

Saturday, June 29, 2024
Time of Issue: 2000 hours IST
(NIGHT)

ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

Significant Weather Features:

Advance of Southwest Monsoon:

- ❖ Southwest Monsoon has further advanced into remaining parts of East Uttar Pradesh and some more parts of West Uttar Pradesh today, the 29th June 2024.
- ❖ Northern Limit of Monsoon continues to pass through 26°N/65°E, Jaisalmer, Churu, Bhiwani, Delhi, Aligarh, Hardoi, Moradabad, Una, Pathankot, Jammu, 33°N/74°E.
- ❖ Conditions are favourable for further advance of southwest Monsoon into some more parts of West Rajasthan, Haryana-Chandigarh & Punjab and remaining parts of West Uttar Pradesh, Himachal Pradesh and Jammu during next 2-3 days.

Weather Systems and Forecast & Warnings:

- ❖ A cyclonic circulation lies over northeast Arabian Sea adjoining Saurashtra & Kutch in middle tropospheric levels. Shear zone runs roughly along 20°N in middle tropospheric levels and the feeble off-shore trough at mean sea level along south Maharashtra-central Kerala coasts. Under their influence:
 - Fairly widespread to widespread light to moderate rainfall accompanied with thunderstorm & lightning very likely over Kerala & Mahe, Lakshadweep, Coastal Karnataka, Konkan & Goa, Gujarat State, Madhya Maharashtra; isolated to scattered light to moderate rainfall over Marathwada, Tamil Nadu, Puducherry & Karaikal, Coastal Andhra Pradesh & Yanam, Rayalaseema, Telangana, North & South Interior Karnataka during next 5 days.
 - Isolated **heavy rainfall** very likely over Saurashtra & Kutch, Kerala & Mahe, Tamil Nadu, Coastal Karnataka, South Interior Karnataka during 29th June-01st July; Gujarat Region, Konkan & Goa, Madhya Maharashtra during 29th June-03rd July.
 - **Isolated very heavy rainfall very likely over Konkan & Goa, Madhya Maharashtra during 30th June-03rd July.**
- ❖ A Low Pressure Area lies over Northwest Bay of Bengal adjoining north Odisha-Gangetic West Bengal coasts. A cyclonic circulation lies over northeast Rajasthan in lower tropospheric levels. A cyclonic circulation lies over East Uttar Pradesh adjoining Bihar and another over northwest Uttar Pradesh in lower tropospheric levels. The east-west trough runs from northwest Uttar Pradesh to the centre of Low Pressure Area in lower tropospheric levels. Under their influence;
 - Fairly widespread to widespread light to moderate rainfall accompanied with thunderstorm, lightning very likely over Northwest, Central & East India during next 5 days.
 - Isolated **heavy rainfall** very likely over Himachal Pradesh, Uttarakhand, Punjab, Haryana-Chandigarh-Delhi, Uttar Pradesh, Madhya Pradesh and East Rajasthan during 29th June to 03rd July; West Rajasthan on 29th June, 02nd & 03rd July; Chhattisgarh, Gangetic West Bengal, Odisha on 29th & 30th June, Jharkhand on 30th; and Bihar during 30th June-02nd July.
 - **Isolated very heavy rainfall likely over Jharkhand on 29th; Uttarakhand during 30th June-03rd July; Himachal Pradesh, Punjab during 30th June-02nd July; Haryana-Chandigarh, Uttar Pradesh, East Rajasthan during 29th June-02nd July; West Madhya Pradesh on 01st & 02nd July.**
- ❖ A cyclonic circulation lies over northeast Assam in lower tropospheric levels. Under its influence;
 - Widespread light to moderate rainfall accompanied with thunderstorm, lightning & **isolated heavy to very heavy rainfall** likely over Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura during next 5 days.
 - **Isolated extremely heavy rainfall very likely over Arunachal Pradesh on 29th & 30th and Assam & Meghalaya on 29th June.**

Main Weather Observations:

- ❖ **Rainfall distribution** (from 0830 hours IST to 1730 hours IST of today): **at most places over** Assam & Meghalaya; **at many places over** Odisha, Madhya Pradesh, Gujarat state, West Bengal & Sikkim, Kerala & Mahe, Andaman & Nicobar Islands and Lakshadweep; **at a few places over** Arunachal Pradesh, West Uttar Pradesh, Konkan & Goa, Chhattisgarh, Telangana and Coastal Karnataka; **at isolated places over** Uttarakhand, Himachal Pradesh, Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Rajasthan, Bihar, Jharkhand, Nagaland, Manipur, Mizoram & Tripura, Vidarbha, Marathwada, Madhya Maharashtra, Coastal Andhra Pradesh & Yanam and North Interior Karnataka.
- ❖ **Heavy rainfall recorded** (from 0830 hours IST to 1730 hours IST of today): **Heavy rainfall** at isolated places over Chhattisgarh and Assam & Meghalaya.
- ❖ **Significant amount of rainfall** (from 0830 hours IST to 1730 hours IST of today) (in cm): **Chhattisgarh:** Pendra Road-9, Bilaspur-5; **Assam & Meghalaya:** Cherapunji-8, Golaghat-3; **Arunachal Pradesh:** Pasighat-7; **Jharkhand-** Daltongunj-6; **Gangetic West Bengal:** Howrah and Digha-4 each, Purulia-3, Diamond Harbour and Alipore-2 each; **West Uttar Pradesh:** Muzaffarnagar and Meerut-4 each; **Bihar-** Patna-2; **Sub-Himalayan West Bengal & Sikkim:** Darjeeling -2; **East Madhya Pradesh:** Seoni-3, Malanjkhanda-3, Khajuraho-2; **West Madhya Pradesh:** Bhopal-3; **Gujarat Region:** V. Vidyanagar-2; **Saurashtra & Kutch:** Rajkot-5, Kandla, Dwarka and Bhavnagar-2 each; **Madhya Maharashtra:** Mahabaleshwar-2; **Konkan & Goa:** Ratnagiri, Matheram and Santacruz- 2 each; **Coastal Karnataka:** Karwar-3, Mangalore-2; **Kerala & Mahe:** Kannur-2; **Andaman & Nicobar Islands:** Port Blair-2.
- ❖ **Maximum Gusty Wind (in kmph) (AWS) (from 0830 hours IST to 1730 hours IST of today):** **Haryana:** Saragthal-49; **Himachal Pradesh:** Reckon-65; **Ladakh:** Nyoma-47, Chuchot_Yokma-45, Padum-68; **Gujarat:** Tharad-56, Chhotaudepur-49, Godra-47, Anand and Ahmedabad -50 each, Arnej-61; **Maharashtra:** Mo Alibagh-63, Kalwan-54, Jalgong-52, Mahabaleshwar-50, Satara-47; **Bihar:** Patna-57; **Meghalaya-Nongstoin-48; Goa:** North Goa-52.
- ❖ **Minimum Temperature Departures (as on 29-06-2024):** Minimum temperatures are **appreciably above normal (3.1°C to 5.0°C)** at an isolated places over West Rajasthan, East Madhya Pradesh, Sub-Himalayan West Bengal & Sikkim, Madhya Maharashtra; **above normal (1.6°C to 3.0°C)** at many places over Himachal Pradesh, Bihar, Punjab, Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad; at an isolated places over Haryana-Chandigarh-Delhi, Jharkhand, Nagaland, Manipur, Mizoram & Tripura, Odisha, Gangetic West Bengal, Uttarakhand; These are **below normal (-1.6°C to -3.0°C)** at isolated places over Haryana-Chandigarh-Delhi, West Uttar Pradesh, East Rajasthan, Tamil Nadu, Puducherry & Karaikal and Coastal Andhra Pradesh & Yanam and **near normal** over rest parts of the country. Today, **the lowest minimum temperature of 19.0°C** is reported at **Bulsar (Gujarat)** over the plains of the country.
- ❖ **Maximum Temperature Departures (as on 29-06-2024):** Maximum temperatures are **appreciably above normal (3.1°C to 5.0°C)** at isolated places over Bihar, Odisha and Jharkhand; **above normal (1.6°C to 3.0°C)** at isolated places over West Bengal & Sikkim, Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe. These are **appreciably below normal (-3.1°C to -5.0°C)** at isolated places over Rajasthan, East Madhya Pradesh, Coastal Andhra Pradesh & Yanam, Telangana and Saurashtra & Kutch; **below normal (-1.6°C to -3.0°C)** at isolated places over Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, West Madhya Pradesh, Gujarat Region, Haryana-Chandigarh-Delhi and Vidarbha and **near normal** over rest parts of the country. Today, **the highest Maximum Temperature of 41.5°C** is reported at **Ganganagar (West Rajasthan)** over the country.

Meteorological Analysis (Based on 1730 hours IST)

- v Southwest Monsoon has further advanced into remaining parts of East Uttar Pradesh and some more parts of West Uttar Pradesh today, the 29th June 2024.
- v Northern Limit of Monsoon continues to pass through 26°N/65°E, Jaisalmer, Churu, Bhiwani, Delhi, Aligarh, Hardoi, Moradabad, Una, Pathankot, Jammu, 33°N/74°E.
- v Conditions are favourable for further advance of southwest Monsoon into some more parts of West Rajasthan, Haryana-Chandigarh & Punjab and remaining parts of West Uttar Pradesh, Himachal Pradesh and Jammu during next 2-3 days.
- ❖ The Low Pressure Area over Northwest Bay of Bengal adjoining north Odisha-Gangetic West Bengal coasts with the associated cyclonic circulation extending upto 7.6 km above mean sea level tilting southwestwards with height persists.
- ❖ The cyclonic circulation over north Punjab and neighbourhood at 0.9 km above mean sea level persists.
- ❖ The cyclonic circulation over northwest Rajasthan & neighbourhood at 1.5 km above mean sea level persists.
- ❖ The cyclonic circulation over northwest Uttar Pradesh & neighbourhood between 1.5 km & 3.1 km above mean sea level persists.
- ❖ The cyclonic circulation over East Uttar Pradesh adjoining Bihar extending upto 1.5 km above mean sea level persists.
- ❖ The east-west trough from northwest Uttar Pradesh to the centre of Low Pressure Area across the above cyclonic circulation over East Uttar Pradesh & Jharkhand at 0.9 km above mean sea level persists.
- ❖ The cyclonic circulation over northeast Arabian Sea adjoining Saurashtra & Kutch between 1.5 km & 7.6 km above mean sea level persists.
- ❖ The shear zone roughly along 20°N between 5.8 & 7.6 km above mean sea level persists.
- ❖ The feeble off-shore trough at mean sea level along south Maharashtra-central Kerala coasts persists.
- ❖ The cyclonic circulation over northeast Assam & neighbourhood at 0.9 km above mean sea level persists.

Weather Forecast for next 7 days (Upto 0830 hours IST of 06th July, 2024)

- ❖ Meteorological sub-division wise detailed 7 days rainfall forecast is given in Table-1.
- ❖ Thunderstorm accompanied with lightning very likely at isolated places over Northeast & South Peninsular India during next 5 days.
- ❖ No significant change in maximum temperatures very likely over most parts of the country.

Weather Outlook for subsequent 3 days (During 06th-08th July, 2024)

- ❖ Fairly widespread to widespread rainfall likely over most parts of the country.

Table-1

7 Days Rainfall Forecast								
S. No.	Subdivision	29-Jun	30-Jun	01-Jul	02-Jul	03-Jul	04-Jul	05-Jul
		Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
1	ANDAMAN & NICOBAR ISLANDS	FWS	SCT	SCT	FWS	FWS	WS	WS
2	ARUNACHAL PRADESH	WS	WS	WS	WS	WS	WS	WS
3	ASSAM & MEGHALAYA	WS	WS	WS	WS	WS	WS	WS
4	NAGALAND, MANIPUR, MIZORAM & TRIPURA	WS	WS	WS	WS	WS	WS	WS
5	SUB-HIMALAYAN WEST BENGAL & SIKKIM	WS	WS	FWS	WS	WS	WS	WS
6	GANGETIC WEST BENGAL	WS	WS	FWS	FWS	WS	WS	WS
7	ODISHA	WS	FWS	FWS	SCT	SCT	FWS	FWS
8	JHARKHAND	WS	WS	FWS	FWS	FWS	WS	WS
9	BIHAR	SCT	FWS	WS	WS	WS	FWS	FWS
10	EAST UTTAR PRADESH	WS	WS	WS	WS	FWS	FWS	WS
11	WEST UTTAR PRADESH	FWS	WS	WS	WS	FWS	FWS	WS
12	UTTARAKHAND	WS	WS	WS	WS	WS	WS	WS
13	HARYANA CHANDIGARH & DELHI	FWS	WS	WS	WS	WS	FWS	FWS
14	PUNJAB	SCT	FWS	FWS	FWS	FWS	FWS	FWS
15	HIMACHAL PRADESH	FWS	FWS	FWS	FWS	FWS	FWS	FWS
16	JAMMU & KASHMIR AND LADAKH	FWS	FWS	FWS	FWS	WS	WS	WS
17	WEST RAJASTHAN	SCT	ISOL	ISOL	SCT	SCT	FWS	FWS
18	EAST RAJASTHAN	FWS	FWS	FWS	WS	WS	FWS	FWS
19	WEST MADHYA PRADESH	FWS	WS	WS	FWS	WS	WS	WS
20	EAST MADHYA PRADESH	WS	WS	WS	FWS	WS	WS	WS
21	GUJARAT REGION	FWS	WS	WS	WS	FWS	FWS	FWS
22	SAURASHTRA & KUTCH	WS	FWS	FWS	SCT	SCT	FWS	FWS
23	KONKAN & GOA	WS	WS	WS	WS	WS	WS	WS
24	MADHYA MAHARASHTRA	SCT	SCT	FWS	FWS	SCT	SCT	SCT
25	MARATHAWADA	SCT	ISOL	ISOL	ISOL	ISOL	SCT	SCT
26	VIDARBHA	WS	WS	FWS	FWS	FWS	WS	WS
27	CHHATTISGARH	WS	WS	FWS	FWS	FWS	FWS	FWS
28	COASTAL ANDHRA PRADESH & YANAM	SCT	SCT	ISOL	ISOL	SCT	SCT	SCT
29	TELANGANA	SCT	SCT	ISOL	ISOL	ISOL	ISOL	ISOL
30	RAYALASEEMA	SCT	SCT	ISOL	ISOL	ISOL	ISOL	ISOL
31	TAMILNADU PUDUCHERRY & KARAIKAL	ISOL	SCT	SCT	ISOL	ISOL	ISOL	ISOL
32	COASTAL KARNATAKA	WS	WS	WS	WS	WS	WS	WS
33	NORTH INTERIOR KARNATAKA	SCT	SCT	ISOL	ISOL	ISOL	SCT	SCT
34	SOUTH INTERIOR KARNATAKA	SCT	SCT	SCT	ISOL	ISOL	ISOL	ISOL
35	KERALA & MAHE	WS	WS	WS	FWS	FWS	WS	WS
36	LAKSHADWEEP	WS	WS	WS	WS	WS	WS	WS

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

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Fig. 1: Maximum Temperatures

Fig. 2: Departure of Maximum Temperatures

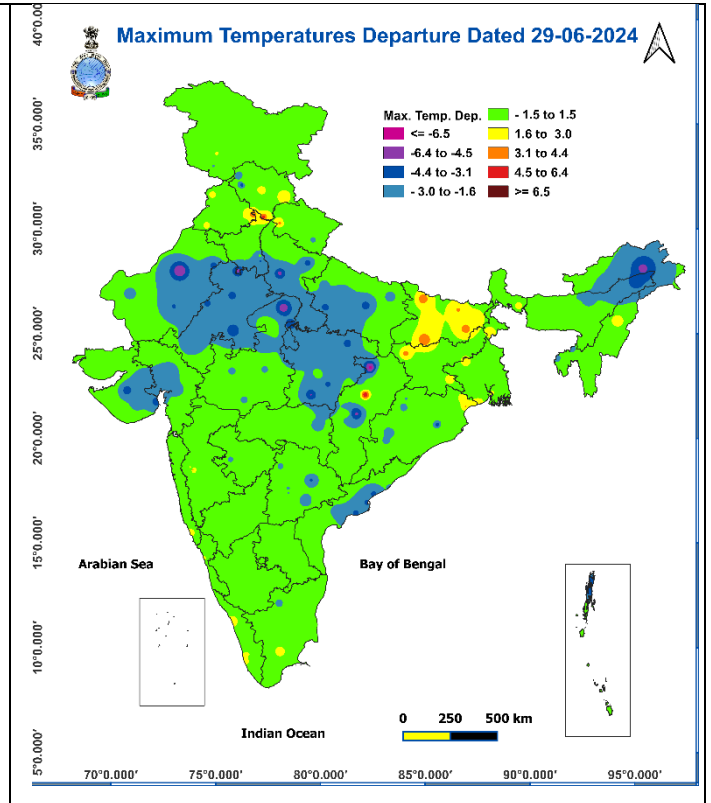
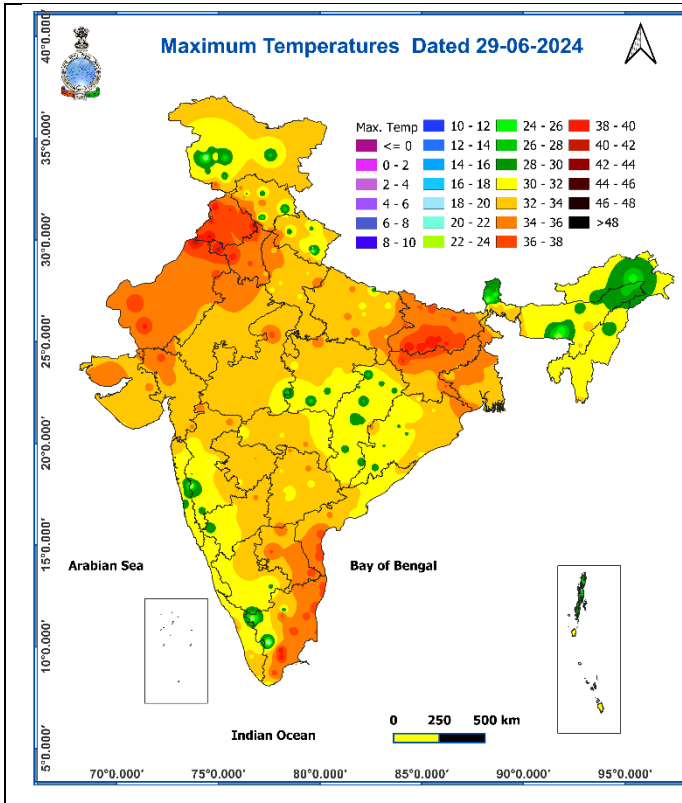


Fig. 3: Minimum Temperatures

Fig. 4: Departure of Minimum Temperatures

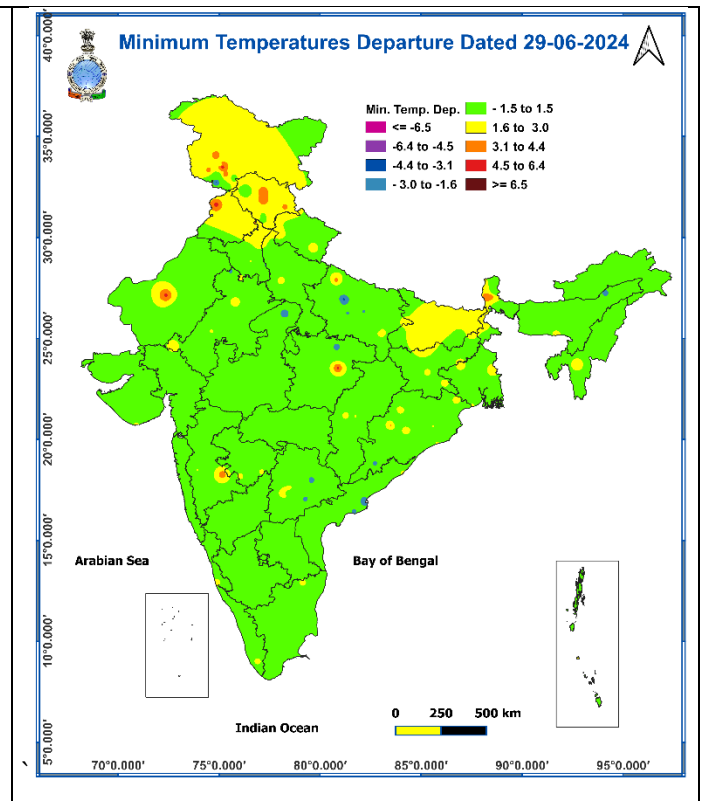
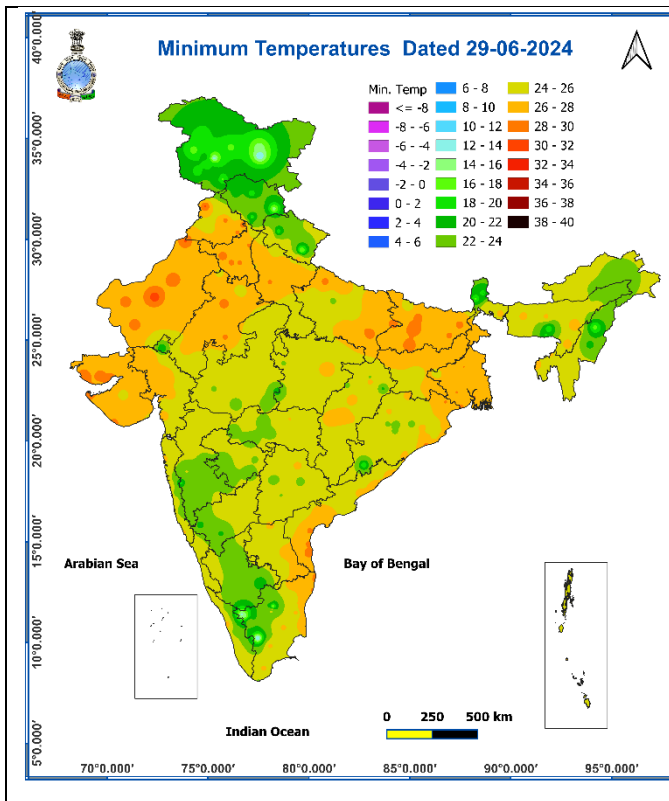
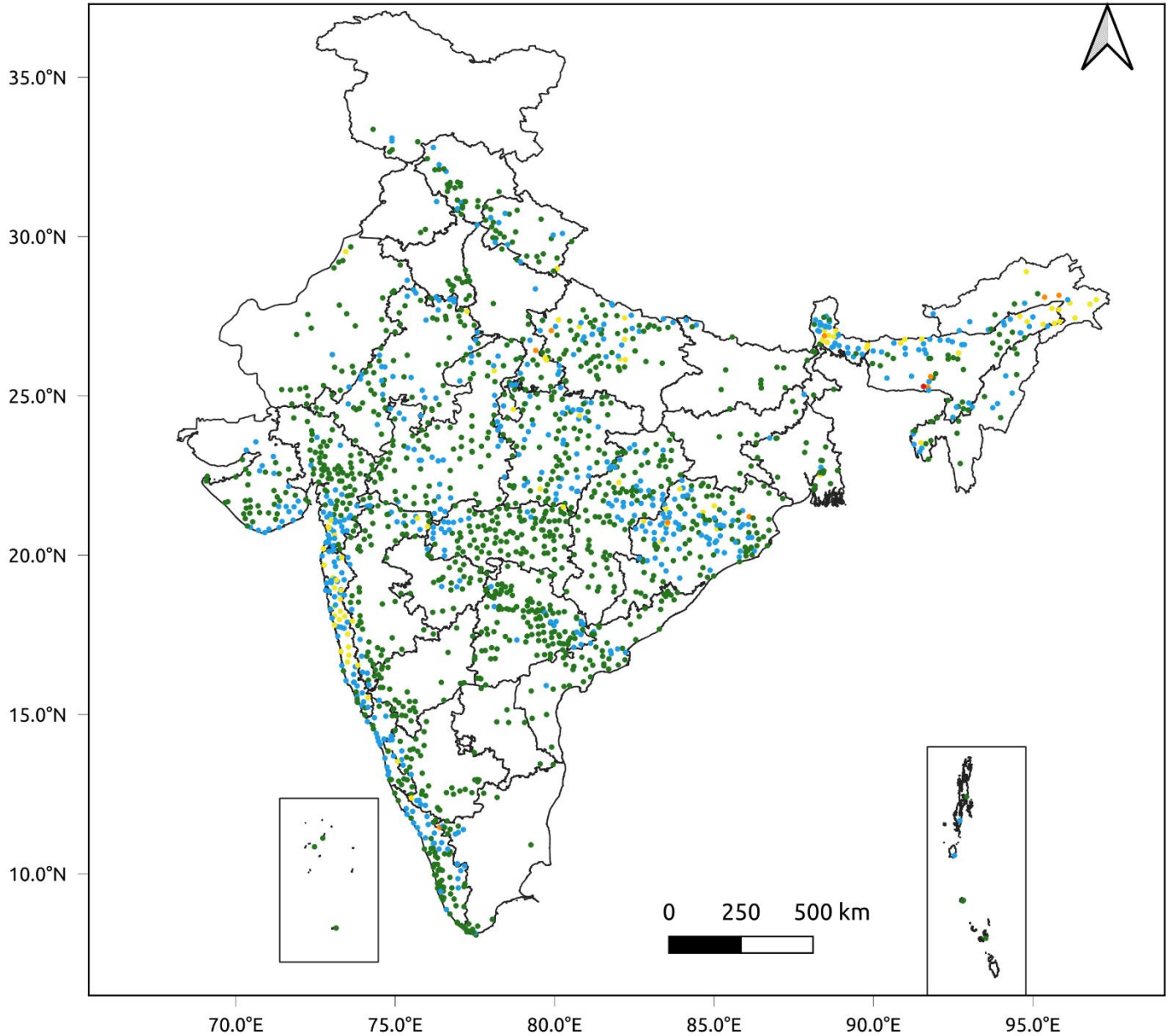


Fig. 5: Accumulated Rainfall (mm) during past 24 hours



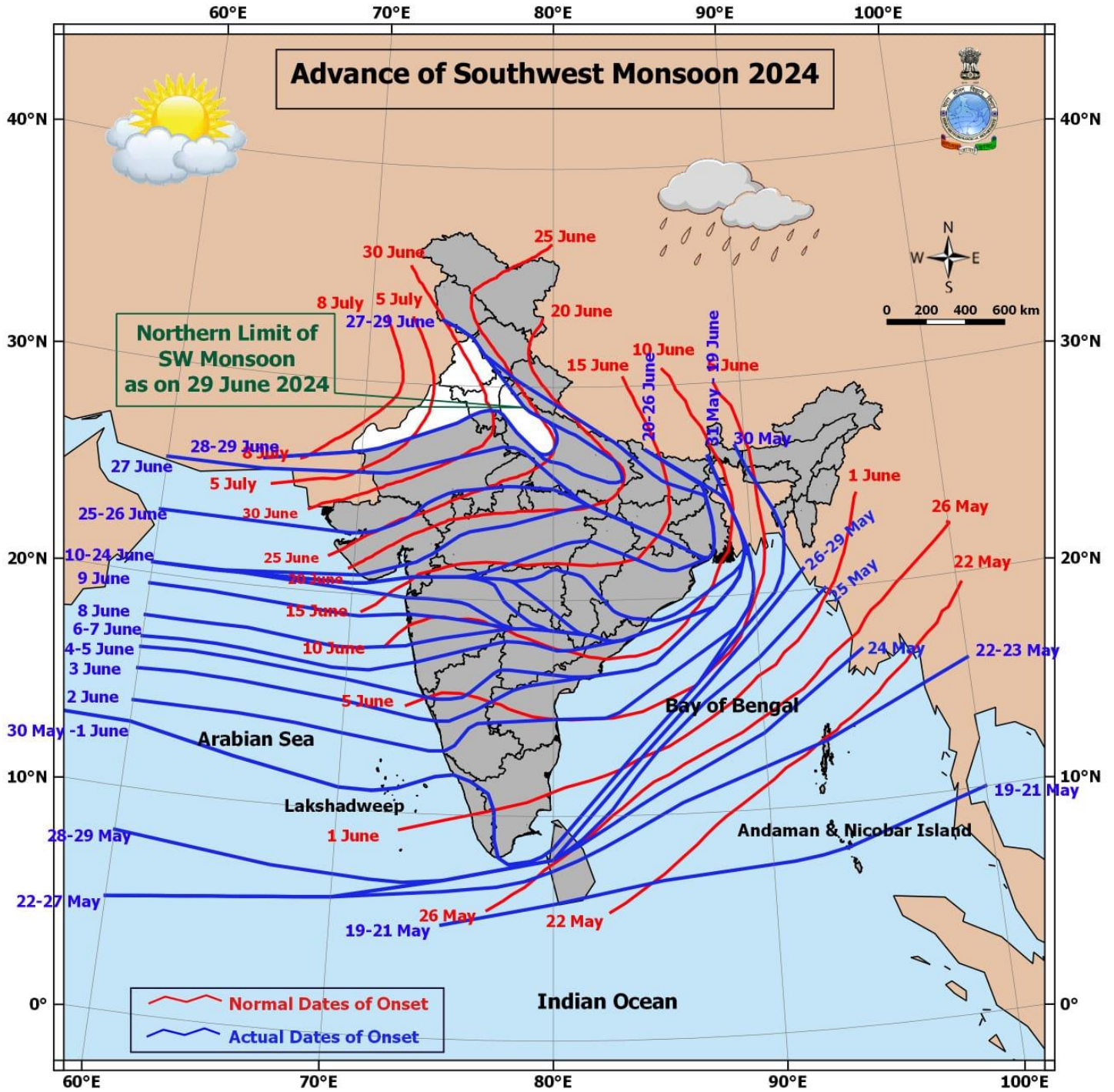
24 Hr cumulative rainfall recorded over different stations during 0830 IST of 28-6-2024 to 0830 IST of 29-6-2024



Legends

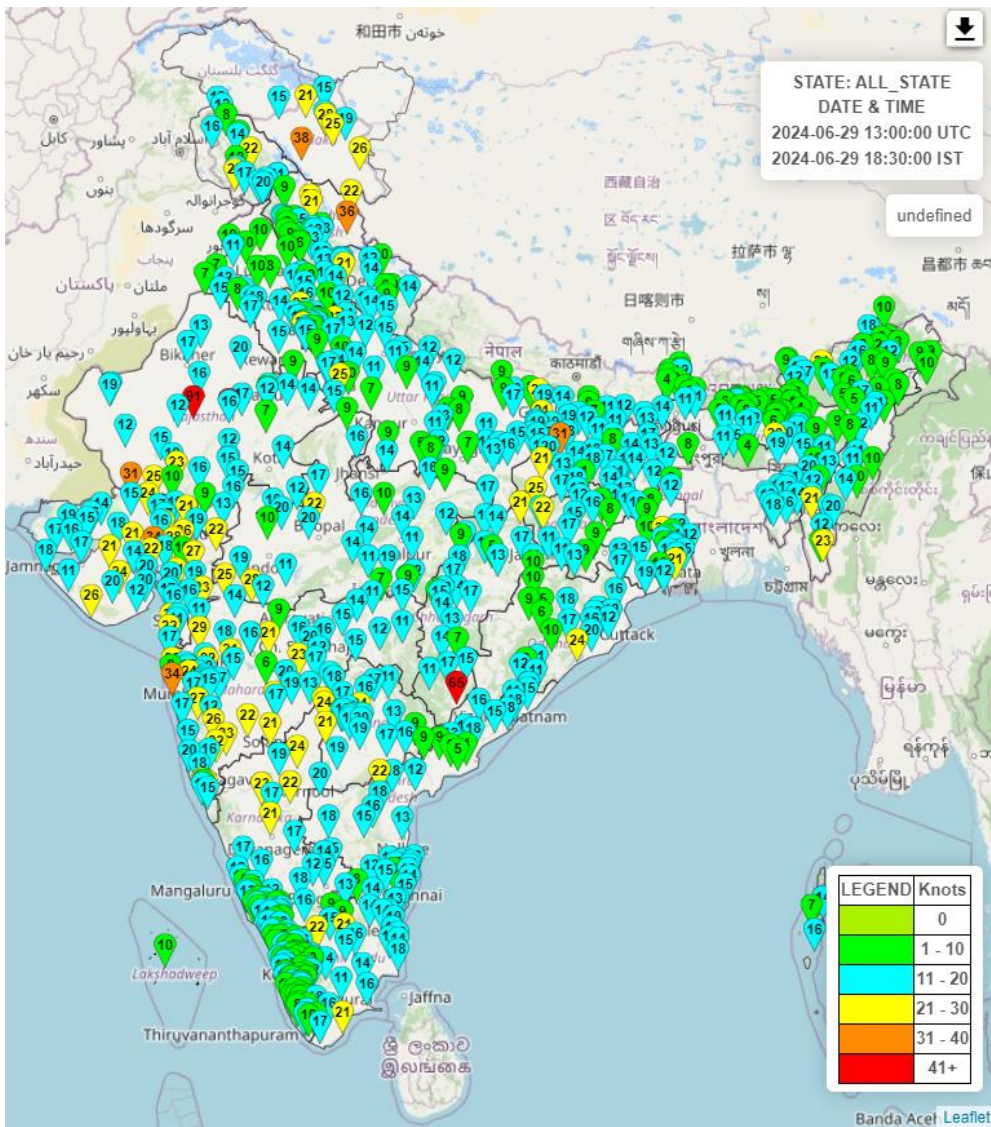
- Very Light to Light Rainfall (0.1 - 15.5 mm)
- Moderate Rainfall (15.6 - 64.4 mm)
- Heavy Rainfall (64.5 - 115.5 mm)
- Very Heavy Rainfall (115.6 - 204.4 mm)
- Extremely Heavy Rainfall (≥ 204.5 mm)

Fig. 6: Advance of Southwest Monsoon 2024



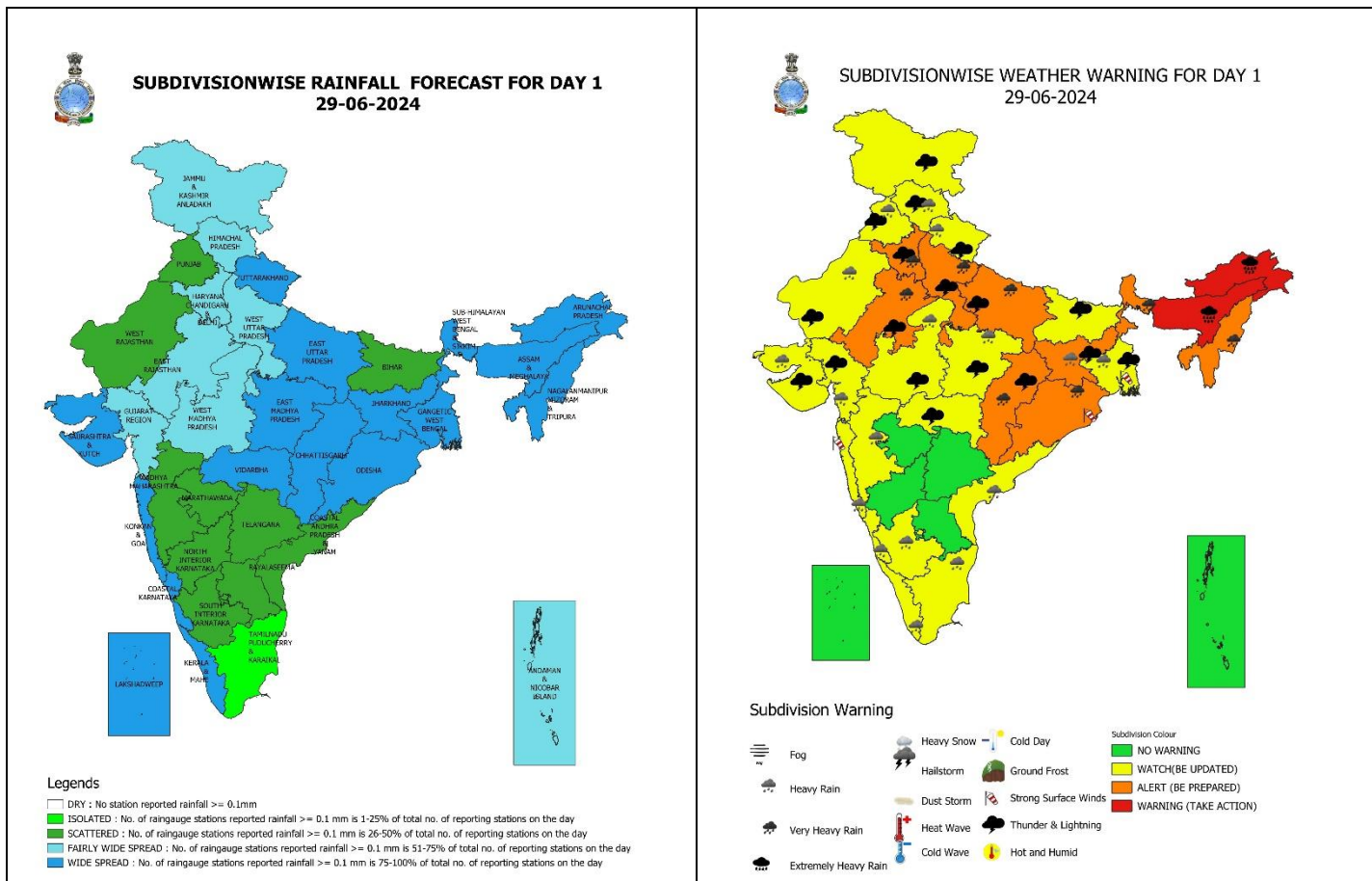
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Fig. 7: Gusty winds reported over the country (in knots) from 0830 hours IST to 1830 hours IST of 29.06.2024



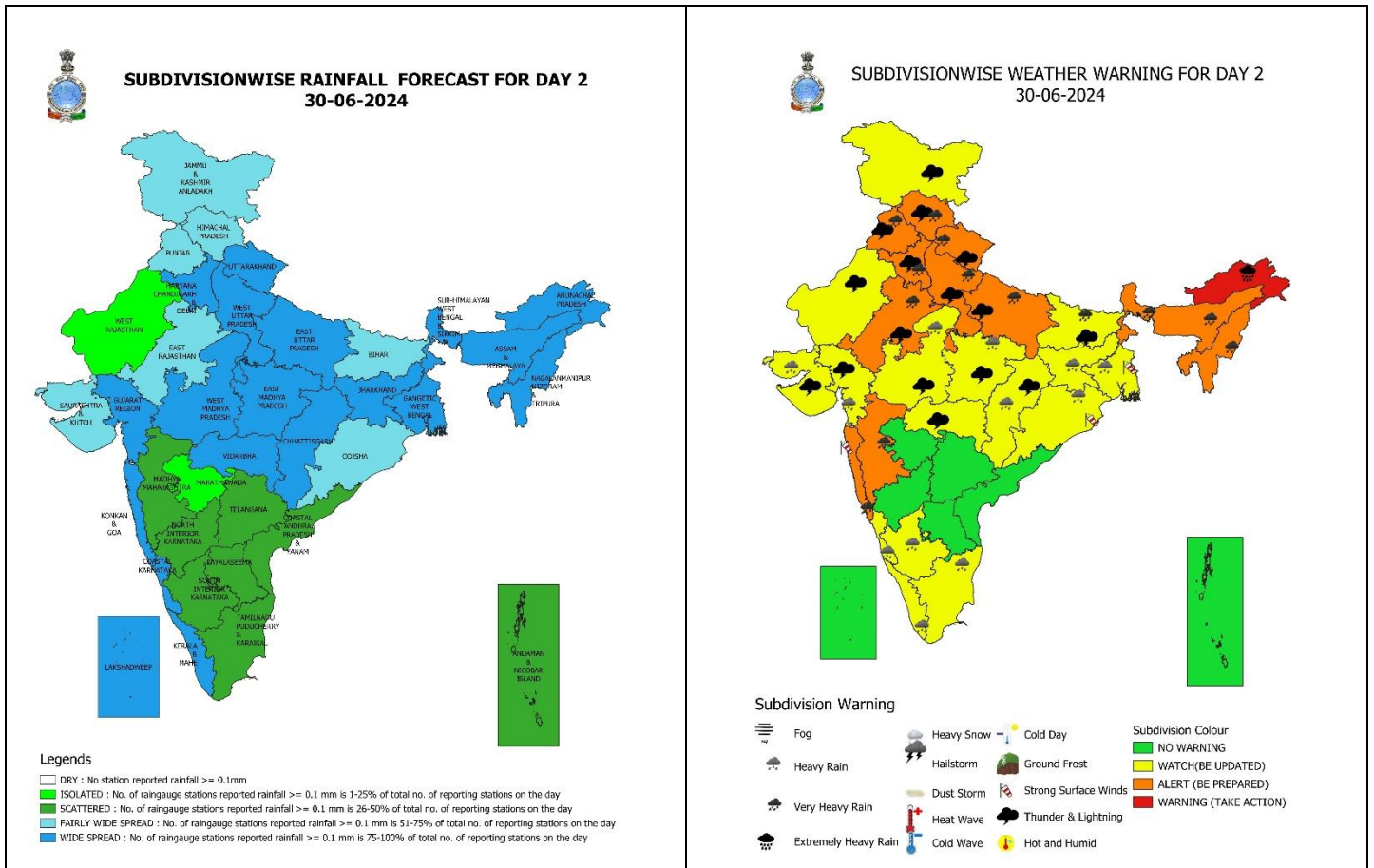
1 Knot = 1.852 kmph

For more details, kindly refer: <http://aws.imd.gov.in:8091/>



29 June (Day 1):

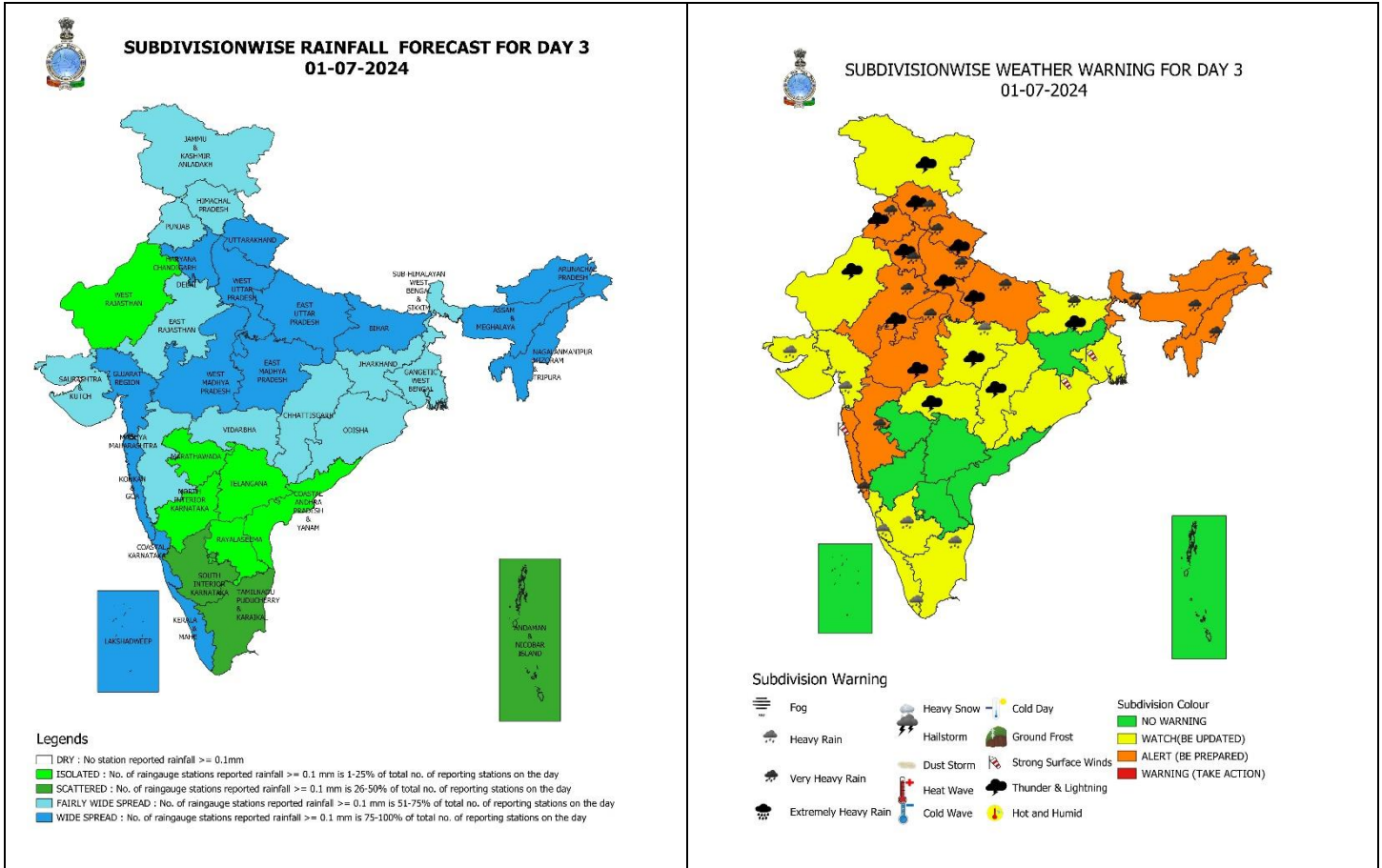
- ❖ **Heavy to very heavy rainfall with extremely heavy falls** very likely at isolated places over Arunachal Pradesh & Assam & Meghalaya; **Heavy to very heavy rainfall** at isolated places over Haryana, Uttar Pradesh, Jharkhand, East Rajasthan, Chhattisgarh, Sub-Himalayan West Bengal & Sikkim, Odisha, Nagaland, Manipur, Mizoram & Tripura; **heavy rainfall** at isolated places over Himachal Pradesh, Uttarakhand, Punjab, Delhi, West Rajasthan, Madhya Pradesh, Gangetic West Bengal, Konkan & Goa, Madhya Maharashtra, Gujarat state, Coastal Andhra Pradesh & Yanam, Coastal Karnataka, South Interior Karnataka, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe.
- ❖ **Thunderstorm accompanied with lightning, gusty winds (speed reaching 30-40 kmph)** very likely at isolated places over Vidarbha & Rajasthan; **with lightning** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand, Punjab, Haryana-Chandigarh-Delhi, Uttar Pradesh, Madhya Pradesh, Chhattisgarh, Gangetic West Bengal, Bihar, Jharkhand and Gujarat state.
- ❖ **Squally weather with wind speed 35 kmph to 45 kmph gusting to 55 kmph** very likely to prevail over eastcentral and adjoining westcentral Arabian sea, northern parts of southeast & southwest Arabian sea, along and off Maharashtra, Konkan, goa, Karnataka coasts, over gulf of Mannar, off Sri Lanka coast, south and central Bay of Bengal & north Bay of Bengal, off north Andhra Pradesh, off Odisha coasts. **Squally weather with wind speed 45 kmph to 55 kmph gusting to 65 kmph** to prevail over westcentral Bay of Bengal; along and off Somalia coast, southwest and adjoining southeast Arabian sea & central Arabian sea, along and off Yemen and Oman coasts. Fishermen are advised not to venture into these areas.



30 June (Day 2):

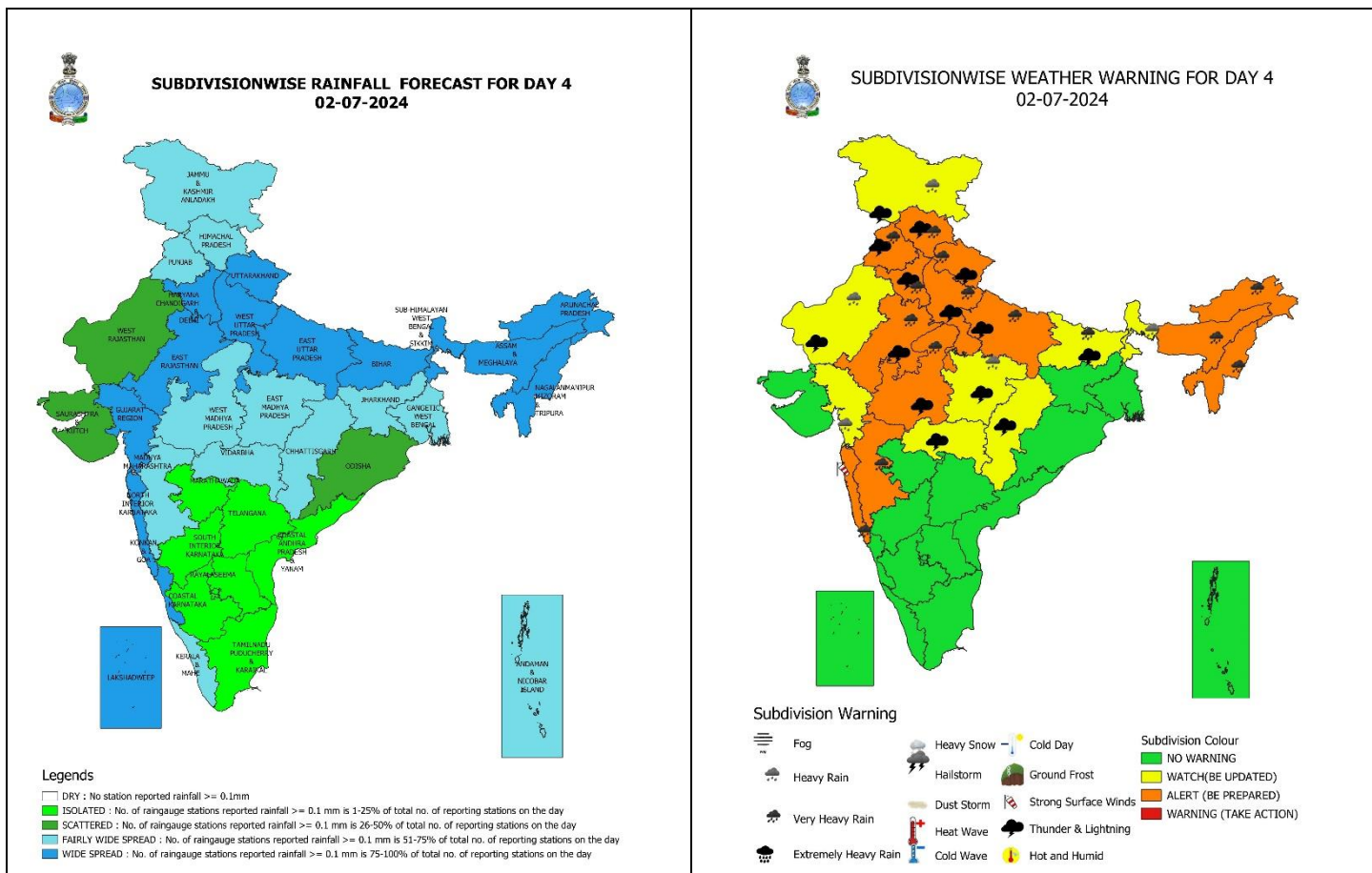
- ❖ **Heavy to very heavy rainfall with extremely heavy falls** very likely at isolated places over Arunachal Pradesh; **Heavy to very heavy rainfall** very likely at isolated places over Himachal Pradesh, Uttarakhand, Punjab, Haryana-Chandigarh-Delhi, Uttar Pradesh, East Rajasthan, Sub-Himalayan West Bengal & Sikkim, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Konkan & Goa, Madhya Maharashtra; **heavy rainfall** at isolated places over Madhya Pradesh, Chhattisgarh, Gangetic West Bengal, Bihar, Jharkhand, Odisha, Gujarat State and Coastal Karnataka, South Interior Karnataka, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe and Lakshadweep.
- ❖ **Thunderstorm accompanied with lightning, gusty winds (speed reaching 30-40 kmph)** very likely at isolated places over Rajasthan; **with lightning** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand, Punjab, Haryana-Chandigarh-Delhi, Uttar Pradesh, Madhya Pradesh, Vidarbha, Chhattisgarh, Bihar and Gujarat state.
- ❖ **Squally weather with wind speed 35 kmph to 45 kmph gusting to 55 kmph** likely to prevail over eastcentral and adjoining westcentral Arabian sea, northern parts of southeast & southwest Arabian sea, along and off Gujarat, Maharashtra, Karnataka coasts, over Lakshadweep area, gulf of Mannar, off Sri Lanka coast, south and central bob & north bob, along and off north Andhra Pradesh, Odisha, West Bengal coasts. **Squally weather with wind speed 45 kmph to 55 kmph gusting to 65 kmph** to prevail along northwest Bay of Bengal and parts of westcentral Bay of Bengal and off Somalia coast, southwest and adjoining southeast Arabian sea & central Arabian sea, along and off Yemen and Oman coasts. Fishermen are advised not to venture into these areas.

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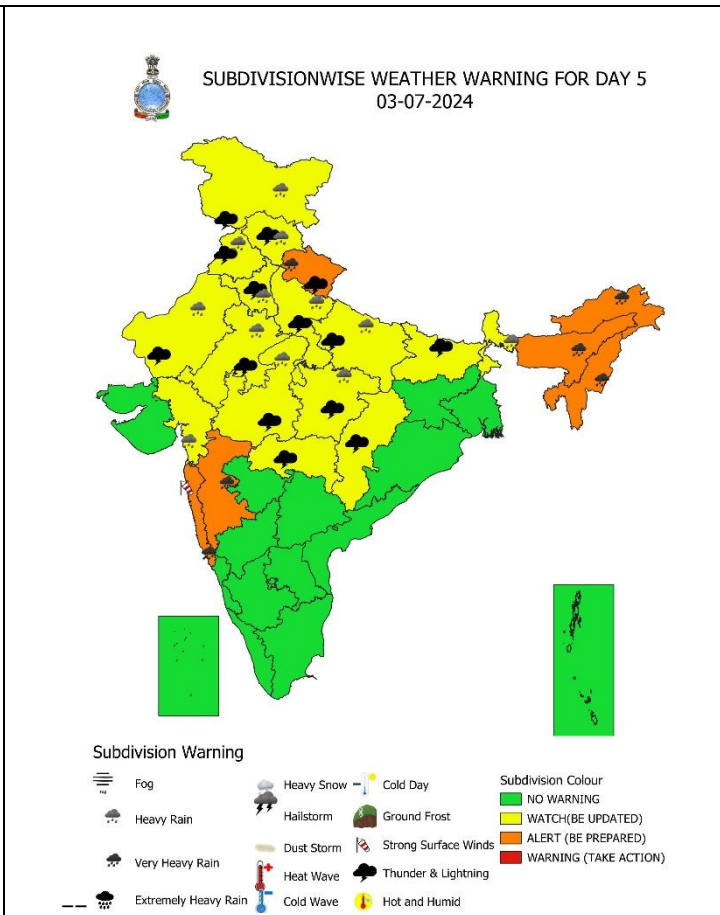
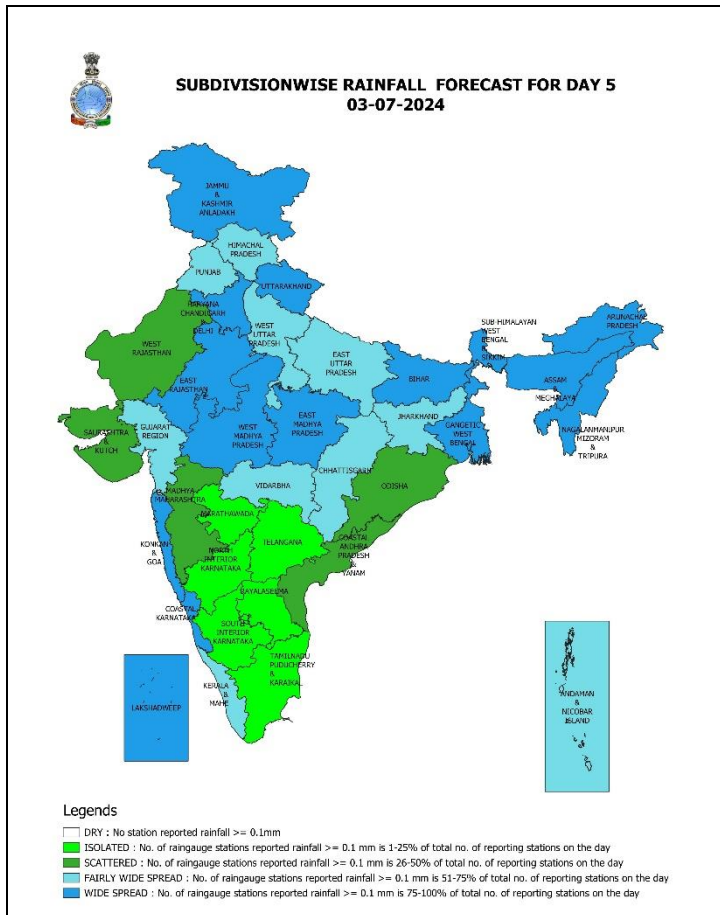
01 July (Day 3):

- ❖ **Heavy to very heavy rainfall** very likely at isolated places over Himachal Pradesh, Uttarakhand, Punjab, Haryana-Chandigarh-Delhi, Uttar Pradesh, East Rajasthan, West Madhya Pradesh, Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Konkan & Goa, Madhya Maharashtra; **heavy rainfall** at isolated places over East Madhya Pradesh, Bihar, Gujarat state, Coastal Karnataka, South Interior Karnataka, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe.
- ❖ **Thunderstorm accompanied with lightning, gusty winds (speed reaching 30-40 kmph)** very likely at isolated places over Rajasthan; **with lightning** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand, Punjab, Haryana-Chandigarh-Delhi, Uttar Pradesh, Madhya Pradesh, Vidarbha, Chhattisgarh & Bihar.
- ❖ **Squally weather with wind speed 35 kmph to 45 kmph gusting to 55 kmph** likely to prevail over southern parts of northeast a Arabian sea and adjoining northwest Arabian sea, eastcentral and adjoining westcentral Arabian sea, northern parts of southeast & southwest Arabian sea, over gulf of Mannar, off Sri Lanka coast, south and central bob & north bob, along and off Odisha, West Bengal coasts. **Squally weather with wind speed 45 kmph to 55 kmph gusting to 65 kmph** to prevail along and off Gujarat, Maharashtra, Konkan, goa coasts, over northwest Bay of Bengal, southcentral parts of north Bay of Bengal and adjoining westcentral Bay of Bengal and off Somalia coast, southwest and adjoining southeast Arabian sea & central Arabian sea, along and off Yemen and Oman coasts. Fishermen are advised not to venture into these areas.



02 July (Day 4):

- ❖ **Heavy to very heavy rainfall** likely at isolated places over Himachal Pradesh, Uttarakhand, Punjab, Haryana-Chandigarh, Uttar Pradesh, East Rajasthan, West Madhya Pradesh, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Konkan & Goa, Madhya Maharashtra; **heavy rainfall** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Delhi, West Rajasthan, East Madhya Pradesh, Sub-Himalayan West Bengal & Sikkim, Bihar, Gujarat Region.
- ❖ **Thunderstorm accompanied with lightning, gusty winds (speed reaching 30-40 kmph)** likely at isolated places over Rajasthan; **with lightning** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand, Punjab, Haryana-Chandigarh-Delhi, Uttar Pradesh, Madhya Pradesh, Vidarbha, Chhattisgarh, Bihar.
- ❖ **Squally weather with wind speed 35 kmph to 45 kmph gusting to 55 kmph** likely to prevail over eastcentral and adjoining westcentral Arabian sea, northern parts of southeast & southwest Arabian sea, along and off Gujarat, Maharashtra, Konkan, Goa coasts, over gulf of Mannar, off Sri Lanka coast, south and central Bay of Bengal & north Bay of Bengal, off north Andhra Pradesh, off Odisha-west Bengal coasts. **Squally weather with wind speed 45 kmph to 55 kmph gusting to 65 kmph** to prevail along and off Somalia coast, southwest and adjoining southeast Arabian sea & central Arabian sea, along and off Yemen and Oman coasts. Fishermen are advised not to venture into these areas.

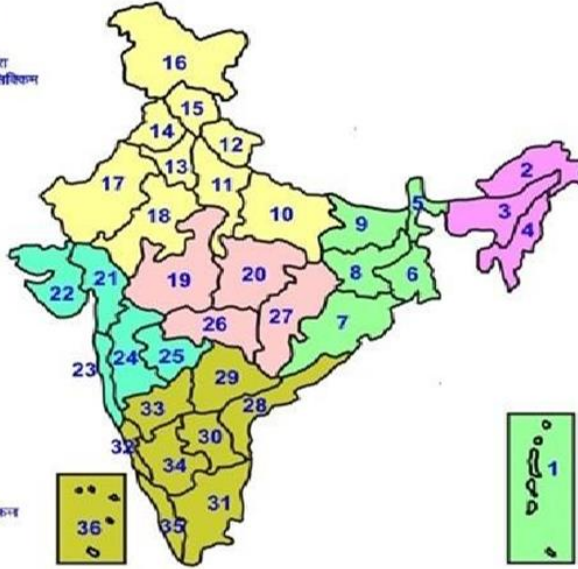


03 July (Day 5):

- ❖ **Heavy to very heavy rainfall** likely at isolated places over Uttarakhand, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Konkan & Goa, Madhya Maharashtra; **heavy rainfall** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Punjab, Haryana, Delhi, Uttar Pradesh, Rajasthan, Madhya Maharashtra, Sub-Himalayan West Bengal & Sikkim and Gujarat Region.
- ❖ **Thunderstorm accompanied with lightning, gusty winds (speed reaching 30-40 kmph)** likely at isolated places over Rajasthan; **with lightning** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand, Punjab, Haryana-Chandigarh-Delhi, Uttar Pradesh, Madhya Pradesh, Vidarbha, Chhattisgarh, Bihar.
- ❖ **Squally weather with wind speed 35 kmph to 45 kmph gusting to 55 kmph** likely to prevail over eastcentral and adjoining westcentral Arabian sea, northern parts of southeast & southwest Arabian sea, along and off Gujarat, Maharashtra, Konkan, Goa coasts, over gulf of Mannar, off Sri Lanka coast, south and central Bay of Bengal & north Bay of Bengal, off north Andhra Pradesh, off Odisha-west Bengal coasts. **Squally weather with wind speed 45 kmph to 55 kmph gusting to 65 kmph** to prevail along and off Somalia coast, southwest and adjoining southeast Arabian sea & central Arabian sea, along and off Yemen and Oman coasts. Fishermen are advised not to venture into these areas.

LEGENDS

- 1 अंडमान और निकोबार द्वीप समूह
- 2 अरुणाचल प्रदेश
- 3 असम और मेघालय
- 4 नागालैंड मनीपुर मिजोरम और त्रिपुरा
- 5 उप हिमालय पश्चिम बंगाल एवं सिक्किम
- 6 पश्चिम बंगाल
- 7 ओडिशा
- 8 झारखंड
- 9 बिहार
- 10 पूर्वी उत्तर प्रदेश
- 11 पश्चिम उत्तर प्रदेश
- 12 उत्तराखंड
- 13 हरियाणा चंडीगढ़ 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 सोराष्ट्र एवं कच्छ
- 23 कोकण एवं गोवा
- 24 मध्य महाराष्ट्र
- 25 महाराष्ट्र
- 26 विदर्भ
- 27 उत्तरीसमूह, पुदुचेरी एवं कराईकल
- 28 तटीय आंध्र प्रदेश एवं यानम
- 29 तेलंगाना
- 30 रायलसेमा
- 31 तमिलनाडु, पुदुचेरी एवं कराईकल
- 32 उत्तरी कर्नाटक
- 33 अंतरीक उत्तरी कर्नाटक
- 34 अंतरीक 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. Odisha
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. Tamilnada, 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

LEGENDS

WARNING

WARNING (TAKE ACTION)
ALERT (BE PREPARED)
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Probabilistic Forecast

Terms	Probability of Occurrence (%)
Unlikely	< 25
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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)