wave may be described provided maximum temperature ≥37°C When maximum temperature remains 40°C J+ Warm Night Warm Night: When minimum temperature departure 4.5 °C to 6.4 °C. Severe Warm Night: When minimum temperature departure >6.4 °C. When minimum temperature of a station ≤10°C for plains and ≤0°C for hilly regions. (a). Based on departure Cold Wave: Minimum Temperature Departure from normal -4.5 °C to -6.4 °C. Severe Cold Wave: Minimum Temperature Departure from normal ≥ -6.5 °C (b) Based on actual Minimum Temperature (for Plains only) **Cold Wave** 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 or actual Minimum Temperature is ≤ 15 °C When minimum temperature of a station ≤10°C for plains and ≤0°C for hilly regions Based on departure Cold Day: Maximum Temperature Departure from normal -4.5 °C to -6.4 °C. **Cold Day** Severe Cold Day: Maximum Temperature Departure from normal ≤ -6.5 °C Phenomenon of small droplets suspended in air and the horizontal visibility < 1km Moderate Fog: When the visibility between 500-200 metres 0 Dense Fog: when the visibility between 50- 200 metres Fog Very Dense Fog: when the visibility < 50 metres 44 Sudden electrical discharges manifested by a flash of light (Lightning) and a sharp rumbling sound (thunder) Thunderstorm An ensemble of particles of dust or sand energetically lifted to great heights by a strong and Dust/Sand Storm turbulent wind. Ice deposits on ground 55 Air temperature ≤4°C (over Plains) **Frost** A strong wind that rises suddenly, lasts for atleast 1 minute. Moderate: Wind speed 52-61 kmph 4 Severe: Wind speed 62-87 kmph Squall Very Severe: Wind speed >87 kmph Effect of various waves in the sea over specific area Rough to very rough: Wind speed 41-62 kmph (22-33 knots) & Wave height 2.5-6 metre High to very high: Wind speed 63-117 kmph (34-63 knots) & Wave height 6-14 metre **Sea State** Phenomenal: Wind speed >117 kmph (>63 knots) & Wave height >14 metre Cyclonic Storm: Wind speed 62-87 kmph (34-47 knots) Severe Cyclonic Storm: Wind speed 88-117 kmph (48-63 knots) 9 Very Severe Cyclonic Storm: Wind speed 118-165 kmph (64 - 89 knots) Extremely Severe Cyclonic Storm: Wind speed 166-220 kmph (90 -119 knots) Cyclone Super Cyclone Strom: Wind speed >220 kmph (>119 knots)