

National Weather Forecasting Centre India Meteorological Department Ministry of Earth Sciences

Monday 03 January 2022 MID-DAY

Time of Issue: 1330 hours IST

ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

Significant Weather Features

- ♦ Two consecutive active Western Disturbances (03-05 January 2022 and 06-09 January 2022) very likely to affect Northwest & adjoining central India during next 7 days.
- ▶ A Western Disturbance as a trough in westerlies in middle tropospheric levels runs roughly along Long. 50°E to the north of Lat. 30°N. Under its influence, an induced cyclonic circulation very likely to form over West Rajasthan & neighbourhood on 05th January, 2022. In addition high moisture feeding from Arabian Sea is very likely over northwest India mainly on 04th & 05th January, 2022. Under its influence:
- i) Fairly widespread to widespread light/moderate rainfall/snowfall very likely over Western Himalayan Region during 03rd to 05th January. Isolated heavy rainfall/snowfall very likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad on 04th & and isolated heavy to very heavy on 05th January; and isolated heavy rainfall/snowfall also likely over Himachal Pradesh & Uttarakhand on 05th January.
- ii) Isolated **Hailstorm** very likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad and Himachal Pradesh on 04th and over Uttarakhand on 05th January, 2022.
- iii) Scattered to fairly widespread light/moderate rainfall very likely over Punjab, Haryana, Chandigarh & Delhi, north Rajasthan, West Uttar Pradesh and West Madhya Pradesh during 04th to 06th January.
- iv) Isolated heavy rainfall is very likely over Punjab on 05th January.
- v) Isolated thunderstorm activity accompanied with Hailstorm very likely over over Punjab, Haryana and Rajasthan on 05th January.
- ▶ Thereafter, another intense Western Disturbance is very likely to affect Northwest India from the night of 06th January onwards. Under its influence, an induced cyclonic circulation very likely to form over southwest Rajasthan & neighbourhood on 07th January, 2022. High moisture feeding from Arabian Sea is also very likely over northwest India mainly on 07th & 08th January, 2022. Under its influence:
- i) Scattered rainfall/snowfall very likely over Western Himalayan Region on 6th January. Its intensity & distribution is very likely to increase thereafter with fairly widespread to widespread light/moderate rainfall/snowfall over the region during 07-09 January (with its peak intensity on 07th & 08th). Isolated heavy rainfall/snowfall likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad on 07th & 08th and over Himachal Pradesh & Uttarakhand on 08th January.
- ii) Scattered to fairly widespread light/moderate rainfall/thunderstorm over plains of northwest & adjoining central India during 07-09 January with isolated hailstorm likely over Punjab, Haryana, Rajasthan Uttar Pradesh and West Madhya Pradesh on 07th & 08th January.
- ♦ No Cold Wave Conditions likely over North India during next 7 days.

Main Weather Observations

- Rainfall/thundershower observed (from 0830 hours IST of yesterday to 0830 hours IST of today): at a few places over Andaman & Nicobar Islands and at isolated places over Tamil Nadu, Puducherry & Karaikal.
- Significant amount of Rainfall (from 0830 hours IST of yesterday to 0830 hours IST of today)(3 cm or more): Tamilnadu, Puducherry & Karaikal: Ramanathapuram: Rameswaram-10, Pamban, Mandapam-5 each; Tirunelveli: Manimutharu-4, Papanasam-3.
- ♦ Heavy rainfall observed at isolated places over Tamil Nadu, Puducherry & Karaikal.
- ◆ Fog observed (at 0830 hours IST of today): Dense to very dense fog is reported at many pockets of East Uttar Pradesh; Shallow to Moderate fog at many places over Delhi, Bihar, Sub-Himalayan West Bengal and Nagaland, Manipur, Mizoram and Tripura and at isolated pockets over West Uttar Pradesh, Punjab, north Madhya Pradesh, Jharkhand and Assam & Meghalaya.
- ♦ Visibility recorded (at 0830 hours IST of today)(200m or less):Bahraich, Sultanpur, Varanasi(Babatpur)-25 each; Bahraich-50; Safdarjung(Delhi), Varanasi, Daltonganj, Cooch Behar, Dhubri, Agartala, Kailashahar, Imphal-200.
- ♦ Minimum Temperature Departures (as on 03-01-2022): Minimum temperatures are markedly above normal (5.1°C or more) at a few places over Saurashtra & Kutch; appreciably above normal (3.1°C to 5.0°C) at most places over Gujarat Region; at many places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad and Madhya Maharshtra; at a few places over Konkan & Goa and Coastal Karnataka and at isolated places over Kerala & Mahe, Tamilnadu Puducherry & Karaikal, West Madhya Pradesh and East Rajasthan; above normal (1.6°C to 3.0°C) at many places over Andaman & Nicobar Islands, Vidarbha, Rayalaseema and Marathwada; at a few places over Himachal Pradesh, West Rajasthan, Sub-Himalayan West Bengal & Sikkim, Telangana and Coastal Andhra Pradesh & Yanam and isolated places over Odisha, North Interior Karnataka and East Madhya Pradesh. They are below normal (-1.6°C to -3.1°C) at many places over Haryana, Chandigarh & Delhi and isolated places over Uttar Pradesh, Gangetic West Bengal and and near normal over rest parts of the country. Today, the Lowest minimum temperature 3.4°C is reported at Churu (West Rajasthan) over the plains of the country.
- ♦ Maximum Temperature Departures (as on 02-01-2022): Maximum temperatures were markedly above normal (5.1°C or more) at isolated places over Himachal Pradesh; appreciably above normal (3.1°C to 5.0°C) at isolated places over Assam & Meghalaya and Arunachal Pradesh; above normal (1.6°C to 3.0°C) at most places over Uttarakhand and Coastal Karnataka; at many places over Konkan & Goa and Kerala & Mahe; at a few places over Saurashtra & Kutch, Nagaland, Manipur, Mizoram and Tripura and Sub-Himalayan West Bengal & Sikkim; at isolated places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Gujarat Region, Coastal Andhra Pradesh & Yanam and Andaman & Nicobar Islands. They were appreciably below normal (-3.1°C to -5.0°C) at many places over Bihar; at isolated places over East Uttar Pradesh, Gangetic West Bengal and Tamilnadu, Puducherry & Karaikal; below normal (-1.6°C to -3.0°C) at many places over East Madhya Pradesh and Jharkhand and at isolated places over Odisha and near normal at rest parts of the country. Yesterday, the highest maximum temperature of 36.1°C was reported at Mangalore(Coastal Karnataka).



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Meteorological Analysis (Based on 0830 hours IST)

- ♦ The Western Disturbance as a trough in westerlies in lower & middle tropospheric levels with its axis at 5.8 km above mean sea level roughly along Long.50°E to the north of Lat.30°N persists. Under its influence, an induced cyclonic circulation very likely to form over West Rajasthan & neighbourhood on 05th January, 2022.
- ♦ The cyclonic circulation over east Bangladesh & neighbourhood persists and now seen between 1.5 km & 2.1 km above mean sea level.
- ♦ An intense Western Disturbance is very likely to affect Northwest India from the night of 06th January, 2022 onwards. Under its influence, an induced cyclonic circulation very likely to form over southwest Rajasthan & neighbourhood on 07th January, 2022.
- ◆ The cyclonic circulation over southwest Bay of Bengal off Sri Lanka coast at 3.6 km above mean sea level has become less marked.
- ♦ The cyclonic circulation over Southwest Rajasthan & neighbourhood at 1.5 km above mean sea level has become less marked.

Weather Forecast for next 5 days * upto 0830 hours IST of 08th January, 2022

- ♦ Meteorological sub-division wise detailed 5 days precipitation forecast is given in Table-1.
- ◆ Gradual rise in minimum temperatures by 3-5°C over Northwest and Central India during next 3 days.
- No significant change in minimum temperatures over Maharashtra & Gujarat during next 24 hours and gradual rise by 2-3°C thereafter.
- ♦ No significant change in minimum temperatures over East India during next 3 days and rise by 2-3°C thereafter.
- ◆ No significant change in minimum temperatures over rest parts of the country during next 5 days.

Weather Outlook for subsequent 2 days During 08th - 10th January, 2022

- ♦ Under the influence of another active Western Disturbance and its induced system during 07th-09th January, rainfall/snowfall activity likely increase over Western Himalayan Region during 07th-09th January (with possibility of isolated heavy falls on 08th January) and scattered to fairly widespread light to moderate rainfall/Thunderstorm over plains of northwest and adjoining central India during 07th-09th January with isolated heavy rains & hailstorm likely over Rajasthan and adjoining areas of West Madhya Pradesh on 08th and over Punjab, Haryana, Uttar Pradesh and Madhya Pradesh on 09th January.
- ♦ Scattered light rainfall likely over Andaman & Nicobar Islands.
- ♦ Mainly dry weather likely over remaining parts of the country.



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Weather Warning during next 5 days *

- **03 January (Day 1): ♦ Dense to very dense fog** in isolated pockets very likely over Uttar Pradesh and **dense fog** in isolated pockets over Assam & Meghalaya and Tripura.
- ♦ **Thunderstorm** accompanied with **lightning** at isolated places very likely over Arunachal Pradesh, west Assam & Meghalaya and Nagaland.
- ♦ **Strong winds** (speed 40-50 kmph gusting to 60 kmph) very likely over Gulf of Mannar and Comorin area. Fishermen are advised not to venture into this area.
- **04 January (Day 2):** ♦ **Dense to very dense fog** in isolated pockets very likely over East Uttar Pradesh and **dense fog** in isolated pockets over Assam & Meghalaya and Tripura.
- ♦ Heavy rainfall/snowfall at isolated places very likely over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad.
- ♦ **Thunderstorm** accompanied with **lightning & hail** at isolated places very likely over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad and Himachal Pradesh.
- ♦ **Strong winds** (speed 40-50 kmph gusting to 60 kmph) very likely over Gulf of Mannar and Comorin area. Fishermen are advised not to venture into this area.
- **05** January (Day 3): ♦ Heavy to very heavy rainfall/snowfall at isolated places very likely over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad; heavy rainfall/snowfall at isolated places over Himachal Pradesh, Uttarakhand and heavy rainfall at isolated places over north Punjab.
- ♦ Thunderstorm accompanied with lightning & hail at isolated places very likely over Uttarakhand, Haryana, Chandigarh & Delhi, Punjab and Rajasthan and with lightning at isolated places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Himachal Pradesh, West Uttar Pradesh and West Madhya Pradesh.
- **06 January (Day 4):♦ Thunderstorm** accompanied with **lightning & hail** at isolated places likely over West Madhya Pradesh and with **lightning** at isolated places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, East Madhya Pradesh and Gujarat State.
- **07 January (Day 5): ♦ Heavy rainfall/snowfall** at isolated places likely over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad.
- ♦ Thunderstorm accompanied with lightning & hail at isolated places likely over Rajasthan and Madhya Pradesh with lightning at isolated places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Haryana, Chandigarh & Delhi, Punjab and West Uttar Pradesh.

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 (MID-DAY)

03-January-2022

Met-Sub-Division	03-Jan Today	04Jan Tue	05Jan Wed	06Jan Thu	07Jan Fri
1. Andaman & Nicobar Islands	ISOL	SCT	SCT	ISOL	ISOL
2. Arunachal Pradesh	SCT	ISOL	DRY	DRY	DRY
3. Assam & Meghalaya	ISOL	DRY	DRY	DRY	DRY
4. N. M. M. & T.	ISOL	DRY	DRY	DRY	DRY
5. S.H. West Bengal & Sikkim	ISOL	DRY	DRY	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	ISOL	ISOL	SCT
11. West Uttar Pradesh	DRY	DRY	SCT	ISOL	SCT
12. Uttarakhand	DRY	SCT	WS	SCT	FWS
13. Haryana, Chd & Delhi	DRY	ISOL	FWS	SCT	FWS
14. Punjab	ISOL	SCT	WS	SCT	FWS
15. Himachal Pradesh	SCT	FWS	WS	SCT	FWS
16. J & K and Ladakh	FWS	WS	WS	SCT	FWS
17. West Rajsthan	DRY	ISOL	FWS	ISOL	FWS
18. East Rajasthan	DRY	ISOL	FWS	SCT	FWS
19. West Madhya Pradesh	DRY	DRY	ISOL	SCT	SCT
20. East Madhya Pradesh	DRY	DRY	DRY	ISOL	SCT
21. Gujarat Region	DRY	DRY	ISOL	SCT	SCT
22. Saurashtra & Kutch	DRY	DRY	ISOL	SCT	SCT
23. Konkan & Goa	DRY	DRY	DRY	DRY	DRY
24. Madhya Maharashtra	DRY	DRY	DRY	ISOL	ISOL
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	ISOL	DRY	DRY	DRY	DRY
29. Telangana	DRY	DRY	DRY	DRY	DRY
30. Rayalaseema	DRY	DRY	DRY	DRY	DRY
31. T.N., Puducherry & Karaikal	ISOL	DRY	DRY	ISOL	ISOL
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	DRY
35. Kerala & Mahe	DRY	DRY	DRY	DRY	DRY
36. Lakshadweep	DRY	DRY	DRY	DRY	DRY

% Station Reporting Rainfall

70 Station reporting random					
% 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

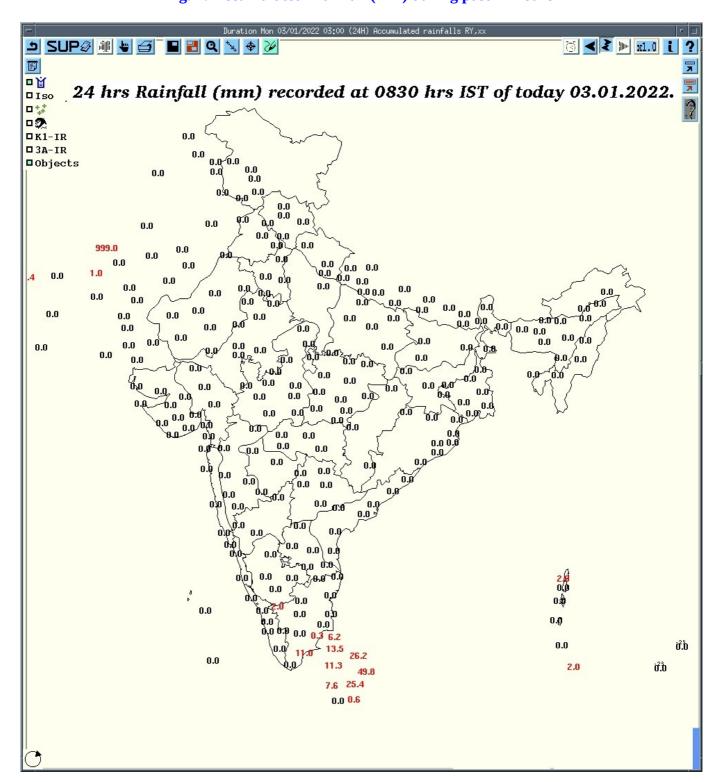




Fig. 2: Maximum Temperature during past 24 hours

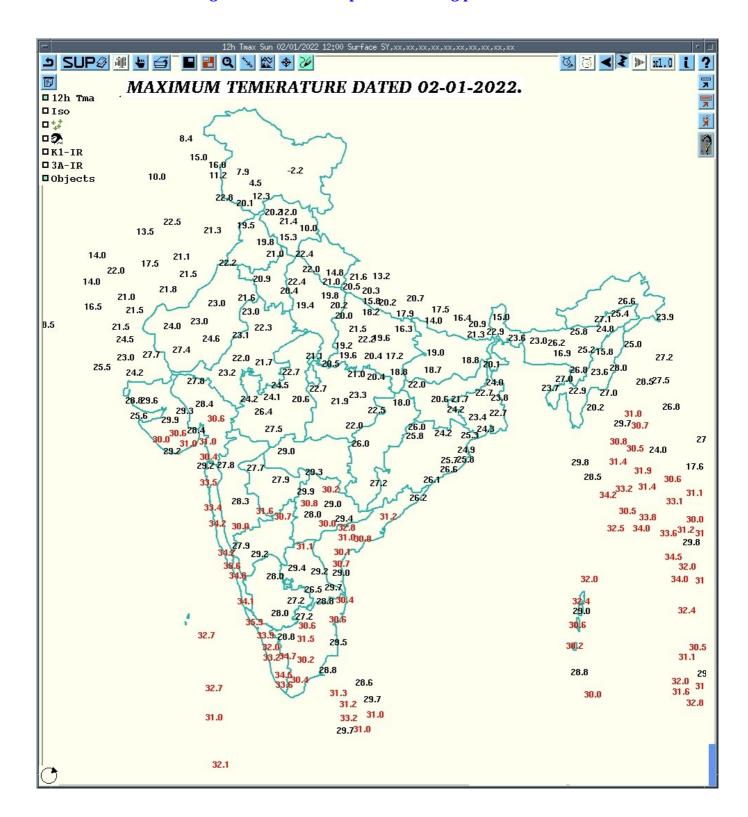




Fig. 3: Minimum Temperature during past 24 hours

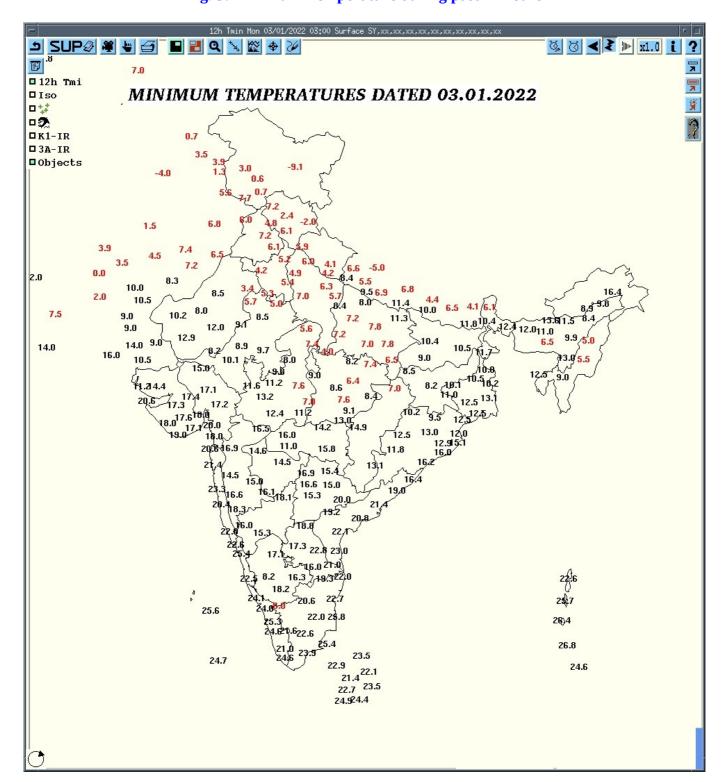




Fig. 4: Departure from Normal of Maximum Temperatures

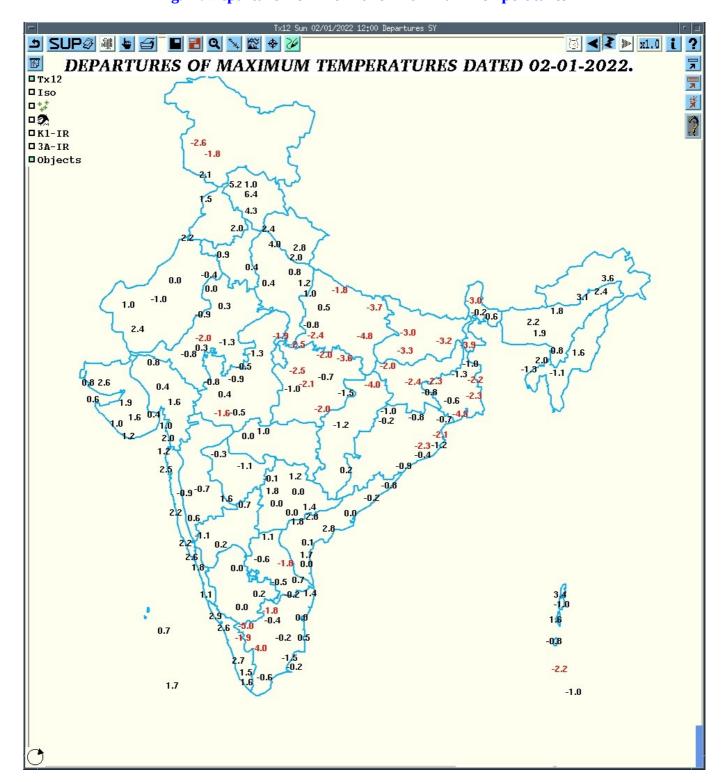
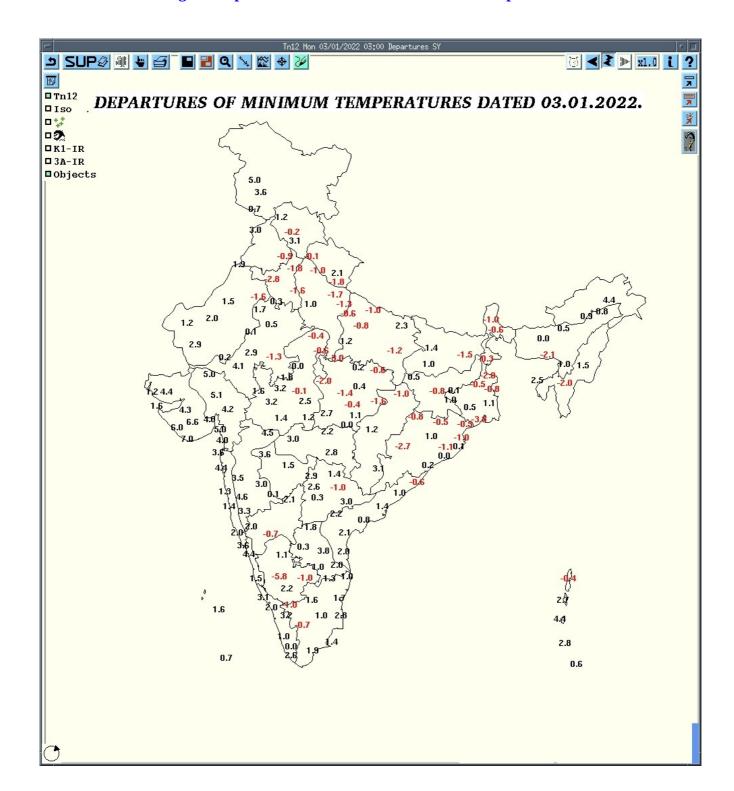


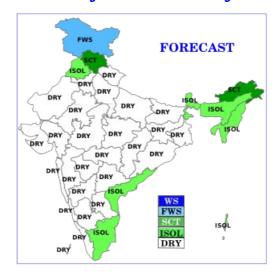


Fig. 5: Departure from Normal of Minimum Temperatures





Monday 03 January 2022

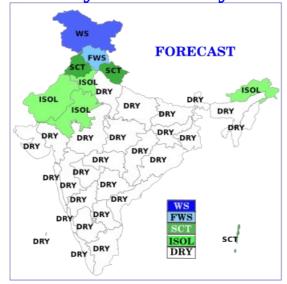




- **03 January (Day 1): ♦ Dense to very dense fog** in isolated pockets very likely over Uttar Pradesh and **dense fog** in isolated pockets over Assam & Meghalaya and Tripura.
- ♦ **Thunderstorm** accompanied with **lightning** at isolated places very likely over Arunachal Pradesh, west Assam & Meghalaya and Nagaland.
- ♦ **Strong winds** (speed 40-50 kmph gusting to 60 kmph) very likely over Gulf of Mannar and Comorin area. Fishermen are advised not to venture into this area.



Tuesday 04 January 2022



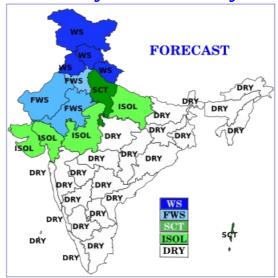


04 January (Day 2): ♦ **Dense to very dense fog** in isolated pockets very likely over East Uttar Pradesh and **dense fog** in isolated pockets over Assam & Meghalaya and Tripura.

- ♦ Heavy rainfall/snowfall at isolated places very likely over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad.
- ♦ **Thunderstorm** accompanied with **lightning & hail** at isolated places very likely over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad and Himachal Pradesh.
- ♦ **Strong winds** (speed 40-50 kmph gusting to 60 kmph) very likely over Gulf of Mannar and Comorin area. Fishermen are advised not to venture into this area.



Wednesday 05 January 2022



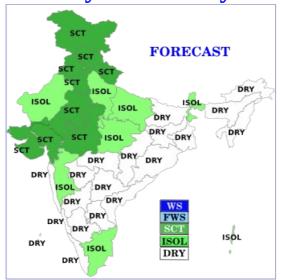


05 January (Day 3): ♦ **Heavy to very heavy rainfall/snowfall** at isolated places very likely over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad; **heavy rainfall/snowfall** at isolated places over Himachal Pradesh, Uttarakhand and **heavy rainfall** at isolated places over north Punjab.

♦ Thunderstorm accompanied with lightning & hail at isolated places very likely over Uttarakhand, Haryana, Chandigarh & Delhi, Punjab and Rajasthan and with lightning at isolated places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Himachal Pradesh, West Uttar Pradesh and West Madhya Pradesh.



Thursday 06 January 2022

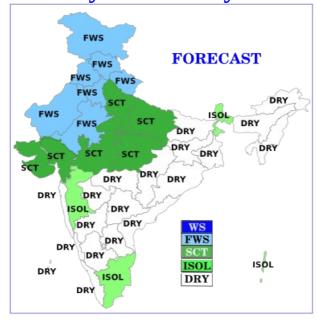




06 January (Day 4):♦ Thunderstorm accompanied with **lightning & hail** at isolated places likely over West Madhya Pradesh and with **lightning** at isolated places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, East Madhya Pradesh and Gujarat State.



Friday 07 January 2022



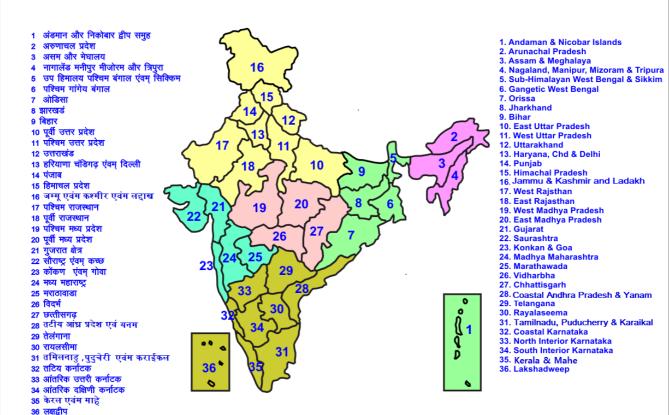


07 January (Day 5): ♦ Heavy rainfall/snowfall at isolated places likely over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad.

♦ Thunderstorm accompanied with lightning & hail at isolated places likely over Rajasthan and Madhya Pradesh with lightning at isolated places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Haryana, Chandigarh & Delhi, Punjab and West Uttar Pradesh.



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)