



Friday, July 14, 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 western end of the monsoon trough at mean sea level lies south of its normal position and eastern end lies north of its normal position.
- ❖ A Western Disturbance as a cyclonic circulation in middle & upper tropospheric level lies over North Pakistan & neighbourhood.
- ❖ A cyclonic circulation lies over Westcentral & adjoining Southwest Bay of Bengal in middle tropospheric levels.
- ❖ A cyclonic circulation lies over central parts of south Uttar Pradesh & neighbourhood in the lower tropospheric levels and trough extends from this cyclonic circulation to south Gujarat in lower tropospheric levels.
- ❖ An offshore trough at mean sea level lies off south Maharashtra to Kerala coasts.
- ❖ A cyclonic circulation is likely to form over Northwest Bay of Bengal around 16th July, 2023.

Weather Forecast and Warning:

Northwest India: Fairly widespread to widespread rainfall with **isolated heavy to very heavy rainfall** is very likely to continue over Uttar Pradesh during next 24 hours and isolated heavy rainfall thereafter. **Isolated heavy rainfall also very likely** over Himachal Pradesh during next 5 days; north Haryana during next 2 days; East Rajasthan on 14th, 17th & 18th July. **Isolated very heavy to extremely heavy rainfall very likely over Uttarakhand during next 5 days.**

East & adjoining Northeast India: Fairly widespread to widespread rainfall with isolated **heavy to very heavy rainfall** very likely over Assam, Arunachal Pradesh and Bihar during next 24 hours and reduction thereafter. Isolated **heavy rainfall** very likely over Odisha during next 5 days; Nagaland and Manipur during next 3 days and Gangetic West Bengal on 15th July. **Isolated very heavy to extremely heavy rainfall very likely over Sub-Himalayan West Bengal & Sikkim and Meghalaya on 14th July and reduction thereafter.**

Central India: Light/moderate fairly widespread to widespread rainfall with **isolated heavy rainfall** is very likely over Madhya Pradesh during next 24 hours; subdued during 15th to 16th and increase thereafter over Madhya Pradesh, Vidarbha and Chhattisgarh with **heavy to very heavy rainfall** on 18th & 19th July.

West India: Light/moderate widespread rainfall with **isolated heavy rainfall** very likely to continue over Konkan & Goa, Ghat areas of Madhya Maharashtra during next 5 days; over Gujarat state during next 24 hours.

South India: Light/moderate fairly widespread to widespread rainfall with **isolated heavy rainfall** very likely to over Coastal Karnataka, South Interior Karnataka and Kerala during next 2 days; Tamil Nadu, Coastal Andhra Pradesh, Telangana during next 24 hours.



Main Weather Observations

- ❖ **Rainfall/thundershowers observed** (from 0830 hours IST to 1730 hours IST of yesterday): **at most places** over Uttarakhand, Konkan & Goa, Coastal Karnataka, Kerala & Mahe; **at many places** over Sub-Himalaya West Bengal & Sikkim, Arunachal Pradesh, Madhya Maharashtra, Interior Karnataka; **at a few places** over Himachal Pradesh, Haryana-Chandigarh-Delhi, Uttar Pradesh, West Madhya Pradesh, Assam & Meghalaya, Tamil Nadu, Puducherry & Karaikal and **at isolated places** over Rajasthan, East Madhya Pradesh, Vidarbha, Andaman & Nicobar Islands, Gangetic West Bengal, Bihar, Odisha, Gujarat state, Coastal Andhra Pradesh & Yanam, Telangana.
- ❖ **Heavy Rainfall observed** (from 0830 hours IST to 1730 hours IST of yesterday): **Heavy rainfall** at isolated places over West Madhya Pradesh.
- ❖ **Significant rainfall recorded** (from 0830 hours IST to 1730 hours IST of yesterday) (in cm): **West Madhya Pradesh:** Shivpuri-9, Gwalior-3; **Uttarakhand:** Pantnagar-4; **Konkan & Goa:** Matheran-4, Panjim-2; **East Uttar Pradesh:** Fursatganj-4; **Coastal Karnataka:** Karwar-4, Honavar & Bajpe-2; **Arunachal Pradesh:** Pasighat-4; **Sub-Himalaya West Bengal & Sikkim:** Jalpaiguri-4; **West Rajasthan:** Churu-2; **Andaman & Nicobar Islands:** Long Island-2; **Madhya Maharashtra:** Mahabaleshwar-2
- ❖ **Thunderstorm observed** (from 0830 hours IST of yesterday to 0530 hours IST of today): at isolated places over Haryana-Chandigarh-Delhi, Uttar Pradesh, Bihar, Odisha, East Madhya Pradesh, West Bengal & Sikkim, Coastal Andhra Pradesh & Yanam and Uttarakhand.
- ❖ **Minimum Temperature Departures (as on 13-07-2023):** Minimum temperatures were **above normal (1.6°C to 3.0°C)** at a few places over East Madhya Pradesh, West Bengal & Sikkim, North Interior Karnataka and at isolated places over West Rajasthan, Gujarat Region, Odisha. They were **below normal (-1.6°C to -3.0°C)** at a few places over Himachal Pradesh, Coastal Andhra Pradesh & Yanam, Telangana, Tamil Nadu, Puducherry & Karaikal and at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Haryana-Chandigarh-Delhi and **near normal** over rest parts of the country. Yesterday, **the lowest minimum temperature of 21.4°C** was reported at **Khandwa (West Madhya Pradesh)** over the plains of the country.
- ❖ **Maximum Temperature Departures (as on 13-07-2023):** Maximum temperatures were **appreciably above normal (3.1°C to 5.0°C)** at a few places over East Madhya Pradesh; at isolated places over East Uttar Pradesh, South Interior Karnataka and Tamil Nadu, Puducherry & Karaikal; **above normal (1.6°C to 3.0°C)** at most places over Jharkhand, North Interior Karnataka; at many places over Gangetic West Bengal, Bihar, Odisha, Konkan & Goa, Madhya Maharashtra; at a few places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Nagaland, Manipur, Mizoram & Tripura, Marathwada, Rayalaseema; at isolated places over Sub-Himalaya West Bengal & Sikkim, Saurashtra & Kutch, Telangana. They were **markedly below normal (-5.1°C or less)** at a few places over Coastal Andhra Pradesh & Yanam; **appreciably below normal (-3.1°C to -5.0°C)** at many places over Uttarakhand, East Uttar Pradesh; at a few places over Arunachal Pradesh; **below normal (-1.6°C to -3.0°C)** at many places over Haryana-Chandigarh-Delhi, Assam & Meghalaya, North Interior Karnataka; at a few places over Punjab; at isolated places over Andaman & Nicobar Islands and **near normal** over rest parts of the country. Yesterday, **the highest maximum temperature of 40.7°C** was reported at **Varanasi (East Uttar Pradesh)**.

Meteorological Analysis (Based on 0530 hours IST)

- ❖ The Monsoon Trough at mean sea level now passes through Bikaner, Alwar, Gwalior, Satna, Gaya, Malda and thence northeastwards to Arunachal Pradesh across Assam and extends upto 0.9 km above mean sea level.
- ❖ The Western Disturbance as a cyclonic circulation between 5.8 km & 9.5 km above mean sea level over North Pakistan & neighbourhood persists.
- ❖ The cyclonic circulation over Westcentral & adjoining Southwest Bay of Bengal between 4.5 km & 7.6 km above mean sea level tilting southwestwards with height persists.
- ❖ The cyclonic circulation over central parts of south Uttar Pradesh & neighbourhood extending upto 3.1 km above mean sea level persists.
- ❖ The trough from above cyclonic circulation to south Gujarat across Madhya Pradesh between 2.1 & 3.1 km above mean sea level persists.
- ❖ The Offshore trough at mean sea level off south Maharashtra coast to Kerala coast persists.
- ❖ A cyclonic circulation is likely to form over Northwest Bay of Bengal around 16th July, 2023.

Weather Forecast for next 5 days (Upto 0830 hours IST of 18th 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 18th July-20th 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, Andhra Pradesh and Tamil Nadu, Puducherry & Karaikal where isolated to scattered rainfall is likely.



Table-1

7 Days Rainfall Forecast

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

Fig. 1: Maximum Temperatures Dated 13.07.2023

Fig. 2: Departure of Maximum Temp. Dated 13.07.2023

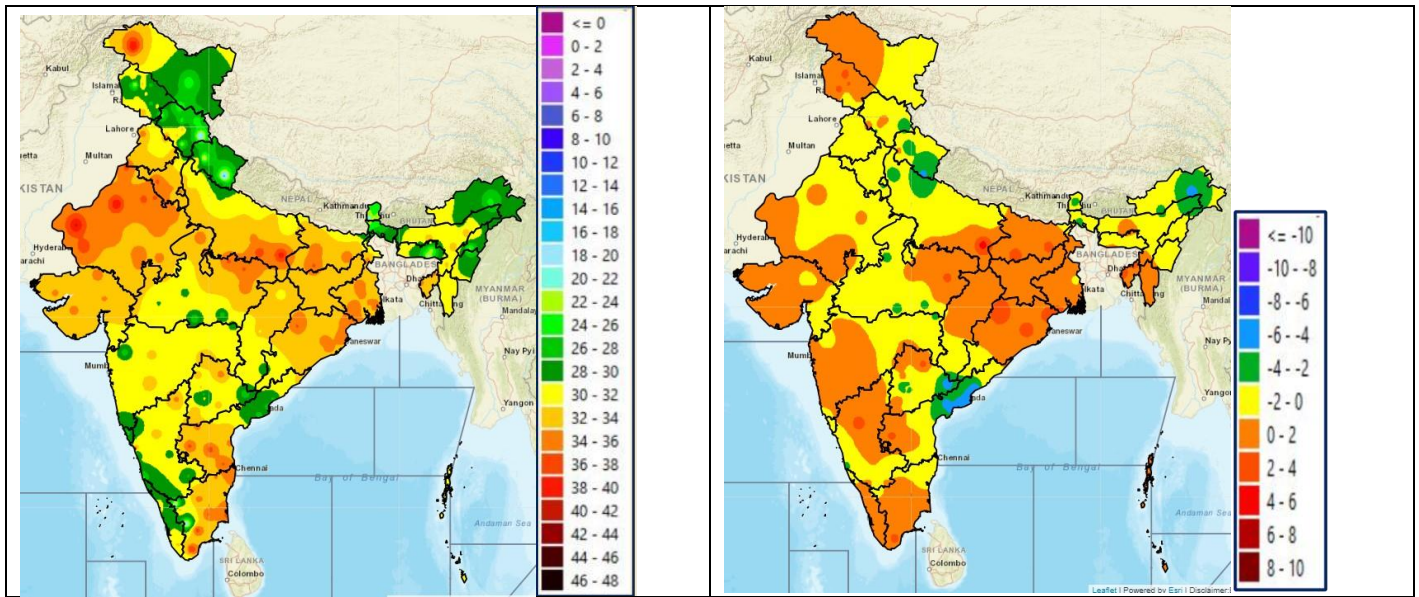
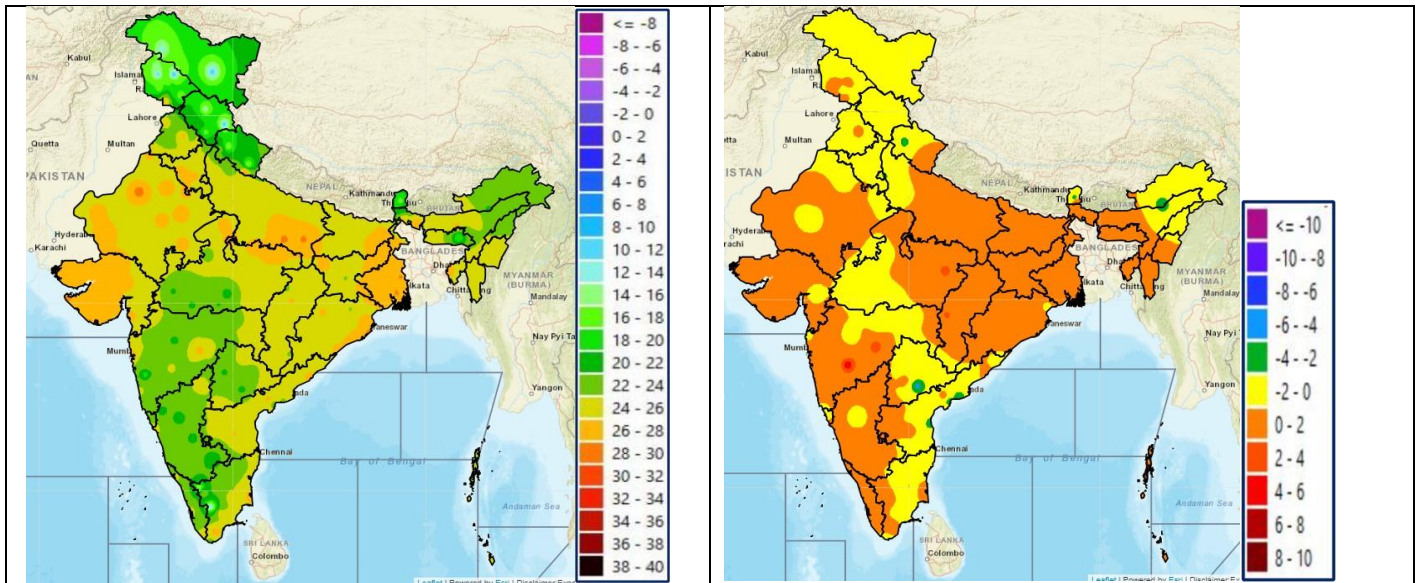


Fig. 3: Minimum Temperatures Dated 13.07.2023

Fig. 4: Departure of Minimum Temp. Dated 13.07.2023

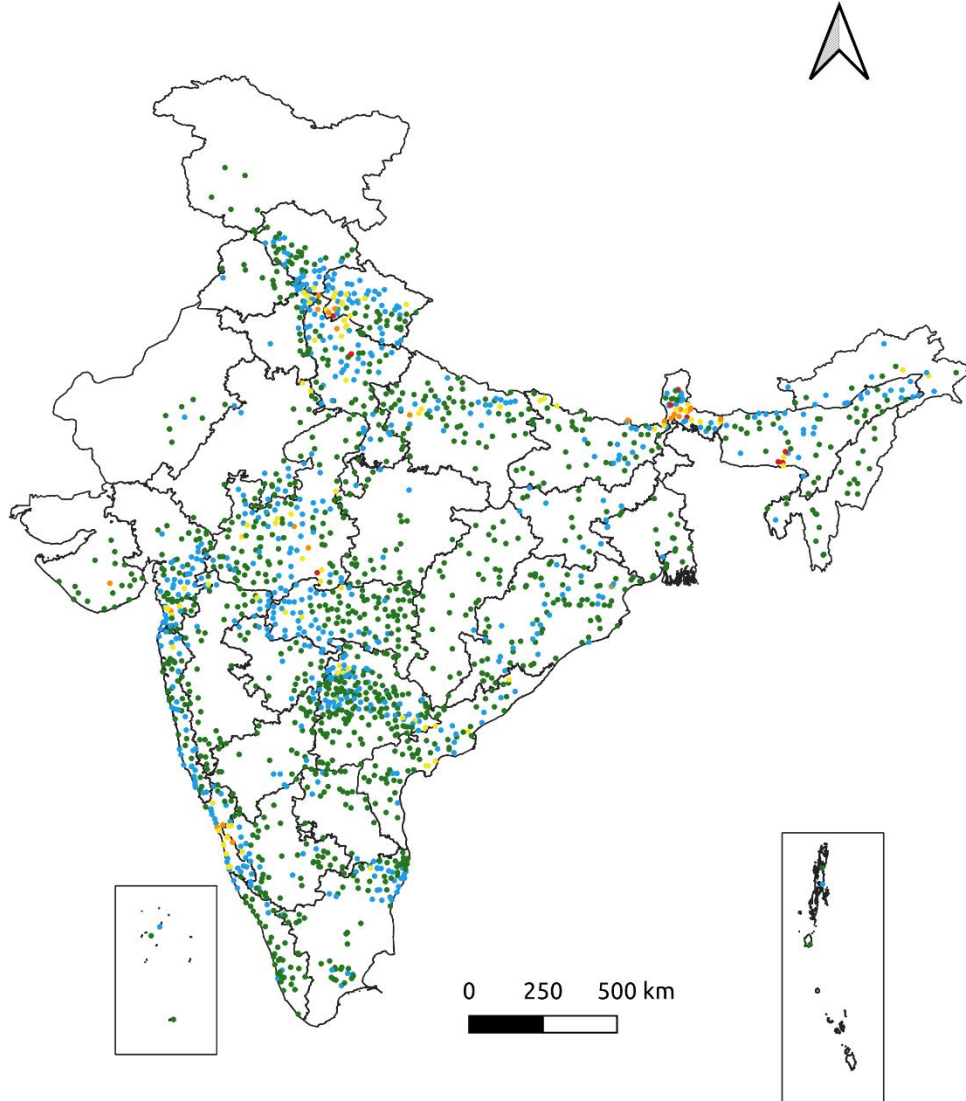


*** Red color warning does not mean "Red Alert" Red color warning means "Take Action".**
Forecast and Warning for any day is valid from 0830 hours IST of day till 0830 hours IST of next day For
more details kindly visit <https://mausam.imd.gov.in> or contact : 011-2434-4599
(Service to the Nation since 1875)

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

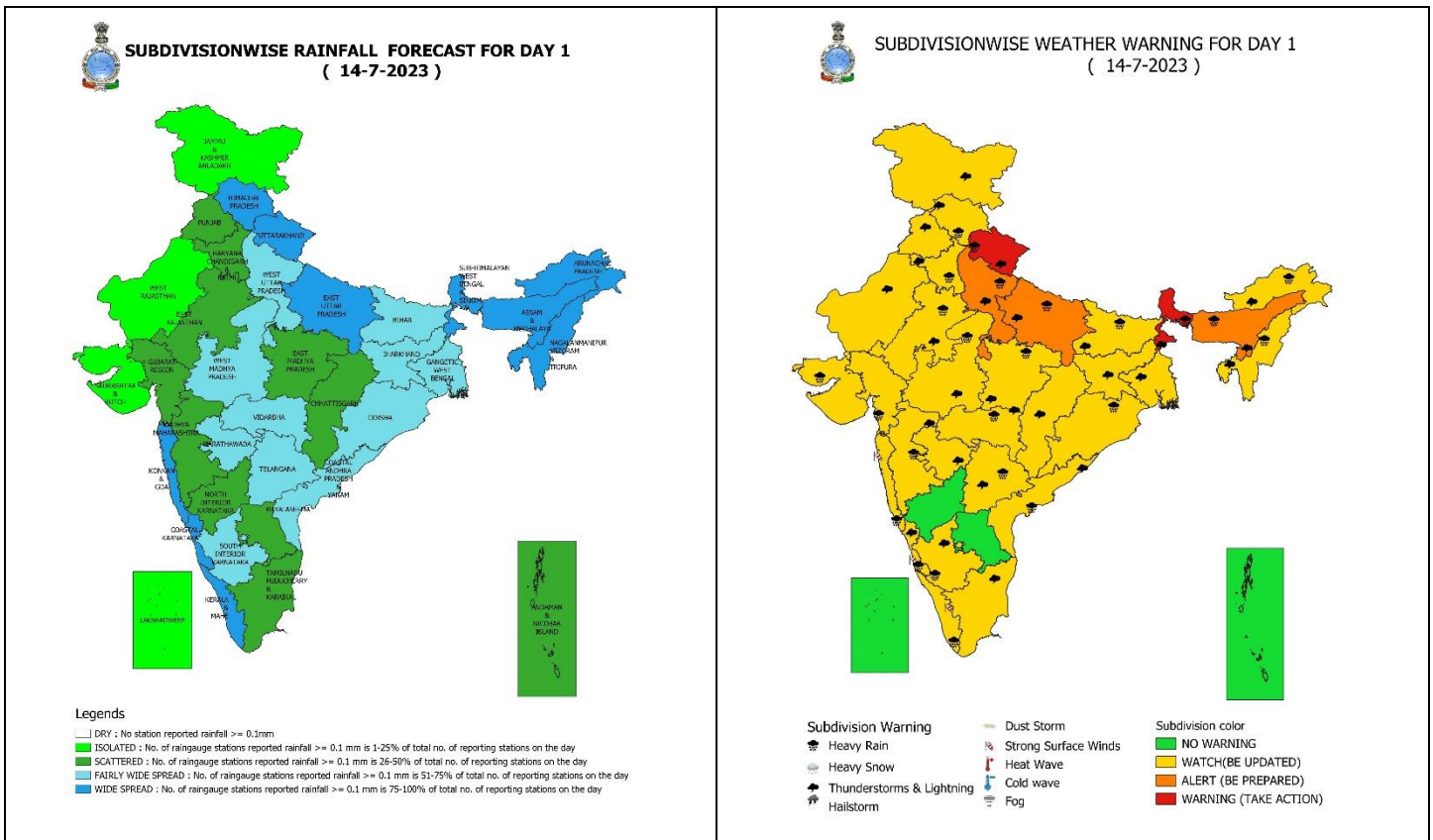


24 Hr cumulative rainfall recorded over different stations
during 0830 IST of 12-7-2023 to 0830 IST of 13-7-2023



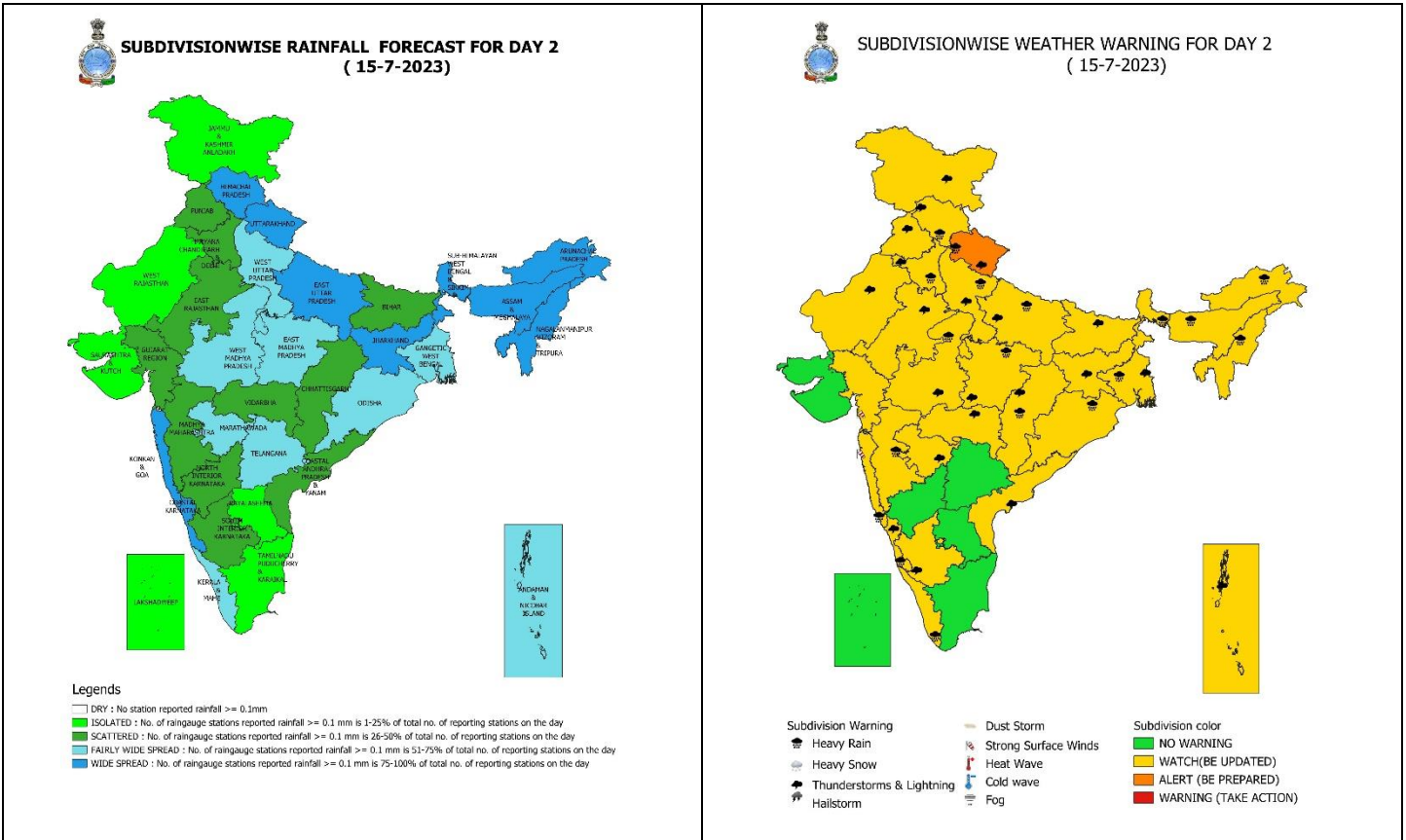
Legends

- 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)



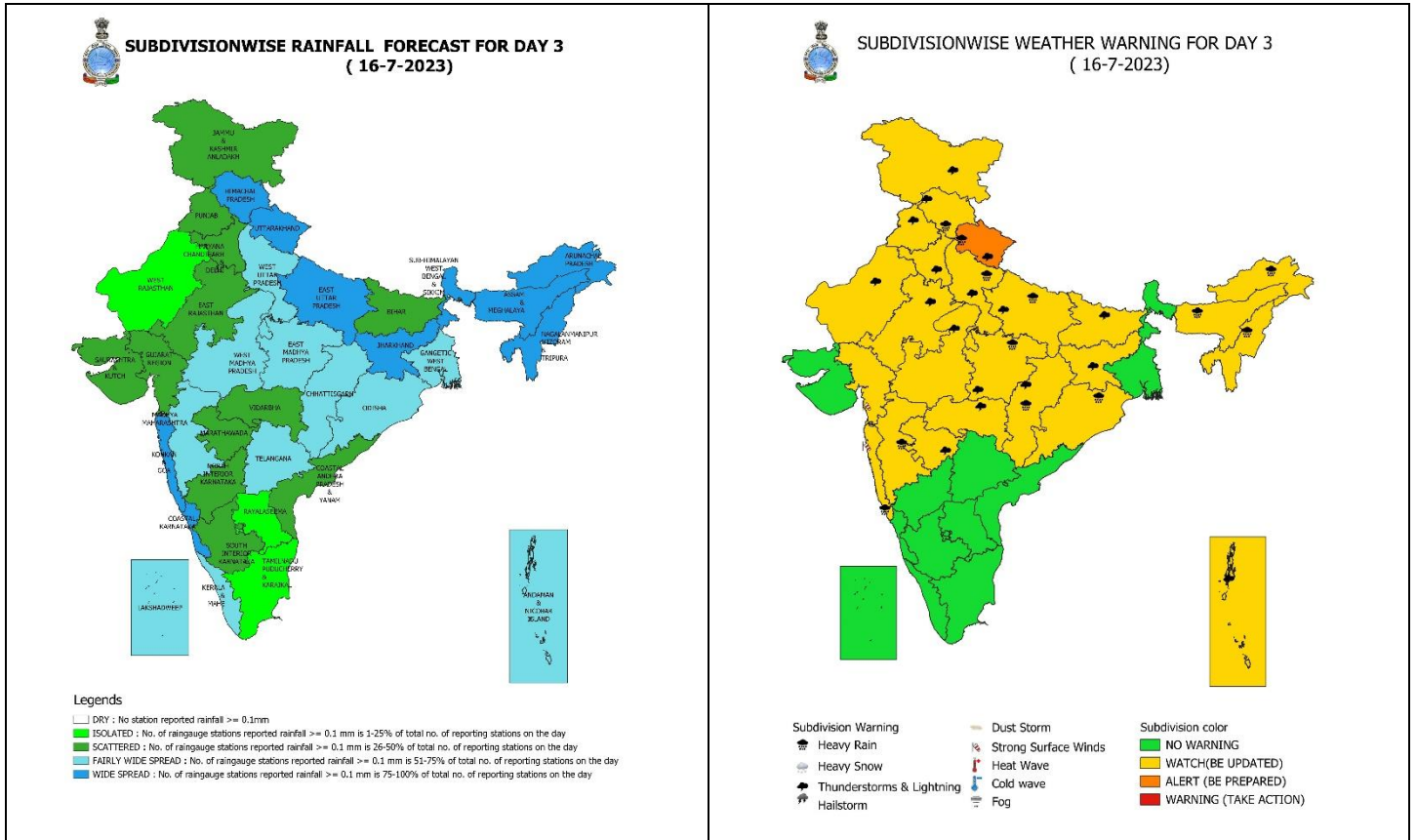
14 July (Day 1):

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



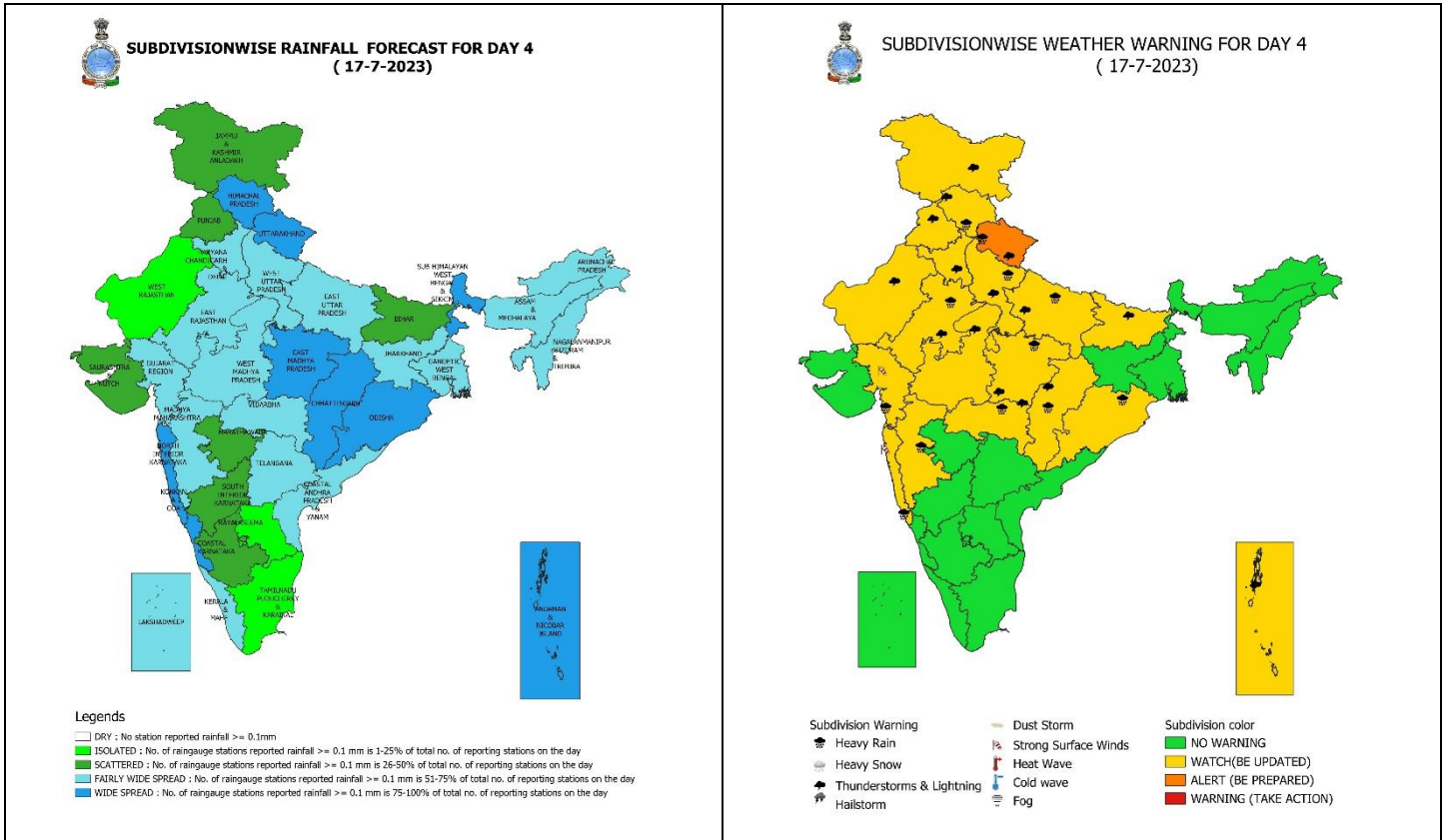
15 July (Day 2):

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



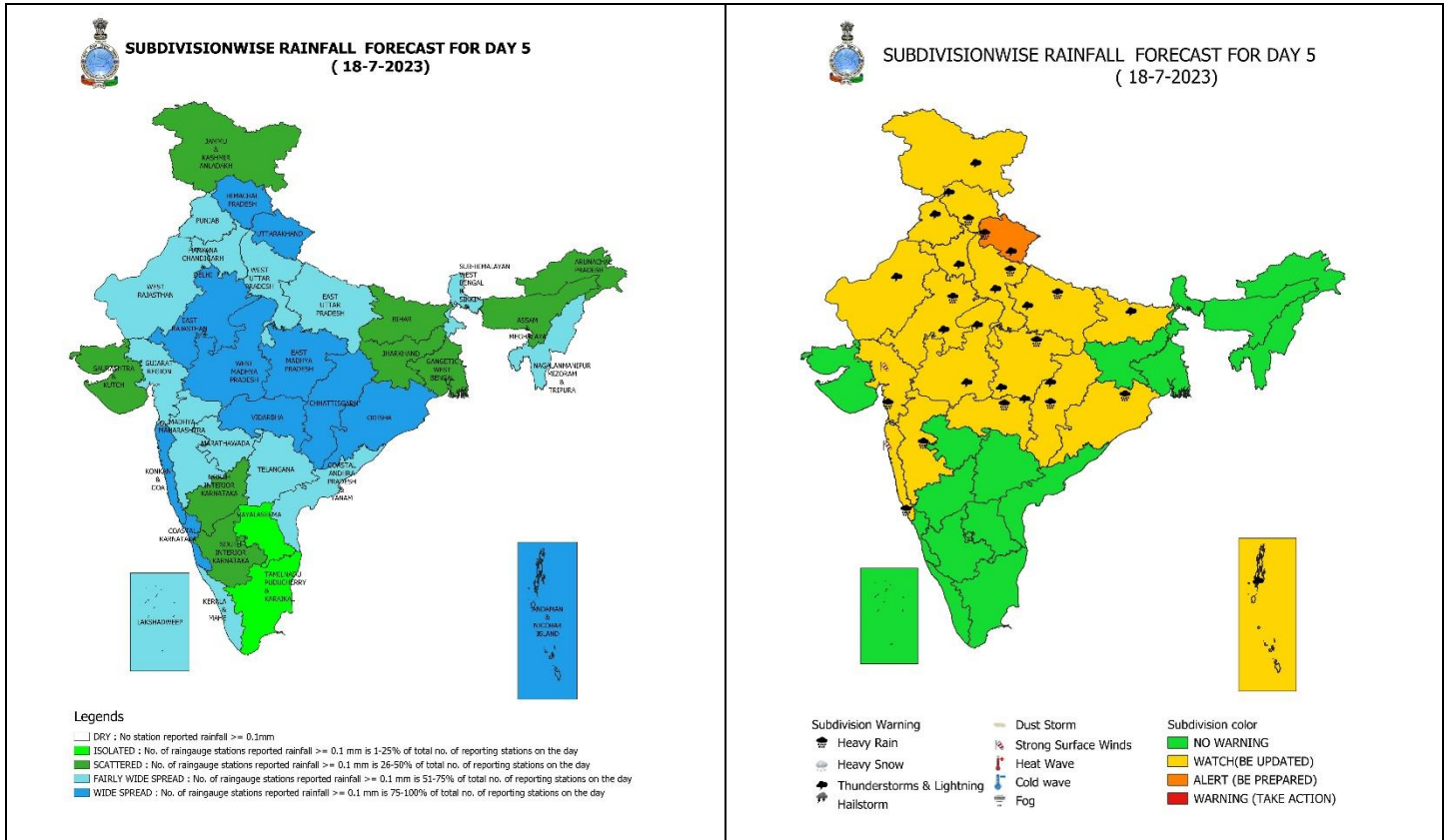
16 July (Day 3):

- ❖ **Heavy to very heavy rainfall with extremely heavy falls** likely at isolated places over Uttarakhand; **heavy rainfall** at isolated places over Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Odisha, Himachal Pradesh, Uttar Pradesh, East Madhya Pradesh, Chhattisgarh, Konkan & Goa and Madhya Maharashtra.
- ❖ **Thunderstorm with lightning** very likely at isolated places over Bihar, Jharkhand, Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand, Punjab, Haryana-Chandigarh-Delhi, Uttar Pradesh, Rajasthan, Madhya Pradesh, Vidarbha, Chhattisgarh, Andaman & Nicobar Islands and Marathwada.
- ❖ **Squally wind** speed reaching 45-55 kmph gusting to 65 kmph likely over Westcentral & Southwest and adjoining parts of Eastcentral Arabian Sea, Gulf of Mannar. **Squally weather with wind speed reaching 40-45 kmph gusting to 50 kmph** likely over Maharashtra-Gujarat coasts and south & adjoining central Bay of Bengal. Fishermen are advised not to venture into these areas.



17 July (Day 4):

- ❖ **Heavy to very heavy rainfall with extremely heavy falls** likely at isolated places over Uttarakhand; heavy to very heavy rainfall at isolated places over Konkan & Goa and **heavy rainfall** at isolated places over Odisha, Himachal Pradesh, East Rajasthan, Uttar Pradesh, East Madhya Pradesh, Vidarbha, Chhattisgarh, Gujarat Region and Madhya Maharashtra.
- ❖ **Thunderstorm with lightning** very likely at isolated places over Bihar, Jharkhand, Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand, Punjab, Haryana-Chandigarh-Delhi, Uttar Pradesh, Rajasthan, Madhya Pradesh, Vidarbha, Chhattisgarh, Andaman & Nicobar Islands and Marathwada.
- ❖ **Squally wind** speed reaching 45-55 kmph gusting to 65 kmph likely over Westcentral & Southwest and adjoining parts of Eastcentral Arabian Sea, Gulf of Mannar. **Squally weather with wind speed reaching 40-45 kmph gusting to 50 kmph** likely over north Maharashtra-Gujarat coasts and south & adjoining central Bay of Bengal. Fishermen are advised not to venture into these areas.



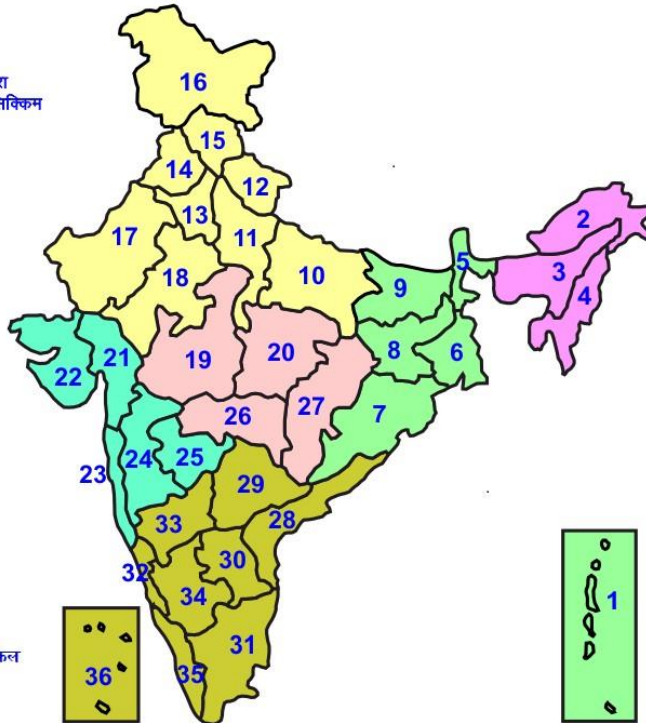
18 July (Day 5):

- ❖ **Heavy to very heavy rainfall with extremely heavy falls** likely at isolated places over Uttarakhand; heavy to very heavy rainfall at isolated places over Konkan & Goa and **heavy rainfall** at isolated places over Odisha, Himachal Pradesh, Uttar Pradesh, East Rajasthan, Madhya Pradesh, Vidarbha, Chhattisgarh, Gujarat Region and Madhya Maharashtra.
- ❖ **Thunderstorm with lightning** very likely at isolated places over Bihar, Jharkhand, Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand, Punjab, Haryana-Chandigarh-Delhi, Uttar Pradesh, Rajasthan, Madhya Pradesh, Vidarbha, Chhattisgarh, Andaman & Nicobar Islands and Marathwada.
- ❖ **Squally wind** speed reaching 45-55 kmph gusting to 65 kmph likely over Westcentral & Southwest and adjoining parts of Eastcentral Arabian Sea, Gulf of Mannar. **Squally weather with wind speed reaching 40-45 kmph gusting to 50 kmph** likely over north Maharashtra-Gujarat coasts and south & adjoining central Bay of Bengal. 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 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. 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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(Service to the Nation since 1875)

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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