



Monday, July 17, 2023
Time of Issue: 0815 hours IST
(MORNING)

ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

Significant Weather Features

Significant Weather features:

- ❖ The low-pressure area over west Jharkhand and adjoining north Chhattisgarh & north Interior Odisha.
- ❖ The western end of the monsoon trough runs near its normal position and the eastern end runs south of its normal position. It passes through Ganganagar, Churu, Gwalior, Satna, centre of **low pressure area** over west Jharkhand and adjoining north Chhattisgarh & north interior Odisha, Balasore and thence southeastwards to eastcentral Bay of Bengal
- ❖ A Western Disturbance seen as a trough in mid tropospheric levels over north Pakistan.
- ❖ A cyclonic circulation is likely to form over Northwest Bay of Bengal around 18th July, 2023.

Weather Forecast and Warning:

Northwest India: Fairly widespread to widespread rainfall with **isolated heavy rainfall** is very likely to continue over Himachal Pradesh during next 5 days; over Uttarakhand, Uttar Pradesh & East Rajasthan during next 3 days; over Haryana-Chandigarh during next 24 hours; over West Rajasthan on 18th & 19th July, Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad on 20th July.

Isolated heavy to very heavy rainfall very likely over Uttarakhand during on 17th and over East Rajasthan on 17th & 18th July. **Isolated thunderstorm & lightning** very likely to continue over the region during next 3 days over the region.

East India: Fairly widespread to widespread rainfall with isolated **heavy rainfall** very likely over Odisha during next 5 days; over Andaman & Nicobar Islands during 18th-19th July.

Isolated thunderstorm & lightning very likely to continue over Bihar and West Bengal & Sikkim on 17th and over Andaman & Nicobar Islands during next 5 days.

Central India: Light/moderate fairly widespread to widespread rainfall with **isolated heavy rainfall and thunderstorm & lightning** is very likely over the region during next 5 days. **Isolated heavy to very heavy rainfall** likely over Madhya Pradesh and Vidarbha on 17th & 18th and over Chhattisgarh on 17th July.

West India: Light/moderate fairly widespread to widespread rainfall with **isolated heavy rainfall** very likely to continue over the region during next 5 days. **Isolated heavy to very heavy rainfall** over Konkan & Goa during 18th-21st, ghat areas of Madhya Maharashtra during 18th-20th July and over Gujarat state on 19th, 20th & 21st July. **Isolated thunderstorm & lightning** very likely to continue over the region during 16th-17th July.

Northeast India: Fairly widespread to widespread rainfall with isolated **heavy rainfall & thunderstorm & lightning** very likely over Assam & Meghalaya and Tripura on 17th July.

South India: Light/moderate scattered to fairly widespread rainfall with **isolated heavy rainfall** very likely to over Coastal Karnataka during 17th-21st July; over Telangana during 17th-20th July; over Coastal Andhra Pradesh and Kerala & Mahe during 18th-20th July; and over Interior Karnataka on 19th & 20th July. **Isolated thunderstorm & lightning** very likely to continue over Coastal Andhra Pradesh & Yanam during 17th-21st July and over Telangana, Karnataka and Tamil Nadu, Puducherry & Karaikal on 17th July.

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

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Main Weather Observations

- ❖ **Rainfall/thundershowers observed** (from 0830 hours IST to 1730 hours IST of yesterday): **at most places over** Konkan & Goa and Coastal Karnataka; **at many places over** Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Haryana-Chandigarh-Delhi, Madhya Pradesh, Madhya Maharashtra, Vidarbha, Chhattisgarh, Odisha, Jharkhand, Arunachal Pradesh, Sub-Himalaya West Bengal & Sikkim and Lakshadweep; **at a few places over** Assam & Meghalaya, Gangetic West Bengal, Uttarakhand, East Uttar Pradesh and Marathwada; and **at isolated places over** Himachal Pradesh, Punjab, Bihar, Rajasthan, Gujarat state, Telangana, Kerala & Mahe, Nagaland, Manipur, Mizoram & Tripura and Andaman & Nicobar Islands.
- ❖ **Heavy Rainfall observed** (from 0830 hours IST to 1730 hours IST of yesterday): **Heavy Rainfall** over Nagaland, Manipur, Mizoram & Tripura East Rajasthan.
- ❖ **Significant rainfall amount** (from 0830 hours IST to 1730 hours IST of yesterday): **(in cm)**: Nainwan(East Rajasthan) - 10; Pasighat -7; Narsinghpur -6; Matheran -4; Kota, Nagpur and Pachmarhi- 3 each; Narnaul, Sidhi, Daman, Cooch Behar, Sri Nagar, Pahalgaoon, Ganganagar and Mangalore – 2 each; Kohima, Gulmarg, Kokarnag, Churu, Mahuva, Bhopal, Seoni, Pendra Road, Gondia, Amraoli, Yeotmal, Mahabaleshwar, Harnai, Sambalpur, Long Islands, Bankura, North Lakhimpur, Ambala, Sundergarh and Puri -1 each.
- ❖ **Thunderstorm observed** (from 0830 hours IST of yesterday to 0530 hours IST of today): at isolated places over Arunachal Pradesh, East Rajasthan, Chhattisgarh, Madhya Pradesh, Tamil Nadu, Puducherry & Karaikal and West Rajasthan.
- ❖ **Minimum Temperature Departures (as on 16-07-2023)**: Minimum temperatures were **above normal (1.6°C to 3.0°C)** at most places over Kerala & Mahe; at many places over Lakshadweep, Andaman & Nicobar Islands; at a few places over Himachal Pradesh, Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Rayalaseema, Tamil Nadu, Puducherry & Karaikal and at isolated places over Coastal Andhra Pradesh & Yanam, North Interior Karnataka, Saurashtra & Kutch, Bihar, Assam & Meghalaya. They are **below normal (-1.6°C to -3.0°C)** at a few places over Madhya Pradesh; at isolated places over East Uttar Pradesh, Haryana-Chandigarh-Delhi and Gangetic West Bengal 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 16-07-2023)**: Maximum temperatures were **appreciably above normal (3.1°C to 5.0°C)** at isolated places over Gangetic West Bengal and Tamil Nadu, Puducherry & Karaikal; **above normal (1.6°C to 3.0°C)** at many places over Nagaland, Manipur, Mizoram & Tripura, Uttarakhand and Kerala & Mahe; at isolated places over Gujarat state, Rayalaseema and Konkan & Goa. They were **appreciably below normal (-3.1°C to -5.0°C)** at a few places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad and Assam & Meghalaya; at isolated places over Vidarbha and Odisha; **below normal (-1.6°C to -3.0°C)** at many places over Haryana-Chandigarh-Delhi and Telangana; at a few place over Arunachal Pradesh, Madhya Pradesh and Marathwada and at isolated places over East Madhya Pradesh and **near normal** over rest parts of the country. Yesterday, **the highest maximum temperature of 38.8°C** was reported at **Palayankottai (Tamil Nadu, Puducherry & Karaikal)**.



Meteorological Analysis (Based on 0530 hours IST)

- ❖ The **low pressure area** over South Jharkhand & adjoining North Interior Odisha now lies over west Jharkhand and adjoining north Chhattisgarh & north interior Odisha and the associated cyclonic circulation extends upto mid tropospheric levels tilting south-westwards with height. It is likely to moves west-northwestwards across north Chhattisgarh during next 24 hours.
- ❖ The Monsoon Trough at mean sea level now passes through Ganganagar, Churu, Gwalior, Satna, centre of **low pressure area** over west Jharkhand and adjoining north Chhattisgarh & north interior Odisha, Balasore and thence southeastwards to eastcentral Bay of Bengal and extends upto 1.5 km above mean sea level.
- ❖ The Western Disturbance now seen as a westerly trough in mid-tropospheric levels with its axis at 5.8 km above mean sea level roughly along Long 71° E to the north of Lat 30° N.
- ❖ A cyclonic circulation is likely to form over Northwest Bay of Bengal around 18th July, 2023.

Weather Forecast for next 5 days (Upto 0830 hours IST of 21st 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	17-Jul	18-Jul	19-Jul	20-Jul	21-Jul	22-Jul	23-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	FWS	SCT	SCT	SCT	SCT	SCT	WS
3	ASSAM & MEGHALAYA	FWS	SCT	SCT	SCT	SCT	FWS	WS
4	NAGALAND, MANIPUR, MIZORAM & TRIPURA	FWS	FWS	SCT	SCT	SCT	FWS	WS
5	SUB-HIMALAYAN WEST BENGAL & SIKKIM	FWS	SCT	SCT	SCT	FWS	FWS	FWS
6	GANGETIC WEST BENGAL	FWS	SCT	SCT	SCT	FWS	SCT	FWS
7	ODISHA	FWS	FWS	WS	WS	WS	FWS	FWS
8	JHARKHAND	FWS	SCT	SCT	FWS	WS	WS	WS
9	BIHAR	SCT	ISOL	ISOL	ISOL	SCT	SCT	FWS
10	EAST UTTAR PRADESH	FWS	SCT	SCT	ISOL	ISOL	ISOL	ISOL
11	WEST UTTAR PRADESH	FWS	FWS	SCT	ISOL	ISOL	ISOL	WS
12	UTTARAKHAND	WS	WS	FWS	FWS	FWS	FWS	WS
13	HARYANA CHANDIGARH & DELHI	FWS	FWS	FWS	SCT	SCT	SCT	FWS
14	PUNJAB	SCT	FWS	FWS	SCT	SCT	SCT	WS
15	HIMACHAL PRADESH	WS	WS	FWS	WS	WS	WS	FWS
16	JAMMU & KASHMIR AND LADAKH	SCT	SCT	FWS	WS	FWS	FWS	FWS
17	WEST RAJASTHAN	SCT	SCT	FWS	SCT	SCT	FWS	FWS
18	EAST RAJASTHAN	FWS	WS	WS	FWS	FWS	WS	FWS
19	WEST MADHYA PRADESH	WS	WS	WS	FWS	FWS	WS	WS
20	EAST MADHYA PRADESH	WS	WS	FWS	FWS	WS	WS	WS
21	GUJARAT REGION	SCT	FWS	WS	WS	FWS	SCT	FWS
22	SAURASHTRA & KUTCH	SCT	FWS	WS	WS	FWS	SCT	FWS
23	KONKAN & GOA	WS	WS	WS	WS	WS	WS	WS
24	MADHYA MAHARASHTRA	FWS	WS	WS	WS	FWS	FWS	FWS
25	MARATHAWADA	FWS	FWS	FWS	FWS	FWS	SCT	FWS
26	VIDARBHA	WS	WS	WS	WS	WS	WS	FWS
27	CHHATTISGARH	WS	WS	WS	WS	WS	WS	FWS
28	COASTAL ANDHRA PRADESH & YANAM	SCT	SCT	FWS	FWS	FWS	FWS	SCT
29	TELANGANA	FWS	FWS	WS	WS	WS	WS	FWS
30	RAYALASEEMA	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL	SCT
31	TAMILNADU PUDUCHERRY & KARAIKAL	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL	SCT
32	COASTAL KARNATAKA	WS	WS	WS	WS	WS	WS	WS
33	NORTH INTERIOR KARNATAKA	SCT	SCT	FWS	FWS	FWS	FWS	FWS
34	SOUTH INTERIOR KARNATAKA	SCT	SCT	SCT	FWS	FWS	FWS	FWS
35	KERALA & MAHE	FWS	WS	WS	WS	WS	WS	WS
36	LAKSHADWEEP	SCT	SCT	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 16.07.2023

Fig. 2: Departure of Maximum Temp. Dated 16.07.2023

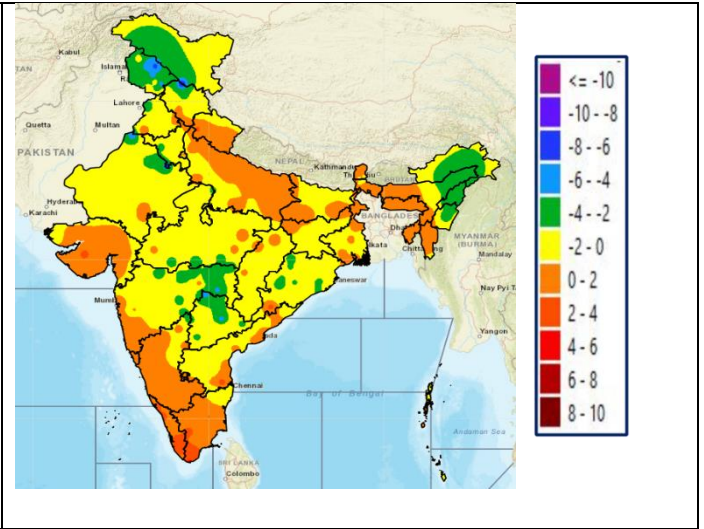
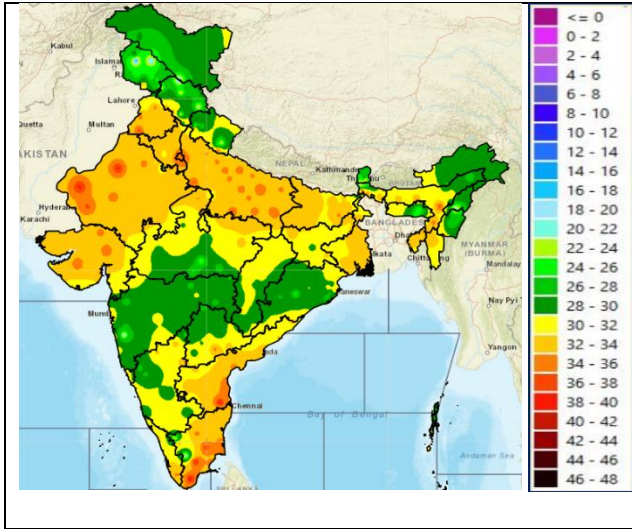


Fig. 3: Minimum Temperatures Dated 16.07.2023

Fig. 4: Departure of Minimum Temp. Dated 16.07.2023

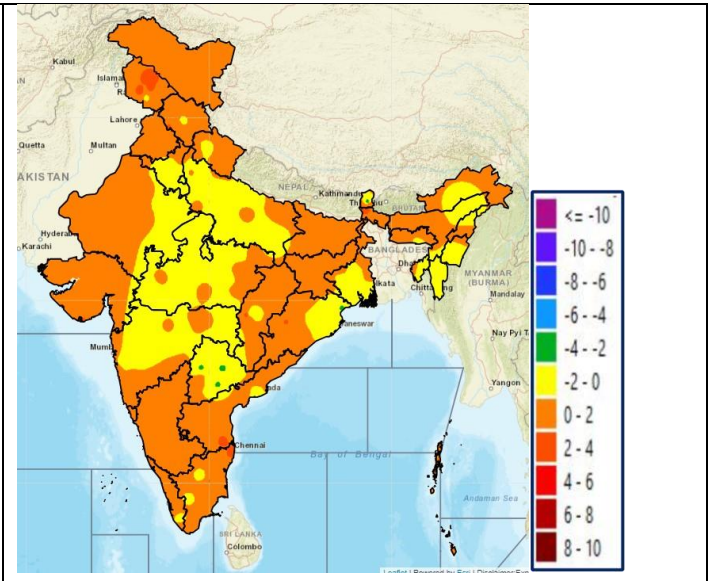
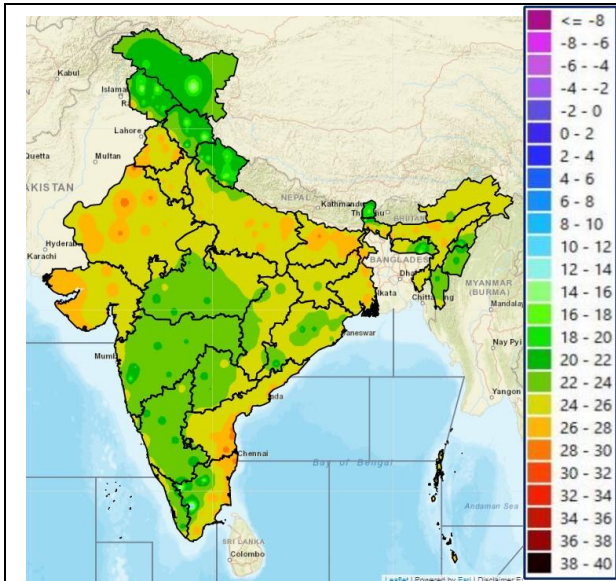
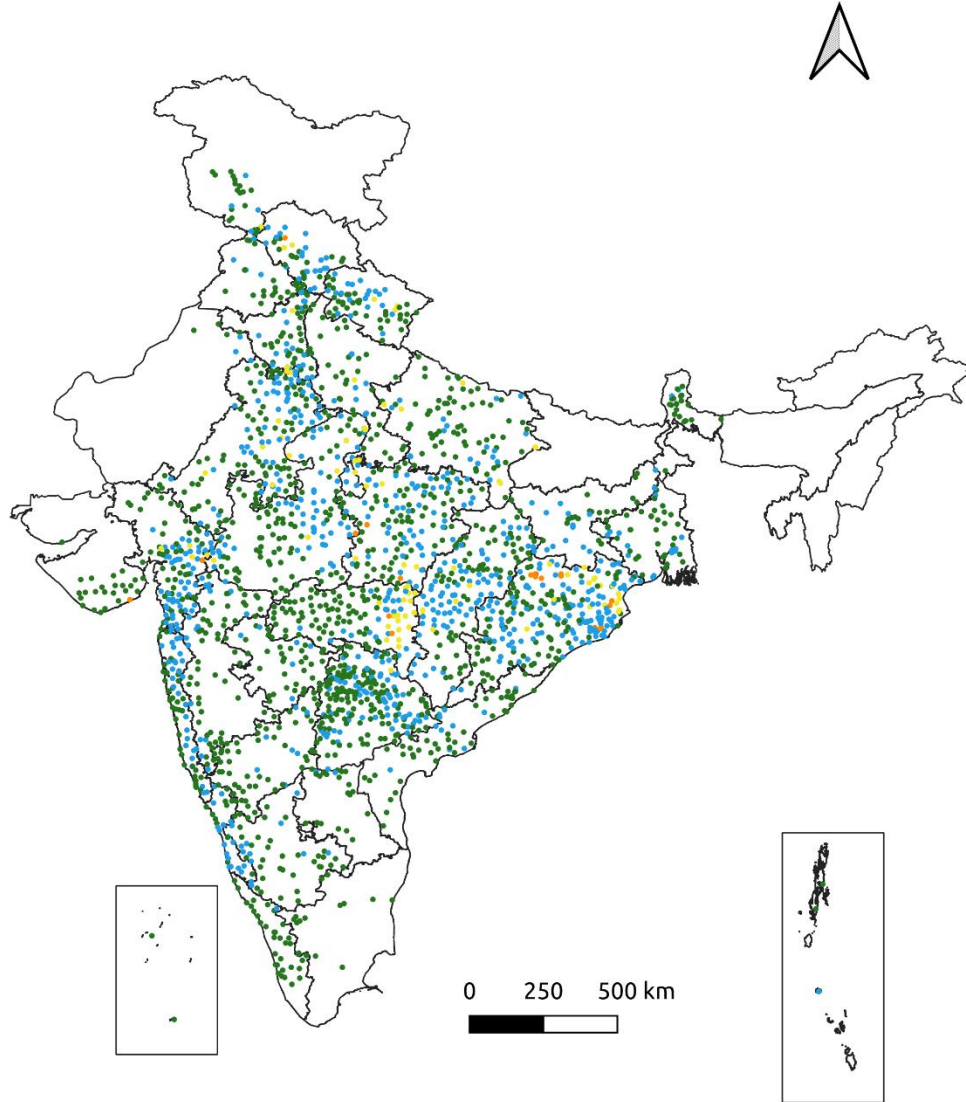


Fig. 5: Accumulated Rainfall (mm) during past 24 hours

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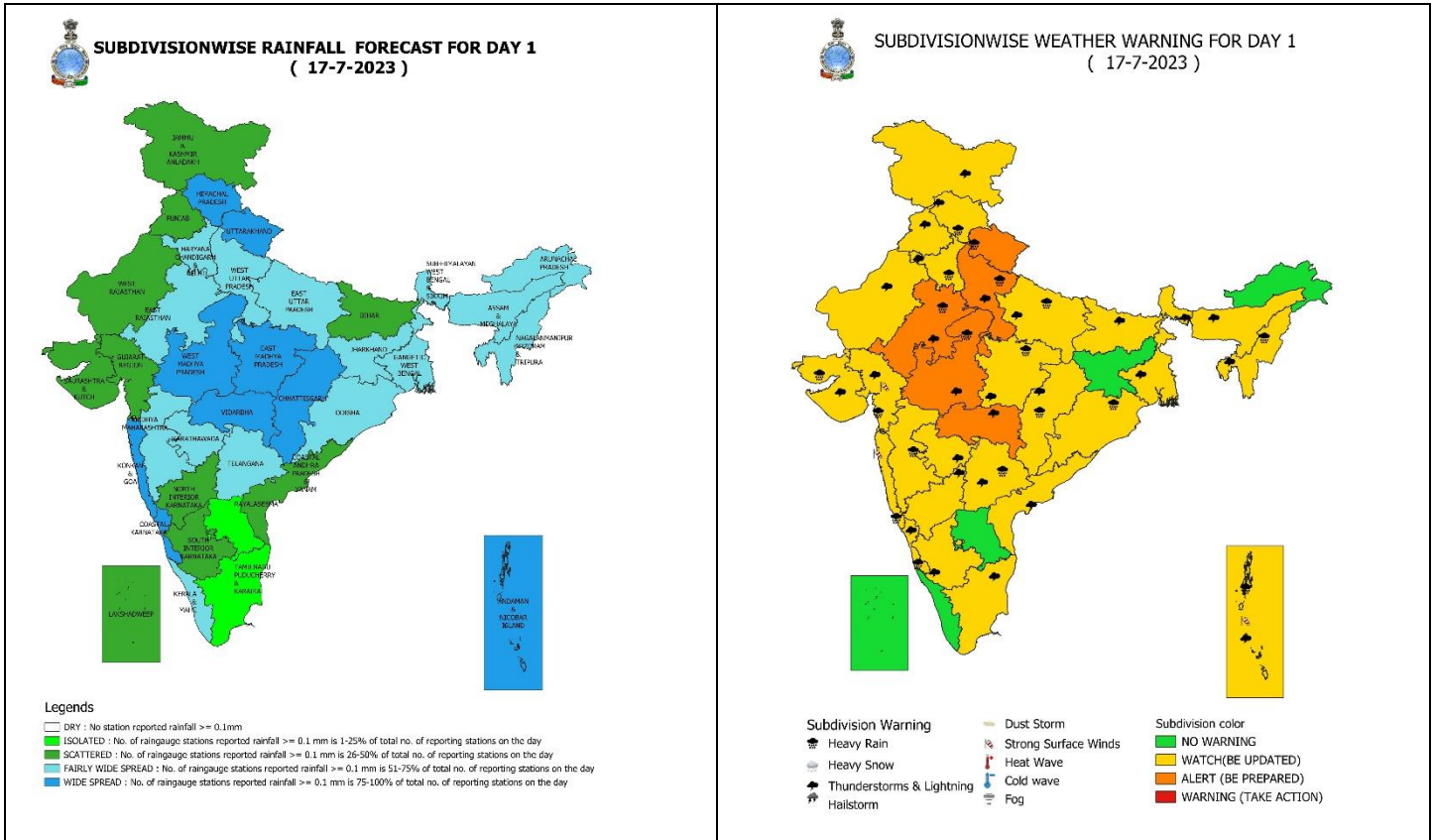


24 Hr cumulative rainfall recorded over different stations during 0830 IST of 15-7-2023 to 0830 IST of 16-7-2023



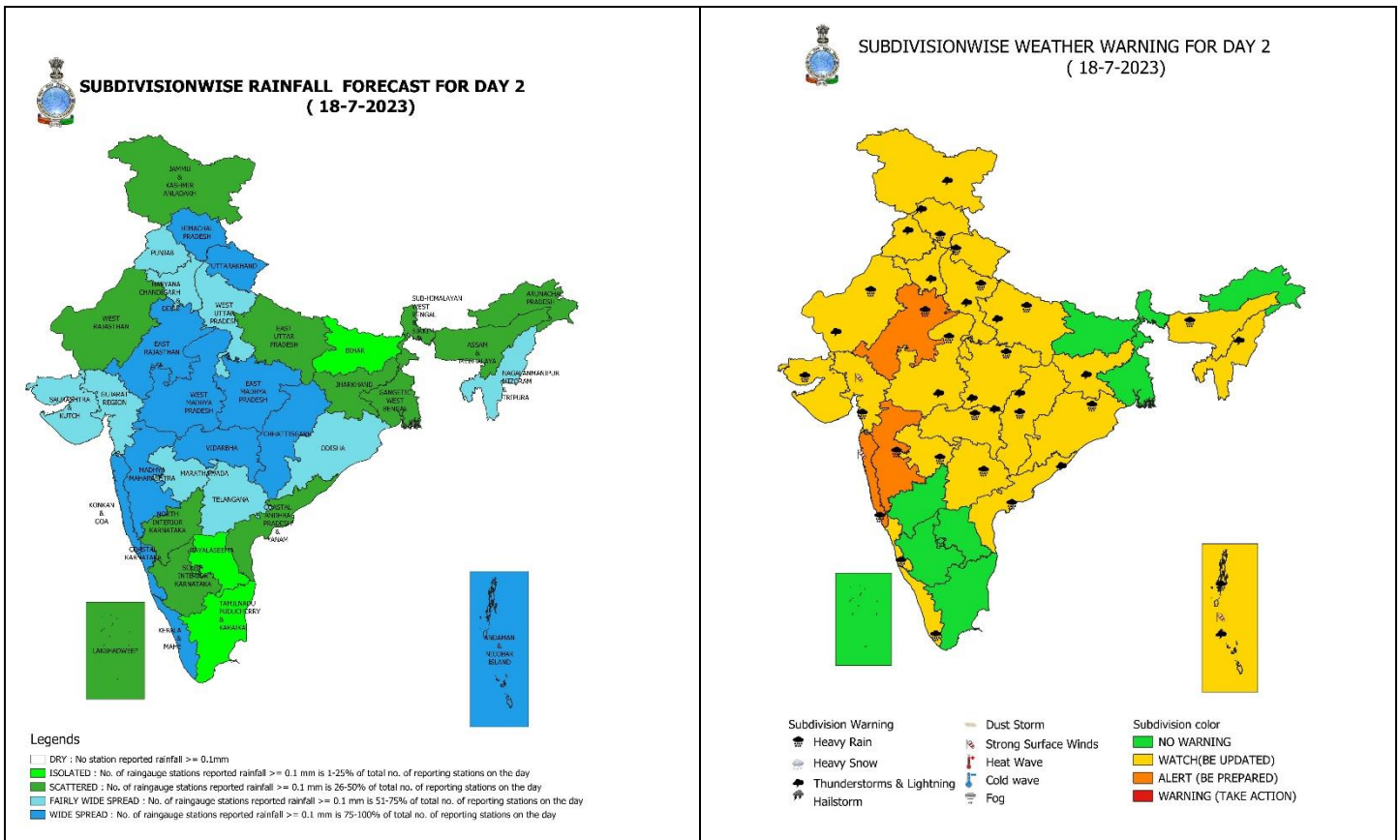
Legends

- 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)



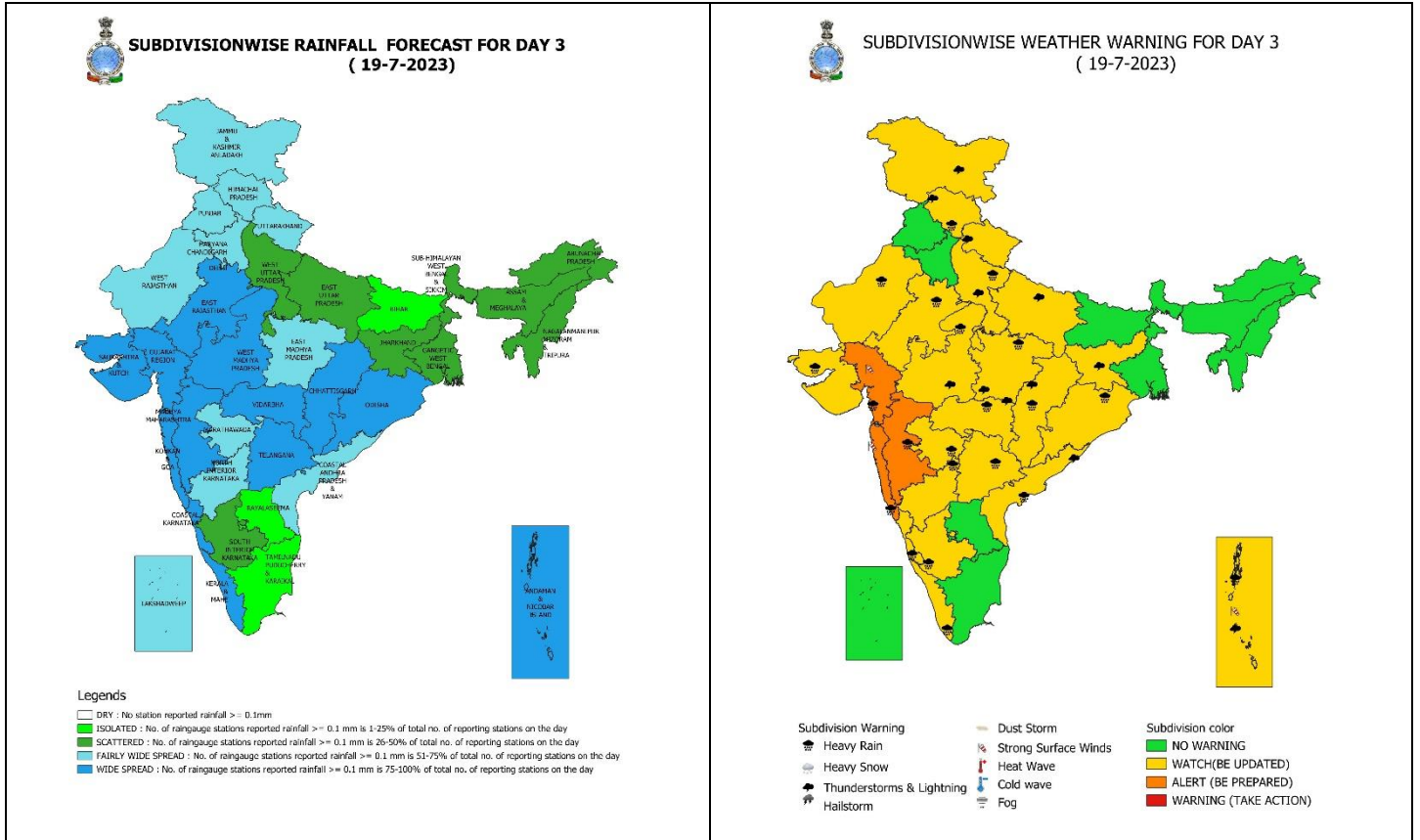
17 July (Day 1):

- ❖ **Heavy to very heavy rainfall** very likely at isolated places over Uttarakhand, East Rajasthan, West Madhya Pradesh, Vidarbha, Chhattisgarh, Konkan & Goa, Madhya Maharashtra; **heavy rainfall** at isolated places over Himachal Pradesh, north Haryana-Chandigarh, East Uttar Pradesh, East Madhya Pradesh, Andaman & Nicobar Islands, Odisha, Nagaland, Manipur, Mizoram & Tripura, Gujarat state, Telangana and Coastal Karnataka.
- ❖ **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, Uttar Pradesh, West Rajasthan, Madhya Pradesh, Vidarbha, Chhattisgarh, West Bengal & Sikkim, Bihar, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Marathwada, Gujarat state, Coastal Andhra Pradesh & Yanam, Telangana, Karnataka and Tamil Nadu, Puducherry & Karaikal.
- ❖ **Squally wind** speed reaching 45-55 kmph gusting to 65 kmph likely over Westcentral & adjoining Southwest and Eastcentral Arabian Sea, Comorin area, Gulf of Mannar, Westcentral & adjoining Eastcentral Bay of Bengal. **Squally weather with wind speed reaching 40-45 kmph gusting to 50 kmph** likely along & off Gujarat-Maharashtra-Karnataka-north Kerala coasts; south Bay of Bengal and Andaman Sea. Fishermen are advised not to venture into these areas.



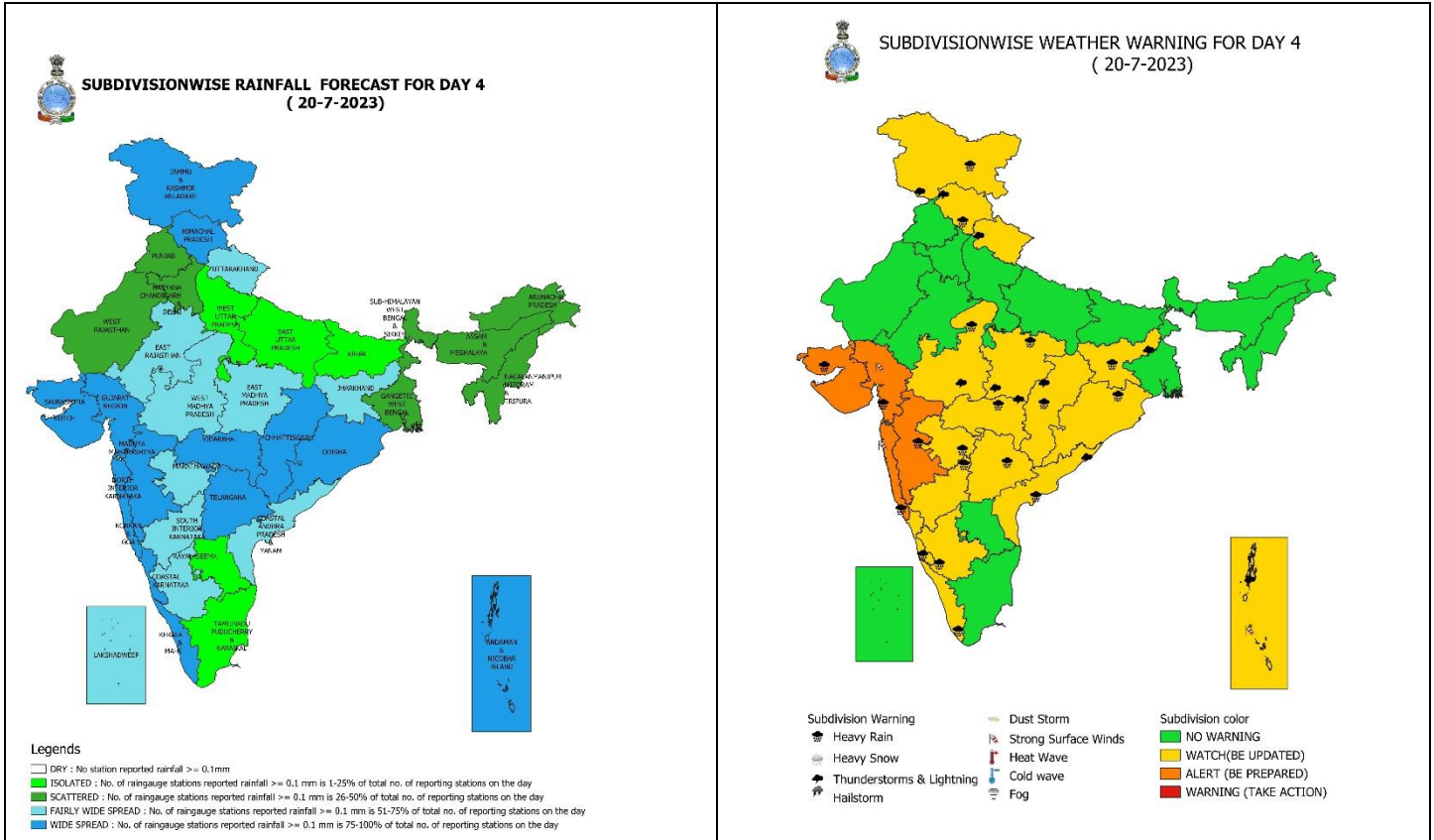
18 July (Day 2):

- ❖ **Heavy to very heavy rainfall** very likely at isolated places over Uttarakhand, East Rajasthan, Madhya Pradesh, Vidarbha, Konkan & Goa, Madhya Maharashtra, south Gujarat Region; **heavy rainfall** at isolated places over Himachal Pradesh, Uttar Pradesh, West Rajasthan, Chhattisgarh, Andaman & Nicobar Islands, Odisha, Assam & Meghalaya, Marathwada, Saurashtra & Kutch, Coastal Andhra Pradesh & Yanam, Telangana, Coastal 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, Uttar Pradesh, Madhya Pradesh, Vidarbha, Chhattisgarh, Jharkhand, Nagaland, Manipur, Mizoram & Tripura and Coastal Andhra Pradesh & Yanam.
- ❖ **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.



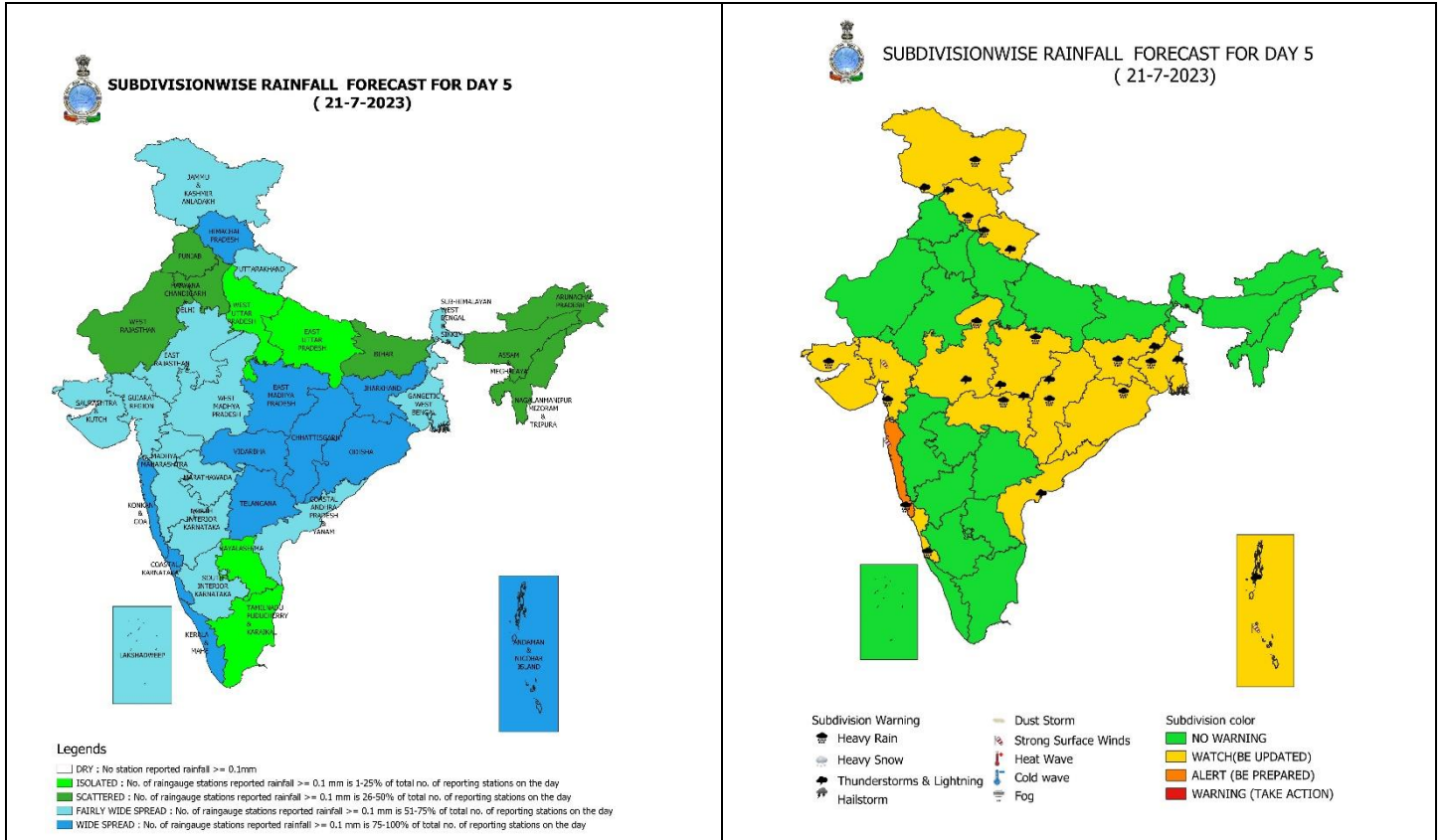
19 July (Day 3):

- ❖ **Heavy to very heavy rainfall** likely at a few places over Konkan & Goa and at isolated places over Odisha, Madhya Maharashtra, Gujarat state; **heavy rainfall** at isolated places over Himachal Pradesh, West Uttar Pradesh, Rajasthan, Madhya Pradesh, Vidarbha, Chhattisgarh, Andaman & Nicobar Islands, Marathwada, Coastal Andhra Pradesh & Yanam, Telangana, Karnataka and Kerala & Mahe.
- ❖ **Thunderstorm with lightning & gusty winds (speed 40-50 kmph)** likely at isolated places over Andaman & Nicobar Islands and **with lightning** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand, Uttar Pradesh, 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 & 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.



20 July (Day 4):

- ❖ **Heavy to very heavy rainfall** likely at isolated places over Vidarbha, Chhattisgarh, Odisha, Konkan & Goa, Madhya Maharashtra, Gujarat state, Coastal Karnataka; **heavy rainfall** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Madhya Pradesh, Jharkhand, Marathwada, Coastal Andhra Pradesh & Yanam, Telangana, Interior Karnataka and Kerala & Mahe.
- ❖ **Thunderstorm with lightning & gusty winds (speed 40-50 kmph)** likely at isolated places over Andaman & Nicobar Islands and **with lightning** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand, Madhya Pradesh, Vidarbha, Chhattisgarh, Jharkhand, Gangetic West Bengal and Coastal Andhra Pradesh & Yanam.
- ❖ **Squally wind** speed reaching 45-55 kmph gusting to 65 kmph likely over Westcentral & Southwest 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 over Odisha, Konkan & Goa and Coastal Karnataka; **heavy rainfall** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand, south Jharkhand, Gangetic West Bengal, Chhattisgarh and Gujarat state.
- ❖ **Thunderstorm with lightning & gusty winds (speed 40-50 kmph)** likely at isolated places over Andaman & Nicobar Islands and **with lightning** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand, Madhya Pradesh, Vidarbha, Chhattisgarh, Jharkhand, Gangetic West Bengal, Coastal Andhra Pradesh & Yanam and Kerala & Mahe.
- ❖ **Squally wind** speed reaching 45-55 kmph gusting to 65 kmph likely over Westcentral & Southwest 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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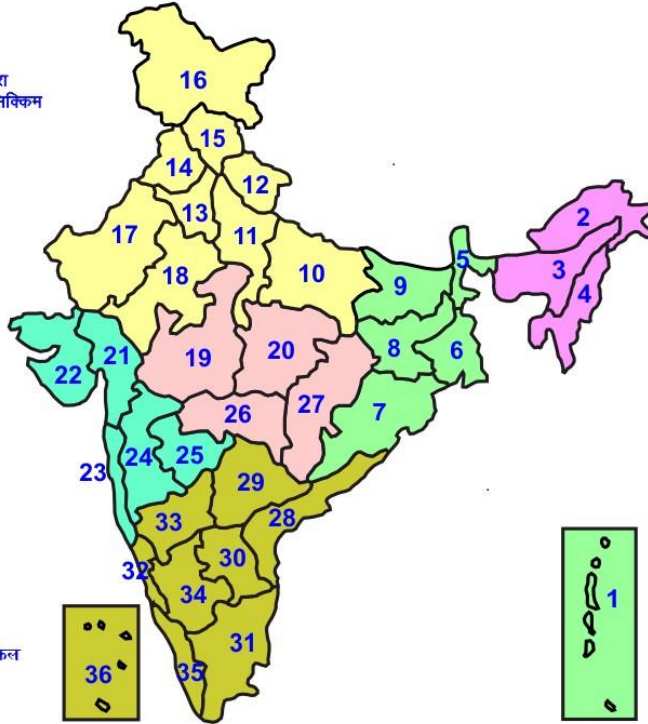
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LEGENDS

- 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 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 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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