

National Weather Forecasting Centre India Meteorological Department Ministry of Earth Sciences

Friday 23 September 2022 <u>MORNING</u>

Time of Issue: 0800 hours IST

ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

Significant Weather Features

- ♦ A cyclonic circulation lies over northwest Madhya Pradesh & neighbourhood extending upto midtropospheric levels.
- ♦ A trough runs from northwest & adjoining westcentral Bay of Bengal to central parts of West Rajasthan across Odisha, Chhattisgarh, cyclonic circulation over northwest Madhya Pradesh & neighbourhood in lower tropospheric levels.
- ♦ The **Western Disturbance** as a trough in mid-tropospheric westerlies runs roughly along Long. 74°E to the north of Lat. 32°N.
- ♦ Under the influence of above systems:
- o Current spell of rainfall likely to continue over northwest India during next two days and reduction thereafter.
- o Fairly widespread/widespread light/moderate rainfall with **isolated heavy falls** & thunderstorm/lightning very likely over Madhya Pradesh & Haryana on 23rd; Uttarakhand and West Uttar Pradesh during 23rd-25th; East Uttar Pradesh during 23rd, 25th and 26th September and over East Rajasthan on 23rd & 24th September, 2022. Isolated very heavy rainfall likely over West Uttar Pradesh on 23rd September, 2022.
- o Fairly widespread/Widespread light/moderate rainfall with **isolated heavy falls** & thunderstorm/lightning very likely over Arunachal Pradesh on 23rd & 24th; Assam & Meghalaya on 23rd Sep, 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 Himachal Pradesh; at many places over Haryana, Chandigarh & Delhi, West Madhya Pradesh, East Rajasthan, Telangana and Andaman & Nicobar Islands; at a few places over Punjab, Bihar, Gangetic West Bengal, assam & Meghalaya, West Madhya Pradesh, East Madhya Pradesh, Odisha and Konkan & Goa; at isolated places over East Uttar Pradesh, Nagaland, Manipur, Mizoram & Tripura, Chhattisgarh, West Rajasthan, Madhya Maharashtra and Coastal Andhra Pradesh & Yanam.
- ♦ Heavy rainfall observed (from 0830 hours IST to 1730 hours IST of yesterday): Heavy rainfall at isolated places over Andaman & Nicobar Islands and West Madhya Pradesh.
- ♦ Chief amount of Rainfall observed (from 0830 hours IST to 1730 hours IST of yesterday):(3 cm or more): Andaman & Nicobar Islands: Car-Nicobar-10; West Madhya Pradesh: Guna-9; West Uttar Pradesh: Aligarh-6; Haryana, Chandigarh & Delhi: Delhi (Palam)-6.
- ♦Thunderstorm observed (from 0830 hours IST of yesterday to 0530 hours IST of today): at isolated places over Punjab, Uttarakhand, Himachal Pradesh, Haryana, Chandigarh & Delhi, Bihar, Odisha, Telangana, Sub-Himalayan West Bengal & Sikkim, Coastal Andhra Pradesh & Yanam and Konkan & Goa.
- ♦ Minimum Temperature Departures (as on 22-09-2022): Minimum temperatures were above normal (1.6°C to 3.0°C) at most places over Uttarakhand; at many places over Himachal Pradesh; at a few places over Sub-Himalayan West Bengal & Sikkim, and Bihar and at isolated places over East Madhya Pradesh, Coastal Andhra Pradesh & Yanam, Gangetic West Bengal Tamilnadu, Puducherry & Karaikal. They were below normal (-1.6°C to -3.0°C) at most places over South Interior Karnataka; at many places over Konkan & Goa, Coastal & North Interior Karnataka and at isolated places over Saurashtra & Kutch and near normal over rest parts of the country. Yesterday, the lowest minimum temperature of 20.8°C was reported at Ridge (Delhi) over the plains of the country.
- ♦ Maximum Temperature Departures (as on 22-09-2022): Maximum temperatures were above normal (1.6°C to 3.0°C) at many places over Bihar, Sub-Himalayan West Bengal & Sikkim, Assam & Meghalaya, Kerala & Mahe and Tamilnadu, Puducherry & Karaikal and at a few places over Jammu, Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad and Gangetic West Bengal. They were markedly below normal (-5.1°C or less) at most places over Haryana, Chandigarh & Delhi; at a few places over West Madhya Pradesh and Konkan & Goa; appreciably below normal (-3.1°C to -5.0°C) at many places over West Uttar Pradesh and Vidarbha; at a few places over Himachal Pradesh, East Rajasthan and Telangana and at isolated places over East Uttar Pradesh and below normal (-1.6°C to -3.0°C) at many places over Punjab, Chhattisgarh and East Madhya Pradesh; at a few places over Madhya Maharashtra, Coastal Andhra Pradesh & Yanam and Andaman & Nicobar Islands and at isolated places over Gujarat and near normal over rest parts of the country. Today, the highest maximum temperature of 38.4°C was reported at Madurai (Tamilnadu, Puducherry & Karaikal) over the plains of the country.



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Meteorological Analysis (Based on 0530 hours IST)

- ♦ The withdrawal line of Southwest Monsoon continues to pass through Khajuwala, Bikaner, Jodhpur and Naliya.
- ♦The cyclonic circulation over northwest Madhya Pradesh & neighbourhood extending upto 5.8 km above mean sea level persists.
- ♦ The trough from Northwest & adjoining Westcentral Bay of Bengal to central parts of West Rajasthan across Odisha, Chhattisgarh, Madhya Pradesh & East Rajasthan extending upto 3.1 km above mean sea level persists.
- ♦ The **Western Disturbance** as a trough in mid-tropospheric westerlies with its axis at 5.8 km above mean sea level now runs roughly along Long. 74°E to the north of Lat. 32°N.

Weather Forecast for next 5 days * upto 0830 hours IST of 28th September, 2022

- ♦ Meteorological sub-division wise detailed 5 days precipitation forecast is given in Table-1.
- ♦ No significant change in maximum temperatures very likely over the country during next 5 days.

Weather Outlook for subsequent 2 days During 28th-30th September, 2022

- ♦ Fairly widespread to widespread light/moderate rainfall activity likely over East Uttar Pradesh, Central, East & Northeast India.
- ♦ Isolated to scattered light/moderate rainfall activity likely over rest pats of the country except over parts of northwest & south Peninsular India where dry weather is likely.



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Weather Warning during next 5 days *

- **23 Sept (Day 1): ◆ Heavy to very heavy rainfall** very likely over West Uttar Pradesh; **Heavy rainfall** at isolated places over Uttarakhand, Haryana, East Uttar Pradesh, East Rajasthan, West Madhya Pradesh, Bihar, Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh and Assam & Meghalaya.
- ♦ Thunderstorm accompanied with lightning at isolated places likely over East Rajasthan, Madhya Pradesh, Bihar, West Bengal & Sikkim, Odisha, Andaman & Nicobar Islands, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Gujarat Region, Coastal Andhra Pradesh & Yanam and Telangana.
- ♦ Squally winds of 45-55 kmph gusting to 65 kmph is likely over southwest and adjoining west-central Arabian Sea, along and off Somalia coast, Gulf of Mannar & adjoining Comorin area and south Tamil Nadu coast . Fishermen are advised not to venture into these seas.
- **24 Sept (Day 2): ♦ Heavy rainfall** at isolated places very likely over Uttarakhand, West Uttar Pradesh, East Rajasthan, Bihar, Sub-Himalayan West Bengal & Sikkim and Arunachal Pradesh.
- ◆ Thunderstorm accompanied with lightning at isolated places very likely over Uttarakhand, Uttar Pradesh and Bihar.
- ◆ **Squally winds** of 45-55 kmph gusting to 65 kmph is likely over southwest and adjoining west-central Arabian Sea, along and off Somalia coast. Fishermen are advised not to venture into these seas.
- 25 Sept (Day 3): Heavy rainfall at isolated places likely over Uttarakhand, Uttar Pradesh, and Sub-Himalayan West Bengal & Sikkim.
- ◆ **Squally winds** of 45-55 kmph gusting to 65 kmph is likely over southwest and adjoining west-central Arabian Sea, along and off Somalia coast. Fishermen are advised not to venture into these seas.
- **26 Sept (Day 4): ♦ Heavy rainfall** at isolated places likely over East Uttar Pradesh
- ♦ Thunderstorm accompanied with lightning at isolated places likely over Uttarakhand and East Uttar Pradesh.
- ◆ **Squally winds** of 45-55 kmph gusting to 65 kmph is likely over southwest and adjoining west-central Arabian Sea, along and off Somalia coast. Fishermen are advised not to venture into these seas.
- **27 Sept (Day 5): ♦ Heavy rainfall** at isolated places likely over East Uttar Pradesh
- ◆ Thunderstorm accompanied with lightning at isolated places likely over Uttarakhand and East Uttar Pradesh.
- ◆ Squally winds of 45-55 kmph gusting to 65 kmph is likely over southwest and adjoining west-central Arabian Sea, along and off Somalia coast. Fishermen are advised not to venture into these seas.

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 (MORNING)

23-September-2022

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

100°E



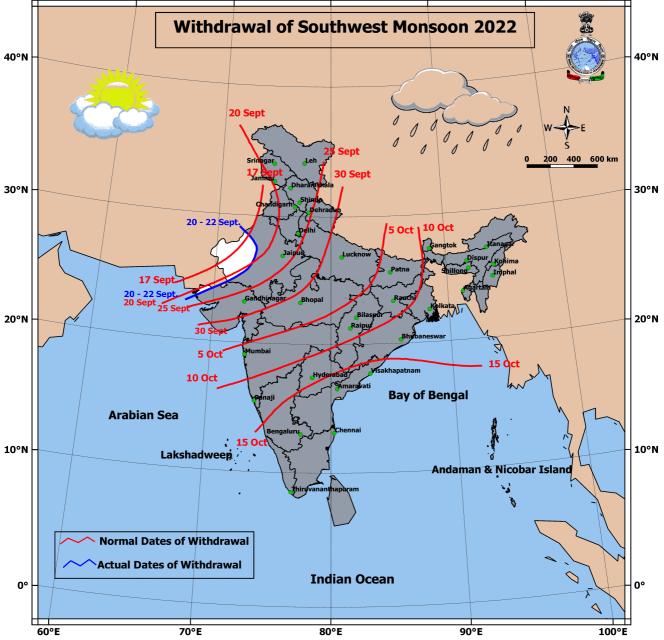




Fig. 2: Accumulated Rainfall (mm) during past 24 hours

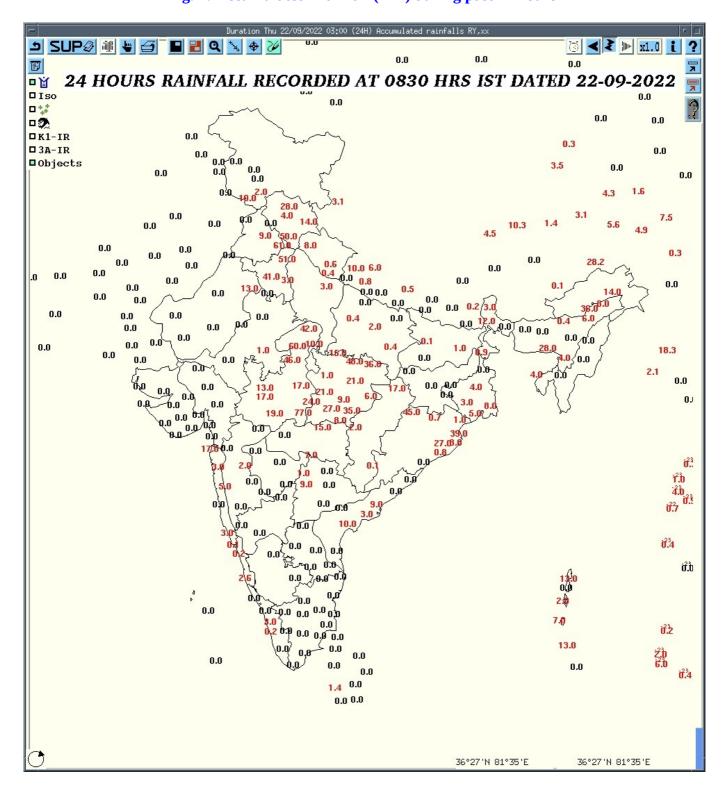




Fig. 3: Maximum Temperature during past 24 hours

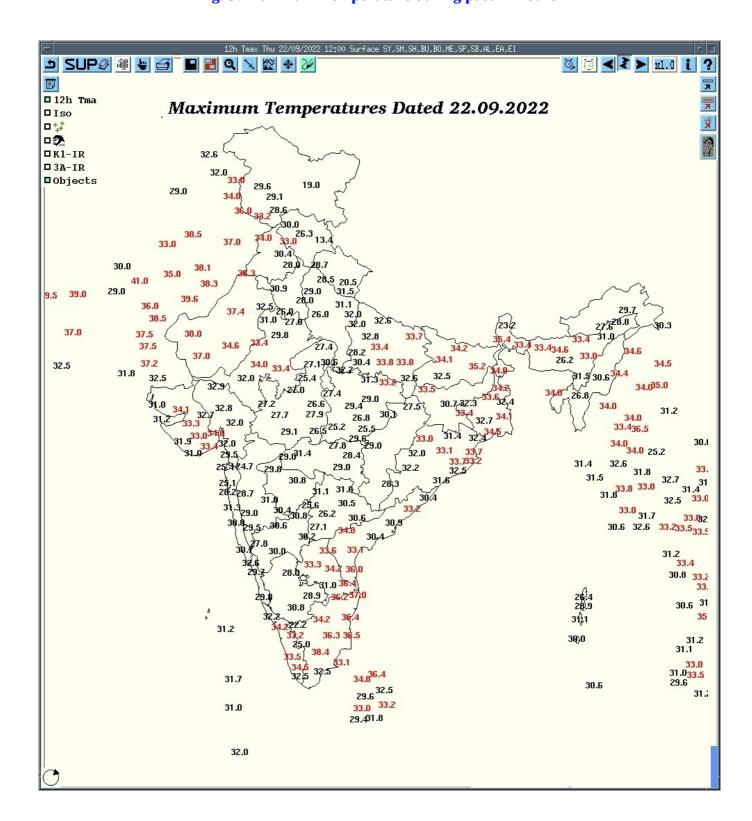




Fig. 4: Minimum Temperature during past 24 hours

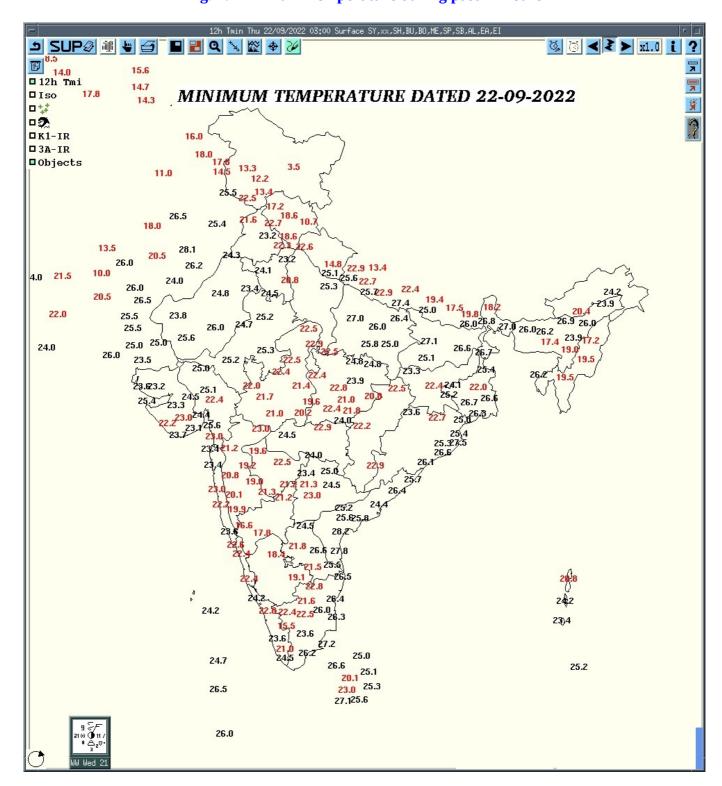




Fig. 5 : Departure from Normal of Maximum Temperatures

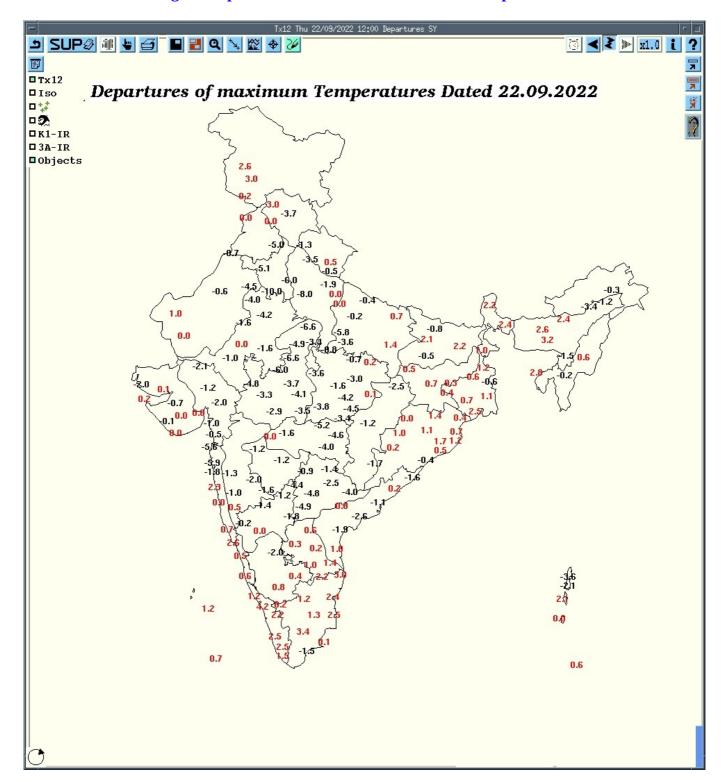
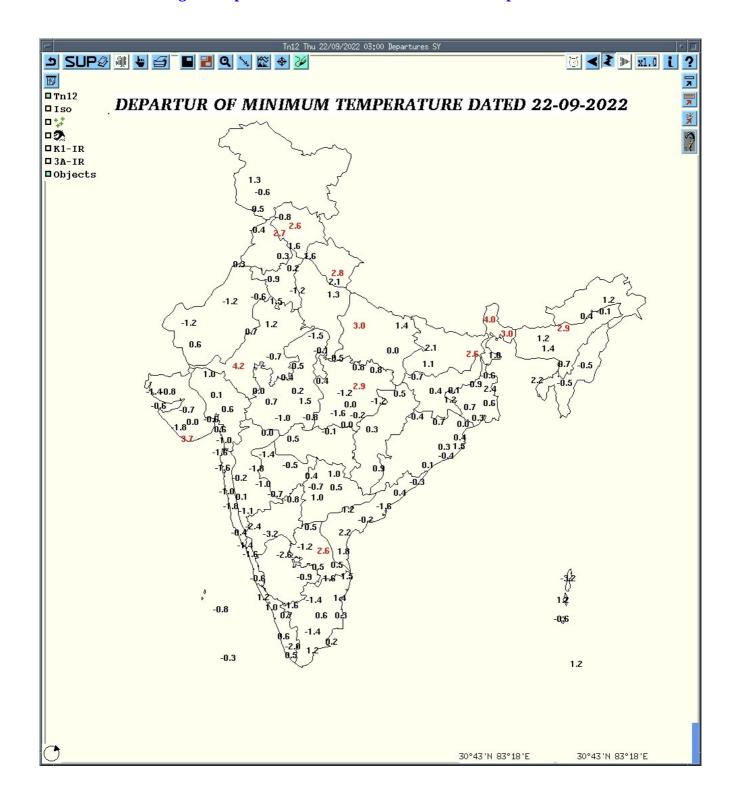


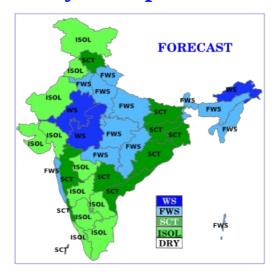


Fig. 6: Departure from Normal of Minimum Temperatures





Friday 23 September 2022



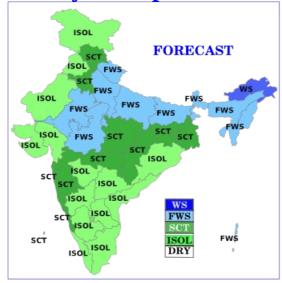


23 Sept (Day 1): ♦ Heavy to very heavy rainfall very likely over West Uttar Pradesh; Heavy rainfall at isolated places over Uttarakhand, Haryana, East Uttar Pradesh, East Rajasthan, West Madhya Pradesh, Bihar, Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh and Assam & Meghalaya.

- ♦ Thunderstorm accompanied with lightning at isolated places likely over East Rajasthan, Madhya Pradesh, Bihar, West Bengal & Sikkim, Odisha, Andaman & Nicobar Islands, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Gujarat Region, Coastal Andhra Pradesh & Yanam and Telangana.
- ♦ Squally winds of 45-55 kmph gusting to 65 kmph is likely over southwest and adjoining west-central Arabian Sea, along and off Somalia coast, Gulf of Mannar & adjoining Comorin area and south Tamil Nadu coast . Fishermen are advised not to venture into these seas.



Saturday 24 September 2022

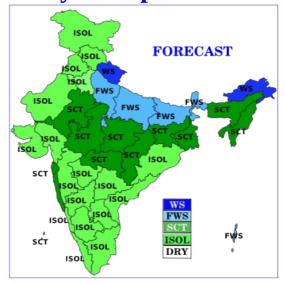




- **24 Sept (Day 2): ♦ Heavy rainfall** at isolated places very likely over Uttarakhand, West Uttar Pradesh, East Rajasthan, Bihar, Sub-Himalayan West Bengal & Sikkim and Arunachal Pradesh.
- ◆ Thunderstorm accompanied with lightning at isolated places very likely over Uttarakhand, Uttar Pradesh and Bihar.
- ♦ **Squally winds** of 45-55 kmph gusting to 65 kmph is likely over southwest and adjoining west-central Arabian Sea, along and off Somalia coast. Fishermen are advised not to venture into these seas.



Sunday 25 September 2022



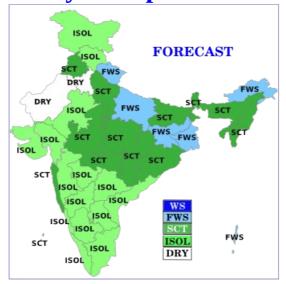


25 Sept (Day 3): ♦ Heavy rainfall at isolated places likely over Uttarakhand, Uttar Pradesh, and Sub-Himalayan West Bengal & Sikkim.

♦ Squally winds of 45-55 kmph gusting to 65 kmph is likely over southwest and adjoining west-central Arabian Sea, along and off Somalia coast. Fishermen are advised not to venture into these seas.



Monday 26 September 2022



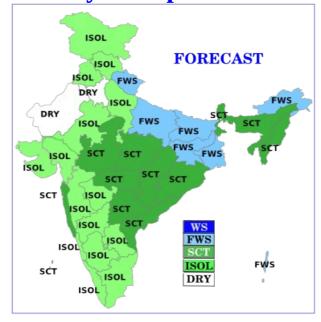


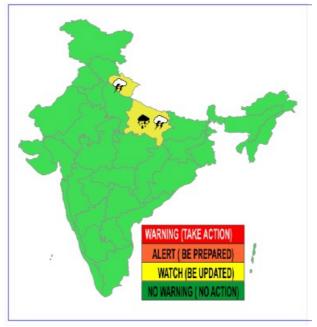
26 Sept (Day 4): ♦ Heavy rainfall at isolated places likely over East Uttar Pradesh

- ◆ Thunderstorm accompanied with lightning at isolated places likely over Uttarakhand and East Uttar Pradesh.
- ♦ **Squally winds** of 45-55 kmph gusting to 65 kmph is likely over southwest and adjoining west-central Arabian Sea, along and off Somalia coast. Fishermen are advised not to venture into these seas.



Tuesday 27 September 2022



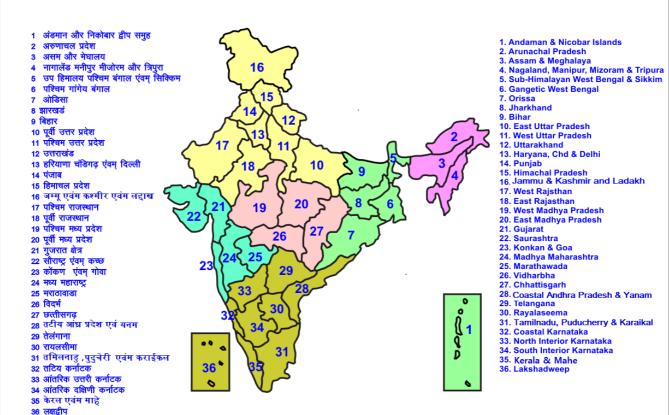


27 **Sept (Day 5): ♦ Heavy rainfall** at isolated places likely over East Uttar Pradesh

- ♦ Thunderstorm accompanied with lightning at isolated places likely over Uttarakhand and East Uttar Pradesh.
- ♦ Squally winds of 45-55 kmph gusting to 65 kmph is likely over southwest and adjoining west-central Arabian Sea, along and off Somalia coast. Fishermen are advised not to venture into these seas.



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)