



Saturday, July 08, 2023
Time of Issue: 0800 hours IST
(MORNING)

ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

Significant Weather Features

Significant Weather features, Forecast and Warning during next 5 days:

- ❖ The Monsoon trough at mean sea level lies south of its normal position.
- ❖ The east-west shear zone runs roughly along Lat. 19°N in middle tropospheric levels.
- ❖ The off-shore trough at mean sea level runs from south Gujarat coast to north Kerala coast.
- ❖ The cyclonic circulation lies over Jharkhand in lower tropospheric & middle tropospheric levels.
- ❖ The cyclonic circulation lies over Northeast Arabian Sea adjoining Gujarat in lower tropospheric levels.
- ❖ A Western Disturbance in mid-tropospheric westerlies runs roughly along Long. 63°E to the north of Lat. 28°N.

Weather Forecast and Warning:

West India: Light/moderate widespread rainfall with **isolated heavy to very heavy rainfall** very likely to continue over Gujarat state during next 3 days and reduction thereafter. Isolated **extremely heavy falls** also likely over Saurashtra & Kutch on 08th July.

Northwest India: Light/moderate fairly widespread to widespread rainfall with **isolated heavy rainfall** is very likely over the region during next 4-5 days. Isolated **very heavy rainfall** is also very likely over Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Haryana and West Uttar Pradesh on 08th & 09th and over Punjab on 08th July.

East & Northeast India: Fairly widespread to widespread light/moderate rainfall with isolated **Heavy to very heavy rainfall** very likely over Sub-Himalayan West Bengal & Sikkim Assam & Meghalaya, Arunachal Pradesh, Nagaland, Manipur during next 5 days. Isolated **heavy rainfall** likely over Odisha during next 5 days; Gangetic West Bengal on 08th; Bihar during 09th-11th; Jharkhand on 11th July.

Central & South India: Light/moderate fairly widespread to widespread rainfall with **isolated heavy rainfall** is very likely over the region on 08th July and reduction thereafter.

Main Weather Observations

- ❖ **Rainfall/thundershowers observed** (from 0830 hours IST to 1730 hours IST of yesterday): **at most places over** Madhya Maharashtra, Bihar, Jharkhand, Coastal Karnataka, Konkan & Goa; **at many places over** Uttarakhand, Himachal Pradesh, East Uttar Pradesh, Gujarat State, Kerala & Mahe; **at a few places over** Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, West Bengal & Sikkim, Assam & Meghalaya, Chhattisgarh, Madhya Maharashtra, Marathwada and **at isolated places over** Tamil Nadu, Puducherry & Karaikal, East Rajasthan, Arunachal Pradesh, Punjab, West Uttar Pradesh, Nagaland, Manipur, Mizoram & Tripura, Odisha, Vidarbha, Coastal Andhra Pradesh & Yanam, Interior Karnataka.
- ❖ **Heavy Rainfall observed** (from 0830 hours IST to 1730 hours IST of yesterday): **Heavy rainfall** at isolated places over Saurashtra & Kutch and Uttarakhand.
- ❖ **Significant rainfall recorded** (from 0830 hours IST to 1730 hours IST of yesterday)(**in cm**): **Saurashtra & Kutch**: Porbandar-9, Veraval-2, Bhaunagar-1; **Uttarakhand**: Pantnagar-7, Dehradun-2; **East Madhya Pradesh**: Sagar-6, Satna-2; **Madhya Maharashtra**: Mahabaleshwar-6; **Konkan & Goa**: Goa, Alibag, Harnai-5 each, Ratnagiri-3; **Gujarat Region**: Deesa-5; **Chhattisgarh**: Pendra Road-3; **West Madhya Pradesh**: Guna-5; **Himachal Pradesh**: Shimla-5; **Coastal Karnataka**: Honavar-4, Karwar-2; **Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad**: Pahalgaoon-4, Qazi Gund-3 Kokarnag-2; **Kerala & Mahe**: Cannur-2; **West Rajasthan**: Jodhpur-2; **East Rajasthan**: Ajmer-2, Jaipur-1.
- ❖ **Thunderstorm observed** (from 0830 hours IST of yesterday to 0530 hours IST of today): at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Uttar Pradesh, Uttarakhand, Himachal Pradesh, East Rajasthan, Madhya Pradesh, Bihar, Odisha, Sub-Himalaya West Bengal & Sikkim, East Rajasthan, Gujarat State.
- ❖ **Minimum Temperature Departures (as on 07-07-2023)**: Minimum temperatures were **above normal (1.6°C to 3.0°C)** at a few places over East Uttar Pradesh; at isolated places over East Madhya Pradesh, Bihar, Jharkhand, Odisha, Sub-Himalaya West Bengal & Sikkim, Coastal Andhra Pradesh & Yanam. They were **below normal (-1.6°C to -3.0°C)** at many places over West Rajasthan, Coastal Karnataka; at a few places over Saurashtra & Kutch, Konkan & Goa, Lakshadweep, Tamil Nadu, Puducherry & Karaikal; at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Punjab, Haryana-Chandigarh-Delhi, West Uttar Pradesh, West Madhya Pradesh and **near normal** over rest parts of the country. Yesterday, **the lowest minimum temperature of 21.1°C** was reported at **Amravati (Vidarbha)** over the plains of the country.
- ❖ **Maximum Temperature Departures (as on 07-07-2023)**: Maximum temperatures were **above normal (1.6°C to 3.0°C)** at many places over Sub-Himalaya West Bengal & Sikkim; at a few places over Odisha; at isolated places over Gangetic West Bengal, Assam & Meghalaya, Tamil Nadu, Puducherry & Karaikal. They were **markedly below normal (-5.1°C or less)** at a few places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad; **appreciably below normal (-3.1°C to -5.0°C)** at many places over Haryana-Chandigarh-Delhi, West Uttar Pradesh; at a few places over East Rajasthan, East Madhya Pradesh; at isolated places over Gujarat State; **below normal (-1.6°C to -3.0°C)** at most places over Punjab; at many places over Uttarakhand, West Rajasthan, Chhattisgarh; at a few places over Himachal Pradesh, West Madhya Pradesh, Vidarbha, Konkan & Goa; at isolated places over East Uttar Pradesh, Coastal Andhra Pradesh & Yanam, Madhya Maharashtra and **near normal** over rest parts of the country. Yesterday, **the highest maximum temperature of 37.5°C** was reported at **Jaisalmer (West Rajasthan)**.



Meteorological Analysis (Based on 0530 hours IST)

- ❖ The Monsoon Trough at mean sea level now passes through Jaisalmer, Kota, Guna, Satna, Daltonganj, Digha and thence southeastwards to Eastcentral Bay of Bengal.
- ❖ The cyclonic circulation over Jharkhand & neighbourhood extending upto 5.8 km above mean sea level tilting southwards with height persists.
- ❖ The cyclonic circulation over northeast Arabian sea & adjoining south Gujarat between 2.1 & 5.8 km above mean sea level tilting southwards with height persists.
- ❖ The east-west shear zone roughly along Lat. 19°N between 4.5 & 5.8 km above mean sea level persists.
- ❖ The off-shore trough at mean sea level from south Gujarat coast to north Kerala coast persists.
- ❖ A Western Disturbance in mid-tropospheric westerlies with its axis at 5.8 km above mean sea level runs roughly along Long. 63°E to the north of Lat. 28°N.
- ❖ The cyclonic circulation over northwest Rajasthan & neighbourhood extending upto 1.5 km above mean sea level persists.
- ❖ The Western Disturbance in mid-tropospheric westerlies with its axis at 5.8 km above mean sea level roughly along Long. 70°E to the north of Lat. 28°N has moved away east-northeastwards.

Weather Forecast for next 5 days (Upto 0830 hours IST of 12th July, 2023)

- ❖ Meteorological sub-division wise detailed 5 days rainfall forecast is given in Table-1.
- ❖ No significant change in maximum temperatures likely over most parts of country during next 5 days.

Weather Outlook for subsequent 2 days (During 12th July-14th July, 2023)

- ❖ Fairly widespread to widespread light/moderate rainfall likely over most parts of the country except over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, West Rajasthan and Tamil Nadu, Puducherry & Karaikal where isolated to scattered rainfall is likely.



Table-1

7 Days Rainfall Forecast								
S. No.	Subdivision	8-Jul	9-Jul	10-Jul	11-Jul	12-Jul	13-Jul	14-Jul
		Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
1	ANDAMAN & NICOBAR ISLANDS	WS	WS	WS	WS	WS	FWS	FWS
2	ARUNACHAL PRADESH	WS	WS	WS	WS	WS	WS	WS
3	ASSAM & MEGHALAYA	WS	WS	WS	WS	WS	WS	WS
4	NAGALAND, MANIPUR, MIZORAM & TRIPURA	WS	WS	WS	WS	WS	WS	WS
5	SUB-HIMALAYAN WEST BENGAL & SIKKIM	WS	WS	WS	WS	WS	WS	WS
6	GANGETIC WEST BENGAL	FWS	SCT	SCT	SCT	SCT	WS	WS
7	ODISHA	FWS	FWS	FWS	FWS	FWS	FWS	FWS
8	JHARKHAND	WS	FWS	FWS	FWS	WS	WS	WS
9	BIHAR	SCT	FWS	FWS	FWS	WS	WS	WS
10	EAST UTTAR PRADESH	SCT	FWS	WS	WS	WS	WS	WS
11	WEST UTTAR PRADESH	FWS	WS	WS	WS	WS	WS	WS
12	UTTARAKHAND	WS	WS	WS	WS	WS	WS	WS
13	HARYANA CHANDIGARH & DELHI	WS	WS	FWS	SCT	FWS	FWS	FWS
14	PUNJAB	WS	WS	SCT	ISOL	SCT	SCT	SCT
15	HIMACHAL PRADESH	WS	WS	WS	SCT	SCT	SCT	SCT
16	JAMMU & KASHMIR AND LADAKH	WS	WS	SCT	SCT	SCT	ISOL	ISOL
17	WEST RAJASTHAN	FWS	FWS	SCT	ISOL	ISOL	ISOL	ISOL
18	EAST RAJASTHAN	FWS	FWS	FWS	FWS	SCT	FWS	FWS
19	WEST MADHYA PRADESH	WS	FWS	SCT	SCT	SCT	WS	WS
20	EAST MADHYA PRADESH	WS	FWS	SCT	SCT	FWS	WS	WS
21	GUJARAT REGION	WS	WS	WS	WS	FWS	WS	WS
22	SAURASHTRA & KUTCH	WS	WS	FWS	SCT	SCT	FWS	FWS
23	KONKAN & GOA	WS	WS	FWS	FWS	WS	WS	WS
24	MADHYA MAHARASHTRA	SCT	SCT	SCT	SCT	ISOL	FWS	FWS
25	MARATHAWADA	SCT	ISOL	ISOL	ISOL	ISOL	FWS	FWS
26	VIDARBHA	FWS	FWS	SCT	SCT	SCT	FWS	FWS
27	CHHATTISGARH	FWS	FWS	FWS	FWS	SCT	FWS	FWS
28	COASTAL ANDHRA PRADESH & YANAM	FWS	SCT	SCT	FWS	FWS	FWS	FWS
29	TELANGANA	SCT	ISOL	SCT	SCT	FWS	FWS	FWS
30	RAYALASEEMA	SCT	ISOL	ISOL	SCT	FWS	FWS	FWS
31	TAMILNADU PUDUCHERRY & KARAIKAL	ISOL	ISOL	SCT	SCT	SCT	SCT	SCT
32	COASTAL KARNATAKA	WS	WS	WS	WS	WS	WS	WS
33	NORTH INTERIOR KARNATAKA	FWS	FWS	SCT	SCT	FWS	FWS	FWS
34	SOUTH INTERIOR KARNATAKA	FWS	FWS	FWS	FWS	FWS	FWS	FWS
35	KERALA & MAHE	WS	FWS	FWS	FWS	FWS	FWS	FWS
36	LAKSHADWEEP	WS	FWS	FWS	FWS	FWS	FWS	FWS

Legend	Category	% Stations
WS	Widespread/Most Places	76-100
FWS	Fairly Widespread/Many places	51-75
SCT	Scattered/ A Few Places	26-50
ISOL	Isolated Places	1-25
DRY	No Rain	0

* 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 <https://mausam.imd.gov.in> or contact : 011-2434-4599
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Fig. 1: Maximum Temperatures Dated 07.07.2023

Fig. 2: Departure of Maximum Temp. Dated 07.07.2023

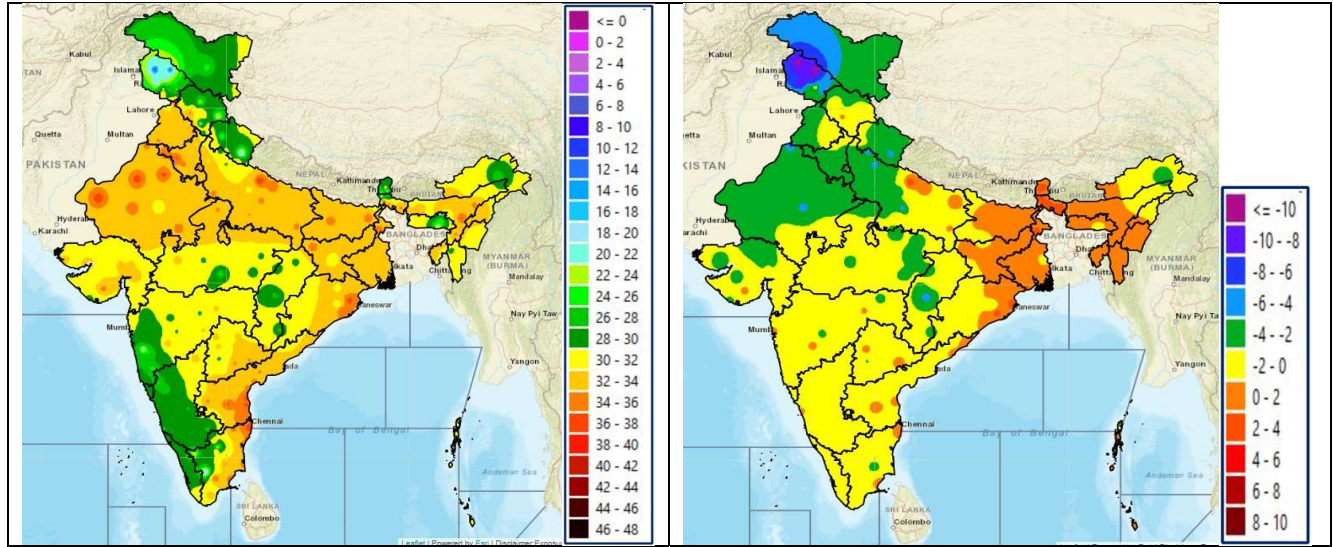
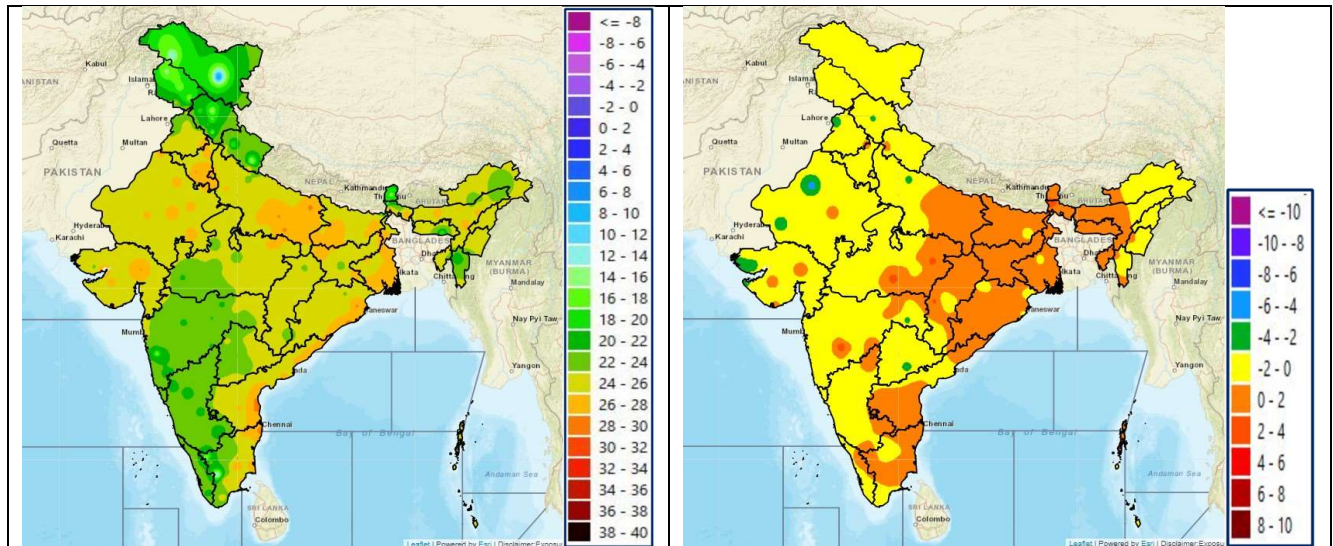


Fig. 3: Minimum Temperatures Dated 07.07.2023

Fig. 4: Departure of Minimum Temp. Dated 07.07.2023

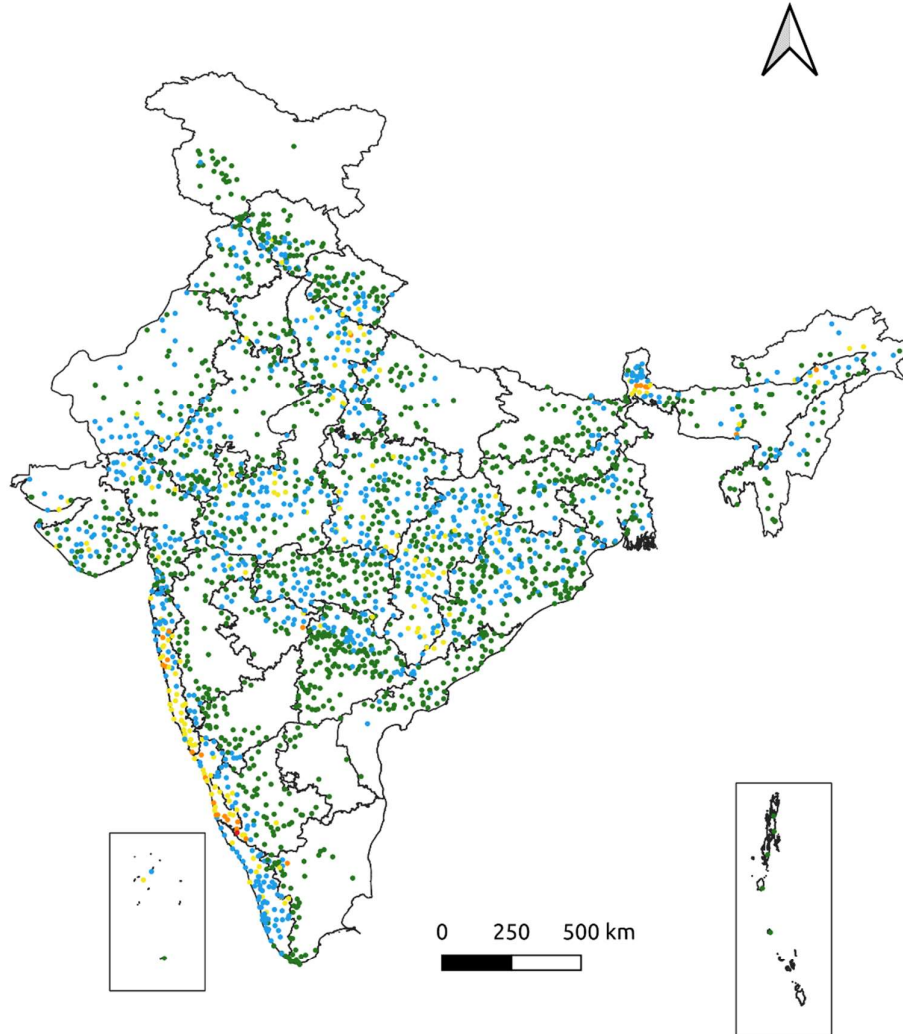


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Fig. 5: Accumulated Rainfall (mm) during past 24 hours

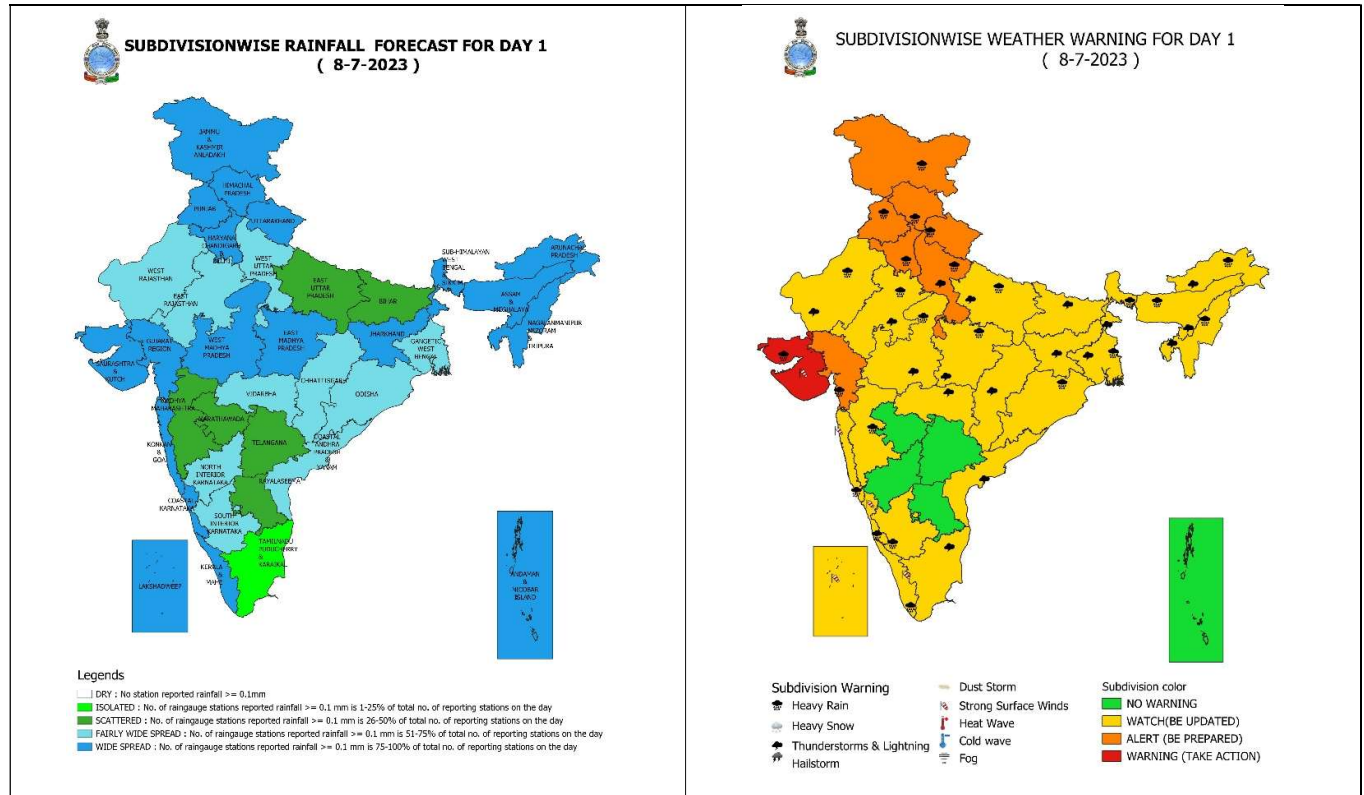


24 Hr cumulative rainfall recorded over different stations during 0830 IST of 6-7-2023 to 0830 IST of 7-7-2023



Legends

- Very Light to Light Rainfall (0.1 - 15.5 mm)
- Moderate Rainfall (15.6 - 64.4 mm)
- Heavy Rainfall (64.5 - 115.5 mm)
- Very Heavy Rainfall (115.6 - 204.4 mm)
- Extremely Heavy Rainfall (≥ 204.5 mm)



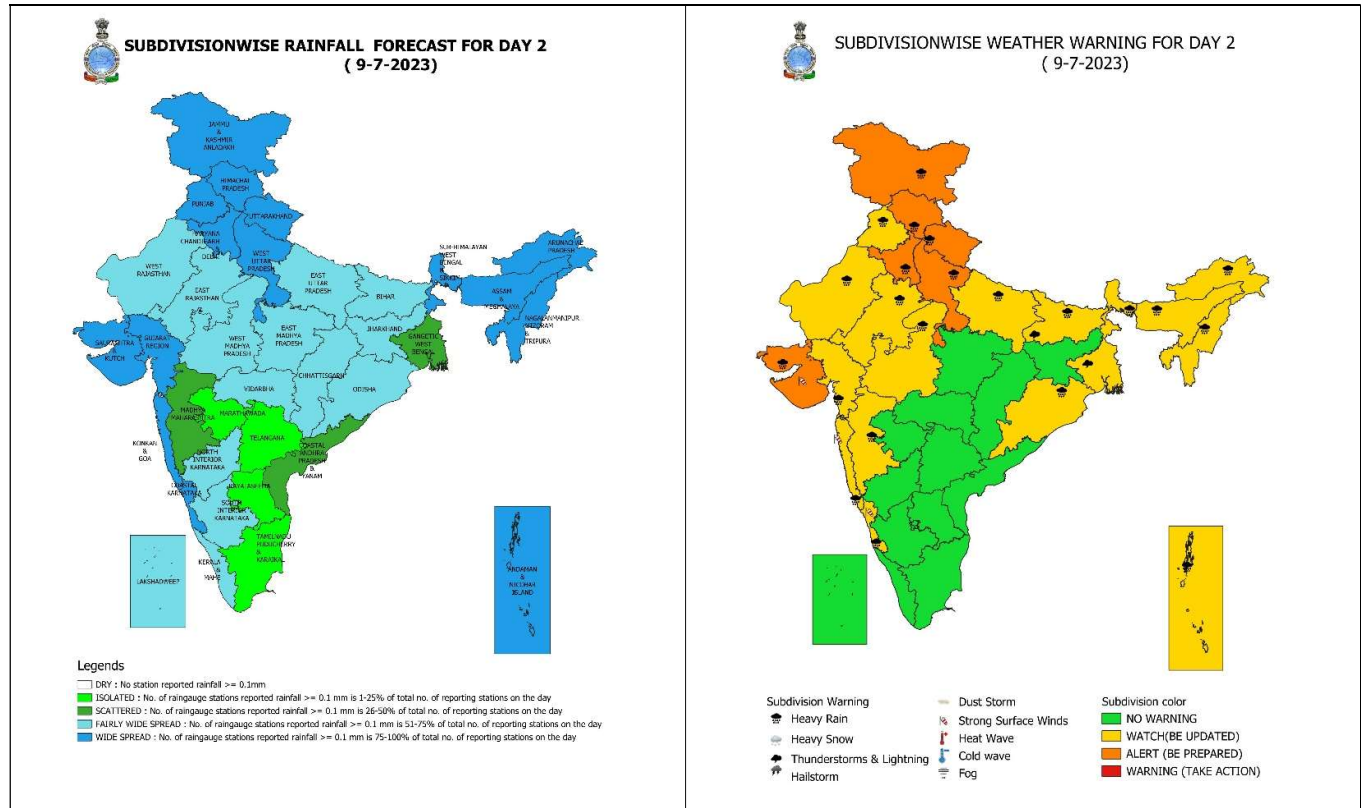
08 July (Day 1):

- ❖ **Heavy to very heavy rainfall at a few places with extremely heavy falls** very likely at isolated places over Saurashtra & Kutch; **Heavy to very heavy rainfall** at isolated places over Gujarat region, Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand, Punjab, Haryana-Chandigarh-Delhi, West Uttar Pradesh; **heavy rainfall** at isolated places over Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, West Bengal & Sikkim, Odisha, East Uttar Pradesh, Rajasthan, Madhya Pradesh, Konkan & Goa, Madhya Maharashtra, Coastal Karnataka, South Interior Karnataka and Kerala & Mahe.
- ❖ **Thunderstorm with lightning** very likely at isolated places over Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Bihar, Jharkhand, West Bengal & Sikkim, Uttar Pradesh, Uttarakhand, Rajasthan, Gujarat state, Madhya Pradesh, Chhattisgarh, Vidarbha, Coastal Andhra Pradesh & Yanam and Tamil Nadu, Puducherry & Karaikal.
- ❖ **Squally wind** speed reaching 45-55 kmph gusting to 65 kmph likely over Westcentral & Southwest and adjoining parts of Eastcentral Arabian Sea. **Squally weather speed reaching 40-45 kmph gusting to 50 kmph** likely Northeast Arabian Sea along & off north Kerala-Karnataka-Maharashtra-Gujarat coasts. Fishermen are advised not to venture into these areas.

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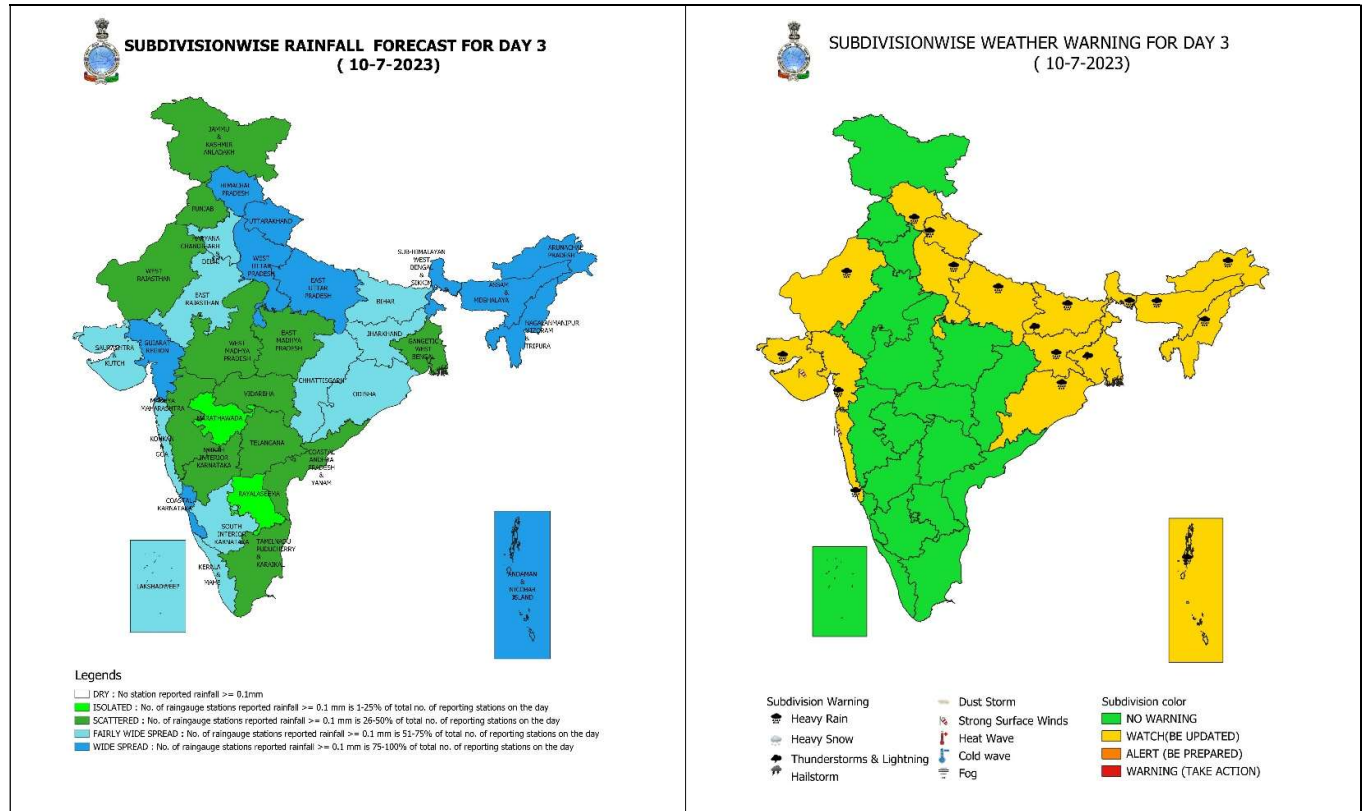
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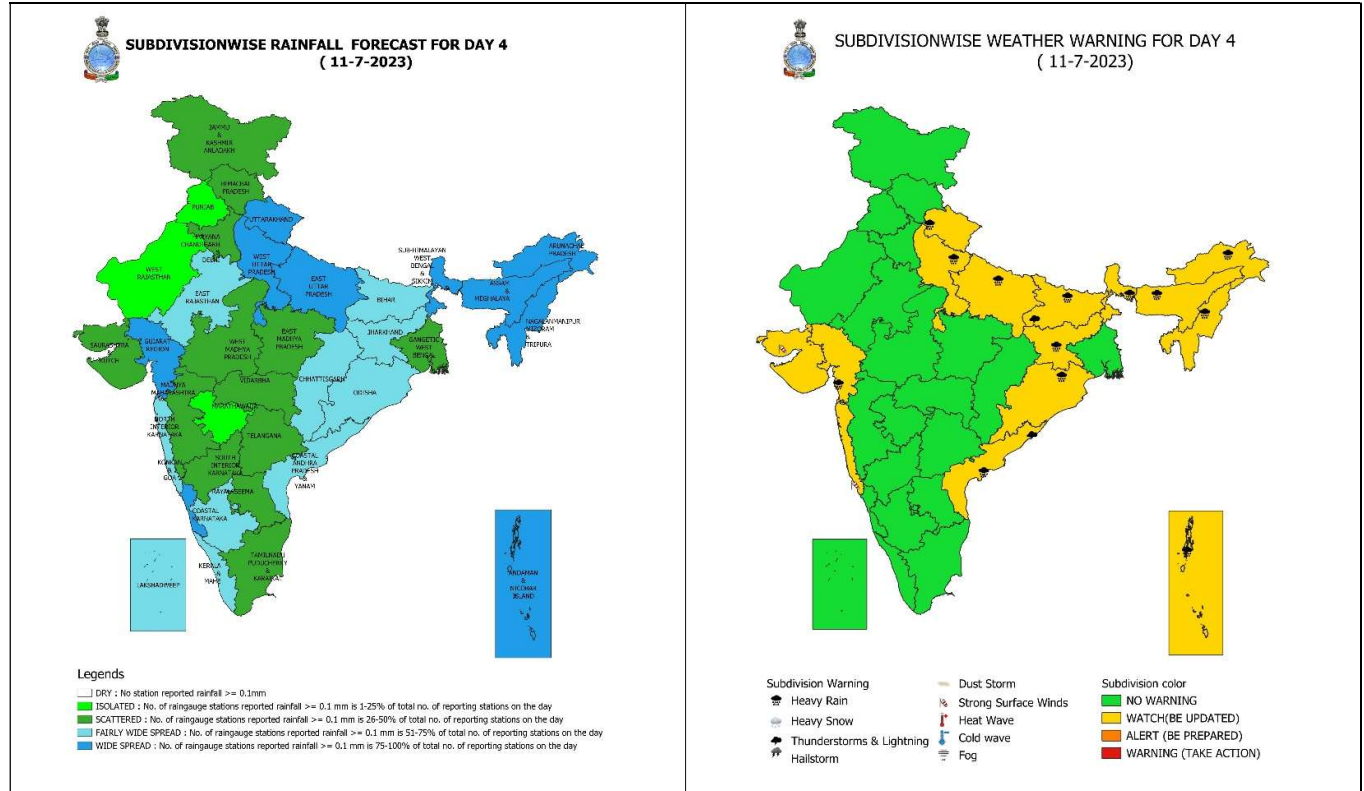
09 July (Day 2):

- ❖ **Heavy to very heavy rainfall** very likely at isolated places over Assam & Meghalaya, Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand, Haryana-Chandigarh-Delhi, West Uttar Pradesh, West Rajasthan, Gujarat state; **heavy rainfall** at isolated places over Andaman & Nicobar Islands, Sub-Himalaya West Bengal & Sikkim, Arunachal Pradesh, Nagaland, Manipur, Mizoram & Tripura, Odisha, Bihar, Punjab, East Uttar Pradesh, East Rajasthan, West Madhya Pradesh, Konkan & Goa, Coastal Karnataka and Madhya Maharashtra.
- ❖ **Thunderstorm with lightning** very likely at isolated places over Bihar and Gangetic West Bengal.
- ❖ **Squally wind** speed reaching 45-55 kmph gusting to 65 kmph likely over Westcentral & Southwest and adjoining parts of Eastcentral Arabian Sea. **Squally weather speed reaching 40-45 kmph gusting to 50 kmph** likely Northeast Arabian Sea along & off Karnataka-Maharashtra-Gujarat coasts. Fishermen are advised not to venture into these areas.



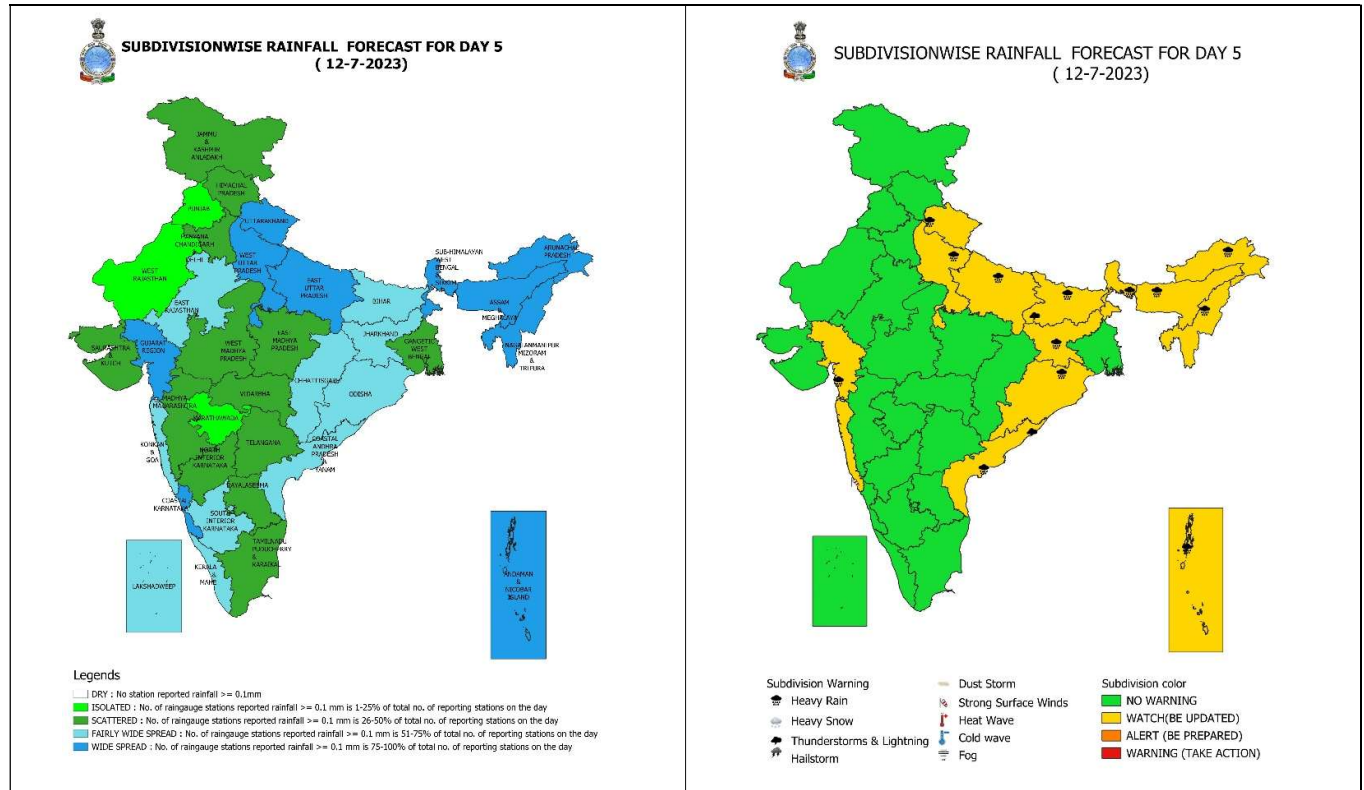
10 July (Day 3):

- ❖ **Heavy to very heavy rainfall** likely at isolated places over Arunachal Pradesh, Assam & Meghalaya, Sub-Himalaya West Bengal & Sikkim, Bihar, Uttarakhand, Uttar Pradesh; **heavy rainfall** at isolated places over Nagaland, Manipur, Mizoram & Tripura, Andaman & Nicobar Islands, Odisha, Himachal Pradesh, West Rajasthan, Gujarat state and Konkan & Goa.
- ❖ **Thunderstorm with lightning** likely at isolated places over Bihar and Gangetic West Bengal.
- ❖ **Squally wind** speed reaching 45-55 kmph gusting to 65 kmph likely over Westcentral & Southwest and adjoining parts of Eastcentral Arabian Sea. **Squally weather speed reaching 40-45 kmph gusting to 50 kmph** likely Northeast Arabian Sea along & off Maharashtra-Gujarat coasts. Fishermen are advised not to venture into these areas.



11 July (Day 4):

- ❖ **Heavy to very heavy rainfall** likely at isolated places over Arunachal Pradesh, Assam & Meghalaya, Sub-Himalaya West Bengal & Sikkim, Bihar, Uttarakhand, Uttar Pradesh; **heavy rainfall** at isolated places over Nagaland, Manipur, Mizoram & Tripura, Andaman & Nicobar Islands, Odisha, Jharkhand, Gujarat Region and Coastal Andhra Pradesh & Yanam.
- ❖ **Thunderstorm with lightning** likely at isolated places over Bihar and Coastal Andhra Pradesh & Yanam.
- ❖ **Squally wind** speed reaching 45-55 kmph gusting to 65 kmph likely over Westcentral & Southwest and adjoining parts of Eastcentral Arabian Sea. Fishermen are advised not to venture into these areas.



12 July (Day 5):

- ❖ **Heavy to very heavy rainfall** likely at isolated places over Arunachal Pradesh, Assam & Meghalaya, Sub-Himalaya West Bengal & Sikkim, Bihar, Uttarakhand, Uttar Pradesh; **heavy rainfall** at isolated places over Nagaland, Manipur, Mizoram & Tripura, Andaman & Nicobar Islands, Odisha, Jharkhand, Gujarat Region and Coastal Andhra Pradesh & Yanam.
- ❖ **Thunderstorm with lightning** likely at isolated places over Bihar and Coastal Andhra Pradesh & Yanam.
- ❖ **Squally wind** speed reaching 45-55 kmph gusting to 65 kmph likely over Westcentral & Southwest and adjoining parts of Eastcentral Arabian Sea. Fishermen are advised not to venture into these areas.

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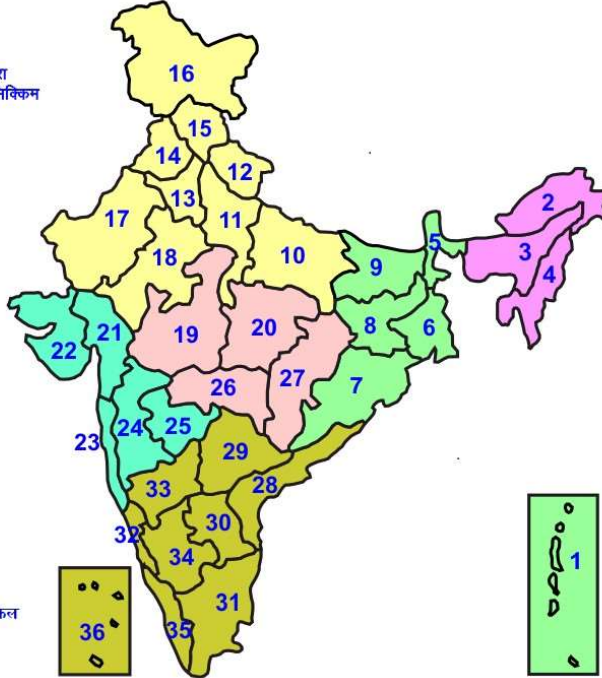
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LEGENDS

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

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



Thunderstorm



Dust Storm



Strong Winds



Visibility



Cyclone



Squall/ Hail



Frost



Cold Wave



Heat Wave



Sea State

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LEGENDS

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



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°C to 6.4°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°C

Warm Night: When minimum temperature departure 4.5°C to 6.4°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°C to -6.4°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°C to -6.4°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 Storm: 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 <https://mausam.imd.gov.in> or contact : 011-2434-4599

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