

National Weather Forecasting Centre India Meteorological Department Ministry of Earth Sciences

Thursday 02 June 2022

MORNING

Time of Issue: 0745 hours IST

ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

Significant Weather Features

Advancement of Southwest Monsoon:

- ♦ The Northern Limit of Monsoon (NLM) continues to pass through Lat.15°N/ Long.60°E, Lat.15°N/Long.70°E, Karwar, Chikmagaluru, Bengaluru, Dharmapuri, Lat. 10°N/ Long. 80°E, Lat. 11.0°N/ Long. 83°E, 14.0°N/86°E, 20.0°N/91°E and 22.0°N/93°E.
- ♦ Conditions are favourable for further advance of Southwest monsoon into some more parts of central Arabian Sea, some more parts of Karnataka, some parts of Konkan & Goa, some more parts of Tamil Nadu, remaining parts of southwest Bay of Bengal, some more parts of westcentral & northeast Bay of Bengal and some parts of northeastern states and Sub-Himalayan West Bengal & Sikkim during next 2 days.

Rainfall/thunderstorm Forecast & Warnings:

- ♦ Due to cyclonic circulation over south Bangladesh & adjoining North Bay of Bengal and strong southwesterly winds from Bay of Bengal to northeast India at lower tropospheric levels:
- i) Widespread light/moderate rainfall with isolated **heavy falls** very likely over northeast India and Sub-Himalayan West Bengal & Sikkim during next 05 days.
- ii) Isolated **heavy to very heavy rainfall** is also very likely over Assam & Meghalaya and Sub-Himalayan West Bengal & Sikkim during 02nd-04th and over Arunachal Pradesh on 02nd & 03rd June. Isolated **extremely heavy falls** also likely over Meghalaya on 02nd June.
- iii) Isolated/scattered rainfall with thunderstorm/lightning/gusty winds very likely over Bihar, Jharkhand, Odisha and Gangetic West Bengal next 5 days.
- Under the influence of monsoonal westerly winds from Arabian Sea over the south peninsular India and shear zone runs along Lat.10°N across South Peninsular India in lower tropospheric levels:
- i) Widespread light/moderate rainfall with thunderstorm/lightning very likely over Kerala & Mahe and Lakshadweep and scattered to fairly widespread rainfall over Karnataka and isolated to scattered over Andhra Pradesh, Telangana & Tamilnadu, Puducherry & Karaikal during next 5 days. Isolated **heavy rainfall** also likely over Tamilnadu and South Interior Karnataka on 02nd; over Kerala & Mahe on 02nd & 03rd, 2022.
- ♦ Squally weather (wind speed 40-50 kmph gusting to 60 kmph) very likely over north Bay of Bengal on 02nd; over Southeast Arabian Sea along & off Kerala coast, Lakshadweep and Comorin Area. Strong Winds (wind speed 40-50 kmph gusting to 60 kmph) over Southwest Arabian Sea during next 5 days; over Southeast Arabian Sea on 02nd; Southwest Bay of Bengal, Gulf of Mannar on 02nd and Southwest Bay of Bengal on 03rd & 04th June, 2022. Fishermen are advised not to venture into these areas.
- ◆ Heat wave conditions very likely in isolated places over West Rajasthan on 02nd & 03rd June, 2022.

Main Weather Observations

राष्ट्रीय मौसम पूर्वानुमान केन्द्र भारत मौसम विज्ञान विभाग पृथ्वी विज्ञान मंत्रालय



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- ♦ Rainfall/thundershower observed (from 0830 hours IST to 1730 hours IST of yesterday): at most places over Nagaland, Manipur, Mizoram & Tripura; at many places over Assam & Meghalaya; at a few places over Kerala & Mahe and Andaman & Nicobar Islands and at isolated places over Jammu, Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Haryana, Chandigarh & Delhi, East Uttar Pradesh, West Rajasthan, Coastal Karnataka, Vidarbha, Telangana, Chhattisgarh, Bihar, Jharkhand, Odisha, Madhya Maharashtra, Coastal Andhra Pradesh & Yanam, Lakshadweep and Tamilnadu, Puducherry & Karaikal.
- ♦ Thunderstorm observed (from 0830 hours IST of yesterday to 0530 hours IST of today): at isolated places over Jammu & Kashmir, Haryana, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Vidarbha, Coastal Andhra Pradesh & Yanam, Jharkhand, Odisha, Kerala & Mahe and Coastal & North Interior Karnataka.
- ♦ Chief amount of Rainfall observed: (from 0830 hours IST to 1730 hours IST of yesterday): (1 cm or more): Shillong -5; Car Nicobar -4; Majbat and Kodaikanal -3 each; Imphal, Bahraich and Nancowry -2 each; Lumding, Goalpara, Pahalgoan and Coonoor 1 each.
- ♦ Maximum Temperature Departures (as on 01-06-2022): Maximum temperatures were appreciably above normal (3.1°C to 5.0°C) at isolated places over Coastal Andhra Pradesh & Yanam; above normal (1.6°C to 3.0°C) at most places over Punjab and West Rajasthan; at a few places over Assam & Meghalaya, Sub-Himalayan West Bengal & Sikkim, Gujarat Region, Madhya Pradesh, Odisha and Andaman & Nicobar Island and at isolated places over West Uttar Pradesh and Tamilnadu, Puducherry & Karaikal. They were appreciably below normal (-3.1°C to -5.0°C) at a few places over North Interior Karnataka and Madhya Maharashtra and at isolated places over Gangetic West Bengal; below normal (-1.6°C to -3.0°C) at isolated places over East Uttar Pradesh and near normal over rest parts of the country. Yesterday, the highest maximum temperature of 46.2°C was reported at Ganganagar (West Rajasthan).

Minimum Temperature Departures (as on 01-06-2022): Minimum temperatures were above normal (1.6°C to 3.0°C) at many places over Bihar; at a few places over Rajasthan, West Madhya Pradesh, East Uttar Pradesh, Vidarbha, Sub-Himalayan West Bengal & Sikkim and Nagaland, Manipur, Mizoram & Tripura and at isolated places over Jammu & Kashmir Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand, East Madhya Pradesh, Madhya Maharashtra, Coastal Andhra Pradesh & Yanam and Assam & Meghalaya; They were appreciably below normal (-3.1°C to -5.0°C)at isolated places over Haryana, Chandigarh & Delhi and Gangetic West Bengal; below normal (-1.6°C to -3.0°C) at a few places over Coastal Karnataka and at isolated places over Rayalaseema, Tamilnadu, Puducherry & Karaikal and Andaman & Nicobar Islands and near normal over rest parts of the country. Yesterday, the lowest minimum temperature of 20.0°C was reported at Jeur (Madhya Maharashtra) over the plains of the country.



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Meteorological Analysis (Based on 0530 hours IST)

- ♦The Northern Limit of Monsoon (NLM) continue to pass through lat. 15°N/ Long. 60°E, lat. 15°N/ Long. 70°E, Karwar, Chikmagaluru, Bengaluru, Dharmapuri, lat. 10°N/ Long. 80°E, lat. 11.0°N/ Long. 83°E, 14.0°N/86°E, 20.0°N/91°E and 22.0°N/93°E.
- Conditions are favourable for further advance of Southwest monsoon into some more parts of central Arabian Sea, some more parts of Karnataka, some parts of Konkan & Goa, some more parts of Tamil Nadu, remaining parts of southwest Bay of Bengal, some more parts of Westcentral & northeast Bay of Bengal and some parts of northeastern states and Sub-Himalayan West Bengal & Sikkim during next 2 days.
- ♦ The cyclonic circulation over southeast Uttar Pradesh & neighbourhood extending upto 0.9 km above mean sea level persists.
- ♦ The east-west trough from the cyclonic circulation over Southeast Uttar Pradesh to East Bangladesh across Bihar, Jharkhand, Gangetic West Bengal at 0.9 km above mean sea level persists.
- ♦ The cyclonic circulation over south Bangladesh & adjoining North Bay of Bengal between 3.1 km & 5.8 km above mean sea level tilting southwards with height persists.
- ♦ The Western Disturbance as a trough with its axis at 5.8 km above mean sea level roughly along Long.70°E & to north of Lat.30°N persists.
- ♦ The shear zone roughly along Lat. 10°N across south peninsular India between 3.1 km & 4.5 km above mean sea level persists.

Weather Forecast for next 5 days * upto 0830 hours IST of 07th June, 2022

- ♦ Meteorological sub-division wise detailed 5 days precipitation forecast is given in Table-1.
- ♦ Gradual rise in maximum temperatures by about 2°C very likely over most parts of Northwest and Central India during next 2 days and no significant change thereafter.
- No significant change in maximum temperatures very likely over rest parts of the country during next 5 days.

Weather Outlook for subsequent 2 days during 07th June- 09th June, 2022

- ♦ Fairly widespread to widespread light/moderate rainfall likely over Sub-Himalayan West Bengal & Sikkim, northeast India and Islands.
- ♦Scattered to fairly widespread light/moderate rainfall likely over parts of Peninsular India. Isolated rainfall/snowfall also likely over higher reaches of Kashmir.
- ♦ Dry weather likely over rest parts of the country.



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Weather Warning during next 5 days *

- **02** June (Day 1): ♦ Heavy to very heavy rainfall with extremely heavy falls at isolated places very likely over Meghalaya; Heavy to very heavy rainfall at isolated places very likely over Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh and Assam; heavy rainfall at isolated places very likely over Andaman & Nicobar Islands, Nagaland, Manipur, Mizoram & Tripura, South Interior Karnataka, Kerala & Mahe and Tamilnadu, Puducherry & Karaikal.
- ♦Thunderstorm accompanied with lightning/gusty winds (speed 40-50 kmph) at isolated places very likely over Andaman & Nicobar Islands; with lightning/gusty winds (speed 30-40 kmph) at isolated places very likely over Jharkhand, Madhya Maharashtra, Gangetic West Bengal, Coastal Andhra Pradesh & Yanam, Telangana and Konkan-Goa and with lightning at isolated places over Chhattisgarh, Bihar, Odisha, Arunachal Pradesh, Nagaland, Manipur, Mizoram & Tripura, Kerala & Mahe, Tamilnadu, Puducherry & Karaikal and Lakshadweep.
- ♦ **Heat wave condition** at isolated places over West Rajasthan.
- ♦ Squally weather (wind speed 40-50 kmph gusting to 60 kmph) very likely over north Bay of Bengal; southeast Arabian Sea, Lakshadweep area, Comorin area, along and off Kerala coast. Strong winds of 40-50 kmph gusting to 60 kmph likely over southwest & southeast Arabian Sea; southwest Bay of Bengal and Gulf of Mannar. Fishermen are advised not to venture into these areas.
- **03 June (Day 2): ♦ Heavy to very heavy rainfall** at isolated places likely over Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh and Assam & Meghalaya; **heavy rainfall** at isolated places very likely over Andaman & Nicobar Islands, Nagaland, Manipur, Mizoram & Tripura and Kerala & Mahe.
- ♦Thunderstorm accompanied with lightning/gusty winds (speed 40-50 kmph) at isolated places likely over Andaman & Nicobar Islands; with lightning/gusty winds (speed 30-40 kmph) at isolated places very likely over Gangetic West Bengal and with lightning at isolated places over Bihar, Kerala & Mahe and Lakshadweep.
- ♦ **Heat wave condition** at isolated places over West Rajasthan.
- ♦ Strong winds (wind speed 40-50 kmph gusting to 60 kmph) likely over southwest Arabian Sea, and southwest Bay of Bengal. Fishermen are advised not to venture into these areas.
- **04 June (Day 3): ♦ Heavy to very heavy rainfall** at isolated places over Sub-Himalayan West Bengal & Sikkim and Assam & Meghalaya; **heavy rainfall** at isolated places over Andaman & Nicobar Islands and Arunachal Pradesh.
- ♦ **Thunderstorm accompanied with lightning** at isolated places over Bihar, Kerala & Mahe and Lakshadweep.
- ♦ Strong winds (wind speed 40-50 kmph gusting to 60 kmph) likely over southwest Arabian Sea, and southwest Bay of Bengal. Fishermen are advised not to venture into these areas.
- **05 June (Day 4): ♦ Heavy rainfall** at isolated places over Sub-Himalayan West Bengal & Sikkim, Andaman & Nicobar Islands and Assam & Meghalaya.
- ◆ Thunderstorm accompanied with lightning at isolated places over Kerala & Mahe and Lakshadweep.
- ◆ Strong winds (wind speed 40-50 kmph gusting to 60 kmph) likely over southwest Arabian Sea. Fishermen are advised not to venture into these areas.
- **06 June (Day 5): ♦ Heavy rainfall** at isolated places over Sub-Himalayan West Bengal & Sikkim, Andaman & Nicobar Islands and Assam & Meghalaya.
- ♦ Thunderstorm accompanied with lightning at isolated places over Kerala & Mahe and Lakshadweep.
- ◆ Strong winds (wind speed 40-50 kmph gusting to 60 kmph) likely over southwest Arabian Sea. Fishermen are advised not to venture into these areas.



Table-1 5 Day Rainfall Forecast (MORNING)

02-June-2022

Met-Sub-Division	02-Jun Today	03Jun Fri	04Jun Sat	05Jun Sun	06Jun Mon
1. Andaman & Nicobar Islands	WS	WS	WS	ws	WS
2. Arunachal Pradesh	WS	WS	FWS	FWS	FWS
3. Assam & Meghalaya	WS	WS	WS	WS	WS
4. N. M. M. & T.	WS	WS	FWS	FWS	FWS
5. S.H. West Bengal & Sikkim	WS	WS	WS	WS	WS
6. Gangetic West Bengal	SCT	SCT	ISOL	ISOL	ISOL
7. Odisha	ISOL	ISOL	ISOL	ISOL	ISOL
8. Jharkhand	ISOL	ISOL	ISOL	ISOL	ISOL
9. Bihar	ISOL	SCT	SCT	SCT	ISOL
10. East Uttar Pradesh	ISOL	DRY	DRY	DRY	DRY
11. West Uttar Pradesh	ISOL	DRY	DRY	DRY	DRY
12. Uttarakhand	DRY	DRY	DRY	DRY	DRY
13. Haryana, Chd & Delhi	ISOL	DRY	DRY	DRY	DRY
14. Punjab	DRY	DRY	DRY	DRY	DRY
15. Himachal Pradesh	DRY	DRY	DRY	DRY	DRY
16. J & K and Ladakh	ISOL	ISOL	ISOL	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	ISOL	ISOL	ISOL	ISOL	ISOL
24. Madhya Maharashtra	ISOL	ISOL	ISOL	ISOL	ISOL
25. Marathawada	ISOL	DRY	DRY	ISOL	ISOL
26. Vidharbha	DRY	DRY	DRY	DRY	DRY
27. Chhattisgarh	ISOL	DRY	DRY	DRY	DRY
28. Coastal A. P. & Yanam	ISOL	ISOL	ISOL	ISOL	ISOL
29. Telangana	ISOL	DRY	DRY	ISOL	ISOL
30. Rayalaseema	ISOL	ISOL	ISOL	ISOL	ISOL
31. T.N., Puducherry & Karaikal	SCT	SCT	ISOL	ISOL	ISOL
32. Coastal Karnataka	FWS	FWS	FWS	FWS	FWS
33. North Interior Karnataka	SCT	SCT	SCT	SCT	SCT
34. South Interior Karnataka	FWS	FWS	FWS	FWS	FWS
35. Kerala & Mahe	WS	WS	WS	WS	WS
36. Lakshadweep	WS	WS	WS	ws	WS

% 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				



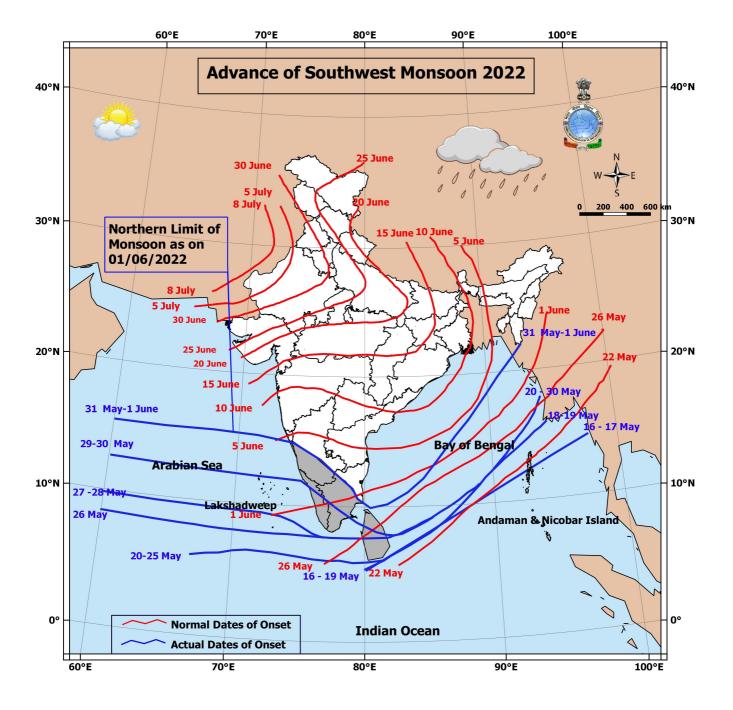




Fig. 1: Accumulated Rainfall (mm) during past 24 hours

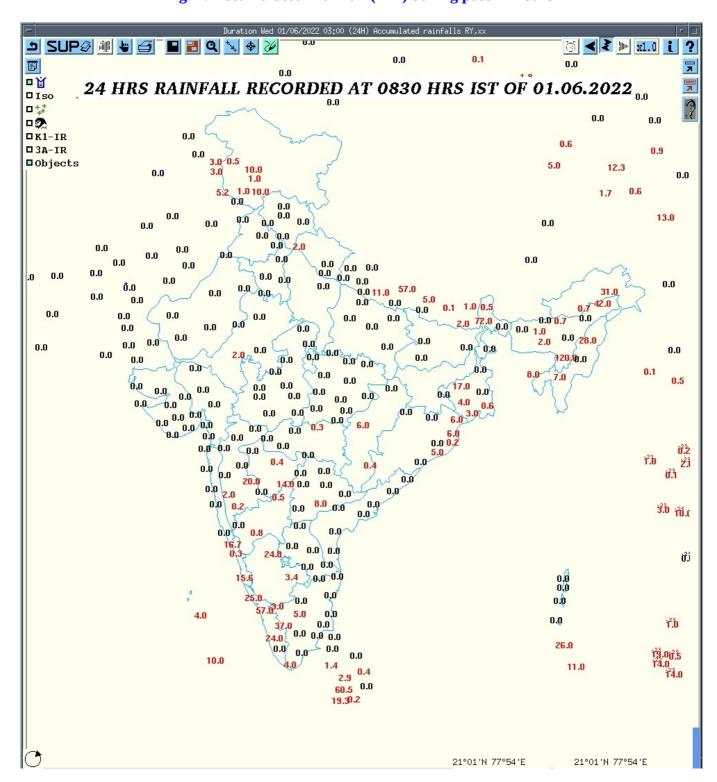




Fig. 2: Maximum Temperature during past 24 hours

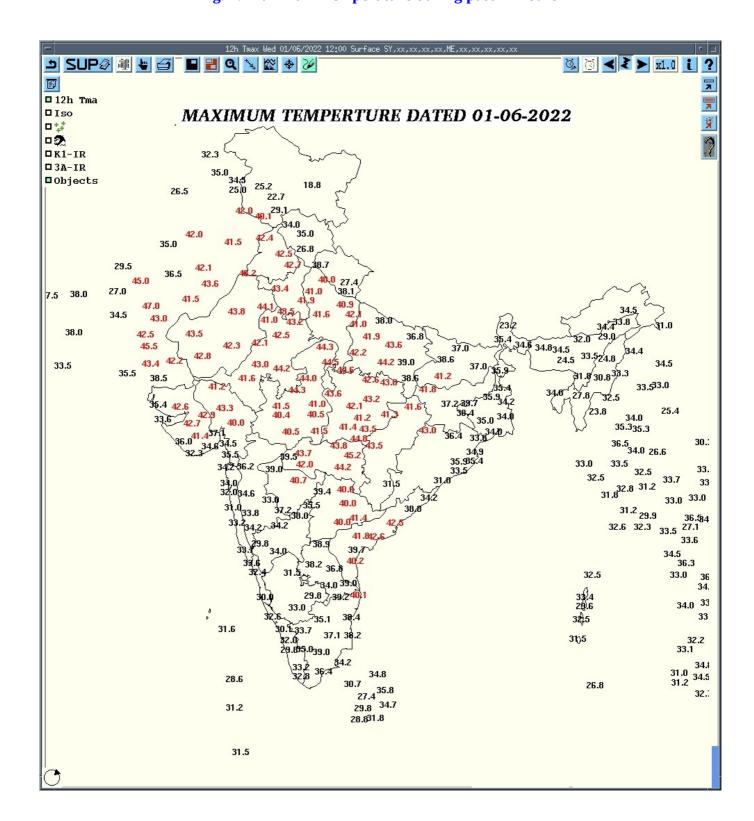




Fig. 3: Minimum Temperature during past 24 hours

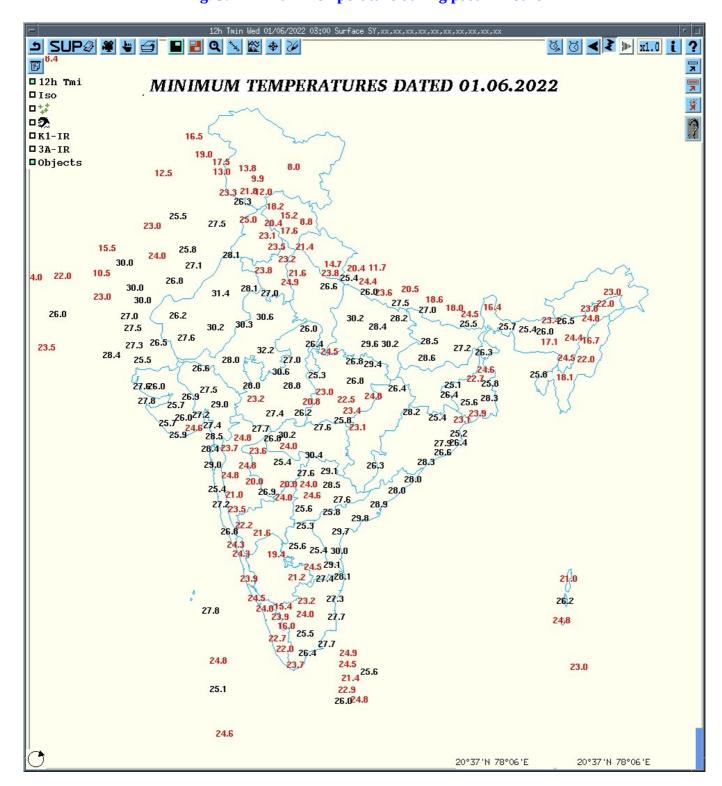




Fig. 4: Departure from Normal of Maximum Temperatures

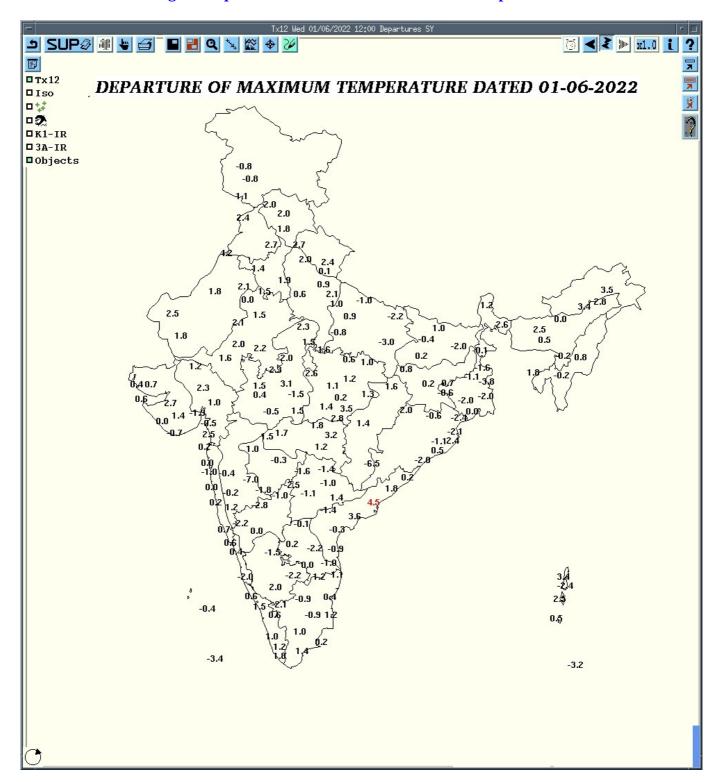
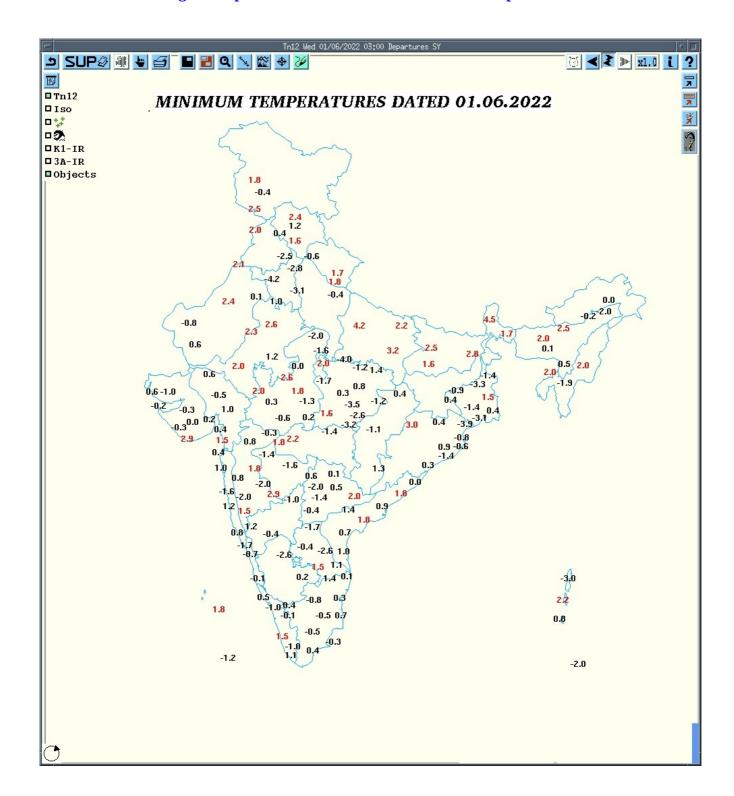


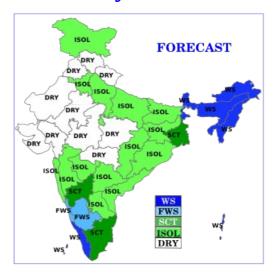


Fig. 5: Departure from Normal of Minimum Temperatures





Thursday 02 June 2022





02 June (Day 1): ♦ Heavy to very heavy rainfall with extremely heavy falls at isolated places very likely over Meghalaya; Heavy to very heavy rainfall at isolated places very likely over Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh and Assam; heavy rainfall at isolated places very likely over Andaman & Nicobar Islands, Nagaland, Manipur, Mizoram & Tripura, South Interior Karnataka, Kerala & Mahe and Tamilnadu, Puducherry & Karaikal.

- ♦ Thunderstorm accompanied with lightning/gusty winds (speed 40-50 kmph) at isolated places very likely over Andaman & Nicobar Islands; with lightning/gusty winds (speed 30-40 kmph) at isolated places very likely over Jharkhand, Madhya Maharashtra, Gangetic West Bengal, Coastal Andhra Pradesh & Yanam, Telangana and Konkan-Goa and with lightning at isolated places over Chhattisgarh, Bihar, Odisha, Arunachal Pradesh, Nagaland, Manipur, Mizoram & Tripura, Kerala & Mahe, Tamilnadu, Puducherry & Karaikal and Lakshadweep.
- \blacklozenge Heat wave condition at isolated places over West Rajasthan.
- ◆ **Squally weather** (wind speed 40-50 kmph gusting to 60 kmph) very likely over north Bay of Bengal; southeast Arabian Sea, Lakshadweep area, Comorin area, along and off Kerala coast. **Strong winds** of 40-50 kmph gusting to 60 kmph likely over southwest & southeast Arabian Sea; southwest Bay of Bengal and Gulf of Mannar. Fishermen are advised not to venture into these areas.



Friday 03 June 2022

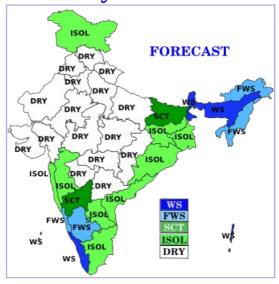




- **03 June (Day 2): ♦ Heavy to very heavy rainfall** at isolated places likely over Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh and Assam & Meghalaya; **heavy rainfall** at isolated places very likely over Andaman & Nicobar Islands, Nagaland, Manipur, Mizoram & Tripura and Kerala & Mahe.
- **♦**Thunderstorm accompanied with lightning/gusty winds (speed 40-50 kmph) at isolated places likely over Andaman & Nicobar Islands; with lightning/gusty winds (speed 30-40 kmph) at isolated places very likely over Gangetic West Bengal and with lightning at isolated places over Bihar, Kerala & Mahe and Lakshadweep.
- ♦ **Heat wave condition** at isolated places over West Rajasthan.
- ♦ Strong winds (wind speed 40-50 kmph gusting to 60 kmph) likely over southwest Arabian Sea, and southwest Bay of Bengal. Fishermen are advised not to venture into these areas.



Saturday 04 June 2022



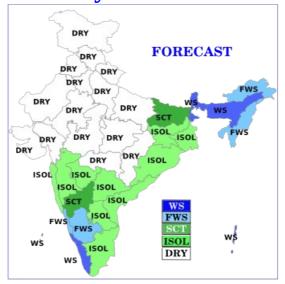


04 June (Day 3): ♦ Heavy to very heavy rainfall at isolated places over Sub-Himalayan West Bengal & Sikkim and Assam & Meghalaya; **heavy rainfall** at isolated places over Andaman & Nicobar Islands and Arunachal Pradesh.

- ♦ Thunderstorm accompanied with lightning at isolated places over Bihar, Kerala & Mahe and Lakshadweep.
- ♦ Strong winds (wind speed 40-50 kmph gusting to 60 kmph) likely over southwest Arabian Sea, and southwest Bay of Bengal. Fishermen are advised not to venture into these areas.



Sunday 05 June 2022



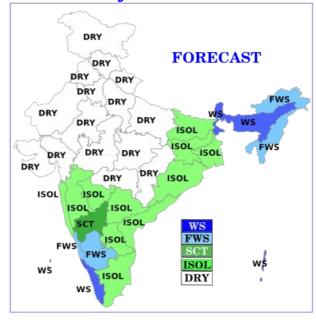


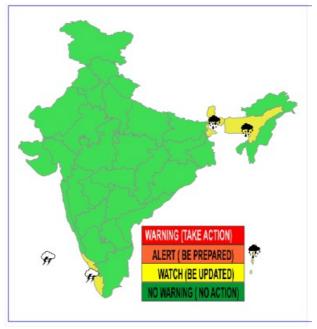
05 June (Day 4): ♦ Heavy rainfall at isolated places over Sub-Himalayan West Bengal & Sikkim, Andaman & Nicobar Islands and Assam & Meghalaya.

- ◆ Strong winds (wind speed 40-50 kmph gusting to 60 kmph) likely over southwest Arabian Sea. Fishermen are advised not to venture into these areas.



Monday 06 June 2022



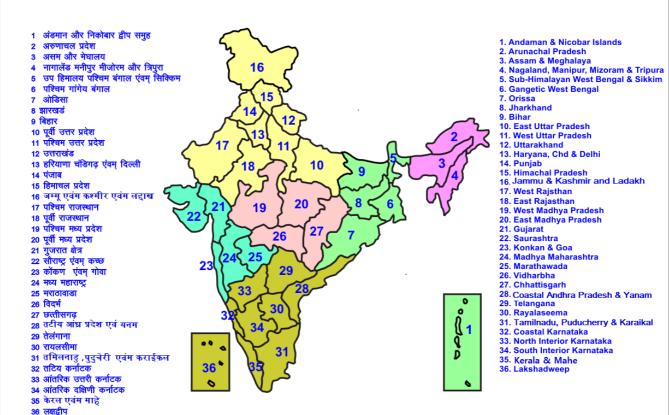


06 June (Day 5): ♦ Heavy rainfall at isolated places over Sub-Himalayan West Bengal & Sikkim, Andaman & Nicobar Islands and Assam & Meghalaya.

- ◆ Thunderstorm accompanied with lightning at isolated places over Kerala & Mahe and Lakshadweep.
- ◆ Strong winds (wind speed 40-50 kmph gusting to 60 kmph) likely over southwest Arabian Sea. 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)