



Tuesday, July 18, 2023
Time of Issue: 0815 hours IST
(MORNING)

ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

Significant Weather Features

Significant Weather features:

- ❖ A cyclonic circulation lies over south Jharkhand & neighbourhood and extends upto middle tropospheric levels.
- ❖ A shear zone runs roughly along Lat. 20°N between 4.5 km & 7.6 km above mean sea level tilting southwards with height.
- ❖ A cyclonic circulation is likely to form over Northwest Bay of Bengal within 24 hours.

Weather Forecast and Warnings:

Northwest India: Fairly widespread to widespread rainfall with isolated **heavy rainfall** is very likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad during 18th-21st; Himachal Pradesh on 18th, 20th & 21st; West Rajasthan during 18th-19th and East Rajasthan during 18th-21st July.

Isolated heavy to very heavy rainfall also very likely over Uttarakhand and East Rajasthan on 18th July.

East India: Fairly widespread to widespread rainfall with isolated **heavy rainfall** very likely over Odisha during next 5 days; over Andaman & Nicobar Islands on 18th July.

Isolated heavy to very heavy rainfall very likely over Odisha on 20th and 21st July.

Central India: Light/moderate fairly widespread to widespread rainfall with **isolated heavy rainfall** is very likely over the region during next 5 days. **Isolated heavy to very heavy rainfall** also likely over Madhya Pradesh, Vidarbha and Chhattisgarh on 18th July.

West India: Light/moderate fairly widespread to widespread rainfall with **isolated heavy to very heavy rainfall** very likely to continue over the region (except Marathwada) during next 5 days.

Isolated extremely heavy rainfall likely over Konkan & Goa, ghat areas of Madhya Maharashtra on 19th; Gujarat region on 19th & 20th and Saurashtra & Kutch on 19th July.

Northeast India: Fairly widespread to widespread rainfall with isolated **heavy rainfall** very likely over Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura on 20th and 21st July.

South India: Light/moderate scattered to fairly widespread rainfall with **isolated heavy rainfall and thunderstorm & lightning** very likely to over Coastal Karnataka, Telangana & Coastal Andhra Pradesh during 18th-21st July; over Kerala & Mahe during 18th-21st July and over Interior Karnataka during 19th-21st July.

Main Weather Observations

- ❖ **Rainfall/thundershowers observed** (from 0830 hours IST to 1730 hours IST of yesterday): **at most places** over East Madhya Pradesh, Chhattisgarh, Sub-Himalaya West Bengal & Sikkim, Konkan & Goa, Coastal Karnataka; **at many places** over East Rajasthan, West Madhya Pradesh, Gangetic West Bengal, Jharkhand, Odisha, Madhya Maharashtra; **at a few places** over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Punjab, East Uttar Pradesh, Vidarbha, Assam & Meghalaya, Andaman & Nicobar Islands, Saurashtra & Kutch, Marathwada, South Interior Karnataka, Telangana, Coastal Andhra Pradesh & Yanam, Kerala & Mahe and **at isolated places** over Uttarakhand, West Rajasthan, Bihar, Gujarat Region, Tamil Nadu, Puducherry & Karaikal, Rayalaseema.
- ❖ **Heavy Rainfall observed** (from 0830 hours IST to 1730 hours IST of yesterday): Nil.
- ❖ **Significant rainfall recorded**(from 0830 hours IST to 1730 hours IST of yesterday):(in cm): **Konkan & Goa:** Matheran-6, Bombay(Colaba)-5 and Mumbai(Santacruz)-4; **Madhya Maharashtra:** Mahabaleshwar-6; **East Rajasthan:** Ajmer-6, Udaipur-2; **Odisha:** Chandbali-5; **West Madhya Pradesh:** Ujjain & Hoshangabad-4; **East Madhya Pradesh:** Mandla-4, Umaria, Malanjhand & Damoh-2; **Chhattisgarh:** Raipur-3 and Jagdalpur-2; **Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad:** Katra-3; **Saurashtra & Kutch:** Bhaunagar-3; **Uttarakhand:** Dehradun-2; **Gangetic West Bengal:** Diamond Harbour-2; **Coastal Karnataka:** Honavar-2; **Andaman & Nicobar Islands:** Mayabandar-2.
- ❖ **Thunderstorm observed** (from 0830 hours IST of yesterday to 0530 hours IST of today): at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Punjab, Gangetic West Bengal, Madhya Pradesh, Chhattisgarh, Odisha and Rajasthan.
- ❖ **Minimum Temperature Departures (as on 17-07-2023):** Minimum temperatures were **above normal (1.6°C to 3.0°C)** at most places over Kerala & Mahe; at many places over Lakshadweep and Himachal Pradesh; at a few places over West Rajasthan, Bihar, Coastal Andhra Pradesh & Yanam, Rayalaseema and Andaman & Nicobar Islands and at isolated places over East Uttar Pradesh and Tamil Nadu, Puducherry & Karaikal. They were **below normal (-1.6°C to -3.0°C)** at most places over Haryana-Chandigarh-Delhi; at a few places over Telangana and at isolated places over East Madhya Pradesh and Odisha and **near normal** over rest parts of the country. Yesterday, **the lowest minimum temperature of 19.4°C** was reported at **Narsinghpur (East Madhya Pradesh)** over the plains of the country.
- ❖ **Maximum Temperature Departures (as on 17-07-2023):** Maximum temperatures were **appreciably above normal (3.1°C to 5.0°C)** at a few places over Kerala & Mahe; at isolated places over Tamil Nadu, Puducherry & Karaikal; **above normal (1.6°C to 3.0°C)** at many places over Rayalaseema; at a few places over Jharkhand, Lakshadweep, Coastal Karnataka; at isolated places over Sub-Himalaya West Bengal & Sikkim, Saurashtra & Kutch, Uttarakhand. They were **appreciably below normal (-3.1°C to -5.0°C)** at a few places over Haryana-Chandigarh-Delhi, Telangana, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura; at isolated places over West Madhya Pradesh, Vidarbha, Chhattisgarh, Coastal Andhra Pradesh & Yanam; **below normal (-1.6°C to -3.0°C)** at many places over East Rajasthan; at a few place over Andaman & Nicobar Islands, Odisha, Konkan & Goa, Madhya Maharashtra, Marathwada, Interior Karnataka; at isolated places over East Madhya Pradesh, West Rajasthan and **near normal** over rest parts of the country. Yesterday, **the highest maximum temperature of 39.6°C** was reported at **Bikaner (West Rajasthan)**.



Meteorological Analysis (Based on 0530 hours IST)

- ❖ The Monsoon Trough at mean sea level now passes through Ganganagar, Alwar, Gwalior, Satna, Ambikapur, Jharsuguda, Chandbali and thence southeastwards to eastcentral Bay of Bengal and extends upto 1.5 km above mean sea level.
- ❖ The cyclonic circulation over south Jharkhand & neighbourhood extending upto 7.6 km above mean sea level tilting southwestwards with height persists.
- ❖ The shear zone roughly along Lat. 20° N between 4.5 km & 7.6 km above mean sea level tilting southwards with height persists.
- ❖ The Western Disturbance as a cyclonic circulation over central Pakistan & adjoining Punjab now lies over Kashmir & neighbourhood at 5.8 Km above mean sea level.
- ❖ A cyclonic circulation is likely to form over Northwest Bay of Bengal within 24 hours.

Weather Forecast for next 5 days (Upto 0830 hours IST of 23rd 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

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



Table-1

7 Days Rainfall Forecast

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

Fig. 1: Maximum Temperatures Dated 17.07.2023

Fig. 2: Departure of Maximum Temp. Dated 17.07.2023

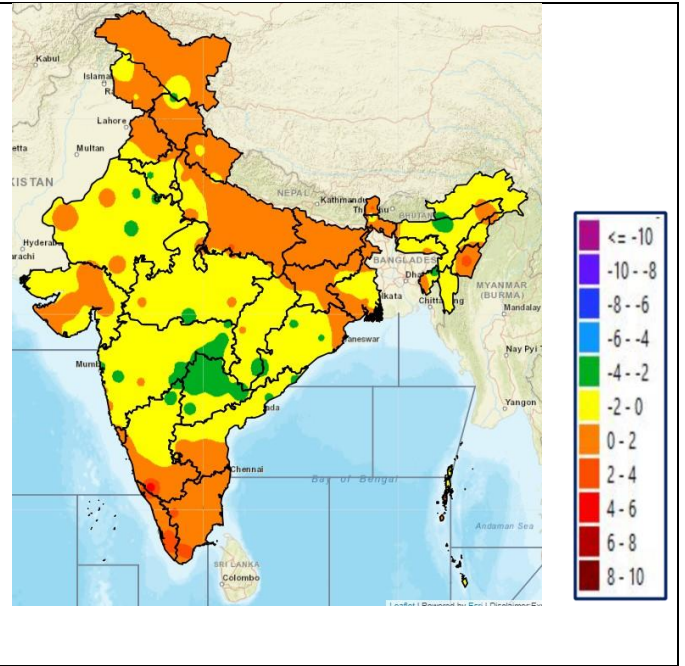
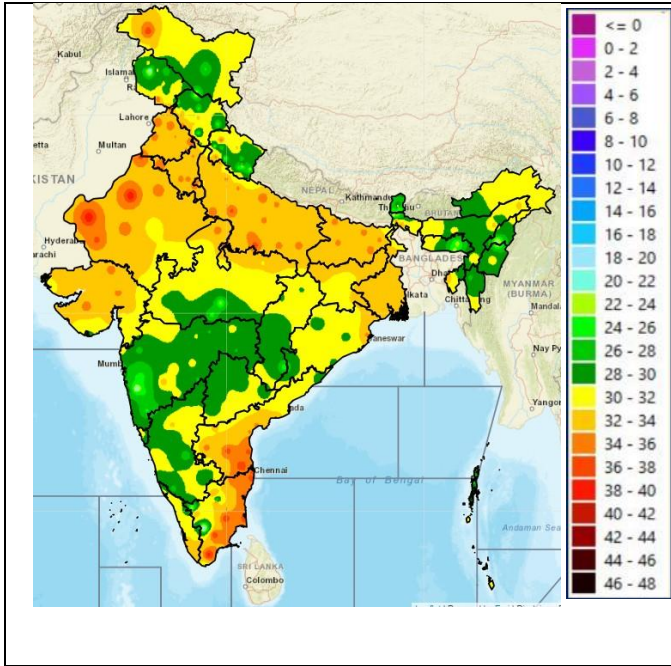


Fig. 3: Minimum Temperatures Dated 17.07.2023

Fig. 4: Departure of Minimum Temp. Dated 17.07.2023

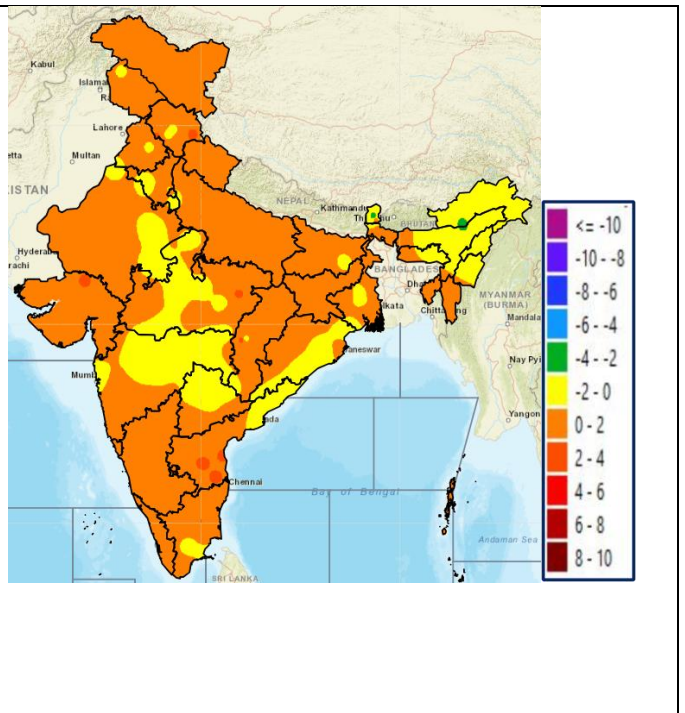
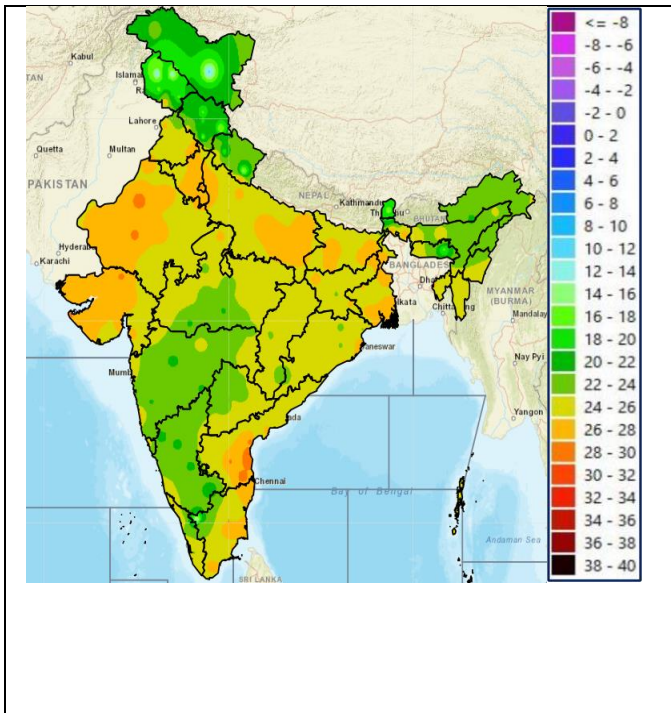
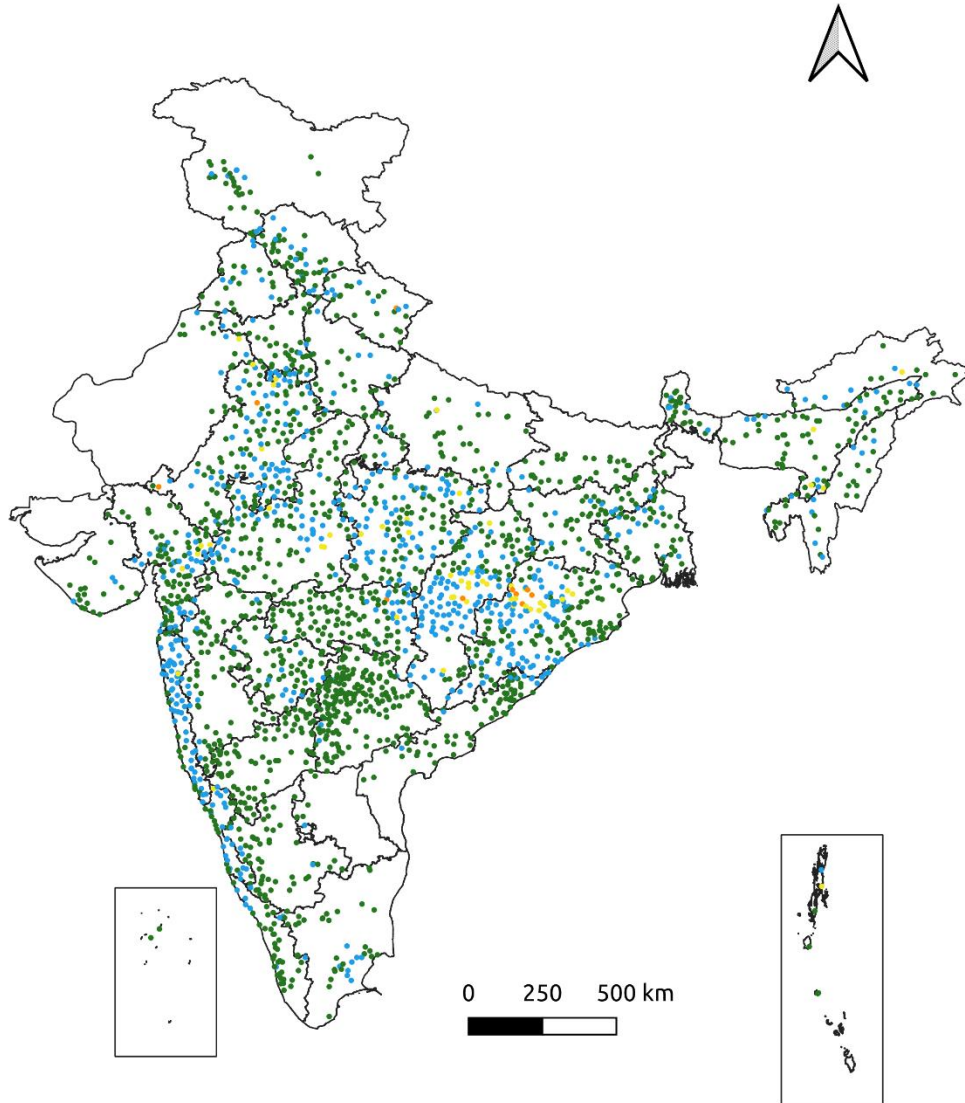


Fig. 5: Accumulated Rainfall (mm) during past 24 hours

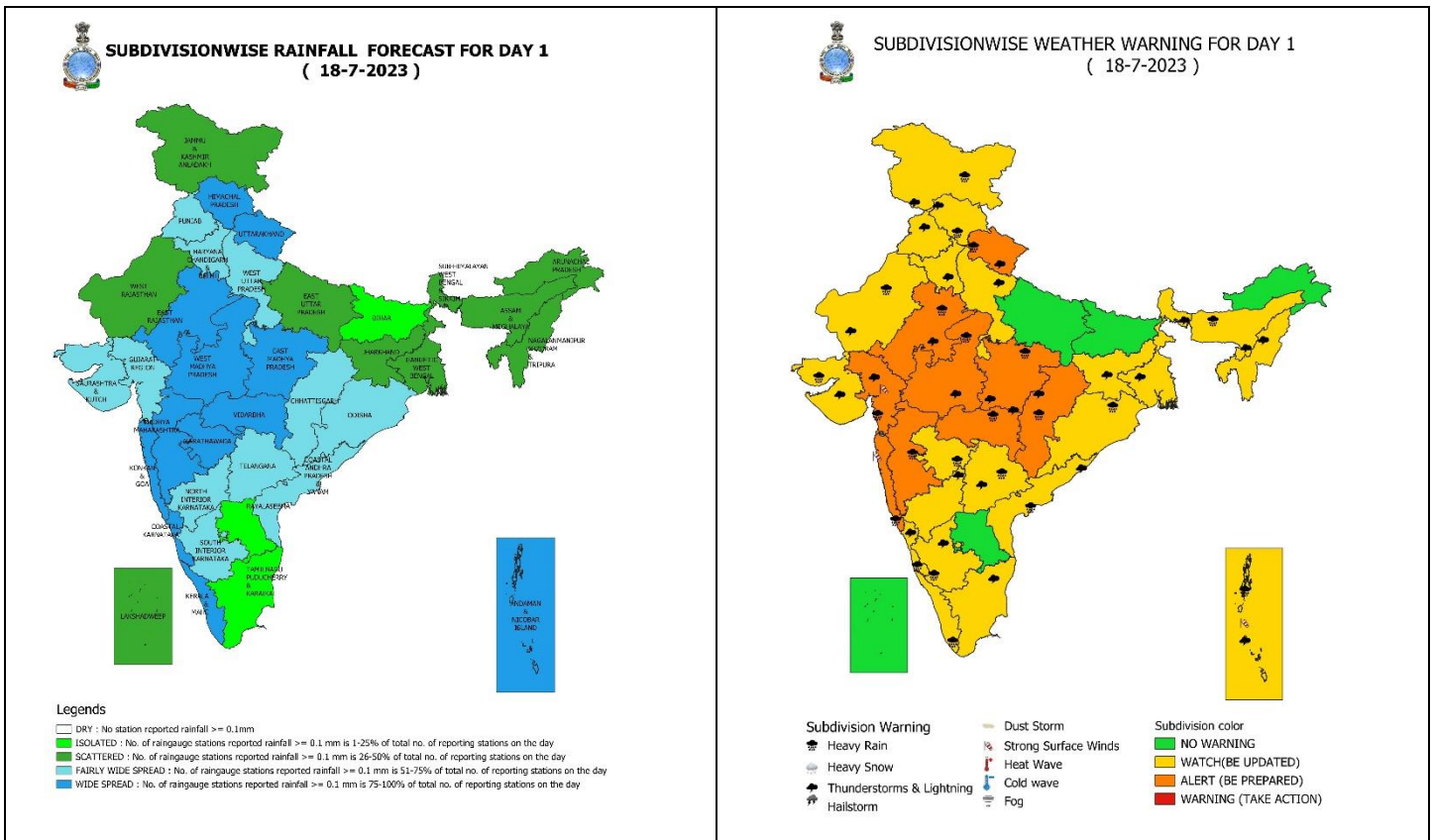


24 Hr cumulative rainfall recorded over different stations during 0830 IST of 16-7-2023 to 0830 IST of 17-7-2023



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)

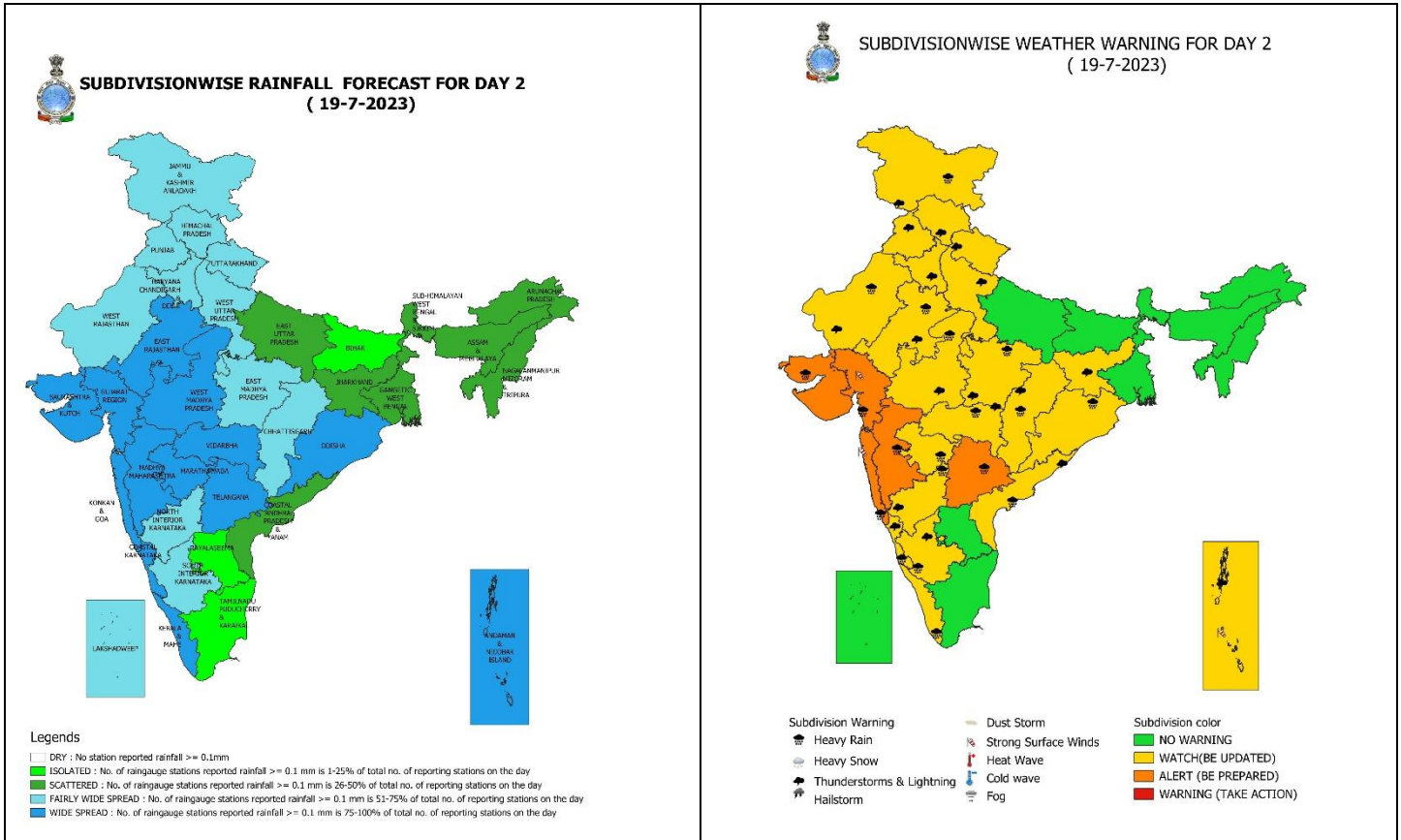


18 July (Day 1):

- ❖ **Heavy to very heavy rainfall** very likely at a few places over Konkan & Goa and at isolated places over Uttarakhand, East Rajasthan, Madhya Pradesh, Vidarbha, Chhattisgarh, Madhya Maharashtra, south Gujarat Region; **heavy rainfall** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, West Rajasthan, Andaman & Nicobar Islands, Odisha, Assam & Meghalaya, Marathwada, Saurashtra & Kutch, Coastal Andhra Pradesh & Yanam, Telangana, Coastal & South Interior Karnataka and Kerala & Mahe.
- ❖ **Thunderstorm with lightning & gusty winds (speed 40-50 kmph)** very likely at isolated places over Andaman & Nicobar Islands and **with lightning** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Punjab, Haryana-Chandigarh-Delhi, West Uttar Pradesh, Rajasthan, Madhya Pradesh, Vidarbha, Chhattisgarh, West Bengal & Sikkim, Jharkhand, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Gujarat state, Coastal Andhra Pradesh & Yanam, Telangana, Karnataka and Tamil Nadu, Puducherry & Karaikal.
- ❖ **Squally wind** speed reaching 45-55 kmph gusting to 65 kmph very likely over Westcentral, Eastcentral & Southwest Arabian Sea, Gulf of Mannar and central Bay of Bengal. **Squally weather with wind speed reaching 45-55 kmph gusting to 65 kmph** likely over south Bay of Bengal, Andaman Sea, along & off Gujarat-Maharashtra-Karnataka-Kerala coasts and Lakshadweep area. Fishermen are advised not to venture into these areas.

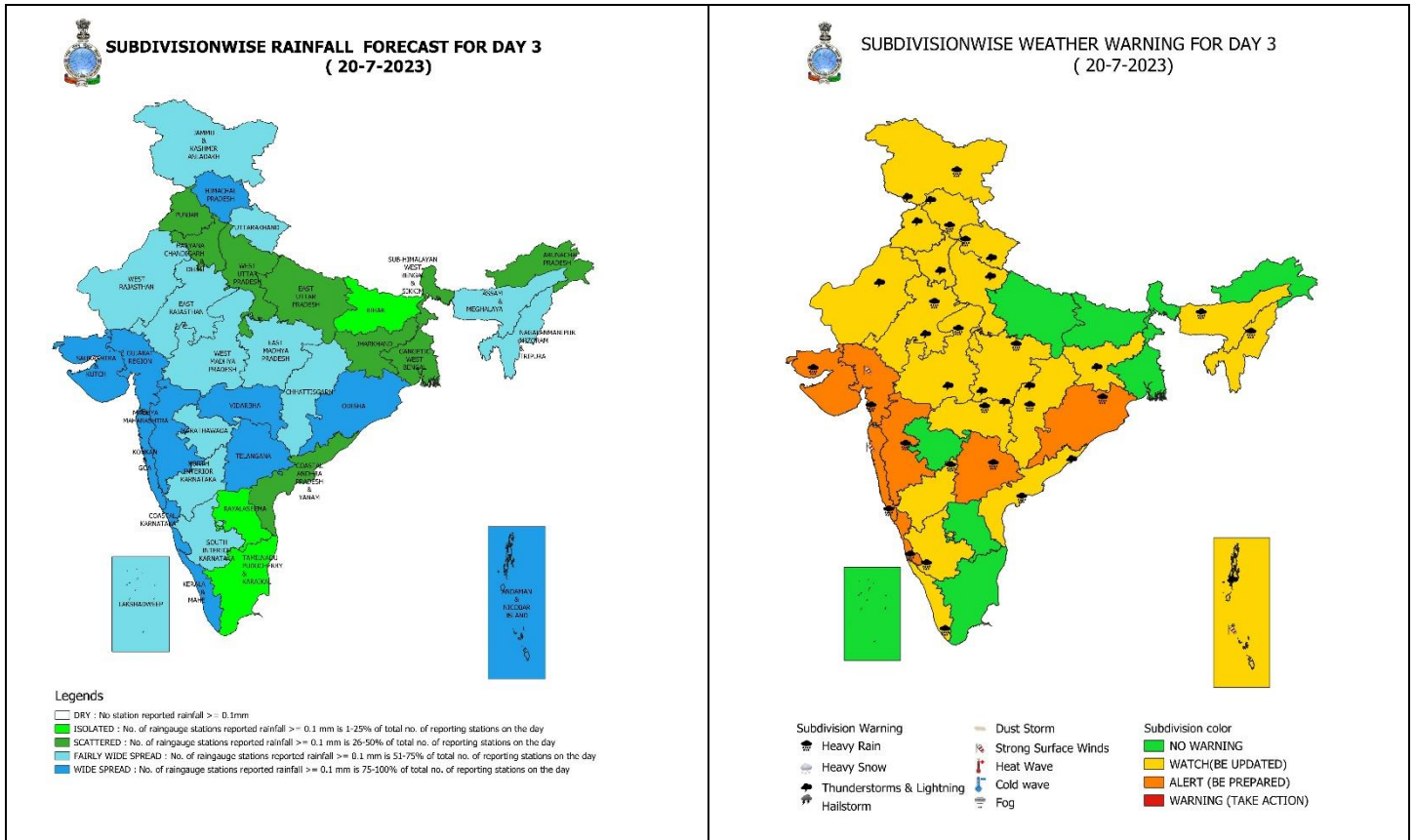
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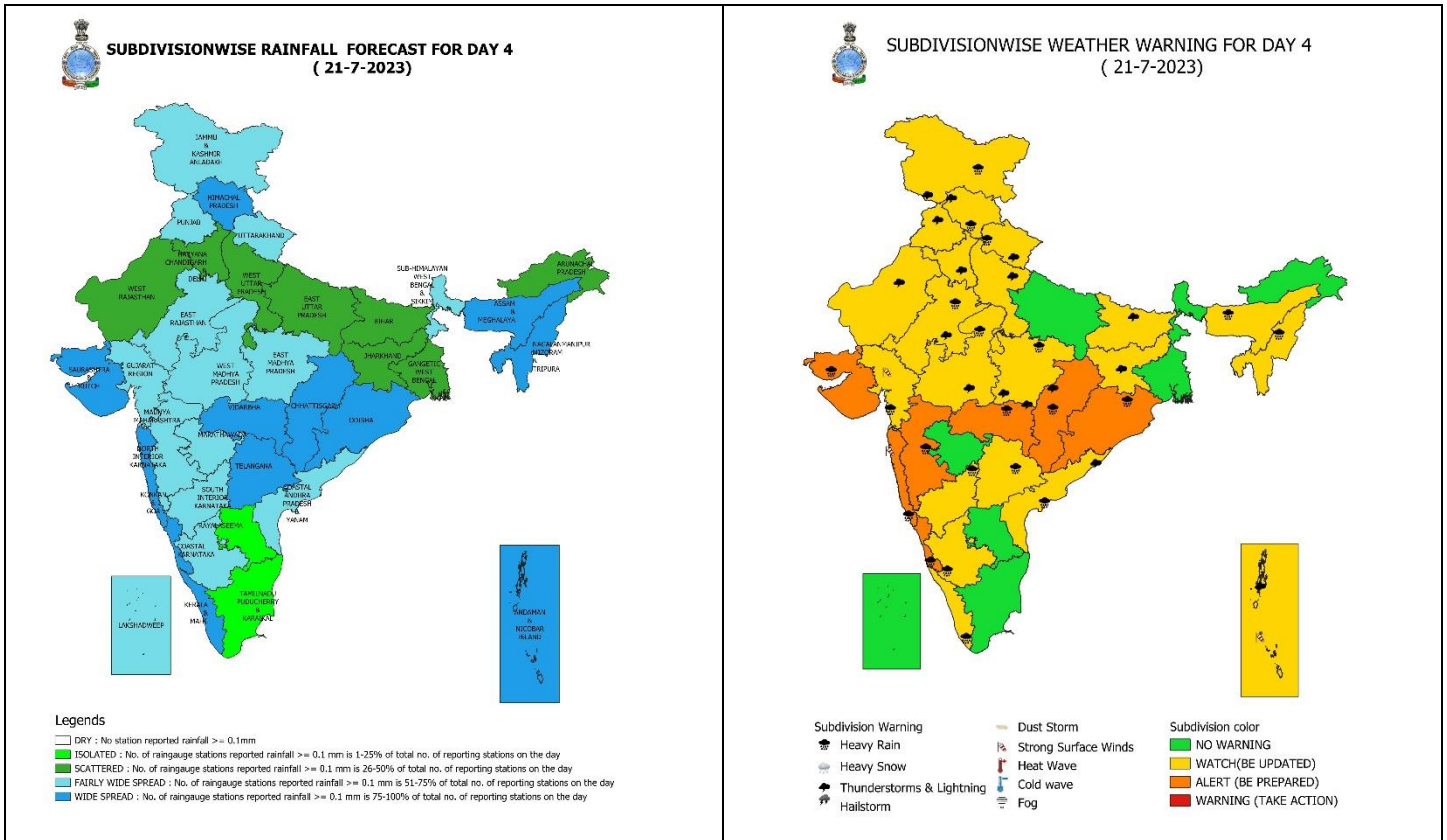
19 July (Day 2):

- ❖ **Heavy to very heavy rainfall with extremely heavy falls** very likely at isolated places over Konkan & Goa, ghat areas of Madhya Maharashtra, Gujarat region; **heavy to very heavy rainfall** at isolated places over Saurashtra & Kutch, Telangana and **heavy rainfall** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Rajasthan, Madhya Pradesh, Vidarbha, Chhattisgarh, Odisha, Marathwada, Coastal Andhra Pradesh & Yanam, Karnataka and Kerala & Mahe.
- ❖ **Thunderstorm with lightning & gusty winds (speed 40-50 kmph)** very likely at isolated places over Andaman & Nicobar Islands and **with lightning** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Punjab, Haryana-Chandigarh-Delhi, West Uttar Pradesh, Rajasthan, Madhya Pradesh, Vidarbha, Chhattisgarh, Jharkhand, Coastal Andhra Pradesh & Yanam and Karnataka.
- ❖ **Squally wind** speed reaching 45-55 kmph gusting to 65 kmph likely over Westcentral, Eastcentral & adjoining north Arabian Sea, Gulf of Mannar and central Bay of Bengal. **Squally weather with wind speed reaching 45-55 kmph gusting to 65 kmph** likely over south Bay of Bengal, Andaman Sea, along & off Gujarat-Maharashtra-Karnataka-Kerala coasts and Lakshadweep area. Fishermen are advised not to venture into these areas.



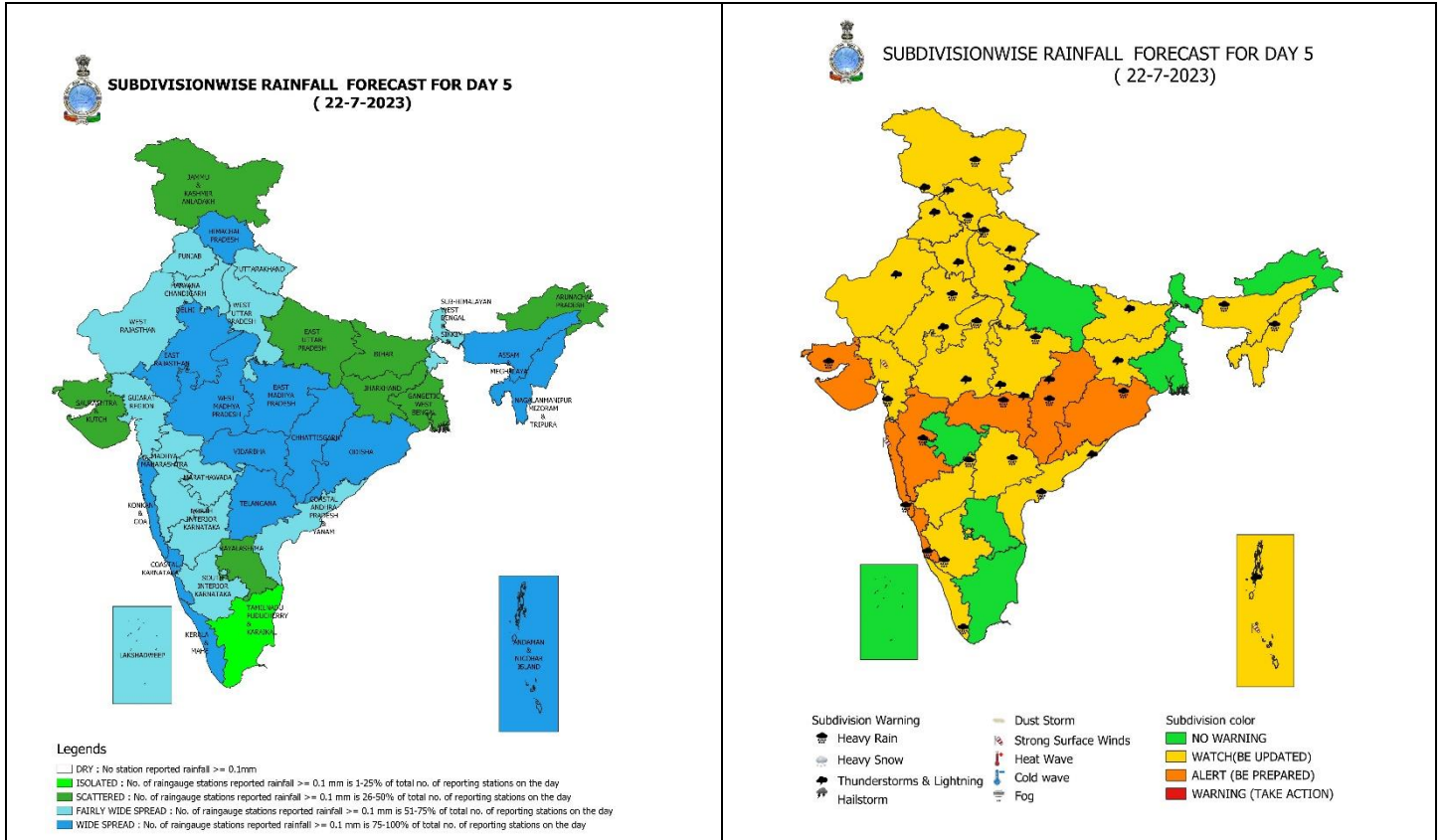
20 July (Day 3):

- ❖ **Heavy to very heavy rainfall with extremely heavy falls** likely at isolated places over Gujarat state; **heavy to very heavy rainfall** at isolated places over Konkan & Goa, ghat areas of Madhya Maharashtra, Telangana, Coastal Karnataka, Odisha and **heavy rainfall** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand, East Rajasthan, Madhya Pradesh, Vidarbha, Chhattisgarh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Coastal Andhra Pradesh & Yanam, Interior Karnataka and Kerala & Mahe.
- ❖ **Thunderstorm with lightning & gusty winds (speed 40-50 kmph)** very likely at isolated places over Andaman & Nicobar Islands and **with lightning** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Punjab, Haryana-Chandigarh-Delhi, West Uttar Pradesh, Rajasthan, Madhya Pradesh, Vidarbha, Chhattisgarh, Jharkhand and Coastal Andhra Pradesh & Yanam.
- ❖ **Squally wind** speed reaching 45-55 kmph gusting to 65 kmph likely over Westcentral, Eastcentral & adjoining north Arabian Sea, Gulf of Mannar and central & south Bay of Bengal, Andaman Sea. **Squally weather with wind speed reaching 45-55 kmph gusting to 65 kmph** likely over north Bay of Bengal, along & off Gujarat-Maharashtra-Karnataka-Kerala coasts, Lakshadweep area. Fishermen are advised not to venture into these areas.



21 July (Day 5):

- ❖ **Heavy to very heavy rainfall** likely at isolated places Vidarbha, Chhattisgarh, Odisha, Konkan & Goa, ghat areas of Madhya Maharashtra, Coastal Karnataka; **heavy rainfall** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand, East Rajasthan, Madhya Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Gujarat Region, Telangana, Coastal Andhra Pradesh & Yanam, Interior Karnataka and Kerala & Mahe.
- ❖ **Thunderstorm with lightning & gusty winds (speed 40-50 kmph)** very likely at isolated places over Andaman & Nicobar Islands and **with lightning** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Punjab, Haryana-Chandigarh-Delhi, West Uttar Pradesh, Rajasthan, Madhya Pradesh, Vidarbha, Chhattisgarh, Bihar, Jharkhand and Coastal Andhra Pradesh & Yanam.
- ❖ **Squally wind** speed reaching 45-55 kmph gusting to 65 kmph likely over Westcentral & adjoining Eastcentral & north Arabian Sea, Gulf of Mannar and central & south Bay of Bengal, Andaman Sea. **Squally weather with wind speed reaching 45-55 kmph gusting to 65 kmph** likely over north Bay of Bengal, along & off Gujarat-Maharashtra-Karnataka-Kerala coasts, Lakshadweep area. Fishermen are advised not to venture into these areas.



22 July (Day 5):

- ❖ **Heavy to very heavy rainfall** likely at isolated places Vidarbha, Chhattisgarh, Odisha, Konkan & Goa, ghat areas of Madhya Maharashtra, Coastal Karnataka; **heavy rainfall** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand, East Rajasthan, Madhya Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Gujarat Region, Telangana, Coastal Andhra Pradesh & Yanam, Interior Karnataka and Kerala & Mahe.
- ❖ **Thunderstorm with lightning & gusty winds (speed 40-50 kmph)** very likely at isolated places over Andaman & Nicobar Islands and **with lightning** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Punjab, Haryana-Chandigarh-Delhi, West Uttar Pradesh, Rajasthan, Madhya Pradesh, Vidarbha, Chhattisgarh, Bihar, Jharkhand and Coastal Andhra Pradesh & Yanam.
- ❖ **Squally wind** speed reaching 45-55 kmph gusting to 65 kmph likely over Westcentral & adjoining Eastcentral & north Arabian Sea, Gulf of Mannar and central & south Bay of Bengal, Andaman Sea. **Squally weather with wind speed reaching 45-55 kmph gusting to 65 kmph** likely over north Bay of Bengal, along & off Gujarat-Maharashtra-Karnataka-Kerala coasts, Lakshadweep area. Fishermen are advised not to venture into these areas.

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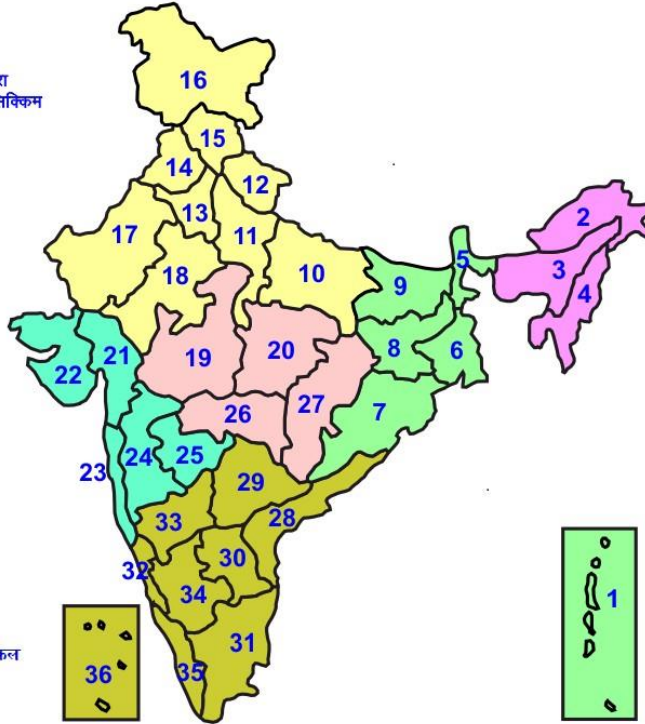
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LEGENDS

- 1 अंडमान और निकोबार द्वीप समुह
- 2 अरुणाचल प्रदेश
- 3 असम और मेघालय
- 4 नागालैंड मनीपुर मीजोरम और त्रिपुरा
- 5 उप हिमालय पश्चिम बंगाल एवं सिक्किम
- 6 पश्चिम गंगेय बंगाल
- 7 ओडिशा
- 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 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

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

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

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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 Strom: Wind speed > 220 kmph (> 119 knots)

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