

Monday 20 March 2023

NIGHT

Time of Issue: 1945 hours IST

## ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

### Significant Weather Features

#### Weather Forecast and Warnings:

- ◆ **Northwest India:** Scattered to fairly widespread light/moderate rainfall with thunderstorm, lightning/gusty winds along with isolated hailstorm likely over Western Himalayan Region and Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh & Rajasthan on 20th. There is significant decrease in rainfall & distribution till 22nd March. Thereafter, a fresh spell of rainfall & thunderstorm activity is likely to commence over the region from 23rd March, 2023.
- ◆ **West & Central India:** Isolated to scattered light/moderate rainfall with thunderstorm, lightning & gusty winds likely over Gujarat, Maharashtra, Madhya Pradesh, Vidarbha, Chhattisgarh on 20th March and reduce significantly thereafter. Isolated hailstorm is also likely over Madhya Pradesh on 20th March, 2023.
- ◆ **South Peninsular India:** Isolated to scattered light/moderate rainfall with thunderstorm, lightning & gusty winds likely over Andhra Pradesh, Telangana, north interior Tamil Nadu and Kerala on 20th March and reduce significantly thereafter.
- ◆ **East & Northeast India:** Fairly widespread to widespread light/moderate rainfall activity with thunderstorm, lightning & gusty winds likely to continue over West Bengal & Sikkim and Northeast India during 20th-23rd March. Scattered to fairly widespread light/moderate rainfall/thundershowers are also likely over Bihar and Jharkhand on 20th March and reduction thereafter. Isolated heavy rainfall very likely over Arunachal Pradesh, Assam & Meghalaya during 20th-22nd; Nagaland, Manipur, Mizoram & Tripura, during 20th-21st; over Sub-Himalayan West Bengal & Sikkim, Bihar on 20th March. Isolated very heavy rainfall also likely over south Assam & Meghalaya on 20th March, 2023.

### Main Weather Observations

- ◆ **Rainfall/thundershowers observed** (from 0830 hours IST to 1730 hours IST of today): **at many places over** Himachal Pradesh, Uttarakhand, Bihar and Nagaland, Manipur, Mizoram & Tripura; **at a few places over** Punjab, Uttar Pradesh, East Rajasthan, Haryana, Chandigarh & Delhi, Sub-Himalayan West Bengal & Sikkim and Assam & Meghalaya and **at isolated places over** Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad, Madhya Pradesh, West Rajasthan, Saurashtra & Kutch, Tamil Nadu, Puducherry & Karaikal, Jharkhand, Gangetic West Bengal and Arunachal Pradesh.
- ◆ **Significant amount of rainfall recorded** (from 0830 hours IST to 1730 hours IST of today)(in cm): Solan and Ambala-4; Patiala-3; Sundernagar, Rohtak, Moradabad, Shimla, Bhagalpur, Panagarh, Baderwah, Puri and Kailashahar-2 each.
- ◆ **Heavy rainfall observed** (from 0830 hours IST to 1730 hours IST of today): **Nil**.
- ◆ **Thunderstorm observed** (from 0830 hours IST to 1730 hours IST of today): at isolated places over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad, Uttarakhand, Punjab, Haryana, Chandigarh & Delhi, Rajasthan, West Madhya Pradesh, Coastal Andhra Pradesh, Odisha, Bihar, Saurashtra & Kutch, Nagaland, Manipur, Mizoram & Tripura and Tamil Nadu, Puducherry & Karaikal.
- ◆ **Minimum Temperature Departures (as on 20-03-2023):** Minimum temperatures are **above normal (1.6°C to 3.0°C)** at many places over Punjab, Andaman & Nicobar Islands; at a few places over Bihar, Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad; at isolated places over Uttar Pradesh. They are **markedly below normal (-5.1°C or less)** at a few places over Vidarbha; at isolated places over Odisha, North Interior Karnataka; **appreciably below normal (-3.1°C to -5.0°C)** at many places over Coastal Karnataka; at a few places over Madhya Pradesh, Gangetic West Bengal, Coastal Andhra Pradesh & Yanam; at isolated places over Chhattisgarh, Jharkhand, Madhya Marathwada, South Interior Karnataka, Telangana, West Rajasthan; **below normal (-1.6°C to -3.0°C)** at a few places over East Rajasthan, Rayalaseema; at isolated places over Gujarat state, Sub-Himalayan West Bengal & Sikkim, Nagaland, Manipur, Mizoram & Tripura and **near normal** over rest parts of the country. **Today, the lowest minimum temperature of 12.1°C is reported at Malanjkhanda (East Madhya Pradesh) over plains of the country.**
- ◆ **Maximum Temperature Departures (as on 20-03-2023):** Maximum temperatures are **markedly below normal (-5.1°C or less)** at most places over Uttar Pradesh, Madhya Pradesh, East Rajasthan, Madhya Maharashtra, Bihar and Jharkhand; at many places over Haryana, Chandigarh & Delhi and West Bengal & Sikkim; at a few places over Himachal Pradesh, Uttarakhand, West Rajasthan, Gujarat region, Marathwada, Chhattisgarh, Odisha and Assam & Meghalaya and at isolated places over Vidarbha and Telangana; **appreciably below normal (-3.1°C to -5.1°C)** at most places over North Interior Karnataka; at many places over Saurashtra & Kutch, Rayalaseema and Nagaland, Manipur, Mizoram & Tripura; at a few places over Punjab and Coastal Andhra Pradesh & Yanam and at isolated places over Tamil Nadu, Puducherry & Karaikal; **below normal (-1.6°C to -3.0°C)** at isolated places over Konkan & Goa and **near normal** over rest parts of the country. Today, the **highest maximum temperature of 37.2°C** was reported at **Palakkad (Kerala & Mahe)**.

\* Red color warning does not mean "Red Alert" Red color warning means "Take Action".

Forecast and Warning for any day is valid from 0830 hours IST of day till 0830 hours IST of next day

For more details kindly visit [www.imd.gov.in](http://www.imd.gov.in) or contact : +91 11 24631913, 24643965, 24629798

(Continued to the Next page 1077)

### Meteorological Analysis (Based on 1730 hours IST)

- ♦ The **Western Disturbance** as a trough in middle & upper tropospheric westerlies with its axis at 5.8 km above mean sea level now runs roughly along Long. 75°E to the north of Lat. 25°N.
- ♦ The **cyclonic circulation** over Northeast Rajasthan & neighbourhood extending upto 3.1 km above mean sea level persists.
- ♦ The **trough** from the above cyclonic circulation over Northeast Rajasthan to Nagaland across Uttar Pradesh & Bihar extending upto 1.5 km above mean sea level persists.
- ♦ The **cyclonic circulation** over Southwest Rajasthan & neighbourhood upto 1.5 km above mean sea level persists.
- ♦ The **trough/wind discontinuity** from Interior Tamilnadu to Central Chhattisgarh across South Interior Karnataka, Rayalaseema and Telangana at 0.9 km above mean sea level persists.
- ♦ A fresh **Western Disturbance** is likely to affect Northwest India from 23rd March.

### Weather Forecast for next 5 days \* upto 0830 hours IST of 25th March, 2023

- ♦ Meteorological sub-division wise detailed 5 days temperature forecast is given in Table-1.
- ♦ **East India:** No significant change in maximum temperatures very likely during next 2 days and rise by 2-4°C thereafter.
- ♦ **Gujarat and Maharashtra:** Rise in maximum temperatures by 3-5°C very likely during next 4-5 days.
- ♦ **Rest parts of the Country:** No significant change in Maximum Temperatures very likely during next 4-5 days.

### Weather Outlook for subsequent 2 days during 25th-27th March, 2023

- ♦ Scattered to fairly widespread light/moderate rainfall/thundershowers likely over Northeast India, Western Himalayan Region & adjoining plains of Northwest India. Isolated to scattered light rainfall/thundershowers likely over south Peninsular India.

### Weather Warning during next 5 days \*

**20 March (Day 1): ♦ Heavy to very heavy rainfall** very likely at isolated places over south Assam & Meghalaya; **Heavy rainfall** at isolated places over Arunachal Pradesh, Nagaland, Manipur, Mizoram & Tripura, Sub-Himalayan West Bengal & Sikkim, Bihar, West Uttar Pradesh, Uttarakhand, Haryana, Himachal Pradesh.

♦ **Thunderstorm accompanied with lightning, hail & gusty wind (30-40 kmph)** very likely at isolated places over East Uttar Pradesh, Haryana, Chandigarh & Delhi, Punjab, East Rajasthan, Madhya Pradesh; **with lightning & hail** over Uttarakhand, Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Himachal Pradesh; **with lightning & gusty wind (30-40 kmph)** over Gangetic West Bengal, Jharkhand, Bihar, Vidarbha, Chhattisgarh, Coastal Andhra Pradesh & Yanam; **with lightning** over Gujarat state, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Sub-Himalayan West Bengal & Sikkim, Odisha, West Rajasthan, Telangana, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe.

**21 March (Day 2): ♦ Heavy rainfall** very likely at isolated places over Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Uttarakhand.

♦ **Thunderstorm accompanied with lightning & hail** very likely at isolated places over Uttarakhand and West Uttar Pradesh; **with lightning & gusty wind (30-40 kmph)** over Gangetic West Bengal, Jharkhand, Bihar, East Uttar Pradesh; **with lightning** over Arunachal Pradesh, Assam & Meghalaya, Arunachal Pradesh, Nagaland, Manipur, Mizoram & Tripura, Madhya Pradesh, Vidarbha, Chhattisgarh, Sub-Himalayan West Bengal & Sikkim, Coastal Andhra Pradesh & Yanam, Telangana and Tamilnadu, Puducherry & Karaikal.

**22 March (Day 3): ♦ Heavy rainfall** very likely at isolated places over Arunachal Pradesh and Assam & Meghalaya.

♦ **Thunderstorm accompanied with lightning & gusty wind (30-40 kmph)** very likely at isolated places over Gangetic West Bengal and **with lightning** over Jharkhand.

**23 March (Day 4): ♦ Thunderstorm accompanied with lightning, hail & gusty wind (30-40 kmph)** very likely at isolated places over Punjab, Haryana, East Rajasthan and **with lightning & hail** over West Rajasthan.

**24 March (Day 5): ♦ Thunderstorm accompanied with lightning, hail & gusty wind (30-40 kmph)** very likely at isolated places over Punjab, Haryana and **with lightning & hail** over Uttarakhand; **with lightning, gusty wind (30-40 kmph)** over West Uttar Pradesh; **with lightning** over Jammu, Kashmir, Ladakh, Gilgit, Baltistan, Muzaffarabad, Himachal Pradesh, East Uttar Pradesh, Rajasthan, Tamilnadu, Puducherry & Karaikal and Kerala & Mahe.

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



**Table-1**  
**5 Day Rainfall Forecast (NIGHT)**  
**20-March-2023**

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

**% Station Reporting Rainfall**

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

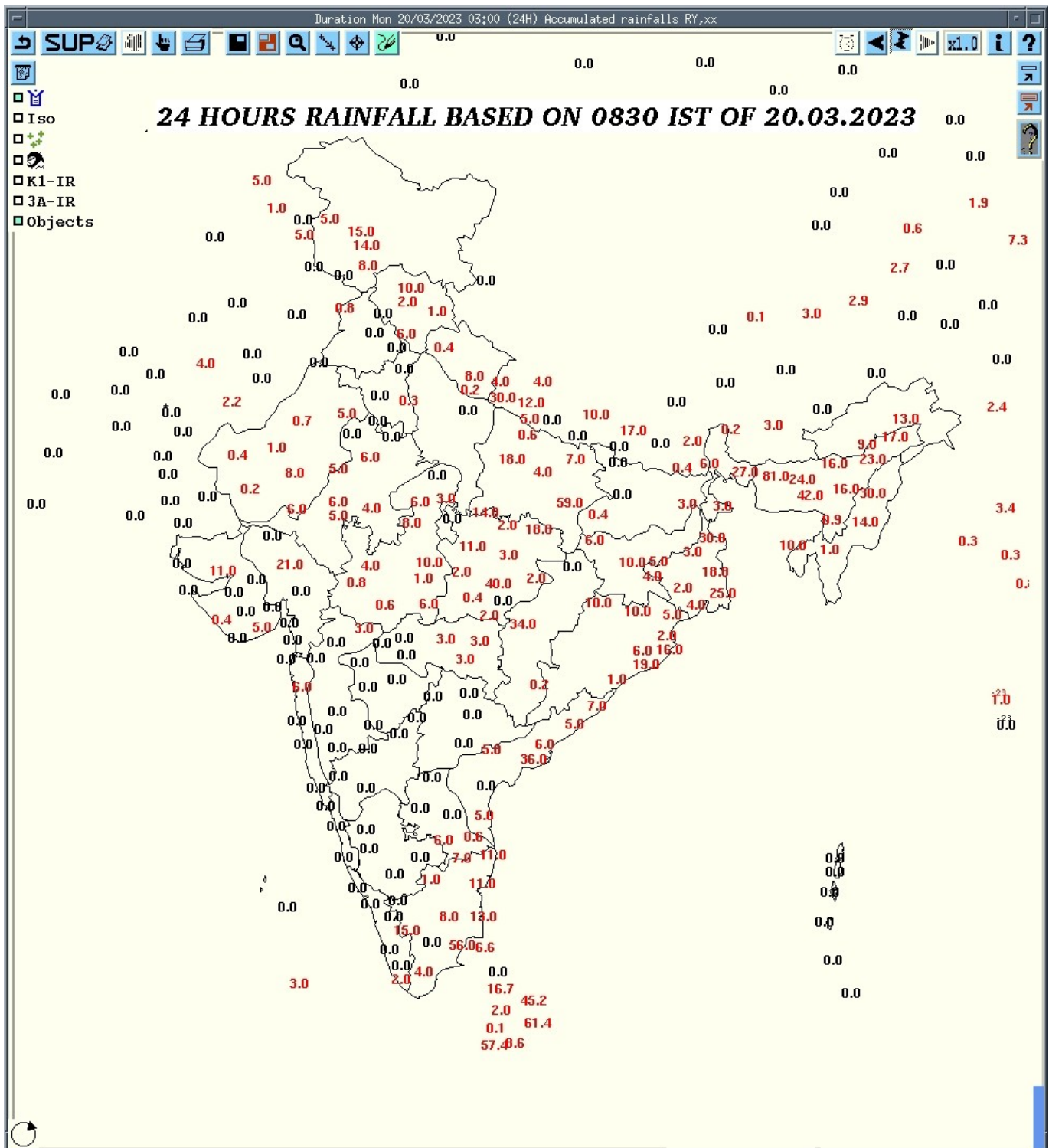
\* Red color warning does not mean "Red Alert" Red color warning means "Take Action".

Forecast and Warning for any day is valid from 0830 hours IST of day till 0830 hours IST of next day

For more details kindly visit [www.imd.gov.in](http://www.imd.gov.in) or contact : +91 11 24631913, 24643965, 24629798

(Copies to the Station since 1977)

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



\* Red color warning does not mean "Red Alert" Red color warning means "Take Action".

Forecast and Warning for any day is valid from 0830 hours IST of day till 0830 hours IST of next day

For more details kindly visit [www.imd.gov.in](http://www.imd.gov.in) or contact : +91 11 24631913, 24643965, 24629798

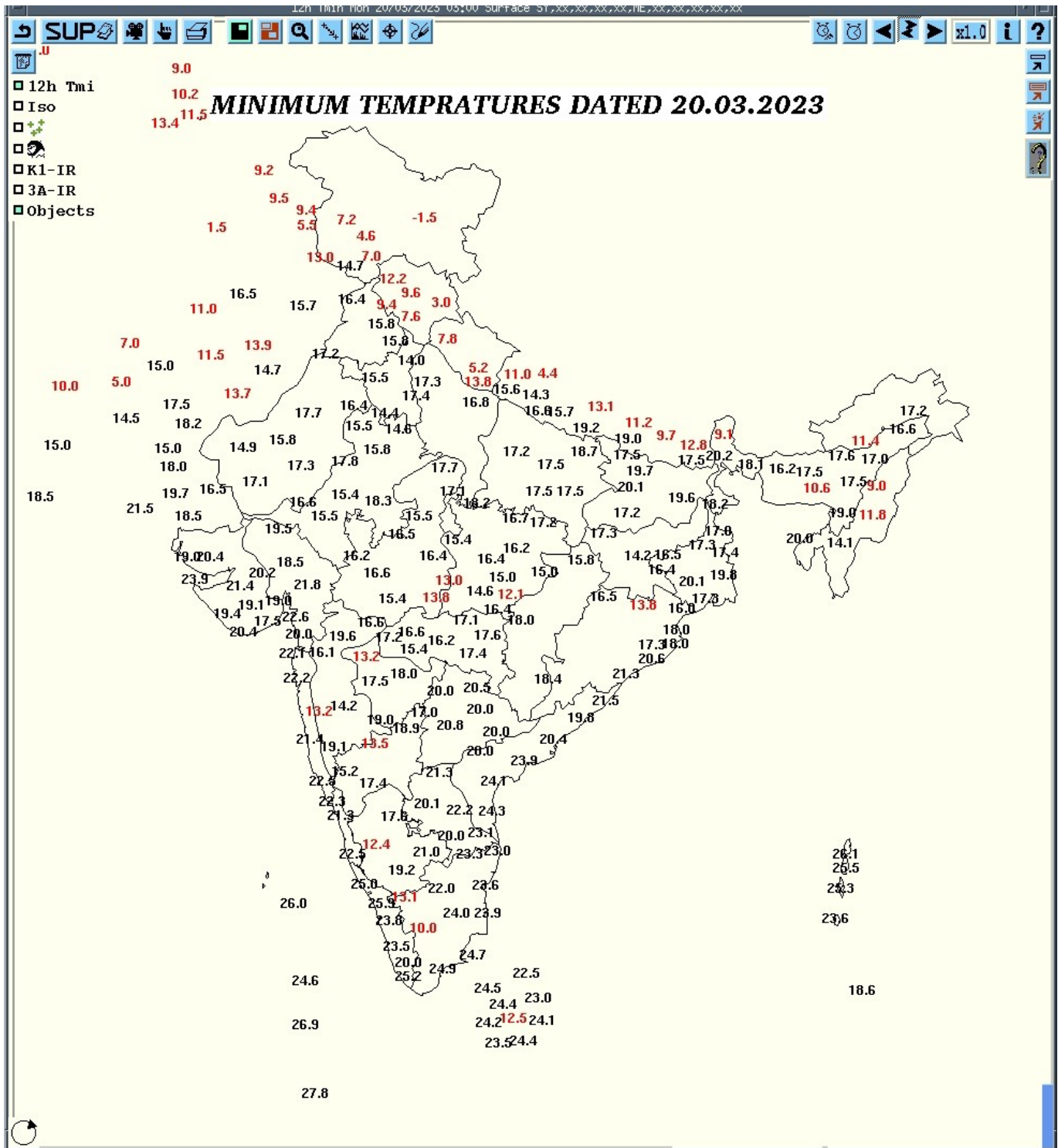
(Committed to the Nation since 1875)



[illegible]

(Owing to the Motion picture 1075)

**Fig. 3: Minimum Temperature during past 24 hours**



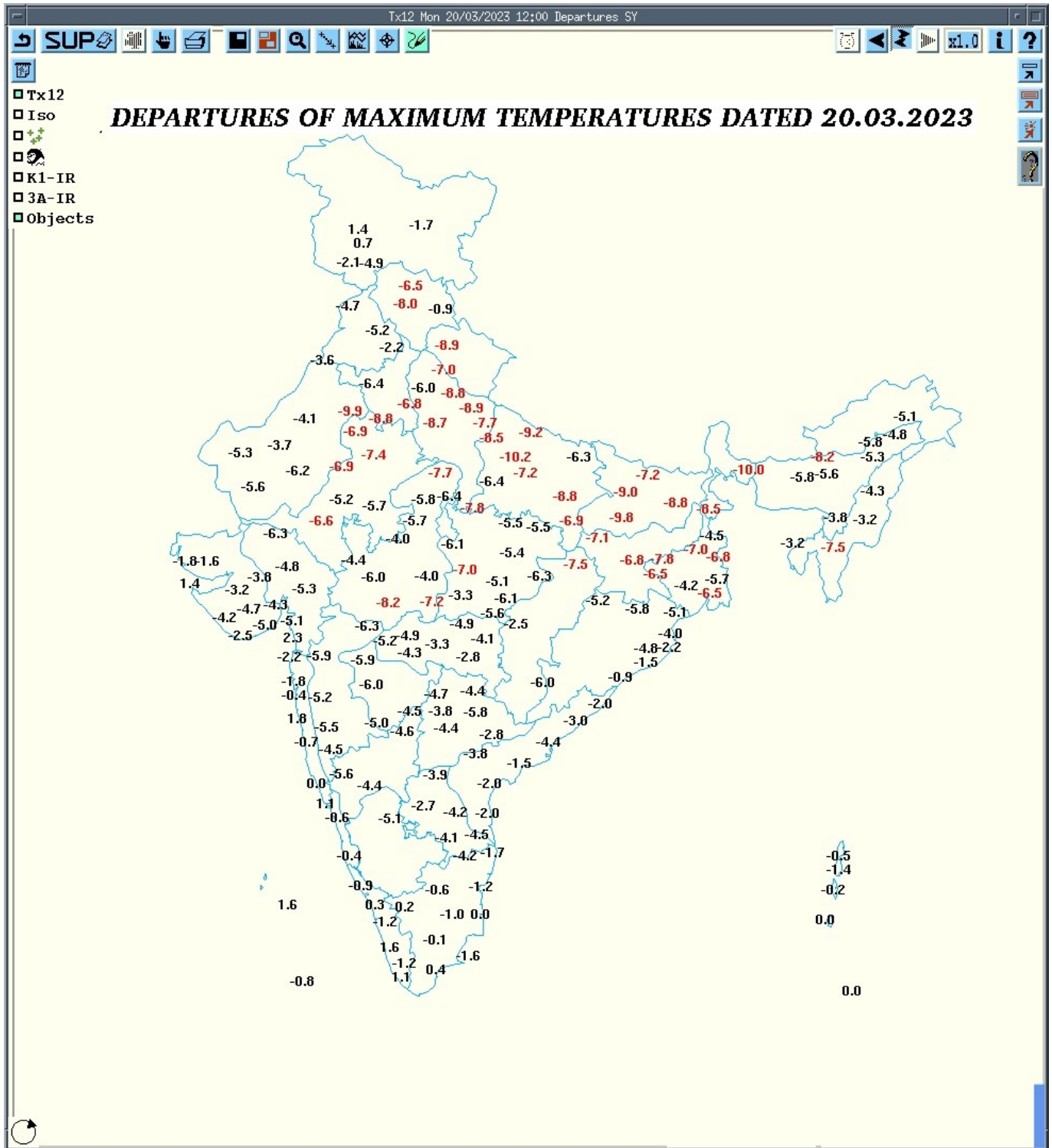
\* Red color warning does not mean "Red Alert" Red color warning means "Take Action".

Forecast and Warning for any day is valid from 0830 hours IST of day till 0830 hours IST of next day

For more details kindly visit [www.imd.gov.in](http://www.imd.gov.in) or contact : +91 11 24631913, 24643965, 24629798

(Downloaded to the National Library of Medicine)

Fig. 4: Departure from Normal of Maximum Temperatures



\* Red color warning does not mean "Red Alert" Red color warning means "Take Action".

Forecast and Warning for any day is valid from 0830 hours IST of day till 0830 hours IST of next day

For more details kindly visit [www.imd.gov.in](http://www.imd.gov.in) or contact : +91 11 24631913, 24643965, 24629798

(Created by the Nation since 1975)



Tn12 Mon 20/03/2023 03:00 Departures SY

SUP

Tn12  
Iso  
K1-IR  
3A-IR  
Objects

**DEPARTURE OF MINIMUM TEMPERATURES DATED 20.03.2023**

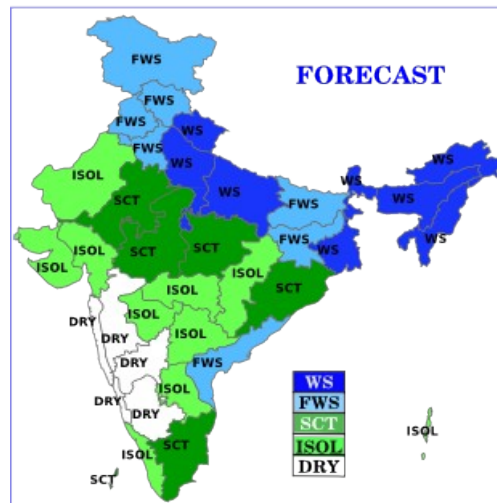
The map displays the departure of minimum temperatures across India for March 20, 2023. The values are color-coded: red for negative departures and black for positive ones. Significant negative departures (down to -6.5) are concentrated in central and southern India, while positive departures (up to 2.8) are seen in the north and northeast.

2.8  
2.4  
2.0  
1.4

-6.5

(Owing to the Nation class 4075)

## Monday 20 March 2023



**20 March (Day 1): ♦ Heavy to very heavy rainfall** very likely at isolated places over south Assam & Meghalaya; **Heavy rainfall** at isolated places over Arunachal Pradesh, Nagaland, Manipur, Mizoram & Tripura, Sub-Himalayan West Bengal & Sikkim, Bihar, West Uttar Pradesh, Uttarakhand, Haryana, Himachal Pradesh.

♦**Thunderstorm accompanied with lightning, hail & gusty wind (30-40 kmph)** very likely at isolated places over East Uttar Pradesh, Haryana, Chandigarh & Delhi, Punjab, East Rajasthan, Madhya Pradesh; **with lightning & hail** over Uttarakhand, Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Himachal Pradesh; **with lightning & gusty wind (30-40 kmph)** over Gangetic West Bengal, Jharkhand, Bihar, Vidarbha, Chhattisgarh, Coastal Andhra Pradesh & Yanam; **with lightning** over Gujarat state, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Sub-Himalayan West Bengal & Sikkim, Odisha, West Rajasthan, Telangana, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe.

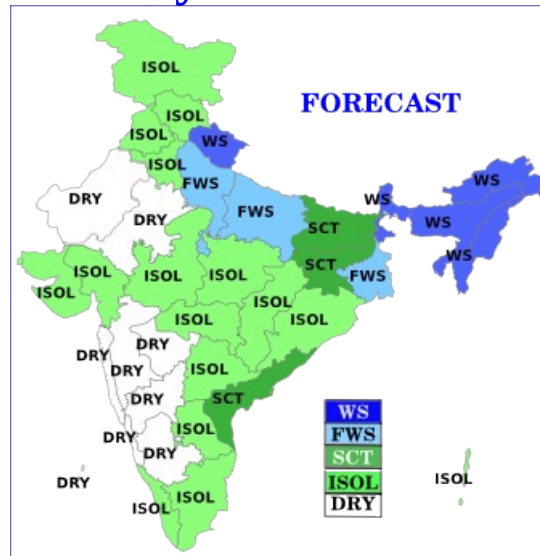
\* Red color warning does not mean "Red Alert" Red color warning means "Take Action".

Forecast and Warning for any day is valid from 0830 hours IST of day till 0830 hours IST of next day

For more details kindly visit [www.imd.gov.in](http://www.imd.gov.in) or contact : +91 11 24631913, 24643965, 24629798

(Copies to the Media since 1977)

**Tuesday 21 March 2023**



**21 March (Day 2): ♦ Heavy rainfall** very likely at isolated places over Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Uttarakhand.

♦ **Thunderstorm accompanied with lightning & hail** very likely at isolated places over Uttarakhand and West Uttar Pradesh; **with lightning & gusty wind (30-40 kmph)** over Gangetic West Bengal, Jharkhand, Bihar, East Uttar Pradesh; **with lightning** over Arunachal Pradesh, Assam & Meghalaya, Arunachal Pradesh, Nagaland, Manipur, Mizoram & Tripura, Madhya Pradesh, Vidarbha, Chhattisgarh, Sub-Himalayan West Bengal & Sikkim, Coastal Andhra Pradesh & Yanam, Telangana and Tamilnadu, Puducherry & Karaikal.

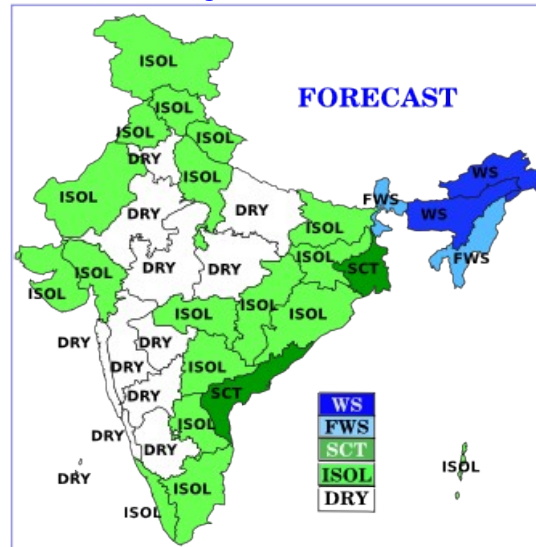
\* Red color warning does not mean "Red Alert" Red color warning means "Take Action".

Forecast and Warning for any day is valid from 0830 hours IST of day till 0830 hours IST of next day

For more details kindly visit [www.imd.gov.in](http://www.imd.gov.in) or contact : +91 11 24631913, 24643965, 24629798

(Copies to the Nation since 1975)

## Wednesday 22 March 2023



**22 March (Day 3): ♦ Heavy rainfall** very likely at isolated places over Arunachal Pradesh and Assam & Meghalaya.

♦ **Thunderstorm accompanied with lightning & gusty wind (30-40 kmph)** very likely at isolated places over Gangetic West Bengal and **with lightning** over Jharkhand.

\* Red color warning does not mean "Red Alert" Red color warning means "Take Action".

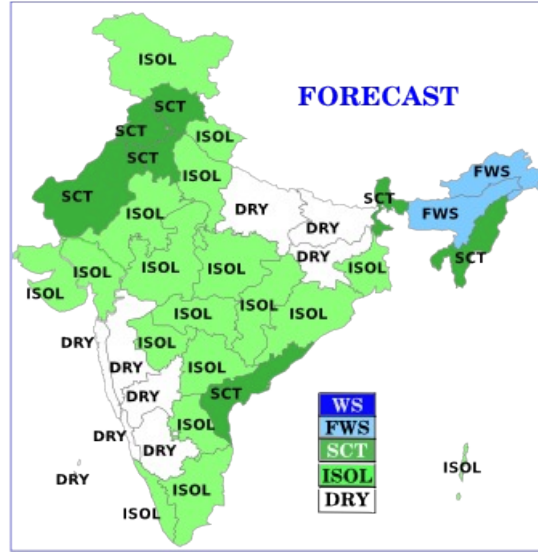
Forecast and Warning for any day is valid from 0830 hours IST of day till 0830 hours IST of next day

For more details kindly visit [www.imd.gov.in](http://www.imd.gov.in) or contact : +91 11 24631913, 24643965, 24629798

(Created by the Nation since 1975)



## Thursday 23 March 2023



**23 March (Day 4): ♦ Thunderstorm accompanied with lightning, hail & gusty wind (30-40 kmph) very likely at isolated places over Punjab, Haryana, East Rajasthan and with lightning & hail over West Rajasthan.**

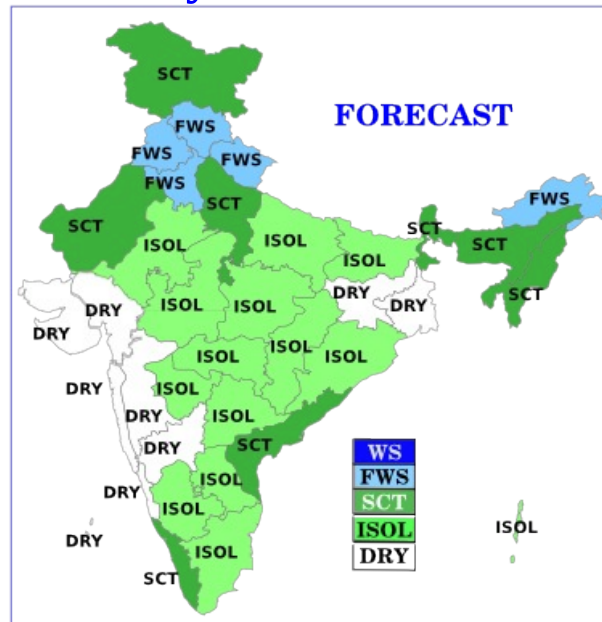
\* Red color warning does not mean "Red Alert" Red color warning means "Take Action".

Forecast and Warning for any day is valid from 0830 hours IST of day till 0830 hours IST of next day

For more details kindly visit [www.imd.gov.in](http://www.imd.gov.in) or contact : +91 11 24631913, 24643965, 24629798

(Copies to the Nation since 1975)

## Friday 24 March 2023



**24 March (Day 5): ♦ Thunderstorm accompanied with lightning, hail & gusty wind (30-40 kmph) very likely at isolated places over Punjab, Haryana and with lightning & hail over Uttarakhand; with lightning, gusty wind (30-40 kmph) over West Uttar Pradesh; with lightning over Jammu, Kashmir, Ladakh, Gilgit, Baltistan, Muzaffarabad, Himachal Pradesh, East Uttar Pradesh, Rajasthan, Tamilnadu, Puducherry & Karaikal and Kerala & Mahe.**

\* Red color warning does not mean "Red Alert" Red color warning means "Take Action".

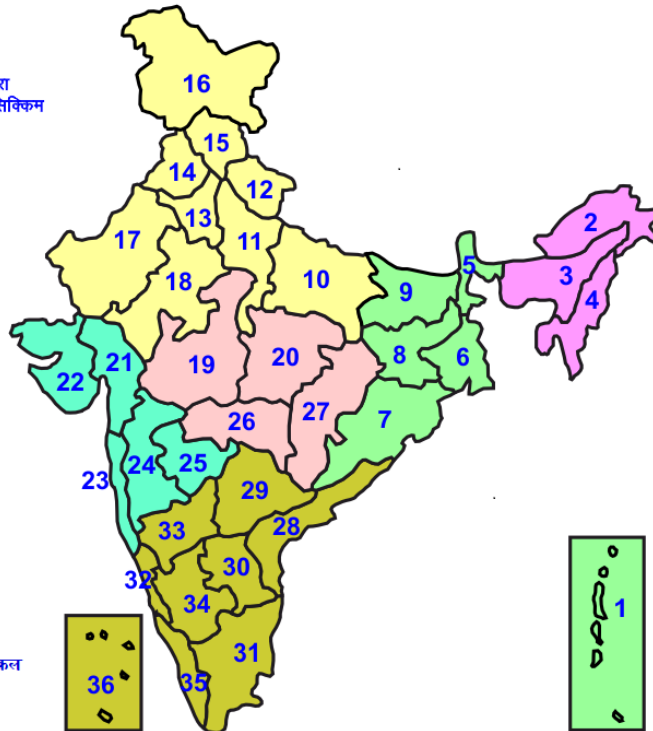
Forecast and Warning for any day is valid from 0830 hours IST of day till 0830 hours IST of next day

For more details kindly visit [www.imd.gov.in](http://www.imd.gov.in) or contact : +91 11 24631913, 24643965, 24629798

(Created by the Nation since 1975)

## LEGENDS

- 1 अंडमान और निकोबार द्वीप समुह
- 2 अरुणाचल प्रदेश
- 3 असम और मेघालय
- 4 नागालैंड मनीपुर मीजोरम और त्रिपुरा
- 5 उप हिमालय पश्चिम बंगाल एवं सिक्किम
- 6 पश्चिम गंगेय बंगाल
- 7 ओडिशा
- 8 झारखंड
- 9 बिहार
- 10 पूर्वी उत्तर प्रदेश
- 11 पश्चिम उत्तर प्रदेश
- 12 उत्तराखंड
- 13 हरियाणा चंडीगढ़ एवं दिल्ली
- 14 पंजाब
- 15 हिमाचल प्रदेश
- 16 जम्मू एवं कश्मीर एवं लद्दाख
- 17 पश्चिम राजस्थान
- 18 पूर्वी राजस्थान
- 19 पश्चिम मध्य प्रदेश
- 20 पूर्वी मध्य प्रदेश
- 21 गुजरात क्षेत्र
- 22 सौराष्ट्र एवं कच्छ
- 23 कोंकण एवं गोवा
- 24 मध्य महाराष्ट्र
- 25 मराठावाडा
- 26 विदर्भ
- 27 छत्तीसगढ़
- 28 तटीय आंध्र प्रदेश एवं यनम
- 29 तेलंगाना
- 30 रायलसीमा
- 31 तमिलनाडु, पुदुचेरी एवं कराईकल
- 32 तटिय कर्नाटक
- 33 आंतरिक उत्तरी कर्नाटक
- 34 आंतरिक दक्षिणी कर्नाटक
- 35 केरल एवं माहे
- 36 लक्षद्वीप



1. Andaman & Nicobar Islands
2. Arunachal Pradesh
3. Assam & Meghalaya
4. Nagaland, Manipur, Mizoram & Tripura
5. Sub-Himalayan West Bengal & Sikkim
6. Gangetic West Bengal
7. Orissa
8. Jharkhand
9. Bihar
10. East Uttar Pradesh
11. West Uttar Pradesh
12. Uttarakhand
13. Haryana, Chd & Delhi
14. Punjab
15. Himachal Pradesh
16. Jammu & Kashmir and Ladakh
17. West Rajasthan
18. East Rajasthan
19. West Madhya Pradesh
20. East Madhya Pradesh
21. Gujarat
22. Saurashtra
23. Konkan & Goa
24. Madhya Maharashtra
25. Marathawada
26. Vidharbha
27. Chhattisgarh
28. Coastal Andhra Pradesh & Yanam
29. Telangana
30. Rayalaseema
31. Tamilnadu, Puducherry & Karaikal
32. Coastal Karnataka
33. North Interior Karnataka
34. South Interior Karnataka
35. Kerala & Mahe
36. Lakshadweep

## 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 Widespread (FWS/ Many Places)	1-25	Isolated (ISOL)

## WARNING

<b>WARNING (TAKE ACTION)</b>
<b>ALERT ( BE PREPARED)</b>
<b>WATCH (BE UPDATED)</b>
<b>NO WARNING ( NO ACTION)</b>

## Probabilistic Forecast

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



Heavy Rain



Heavy Snow



Thunderstorm



Dust Storm



Strong Winds



Visibility



Cyclone



Squall/ Hail



Frost



Cold Wave



Heat Wave



Sea State

\* Red color warning does not mean "Red Alert" Red color warning means "Take Action".

Forecast and Warning for any day is valid from 0830 hours IST of day till 0830 hours IST of next day

For more details kindly visit [www.imd.gov.in](http://www.imd.gov.in) or contact : +91 11 24631913, 24643965, 24629798

(Created by the National since 1975)



## LEGENDS

### WARNING

<b>WARNING (TAKE ACTION)</b>
<b>ALERT ( BE PREPARED)</b>
<b>WATCH (BE UPDATED)</b>
<b>NO WARNING ( NO ACTION)</b>

### Probabilistic Forecast

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



Rain/ Snow \*

Heavy: 64.5 to 115.5 mm/cm \*  
Very Heavy: 115.6 to 204.4 mm/cm \*  
Extremely Heavy: > 204.4 mm/cm \*



Heat Wave

When maximum temperature of a station reaches  $\geq 40^{\circ}\text{C}$  for plains and  $\geq 30^{\circ}\text{C}$  for hilly regions  
(a) Based on Departure from normal

Heat Wave: Maximum Temperature Departure from normal  $4.5^{\circ}\text{C}$  to  $6.4^{\circ}\text{C}$ .

Severe Heat Wave: Maximum Temperature Departure from normal  $\geq 6.5^{\circ}\text{C}$

(b). Based on Actual maximum temperature

Heat Wave: When actual maximum temperature  $\geq 45^{\circ}\text{C}$ .

Severe Heat Wave: When actual maximum temperature  $\geq 47^{\circ}\text{C}$

(c) Criteria for heat wave for coastal stations

When maximum temperature departure is  $> 4.5^{\circ}\text{C}$  from normal. Heat Wave may be described provided maximum temperature  $\geq 37^{\circ}\text{C}$



Warm Night

When maximum temperature remains  $40^{\circ}\text{C}$

Warm Night: When minimum temperature departure  $4.5^{\circ}\text{C}$  to  $6.4^{\circ}\text{C}$ .

Severe Warm Night: When minimum temperature departure  $> 6.4^{\circ}\text{C}$ .



Cold Wave

When minimum temperature of a station  $\leq 10^{\circ}\text{C}$  for plains and  $\leq 0^{\circ}\text{C}$  for hilly regions.

(a). Based on departure

Cold Wave: Minimum Temperature Departure from normal  $-4.5^{\circ}\text{C}$  to  $-6.4^{\circ}\text{C}$ .

Severe Cold Wave: Minimum Temperature Departure from normal  $\leq -6.5^{\circ}\text{C}$

(b) Based on actual Minimum Temperature (for Plains only)

Cold Wave : When Minimum Temperature is  $\leq 4.0^{\circ}\text{C}$

Severe Cold Wave: When Minimum Temperature is  $\leq 2.0^{\circ}\text{C}$

(c) For Coastal Stations

When Minimum Temperature departure is  $\leq -4.5^{\circ}\text{C}$  & actual Minimum Temperature is  $\leq 15^{\circ}\text{C}$



Cold Day

When minimum temperature of a station  $\leq 10^{\circ}\text{C}$  for plains and  $\leq 0^{\circ}\text{C}$  for hilly regions

Based on departure

Cold Day: Maximum Temperature Departure from normal  $-4.5^{\circ}\text{C}$  to  $-6.4^{\circ}\text{C}$ .

Severe Cold Day: Maximum Temperature Departure from normal  $\leq -6.5^{\circ}\text{C}$



Fog

Phenomenon of small droplets suspended in air and the horizontal visibility  $< 1\text{km}$

Moderate Fog: When the visibility between 500-200 metres

Dense Fog: when the visibility between 50- 200 metres

Very Dense Fog: when the visibility  $< 50$  metres



Thunderstorm

Sudden electrical discharges manifested by a flash of light (Lightning) and a sharp rumbling sound (thunder)



Dust/Sand Storm

An ensemble of particles of dust or sand energetically lifted to great heights by a strong and turbulent wind.



Frost

Ice deposits on ground

Air temperature  $\leq 4^{\circ}\text{C}$  ( over Plains)



Squall

A strong wind that rises suddenly, lasts for atleast 1 minute.

Moderate: Wind speed 52-61 kmph

Severe: Wind speed 62-87 kmph

Very Severe: Wind speed  $> 87$  kmph



Sea State

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

Phenomenal: Wind speed  $> 117$  kmph ( $> 63$  knots) & Wave height  $> 14$  metre



Cyclone

Cyclonic Storm: Wind speed 62-87 kmph (34-47 knots)

Severe Cyclonic Storm: Wind speed 88-117 kmph (48-63 knots)

Very Severe Cyclonic Storm: Wind speed 118-165 kmph (64 - 89 knots)

Extremely Severe Cyclonic Storm: Wind speed 166-220 kmph (90 -119 knots)

Super Cyclone Strom: Wind speed  $> 220$  kmph ( $> 119$  knots)

\* Red color warning does not mean "Red Alert" Red color warning means "Take Action".

Forecast and Warning for any day is valid from 0830 hours IST of day till 0830 hours IST of next day

For more details kindly visit [www.imd.gov.in](http://www.imd.gov.in) or contact : +91 11 24631913, 24643965, 24629798

(Severely the Nation since 1977)