

National Weather Forecasting Centre India Meteorological Department Ministry of Earth Sciences

Tuesday 12 January 2021 <u>MID-DAY</u>

Time of Issue: 1245 hours IST

ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

Significant Weather Features

- ♦ Under the influence of the cyclonic circulation over Comorin area & neighbourhood in lower tropospheric levels, fairly widespread to widespread rainfall with isolated **heavy falls** and moderate thunderstorm & lightning very likely over Tamil Nadu Puducherry & Karaikal, Kerala & Mahe and Lakshadweep during next 2-3 days and significant decrease in rainfall activity over these regions thereafter. **Isolated heavy to very heavy rainfall** very likely over Tamil Nadu, Puducherry & Karaikal on 12th & 13th and over Kerala & Mahe on 12th January, 2021.
- ♦ Due to the prevalence of dry north/northwesterly winds minimum temperature very likely to be below normal over most parts of Northwest India during next 4-5 days which are very likely to cause **Cold Day/Severe Cold Day** conditions at some parts of Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh and Uttarakhand during next 3 days. **Cold Wave/Severe Cold Wave** conditions at some parts also very likely over Punjab, Haryana, Chandigarh & Delhi and in isolated parts over Uttar Pradesh, north Madhya Pradesh and Rajasthan during next 3 days. **Ground Frost** is also very likely in isolated pockets over south Punjab, Haryana & Chandigarh and north Rajasthan during next 2 days.
- ♦ Dense to very dense fog conditions at isolated places very likely over Northwest India during next 4-5 days.

Main Weather Observations

- Rain/Thundershowers observed (during 0830 hours IST of yesterday 0830 hours IST of today): at many places over Tamilnadu, Puducherry & Karaikal, Kerala & Mahe and Lakshadweep; at a few places over Arunachal Pradesh and at isolated places over Andaman & Nicobar Islands, Sub-Himalayan West Bengal & Sikkim, Assam & Meghalaya and South Interior Karnataka.
- ♦ Rainfall recorded (during 0830 hours IST of yesterday to 0830 hours IST of today) (2 cm or more): Vedaranyam-18; Peravaruni-15; Thalaignayer and Atiramapattinam-14 each; Tirupondi-12; Kumbakonam and Nagappattinam-8 each; Arantangi and Karaikal-7 each; Tondi and Thanjavur-5 each; Minicoy and Pamban-4 each; Kodaikanal and Tiruchirapalli-2 each.
- ♦ Heavy to very heavy rainfall observed at isolated places over Tamilnadu, Puducherry & Karaikal.
- ◆ Yesterday, Cold Day to Severe Cold Day conditions observed at isolated places over Punjab and Uttar Pradesh and Cold Day conditions at isolated places over Haryana & Delhi.
- ♦ Cold Wave conditions observed at isolated places over Rajasthan and Haryana, Chandigarh & Delhi.
- ♦ **Fog** observed (at 0830 hours IST of today): **Very Dense fog** at isolated places over West Rajasthan and Uttar Pradesh and **Dense fog** at isolated places over Jammu division, Uttarakhand, Punjab, Haryana, Chandigarh & Delhi and Sub-Himalayan West Bengal & Sikkim.
- ♦ Visibility reported (at 0830 hours IST of today) (200 metre or less): Ganganagar, Shahjahanpur and Hardoi-25; Hissar, Katra, Patiala, Aligarh, Pantnagar, Varanasi and Baghdogra-50 each; Sundernagar, Chandigarh, Bhiwani, Bareilly, Kanpur, Delhi (Safdarjung), Bhopal, Dibrugarh, Kailashahar, Agartala, Gangtok, Darjeeling and Cooch Behar-200.
- ♦ Maximum Temperature Departures as on 11-01-2021: Maximum temperatures were markedly above normal (5.1°C or more) at a few places over Vidarbha, Chhattisgarh and Odisha; at isolated places over Himachal Pradesh and Gangetic West Bengal; appreciably above normal (3.1°C to 5.0°C) at most places over Jharkhand; at a few places over Konkan & Goa; at isolated places over Saurashtra & Kutch, Madhya Maharashtra, East Madhya Pradesh, Coastal Andhra Pradesh & Yanam and Telangana; above normal (1.6°C to 3.0°C) at most places over Marathwada and Nagaland, Manipur, Mizoram & Tripura; at many places over Uttarakhand; at a few places over Bihar; at isolated places over Gujarat region and Karnataka. They were markedly below normal (-5.1°C or less) at many places over West Uttar Pradesh; at a few places over East Uttar Pradesh; at isolated places over Punjab; appreciably below normal (-3.1°C to -5.0°C) at many places over Haryana, Chandigarh & Delhi; at a few places over Assam & Meghalaya; at isolated places over Tamil Nadu. Puducherny & Karaikal; below normal (-1.6°C to -3.0°C) at many places over Kerala & Mahe and Arunachal Pradesh; at a few places over Jammu, Kashmir, Ladakh, Gilgistan, Baltistan & Muzaffrabad, Andaman & Nicobar Islands, Sub-Himalayan West Bengal and East Rajasthan; at isolated places over West Madhya Pradesh, Rayalaseema and Lakshadweep and near normal over rest parts of the country. Yesterday, the highest maximum temperature of 35.3°C was reported at Ratnagiri (Konkan & Goa) over the country.
- ♦ Minimum Temperature Departures as on 12-01-2021: Minimum temperatures are markedly above normal (5.1°C or more) at many places over Jharkhand, Madhya Maharashtra and Assam & Meghalaya; at a few places over Vidarbha; at isolated places over Sub-Himalayan West Bengal, Madhya Pradesh, Odisha and Konkan & Goa; appreciably above normal (3.1°C to 5.0°C) at most places over Uttarakhand and Arunachal Pradesh; at many places over Gujarat region, Chhattisgarh, Nagaland, Manipur, Mizoram & Tripura and Coastal Karnataka; at a few places over Saurashtra & Kutch, Gangetic West Bengal, Tamilnadu, Puducherry & Karaikal and Andaman & Nicobar Islands and at isolated places over Himachal Pradesh; above normal (1.6°C to 3.0°C) at many places over Bihar, Rayalaseema, Coastal Andhra Pradesh & Yanam, Telangana, Kerala & Mahe and Interior Karnataka and at a few places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad. They are appreciably below normal (-3.1°C to -5.0°C) at a few places over East Rajasthan; at isolated places over East Uttar Pradesh and Haryana, Chandigarh & Delhi; below normal (-1.6°C to -3.0°C) at a few places over West Rajasthan; at isolated places over West Uttar Pradesh. The lowest minimum temperature of 1.5°C reported at Sikar (East Rajasthan) over the plains of the country.



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Meteorological Analysis (Based on 0830 hours IST)

- ♦ The Western Disturbance as a cyclonic circulation over north Pakistan and adjoining Jammu & Kashmir now lies over Jammu & Kashmir and neighbourhood and seen between 3.6 km & 4.5 km above mean sea level with trough aloft with its axis at 5.8 km above mean sea level roughly along Long, 75°E to the north of Lat. 32°N.
- ♦ The cyclonic circulation over Southwest Bay of Bengal off Sri Lanka coast now lies over Comorin area & neighbourhood and extends upto 4.5 km above mean sea level.
- ♦ The cyclonic circulation over Southeast Arabian Sea and adjoining Southwest Arabian Sea extending upto 1.5 km above mean sea level has moved away westwards.

Weather Forecast for next 5 days * upto 0830 hours IST of 17th January, 2021

- ♦ Meteorological sub-division wise detailed 5 days precipitation forecast is given in Table-1.
- ♦ No significant change in minimum temperatures over Northwest India during next 3 days. No significant change in minimum temperatures over most parts of Maharashtra during next 3-4 days and over most parts of Gujarat during 2 days and rise by 2-3°C thereafter.
- ♦ Fall in minimum temperatures by 3-5°C very likely over most parts of East India during next 2-3 days and no significant change thereafter. Fall in minimum temperatures by 2-3°C very likely over most parts of Central India during next 2 days and rise gradually by 2-4°C thereafter.
- ♦ No significant change in minimum temperatures over rest parts of the country during next 3-4 days.
- ♦ Shallow to moderate fog in isolated pockets very likely over Gangetic West Bengal, Jharkhand, Odisha and Madhya Pradesh during next 2 days.
- ♦ Shallow Fog/Mist at isolated pockets over Telangana during next 2 days.

Weather Outlook for subsequent 2 days from 17th January, 2021 to 19th January, 2021

- ♦ Isolated to scattered rain/thundershowers likely over Andaman & Nicobar Islands and Isolated rainfall likely over Arunachal Pradesh and extreme south peninsula.
- ♦ Weather likely to be dry over remaining parts of the country.



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Weather Warning during next 5 days *

- **12 January (Day 1): ♦ Heavy to very heavy rainfall** at isolated places very likely over Tamilnadu, Puducherry & Karaikal and Kerala & Mahe and **heavy rainfall** at isolated places over Lakshadweep.
- ♦ Thunderstorm accompanied with lightning at isolated places very likely over Tamilnadu, Puducherry & Karaikal, Kerala & Mahe and Lakshadweep.
- ♦ Dense to very dense fog conditions at isolated places very likely over Sub-Himalayan West Bengal & Sikkim, Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh, north Rajasthan and Dense fog at isolated places over Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Bihar and south Assam.
- ◆ Cold Wave to severe Cold Wave conditions in some pockets very likely over Punjab, Haryana, Chandigarh & Delhi and in isolated pockets over Rajasthan and Cold Wave conditions in isolated pockets over Uttar Pradesh and north Madhya Pradesh.
- ♦ Cold Day to severe Cold Day conditions in some pockets very likely over Punjab, Haryana, Chandigarh & Delhi and West Uttar Pradesh and in isolated pockets over East Uttar Pradesh and Cold Day conditions in isolated pockets over Uttarakhand.
- Ground Frost very likely in isolated pockets over south Punjab, Haryana & Chandigarh and north Rajasthan.
- ♦ Squally weather (wind speed reaching 45-55 kmph) very likely over Lakshadweep-Maldives area and off Kerala coast, Comorin and Gulf of Mannar. Fishermen are advised not to venture into these area.
- **13 January (Day 2): ♦ Heavy to very heavy rainfall** at isolated places very likely over Tamilnadu, Puducherry & Karaikal and **heavy rainfall** at isolated places over Lakshadweep and Kerala & Mahe.
- ♦ Thunderstorm accompanied with lightning at isolated places very likely over Tamilnadu, Puducherry & Karaikal, Kerala & Mahe and Lakshadweep.
- ♦ Dense to very dense fog conditions at isolated places very likely over Sub-Himalayan West Bengal & Sikkim, Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh, north Rajasthan and Dense fog at isolated places over Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Bihar and south Assam.
- ♦ Cold Wave to severe Cold Wave conditions in some pockets very likely over Punjab, Haryana, Chandigarh & Delhi and in isolated pockets over Rajasthan and Cold Wave conditions in isolated pockets over Uttar Pradesh and north Madhya Pradesh.
- ◆ **Cold Day to severe Cold Day conditions** in some pockets very likely over Punjab, Haryana, Chandigarh & Delhi and West Uttar Pradesh and in isolated pockets over East Uttar Pradesh and **Cold Day conditions** in isolated pockets over Uttarakhand.
- Ground Frost very likely in isolated pockets over south Punjab, Haryana & Chandigarh and north Rajasthan.
- ♦ Squally weather (wind speed reaching 45-55 kmph) very likely over Lakshadweep-Maldives area, Comorin and Gulf of Mannar. Fishermen are advised not to venture into these area.
- 14 January (Day 3): ♦ Heavy rainfall at isolated places very likely over Tamilnadu, Puducherry & Karaikal.
- ♦ Thunderstorm accompanied with lightning at isolated places very likely over Tamilnadu, Puducherry & Karaikal, Kerala & Mahe and Lakshadweep.
- ♦ Dense to very dense fog conditions at isolated places very likely over Sub-Himalayan West Bengal & Sikkim, Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh and Dense fog at isolated places over Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.
- ◆ Cold Wave to severe Cold Wave conditions in isolated pockets very likely over Punjab, Haryana, Chandigarh & Delhi and Cold Wave conditions in isolated pockets over Rajasthan and Uttar Pradesh.
- ◆ Cold Day to severe Cold Day conditions in some pockets very likely over Punjab, Haryana, Chandigarh & Delhi and West Uttar Pradesh and in isolated pockets over East Uttar Pradesh and Cold Day conditions in isolated pockets over Uttarakhand.
- **15** January (Day 4): ♦ Thunderstorm accompanied with lightning at isolated places likely over Kerala & Mahe and Lakshadweep.
- ♦ Dense to very dense fog conditions at isolated places likely over Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh and Dense fog at isolated places over Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.
- **♦ Cold Wave conditions** in isolated pockets likely over Rajasthan.
- **♦ Cold Day conditions** in isolated pockets likely over Uttarakhand.
- **16** January (Day 5): ♦ Dense to very dense fog conditions at isolated places likely over Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh and **Dense fog** at isolated places over Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.
- ◆ **Cold Day conditions** in isolated pockets likely over Uttarakhand.

राष्ट्रीय मौसम पूर्वानुमान केन्द्र भारत मौसम विज्ञान विभाग पृथ्वी विज्ञान मंत्रालय



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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)

12-January-2021

Met-Sub-Division	12-Jan Today	13Jan Wed	14Jan Thu	15Jan Fri	16Jan Sat
1. Andaman & Nicobar Islands	SCT	ISOL	ISOL	ISOL	DRY
2. Arunachal Pradesh	ISOL	ISOL	DRY	DRY	DRY
3. Assam & Meghalaya	ISOL	DRY	DRY	DRY	DRY
4. N. M. M. & T.	DRY	DRY	DRY	DRY	DRY
5. S.H. West Bengal & Sikkim	ISOL	ISOL	DRY	DRY	DRY
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	DRY	DRY
13. Haryana, Chd & Delhi	DRY	DRY	DRY	DRY	DRY
14. Punjab	DRY	DRY	DRY	DRY	DRY
15. Himachal Pradesh	DRY	DRY	DRY	DRY	DRY
16. J & K and Ladakh	DRY	DRY	DRY	DRY	DRY
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	DRY	DRY	DRY	DRY
29. Telangana	DRY	DRY	DRY	DRY	DRY
30. Rayalaseema	DRY	DRY	DRY	DRY	DRY
31. T.N., Puducherry & Karaikal	FWS	FWS	SCT	ISOL	ISOL
32. Coastal Karnataka	ISOL	DRY	DRY	DRY	DRY
33. North Interior Karnataka	DRY	DRY	DRY	DRY	DRY
34. South Interior Karnataka	ISOL	DRY	DRY	DRY	DRY
35. Kerala & Mahe	WS	FWS	SCT	SCT	ISOL
36. Lakshadweep	WS	WS	WS	FWS	SCT

% Station Reporting Rainfall

1				
% 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

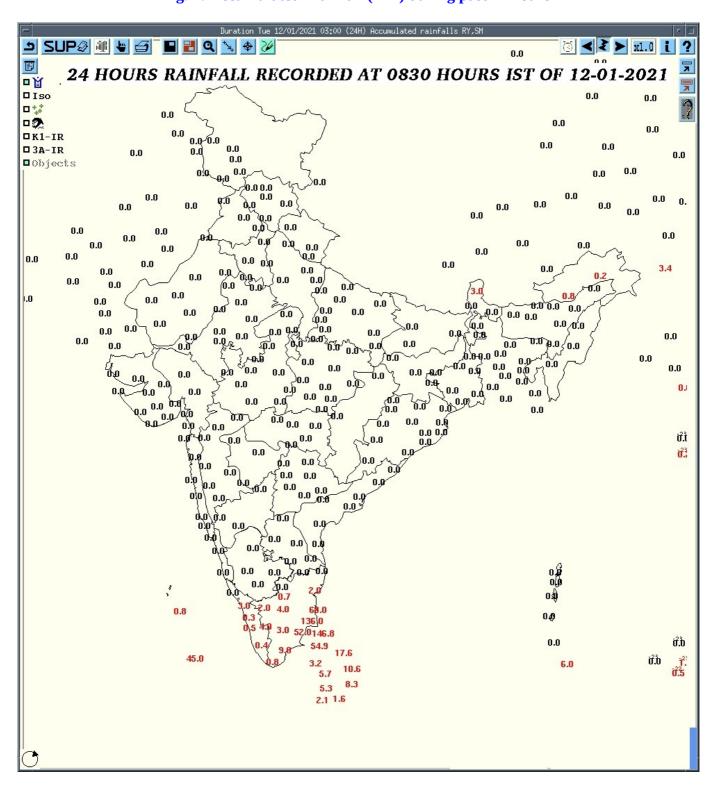




Fig. 2: Maximum Temperature during past 24 hours

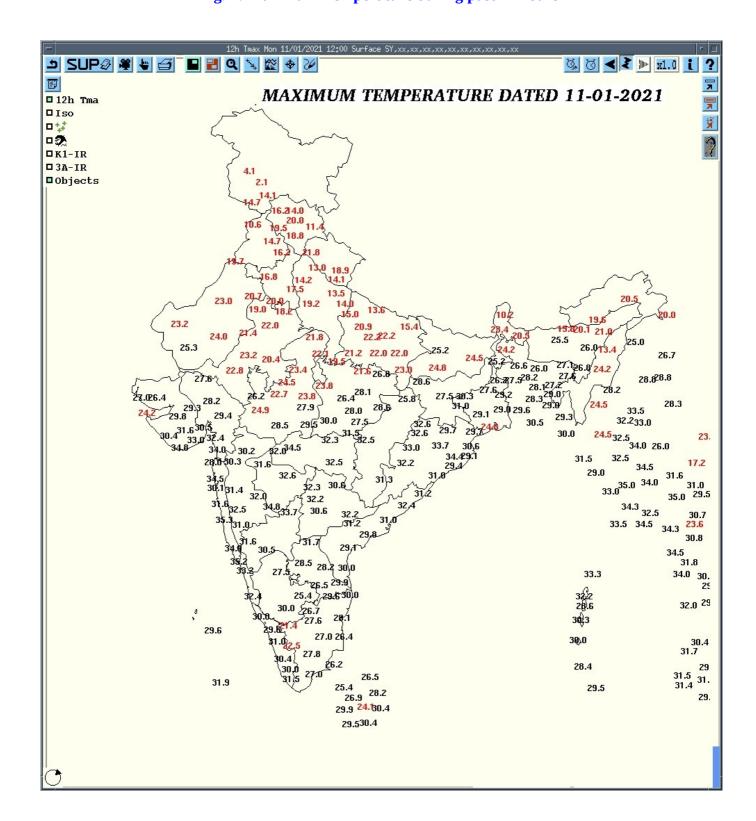




Fig. 3: Minimum Temperature during past 24 hours

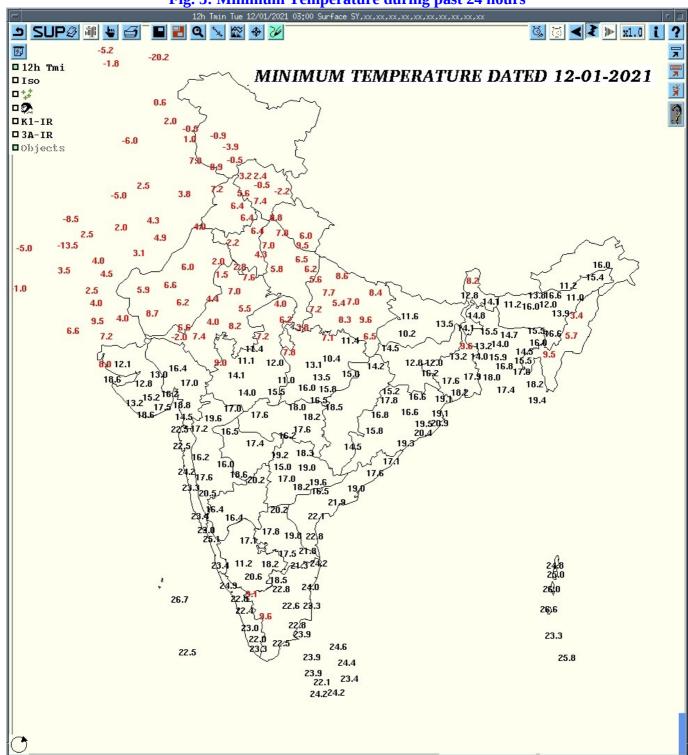




Fig. 4: Departure from Normal of Maximum Temperatures

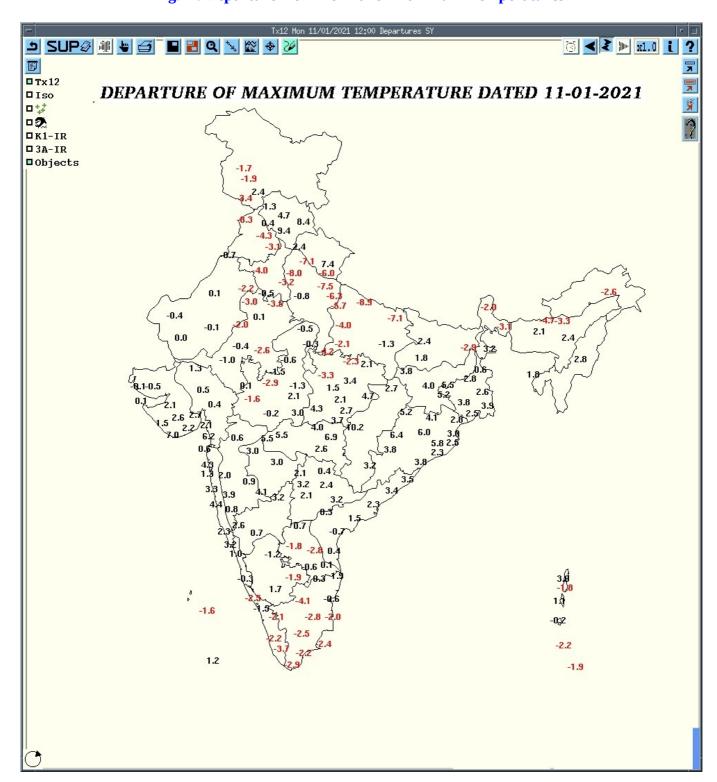
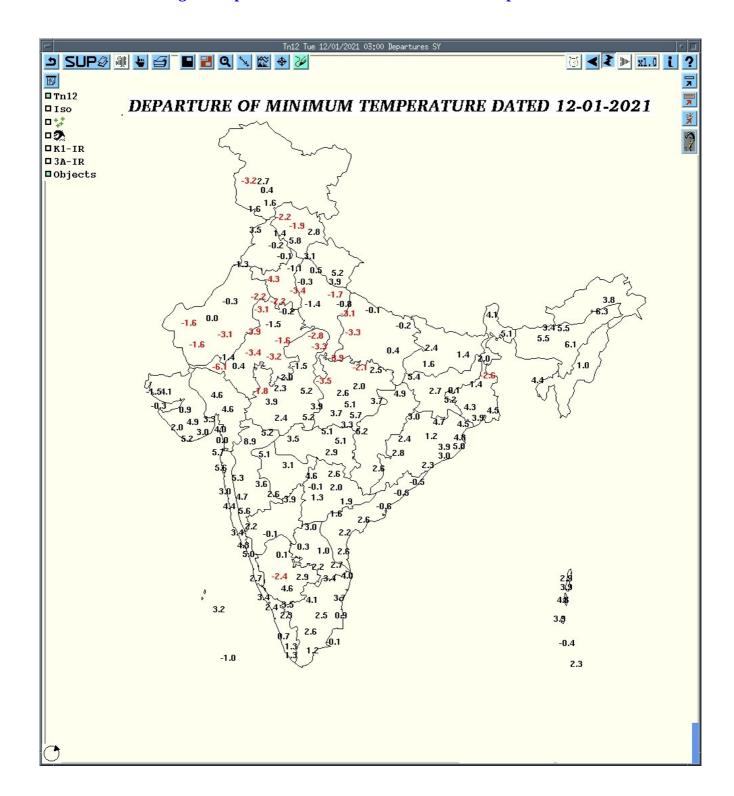


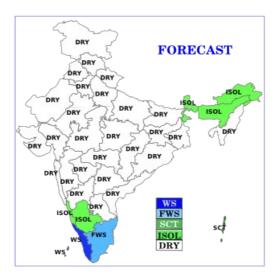


Fig. 5: Departure from Normal of Minimum Temperatures





Tuesday 12 January 2021



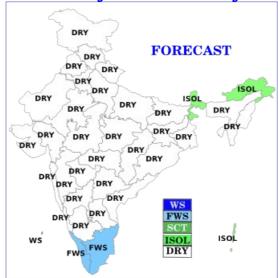


12 January (Day 1): ♦ Heavy to very heavy rainfall at isolated places very likely over Tamilnadu, Puducherry & Karaikal and Kerala & Mahe and **heavy rainfall** at isolated places over Lakshadweep.

- ♦ Thunderstorm accompanied with lightning at isolated places very likely over Tamilnadu, Puducherry & Karaikal, Kerala & Mahe and Lakshadweep.
- ♦ Dense to very dense fog conditions at isolated places very likely over Sub-Himalayan West Bengal & Sikkim, Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh, north Rajasthan and Dense fog at isolated places over Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Bihar and south Assam.
- ♦ **Cold Wave to severe Cold Wave conditions** in some pockets very likely over Punjab, Haryana, Chandigarh & Delhi and in isolated pockets over Rajasthan and **Cold Wave conditions** in isolated pockets over Uttar Pradesh and north Madhya Pradesh.
- ♦ Cold Day to severe Cold Day conditions in some pockets very likely over Punjab, Haryana, Chandigarh & Delhi and West Uttar Pradesh and in isolated pockets over East Uttar Pradesh and Cold Day conditions in isolated pockets over Uttarakhand.
- Ground Frost very likely in isolated pockets over south Punjab, Haryana & Chandigarh and north Rajasthan.
- ♦ **Squally weather** (wind speed reaching 45-55 kmph) very likely over Lakshadweep-Maldives area and off Kerala coast, Comorin and Gulf of Mannar. Fishermen are advised not to venture into these area.



Wednesday 13 January 2021

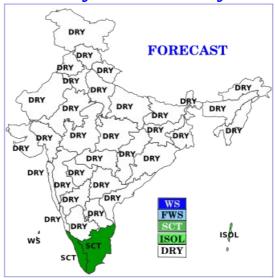




- **13 January (Day 2):** ♦ **Heavy to very heavy rainfall** at isolated places very likely over Tamilnadu, Puducherry & Karaikal and **heavy rainfall** at isolated places over Lakshadweep and Kerala & Mahe.
- ♦ Thunderstorm accompanied with lightning at isolated places very likely over Tamilnadu, Puducherry & Karaikal, Kerala & Mahe and Lakshadweep.
- ♦ Dense to very dense fog conditions at isolated places very likely over Sub-Himalayan West Bengal & Sikkim, Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh, north Rajasthan and Dense fog at isolated places over Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Bihar and south Assam.
- ♦ Cold Wave to severe Cold Wave conditions in some pockets very likely over Punjab, Haryana, Chandigarh & Delhi and in isolated pockets over Rajasthan and Cold Wave conditions in isolated pockets over Uttar Pradesh and north Madhya Pradesh.
- ♦ Cold Day to severe Cold Day conditions in some pockets very likely over Punjab, Haryana, Chandigarh & Delhi and West Uttar Pradesh and in isolated pockets over East Uttar Pradesh and Cold Day conditions in isolated pockets over Uttarakhand.
- ♦ **Ground Frost** very likely in isolated pockets over south Punjab, Haryana & Chandigarh and north Rajasthan.
- ♦ Squally weather (wind speed reaching 45-55 kmph) very likely over Lakshadweep-Maldives area, Comorin and Gulf of Mannar. Fishermen are advised not to venture into these area.



Thursday 14 January 2021

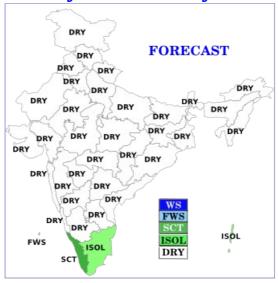




- **14 January (Day 3):** ♦ **Heavy rainfall** at isolated places very likely over Tamilnadu, Puducherry & Karaikal.
- ♦ Thunderstorm accompanied with lightning at isolated places very likely over Tamilnadu, Puducherry & Karaikal, Kerala & Mahe and Lakshadweep.
- ♦ Dense to very dense fog conditions at isolated places very likely over Sub-Himalayan West Bengal & Sikkim, Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh and Dense fog at isolated places over Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.
- ♦ Cold Wave to severe Cold Wave conditions in isolated pockets very likely over Punjab, Haryana, Chandigarh & Delhi and Cold Wave conditions in isolated pockets over Rajasthan and Uttar Pradesh.
- ♦ Cold Day to severe Cold Day conditions in some pockets very likely over Punjab, Haryana, Chandigarh & Delhi and West Uttar Pradesh and in isolated pockets over East Uttar Pradesh and Cold Day conditions in isolated pockets over Uttarakhand.



Friday 15 January 2021



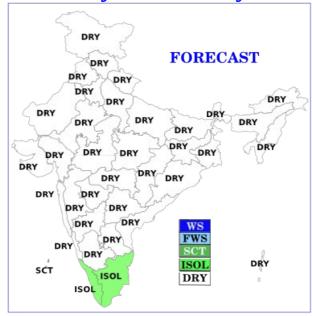


15 January **(Day 4): ♦ Thunderstorm accompanied with lightning** at isolated places likely over Kerala & Mahe and Lakshadweep.

- ♦ Dense to very dense fog conditions at isolated places likely over Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh and Dense fog at isolated places over Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.
- \blacklozenge Cold Wave conditions in isolated pockets likely over Rajasthan.
- ♦ Cold Day conditions in isolated pockets likely over Uttarakhand.



Saturday 16 January 2021



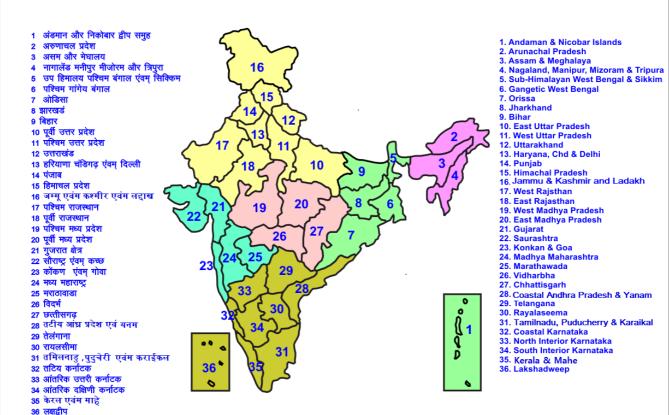


16 January (Day 5): ♦ **Dense to very dense fog conditions** at isolated places likely over Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh and **Dense fog** at isolated places over Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.

◆ **Cold Day conditions** in isolated pockets likely over Uttarakhand.



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)