



Saturday, August 12, 2023
Time of Issue: 0745 hours IST
(MORNING)

ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

Significant Weather Features

Significant Weather features:

- ❖ A cyclonic circulation lies over northeast Uttar Pradesh and adjoining Bihar and a trough runs from east Bihar to Northwest Bay of Bengal in lower tropospheric levels.
- ❖ The Monsoon Trough lies north of its normal position. It is likely to continue to remain north of its normal position or along the foothills of Himalayas during next 4-5 days and gradually shift southwards towards its normal position thereafter
- ❖ A Western Disturbance as a trough in middle tropospheric westerlies runs roughly along Long. 68°E to the north of 30°N.

Weather Forecast and Warnings:

Northwest India: Light/moderate scattered to fairly widespread rainfall with isolated **heavy rainfall** likely over Himachal Pradesh during 12th to 13th; over Uttarakhand during 12th to 16th; over Punjab, Haryana on 12th & 13th; over West Uttar Pradesh on 13th & 14th; over East Uttar Pradesh during 12th to 13th August, 2023.

Isolated very heavy rainfall activity very likely over Uttarakhand during 12th-14th with Isolated extremely heavy rainfall also likely over Uttarakhand during 12th-14th August.

Subdued rainfall activity likely over rest parts of northwest India during next 7 days.

East India: Light/moderate fairly widespread to widespread rainfall with **isolated heavy rainfall** activity very likely over Bihar, Sub-Himalayan West Bengal & Sikkim during 12th-13th August; over Gangetic West Bengal and Jharkhand on 12th & 13th August. **Isolated very heavy rainfall likely over Bihar and Sub-Himalaya West Bengal & Sikkim on 12th August.**

Northeast India: Light/moderate fairly widespread to widespread rainfall with isolated **heavy rainfall** activity very likely over Arunachal Pradesh and Assam & Meghalaya during 12th to 16th and over Nagaland, Manipur, Mizoram & Tripura on 12th & 15th August. **Isolated very heavy rainfall over Arunachal Pradesh and Assam & Meghalaya on 12th August.**

Central, West & South India: Light/moderate isolated to scattered rainfall very likely over Coastal Andhra Pradesh & Yanam, Rayalaseema, Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe during next 5 days.

Subdued rainfall activity likely over these regions during next 7 days.

Hot & Humid weather likely over Coastal Andhra Pradesh during next 2 days.

Main Weather Observations

- ❖ **Rainfall/thundershowers observed** (from 0830 hours IST to 1730 hours IST of yesterday): **at many places over** Jharkhand and Arunachal Pradesh; ; **at a few places** over Himachal Pradesh, Uttarakhand, Haryana, Chandigarh, Madhya Maharashtra, Odisha, Bihar, Sub-Himalaya West Bengal & Sikkim, Nagaland, Manipur, Mizoram & Tripura and Tamil Nadu, Puducherry & Karaikal and at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Punjab, Gujarat state, Konkan & Goa, North Interior Karnataka, Madhya Pradesh, Coastal Andhra Pradesh & Yanam, Chhattisgarh, Gangetic West Bengal, Assam & Meghalaya and Andaman & Nicobar Islands.
- ❖ **Significant rainfall recorded** (from 0830 hours IST to 1730 hours IST of yesterday): **(in cm)**: Sambalpur, Hirakund-4; Jharsiguda-3; Keongihargarh-2.
- ❖ **Thunderstorm observed** (from 0830 hours IST of yesterday to 0530 hours IST of today): at isolated places over East Uttar Pradesh, Gangetic West Bengal, Odisha, Tamil Nadu, Puducherry & Karaikal, Coastal Andhra Pradesh & Yanam and Assam & Meghalaya.
- ❖ **Minimum Temperature Departures (as on 11-08-2023)**: Minimum temperatures were **appreciably above normal (3.1°C to 5.0°C)** at isolated places over East Madhya Pradesh; **above normal (1.6°C to 3.0°C)** at many places over Telangana, Kerala & Mahe; at a few places over Himachal Pradesh, Odisha, North Interior Karnataka, Andaman & Nicobar Islands; at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, East Uttar Pradesh, Saurashtra & Kutch, Coastal Andhra Pradesh & Yanam. They were **below normal (-1.6°C to -3.0°C)** at a few places over Tamil Nadu, Puducherry & Karaikal, at isolated places over Gangetic West Bengal and **near normal** over rest parts of the country. Yesterday, **the lowest minimum temperature of 20.6°C** was reported at **Khargone (West Madhya Pradesh)** over the plains of the country.
- ❖ **Maximum Temperature Departures (as on 11-08-2023)**: Maximum temperatures were **appreciably above normal (3.1°C to 5.0°C)** at many places over Vidarbha, North Interior Karnataka and Chhattisgarh; at a few places over East Madhya Pradesh, Madhya Maharashtra, Telangana, Coastal Andhra Pradesh & Yanam, Kerala & Mahe and Odisha and at isolated places over West Madhya Pradesh; **above normal (1.6°C to 3.0°C)** at most places over Konkan & Goa, Madhya Maharashtra and Marathwada; at many places over East Rajasthan; at a few places over Punjab, Uttar Pradesh, Coastal Karnataka, Tamil Nadu, Puducherry & Karaikal and Gangetic West Bengal and at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad and Gujarat Region. They were **below normal (-1.6°C to -3.0°C)** at a few places over Himachal Pradesh, Bihar and Assam & Meghalaya and at isolated places over West Rajasthan and **near normal** over rest parts of the country. Yesterday, **the highest maximum temperature of 38.5°C** was reported at **Tuni (Coastal Andhra Pradesh)**.

Meteorological Analysis (Based on 0530 hours IST)

- ❖ The **Monsoon Trough** at mean sea level continues to pass through Amritsar, Chandigarh, Dehradun, Gorakhpur, Darbhanga, Balurghat and thence eastwards towards Manipur.
- ❖ The **cyclonic circulation** over northeast Uttar Pradesh and adjoining northwest Bihar at 3.1 km above mean sea level persists.
- ❖ The **Western Disturbance** as a trough in middle tropospheric westerlies with its axis at 5.8 km above mean sea level roughly along Long. 68°E to the north of Lat. 30°N persists.
- ❖ The **trough** from east Bihar to northwest Bay of Bengal across West Bengal upto 1.5 Km above mean sea level persists.
- ❖ The **cyclonic circulation** over Gujarat at 5.8 km above mean sea level persists.
- ❖ The **cyclonic circulation** over Westcentral Bay of Bengal off Andhra Pradesh coast between 4.5 & 5.8 Km above mean sea level persists.
- ❖ The **trough** from South Interior Karnataka to Comorin Area across Tamil Nadu at 0.9 Km above mean sea level persists.

Weather Forecast for next 5 days (Upto 0830 hours IST of 16th August, 2023)

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

Weather Outlook for subsequent 2 days

- ❖ Fairly widespread to widespread light/moderate rainfall likely over along the foothills of the Himalayas, parts of east & northeast India, along the west coasts and islands.
- ❖ Scattered to fairly widespread light/moderate rainfall likely over Central India.
- ❖ Subdued rainfall activity with isolated to scattered rainfall likely over rest parts of the country.



Table-1

7 Days Rainfall Forecast

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

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".

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Fig. 1: Maximum Temperatures Dated 11.08.2023

Fig. 2: Departure of Maximum Temp. Dated 11.08.2023

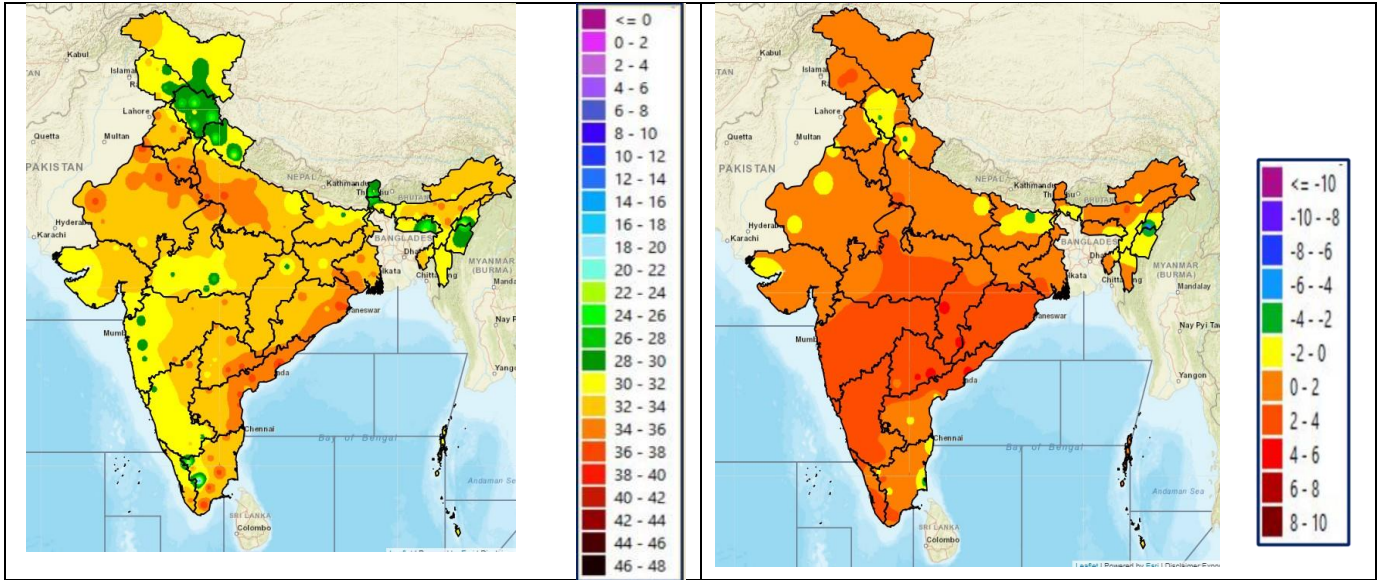


Fig. 3: Minimum Temperatures Dated 11.08.2023

Fig. 4: Departure of Minimum Temp. Dated 11.08.2023

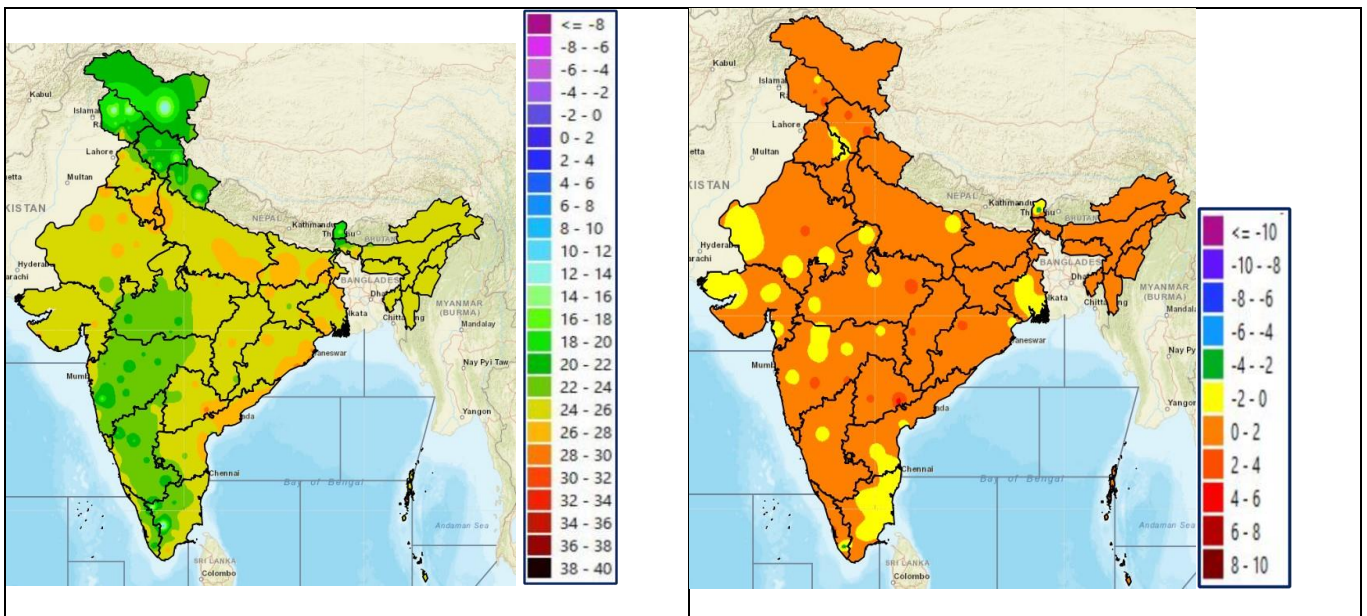
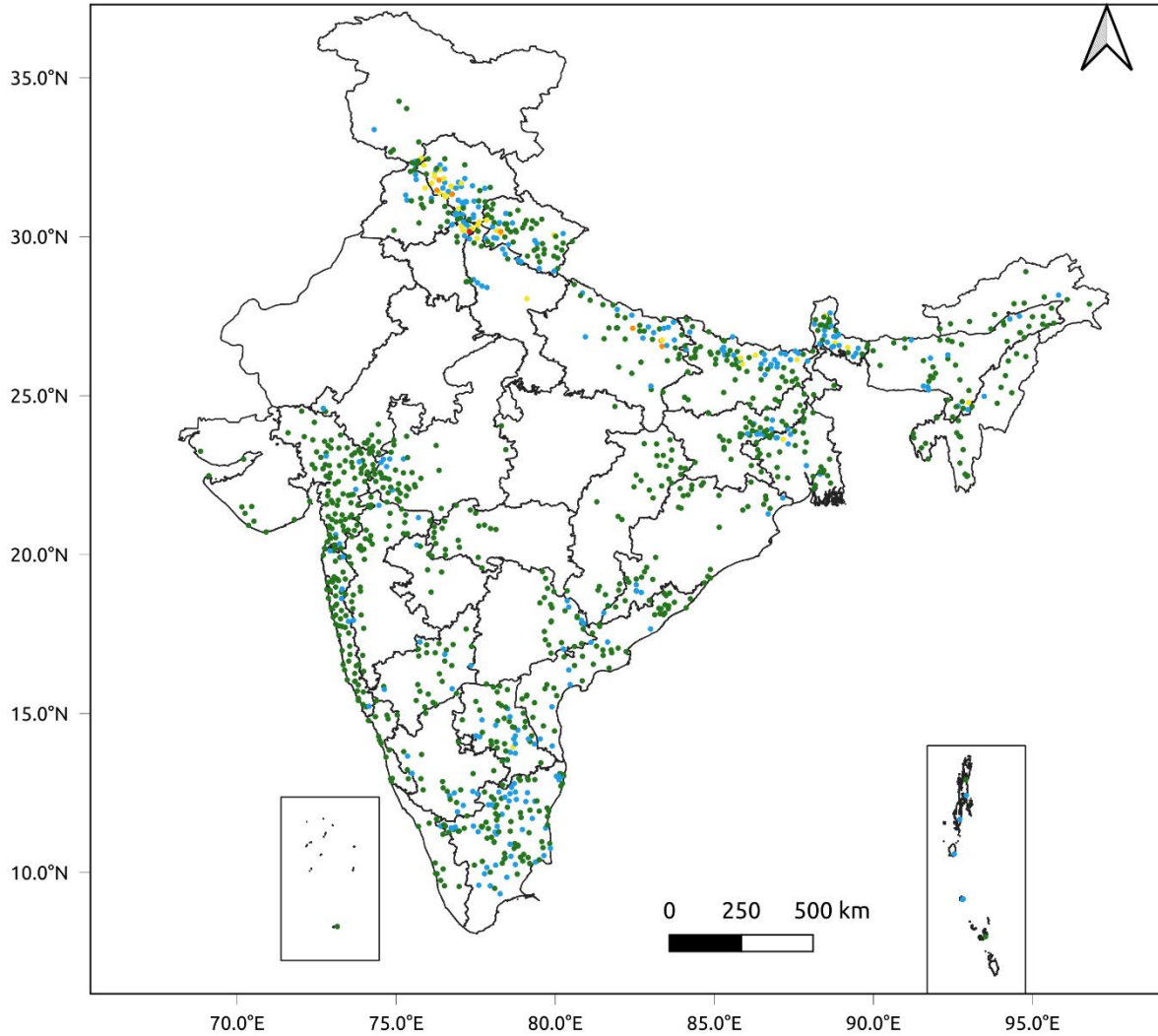


Fig. 5: Accumulated Rainfall (mm) during past 24 hours

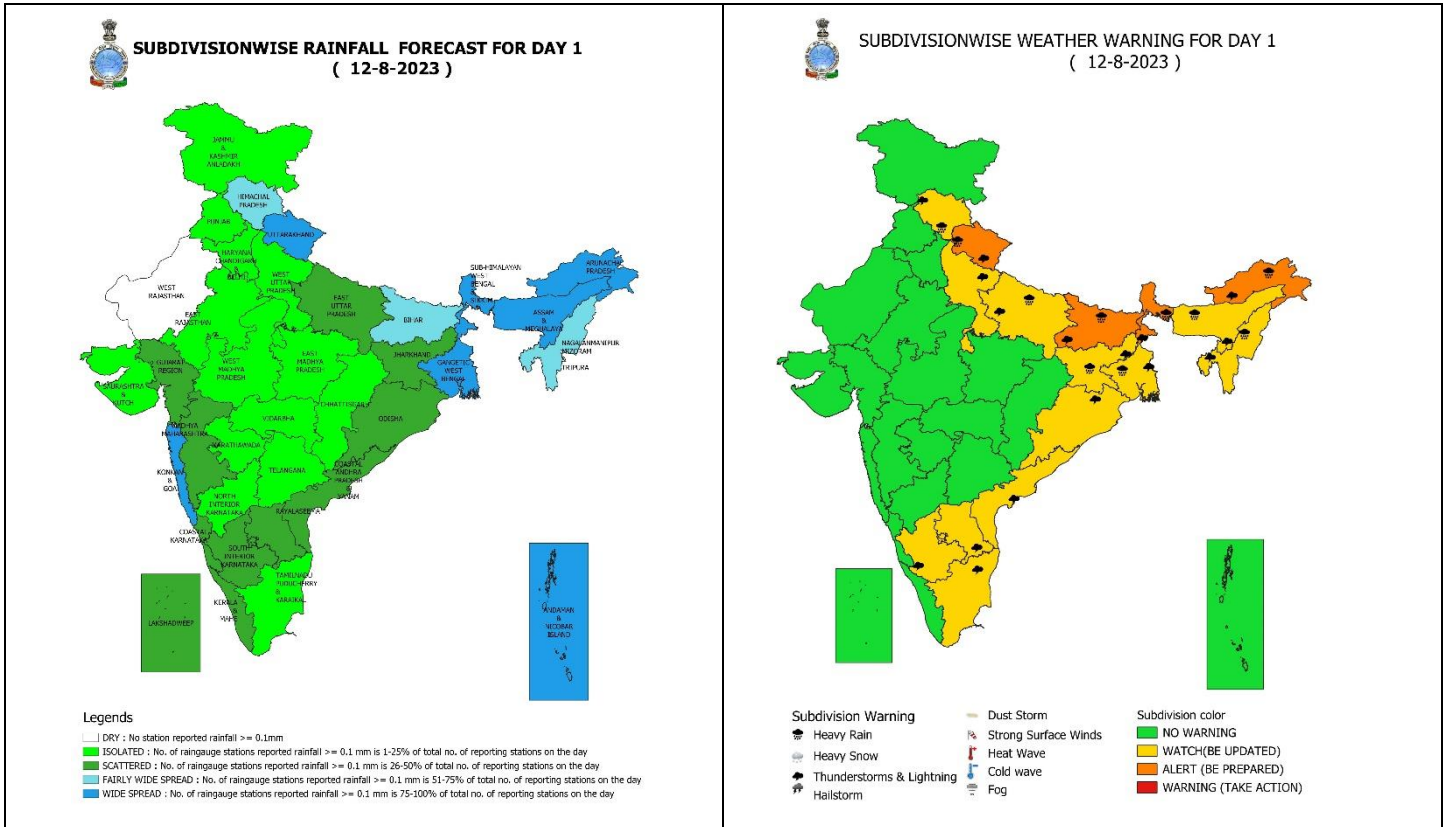


24 Hr cumulative rainfall recorded over different stations during 0830 IST of 10-8-2023 to 0830 IST of 11-8-2023



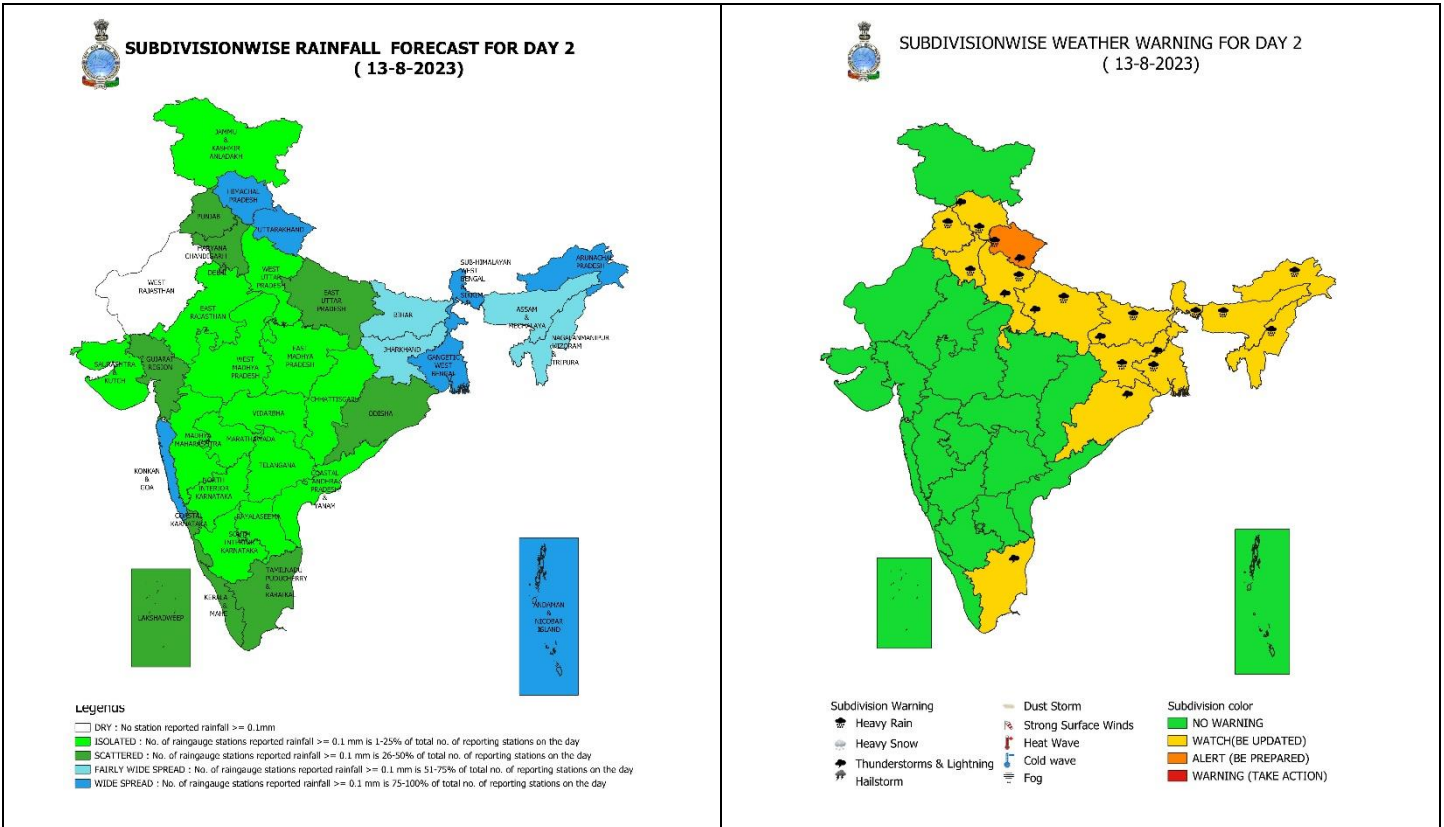
Legends

- 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)



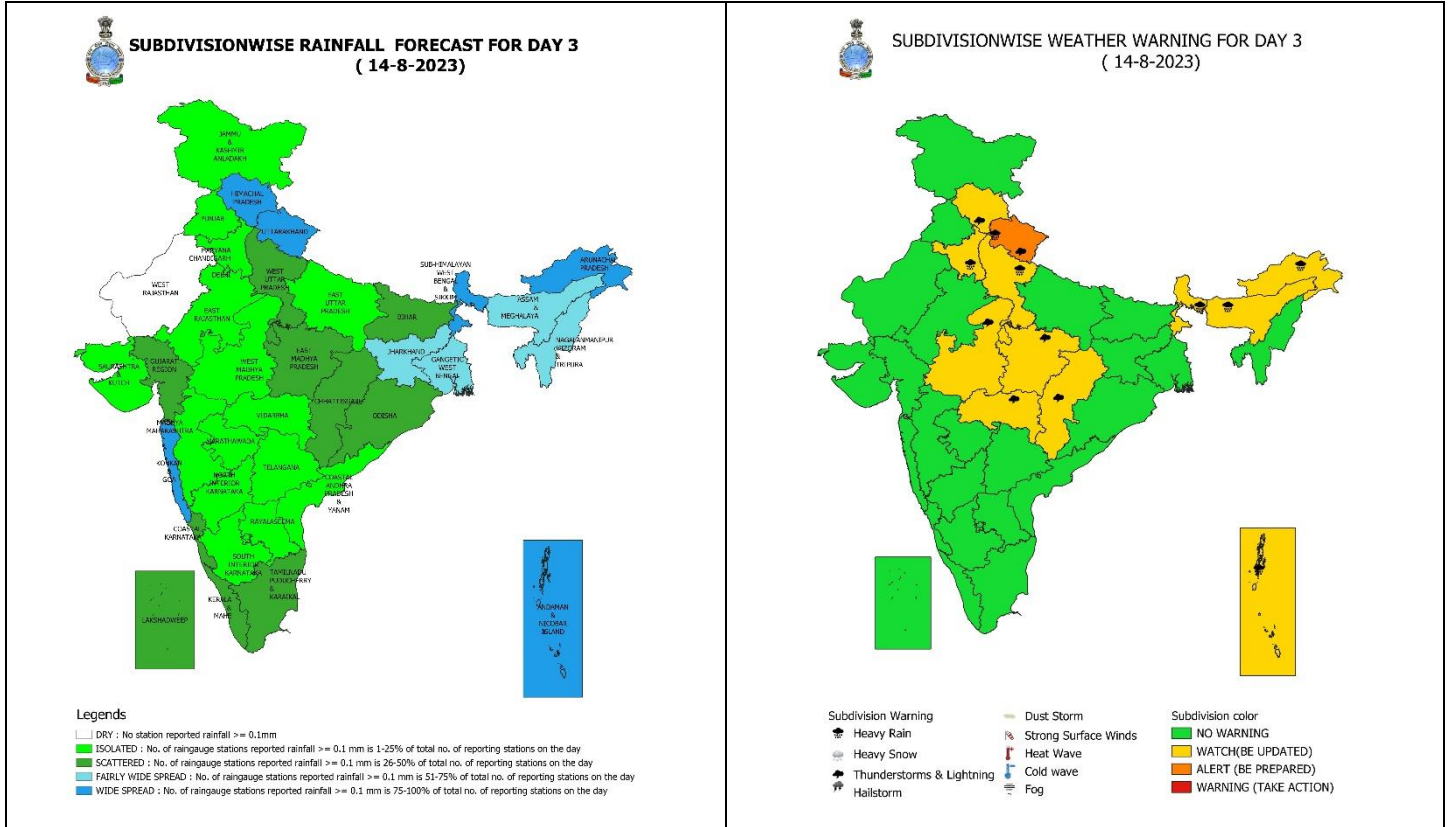
12 August (Day 1): -

- ❖ **Heavy to very heavy rainfall with extremely falls** very likely at isolated places over Uttarakhand; **Heavy to very heavy rainfall** at isolated places over Sub-Himalaya West Bengal & Sikkim, Bihar, Arunachal Pradesh, Assam & Meghalaya; **Heavy rainfall** at isolated places over Himachal Pradesh, East Uttar Pradesh, Gangetic West Bengal, Jharkhand, Nagaland, Manipur, Mizoram & Tripura.
- ❖ **Thunderstorm with lightning** at isolated places over Himachal Pradesh, Uttarakhand, Uttar Pradesh, West Bengal & Sikkim, Bihar, Jharkhand, Odisha, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Coastal Andhra Pradesh & Yanam, Rayalaseema, South Interior Karnataka, Tamil Nadu, Puducherry & Karaikal.
- ❖ **Squally wind speed of 45-55 kmph gusting to 65 kmph** likely over Westcentral & adjoining Northwest and Southwest Arabian Sea. **Squally weather wind speed of 40-45 kmph gusting to 55 kmph** likely over Westcentral Bay of Bengal along & off Andhra Pradesh coast. **Fishermen are advised not to venture into these areas.**



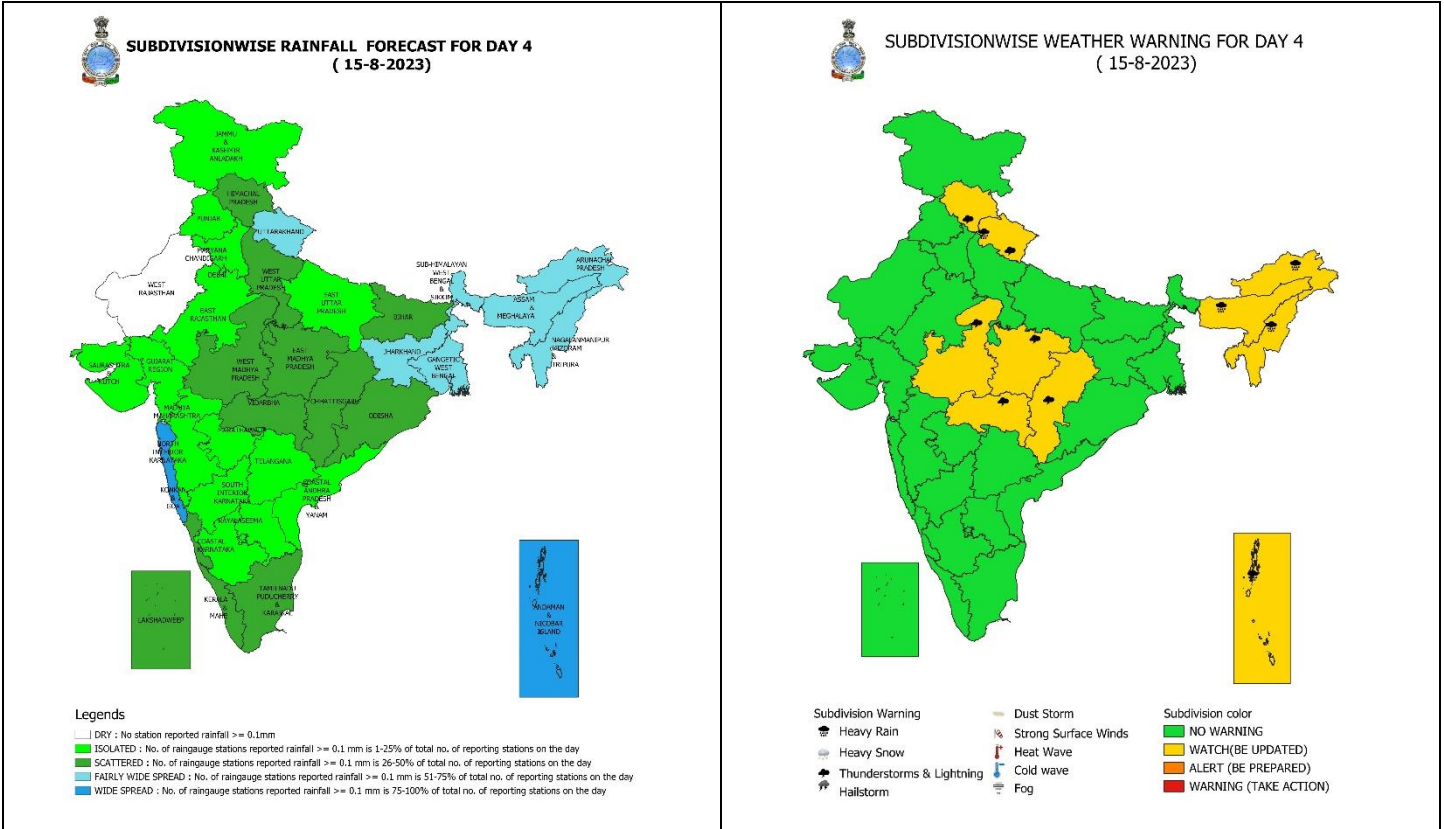
13 August (Day 2): -

- ❖ **Heavy to very heavy rainfall with extremely falls** likely at isolated places over Uttarakhand and **Heavy rainfall** at isolated places over Himachal Pradesh, Punjab, Haryana-Chandigarh-Delhi, Uttar Pradesh, West Bengal & Sikkim, Bihar, Jharkhand, Arunachal Pradesh, Assam & Meghalaya.
- ❖ **Thunderstorm with lightning** likely at isolated places over Himachal Pradesh, Uttarakhand, Uttar Pradesh, Bihar, Jharkhand, Odisha, South Interior Karnataka.
- ❖ **Squally wind speed of 45-55 kmph gusting to 65 kmph** likely over Westcentral & adjoining North Arabian Sea. **Squally weather wind speed of 40-45 kmph gusting to 55 kmph** likely over Southeast & adjoining Southwest Bay of Bengal. **Fishermen are advised not to venture into these areas.**



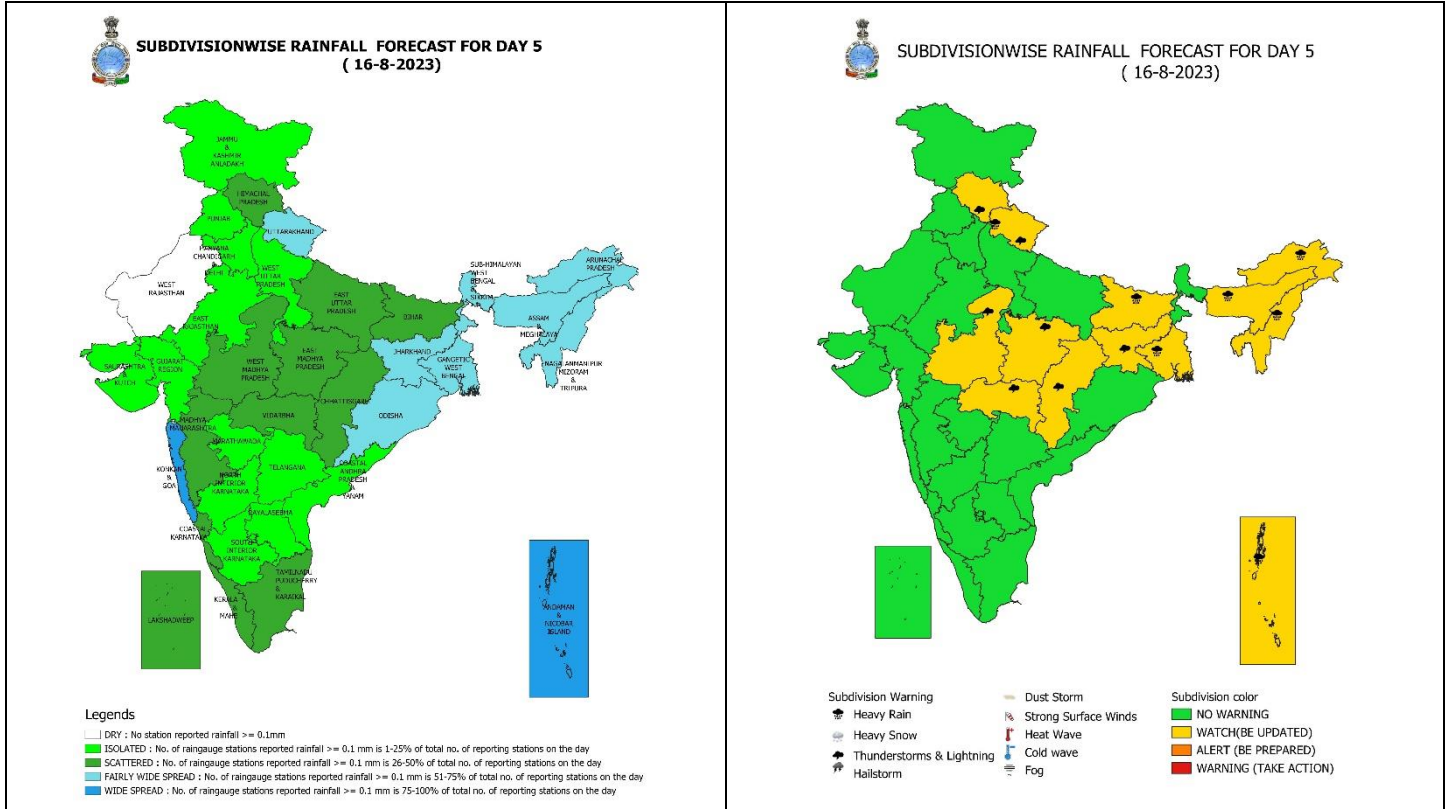
14 August (Day 3): -

- ❖ **Heavy to very heavy rainfall with extremely falls** likely at isolated places over Uttarakhand and **Heavy rainfall** at isolated places over West Uttar Pradesh, Andaman & Nicobar Islands, Sub-Himalaya West Bengal & Sikkim, Arunachal Pradesh, Assam & Meghalaya.
- ❖ **Thunderstorm with lightning** likely at isolated places over Himachal Pradesh, Madhya Pradesh, Vidarbha, Chhattisgarh.
- ❖ **Squally wind speed of 45-55 kmph gusting to 65 kmph** likely over Westcentral & adjoining Eastcentral and North Arabian Sea. **Squally weather wind speed of 40-45 kmph gusting to 55 kmph** likely over South Bay of Bengal. **Fishermen are advised not to venture into these areas.**



15 August (Day 4): -

- ❖ **Heavy rainfall** at isolated places over Uttarakhand, Andaman & Nicobar Islands, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura.
- ❖ **Thunderstorm with lightning** likely at isolated places over Himachal Pradesh, Uttarakhand, Madhya Pradesh, Vidarbha, Chhattisgarh.
- ❖ **Squally wind speed of 45-55 kmph gusting to 65 kmph** likely over Westcentral & adjoining Eastcentral and North Arabian Sea. **Fishermen are advised not to venture into these areas.**



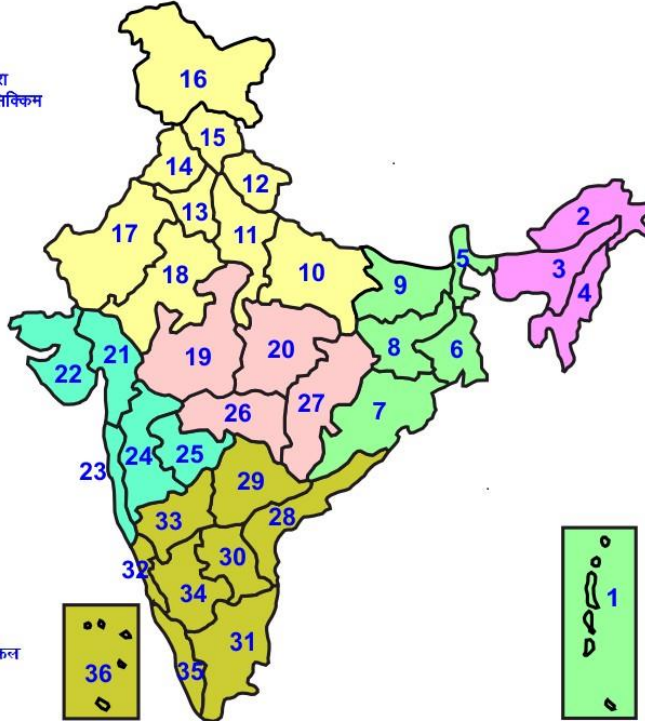
16 August (Day 5): -

- ❖ **Heavy rainfall** at isolated places over Uttarakhand, Gangetic West Bengal, Bihar, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura.
- ❖ **Thunderstorm with lightning** likely at isolated places over Himachal Pradesh, Uttarakhand, Madhya Pradesh, Vidarbha, Chhattisgarh, Jharkhand.
- ❖ **Squally wind speed of 45-55 kmph gusting to 65 kmph** likely over Westcentral & adjoining Eastcentral and North Arabian Sea. **Fishermen are advised not to venture into these areas.**



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 ओडिसा
- 8 झारखंड
- 9 बिहार
- 10 पूर्वी उत्तर प्रदेश
- 11 पश्चिम उत्तर प्रदेश
- 12 उत्तराखंड
- 13 हरियाणा चंडिगढ़ 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 मराठावाड़ा
- 26 विदर्भ
- 27 छत्तीसगढ़
- 28 तटीय आंध्र प्रदेश एवं यनम
- 29 तेलंगाना
- 30 रायलसेमा
- 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. 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

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WATCH (BE UPDATED)
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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 < 1km

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)

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