

Monday, June 10, 2024
Time of Issue: 0800 hours IST
(MORNING)

ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

Significant Weather Features:

Advance of Southwest Monsoon:

- ❖ The Northern Limit of Monsoon passes through 19.5°N/60°E, 19.5°N/65°E, 19.0°N/70°E, Thane, Ahmednagar, Beed, Nizamabad, Sukma, Malkangiri, Vizianagaram, 19.5°N/88°E, 21.5°N/89.5°E, 23°N/89.5°E and Islampur.

Weather Systems and Forecast & Warnings:

- ❖ A cyclonic circulation lies over northeast Assam in lower tropospheric levels. Strong southwesterly/southerly winds are prevailing from Bay of Bengal to northeastern States in lower tropospheric levels. Under their influence:
 - ✓ Fairly widespread to widespread light to moderate rainfall accompanied with thunderstorm, lightning & gusty winds (30-40 kmph) likely over Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura and Sub-Himalayan West Bengal & Sikkim during next 7 days.
 - ✓ Isolated **heavy rainfall** very likely over Sub-Himalayan West Bengal & Sikkim, Assam & Meghalaya and Arunachal Pradesh during 10th-14th; Nagaland during 12th-14th June, 2024. Isolated **very heavy rainfall** also likely over Assam & Meghalaya during 11th-14th; Sub-Himalayan West Bengal & Sikkim during 10th-12th and Arunachal Pradesh during 12th-14th June, 2024.
- ❖ A shear zone runs roughly along 18°N in lower & middle tropospheric levels. A cyclonic circulation lies over Marathwada in lower tropospheric levels. Under their influence:
 - ✓ Fairly widespread to widespread light to moderate rainfall accompanied with **thunderstorm, lightning & gusty winds (40-50 kmph)** likely over Konkan & Goa, Madhya Maharashtra, Marathwada, Karnataka, and Kerala & Mahe, Lakshadweep; isolated light to moderate rainfall over Coastal Andhra Pradesh & Yanam, Rayalaseema, Telangana, Tamil Nadu, Puducherry & Karaikal during next 4-5 days.
 - ✓ Isolated **heavy rainfall** very likely over Konkan & Goa, Madhya Maharashtra, South Interior Karnataka and Kerala & Mahe during 10th-12th; Interior Karnataka during 10th-14th; Marathwada on 10th June, 2024.
 - ✓ Isolated **very heavy rainfall** also very likely over South Interior Karnataka during 10th-11th; north Konkan and north Madhya Maharashtra on 10th and North Interior Karnataka on 12th & 13th June, 2024.
 - ✓ **Isolated extremely heavy falls also very likely over south Konkan & Goa, south Madhya Maharashtra and Coastal Karnataka on 10th and North Interior Karnataka during 10th-11th June, 2024.**
- ❖ A cyclonic circulation lies over east Bihar in lower tropospheric levels. Under its influence:
 - ✓ Isolated to scattered light to moderate rainfall accompanied with **thunderstorm, lightning & gusty winds (30-40 kmph)** very likely over Bihar, Jharkhand during 11th-14th; Gangetic West Bengal, Odisha, Madhya Pradesh, Vidarbha, Chhattisgarh during next 5 days.
 - ✓ Isolated **hailstorm and squally winds (50-60 kmph)** very likely over southern parts of East Madhya Pradesh on 10th June, 2024.
- ❖ A Western Disturbance seen as a trough in middle tropospheric westerlies roughly along Long. 70°E to the north of Lat. 28°N. A cyclonic circulation lies over northwest Uttar Pradesh in lower tropospheric levels. Under their influence:
 - ✓ Isolated very light rainfall accompanied with **thunderstorm, lightning & gusty winds (30-40 kmph)** very likely over West Rajasthan on 10th and East Rajasthan during next 5 days.

Maximum temperatures (≥42°C)

- ❖ Yesterday, **Maximum temperatures** were in the range of 42-45°C in many parts of Uttar Pradesh, Delhi; in some parts of north Madhya Pradesh Haryana, Bihar and Gujarat state. These were above normal by 2-4°C over these areas.

Heat Wave and Hot & Humid weather warning for next 5 days:

- ❖ **Heat wave conditions** very likely in isolated pockets of Punjab, Haryana, Bihar, Jharkhand & Gangetic West Bengal during 10th-14th; Jammu division, Himachal Pradesh, Uttarakhand, Delhi, West Rajasthan and Madhya Pradesh during 11th-14th and Odisha on 11th & 12th June, 2024.
- ❖ **Heat wave conditions** very likely in isolated pockets of Uttar Pradesh on 10th and **heat wave to severe heat wave conditions** in some parts over the region during 11th-14th June, 2024.
- ❖ **Hot and humid weather** very likely to prevail over isolated pockets of Odisha on 10th, 13th & 14th June, 2024.

Main Weather Observations:

- ❖ **Rainfall distribution** (from 0830 hours IST to 1730 hours IST of yesterday): **at many places** over Andaman & Nicobar Islands and Kerala & Mahe; **at a few places** over Rayalaseema and Sub-Himalayan West Bengal & Sikkim and **at isolated places** over Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, West Madhya Pradesh, Chhattisgarh, Marathwada, Madhya Maharashtra, Konkan & Goa, Coastal Andhra Pradesh & Yanam, Tamil Nadu, Puducherry & Karaikal, Karnataka and Lakshadweep.
- ❖ **Heavy rainfall recorded** (from 0830 hours IST to 1730 hours IST of yesterday): **heavy rainfall** at isolated places over Kerala & Mahe and Konkan & Goa.
- ❖ **Significant amount of rainfall** (from 0830 hours IST to 1730 hours IST of yesterday) (in cm): **Konkan & Goa:** Panjim-8; **Kerala & Mahe:** Kannur-7; **Andaman & Nicobar Islands:** long island-5; **Nagaland, Manipur, Mizoram & Tripura:** Kailashahar-5; **Coastal Karnataka:** Mangalore-5 and Karwar-4.
- ❖ **Reported maximum wind speed (in knots)** (from 0830 hours IST to 1730 hours IST of yesterday): **Gujarat:** Bhavnagar and Batod-40, Arnej-35; **Chhattisgarh:** Raipur-47; **Maharashtra:** Jalgaon-43 and Sakoli-34; **Ladakh:** Padum-34.
- ❖ Yesterday, **Heat wave to severe conditions** prevailed in isolated pockets of Bihar; **Heat wave conditions** East Uttar Pradesh.
- ❖ **Minimum Temperature Departures (as on 09-06-2024):** Minimum temperatures were **appreciably above normal (3.1°C to 5.0°C)** at isolated places over Uttar Pradesh, Bihar and East Madhya Pradesh; **above normal (1.6°C to 3.0°C)** at many places over Jharkhand, Gujarat Region and Lakshadweep; at a few places over Gangetic West Bengal and Andaman & Nicobar Islands; at isolated places over Haryana-Chandigarh-Delhi, Arunachal Pradesh, Assam & Meghalaya, Sub-Himalayan West Bengal & Sikkim, Odisha, Saurashtra & Kutch and Konkan & Goa. These were **appreciably below normal (-3.1°C to -5.0°C)** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, West Rajasthan and Coastal Andhra Pradesh & Yanam; **below normal (-1.6°C to -3.0°C)** at a few places over Telangana; at isolated places over East Rajasthan, West Madhya Pradesh, Vidarbha, Madhya Maharashtra, Marathwada, Tamil Nadu, Puducherry & Karaikal and **near normal** over rest parts of the country. Yesterday, **the lowest minimum temperature** of 21.1°C was reported at **Jaisalmer (West Rajasthan)** over the plains of the country.
- ❖ **Maximum Temperature Departures (as on 09-06-2024):** Maximum temperatures were **Markedly above normal (5.1°C or more)** at isolated places over Bihar and Gangetic West Bengal; **appreciably above normal (3.1°C to 5.0°C)** at many places over East Uttar Pradesh and Jharkhand; at isolated places over Arunachal Pradesh, Haryana-Chandigarh-Delhi and West Uttar Pradesh; **above normal (1.6°C to 3.0°C)** at many places over Punjab, Saurashtra & Kutch and Odisha; at a few places over Gujarat Region, East Madhya Pradesh and Assam & Meghalaya; at isolated places over Andaman & Nicobar Islands, Chhattisgarh, Kerala & Mahe and Lakshadweep. These were **Markedly below normal (-5.1°C or less)** at isolated places over North Interior Karnataka and Telangana; **appreciably below normal (-3.1°C to -5.0°C)** at a few places over Madhya Maharashtra, Coastal Karnataka, Rayalaseema and Coastal Andhra Pradesh & Yanam; **below normal (-1.6°C to -3.0°C)** at a few places over Madhya Maharashtra; at isolated places over West Madhya Pradesh, Marathwada and Tamil Nadu, Puducherry & Karaikal and **near normal** over rest parts of the country. Yesterday, **the highest maximum temperature** of 45.9°C was reported at **Prayagraj (East Uttar Pradesh)** over the country.

Meteorological Analysis (Based on 0530 hours IST)

- ❖ The Northern Limit of Monsoon continues to pass through 19.5°N/60°E, 19.5°N/65°E, 19.0°N/70°E, Thane, Ahmednagar, Beed, Nizamabad, Sukma, Malkangiri, Vizianagaram, 19.5°N/88°E, 21.5°N/89.5°E, 23°N/89.5°E and Islampur.
- ❖ The Western Disturbance as a trough in middle tropospheric westerlies with its axis at 5.8 km above mean sea level roughly along Long. 70°E to the north of Lat. 28°N persists.
- ❖ The cyclonic circulation over north West Uttar Pradesh at 1.5 km above mean sea level persists.
- ❖ The cyclonic circulation over east Bihar at 0.9 km above mean sea level persists.
- ❖ The cyclonic circulation over northeast Assam & neighbourhood at 1.5 km above mean sea level persists.
- ❖ The cyclonic circulation over Marathwada & neighbourhood at 1.5 km above mean sea level persists.
- ❖ The shear zone roughly along 18°N between 3.1 km & 7.6 km above mean sea level persists.

Weather Forecast for next 7 days (Upto 0830 hours IST of 17th June, 2024)

- ❖ Meteorological sub-division wise detailed 7 days rainfall forecast is given in Table-1.
- ❖ Rise in maximum temperatures by 2-3°C very likely over Northwest & Central India during next 4 days.
- ❖ No significant change in maximum temperatures very likely over rest parts of the country.

Weather Outlook for subsequent 3 days (During 17th-19th June, 2024)

- ❖ Scattered to fairly widespread rainfall likely over Islands, Northeast and Peninsular India. Isolated to Scattered rainfall likely over Central and East India.
- ❖ Mainly dry weather likely to prevail over rest parts of the country.

Table-1

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

Fig. 2: Departure of Maximum Temperatures

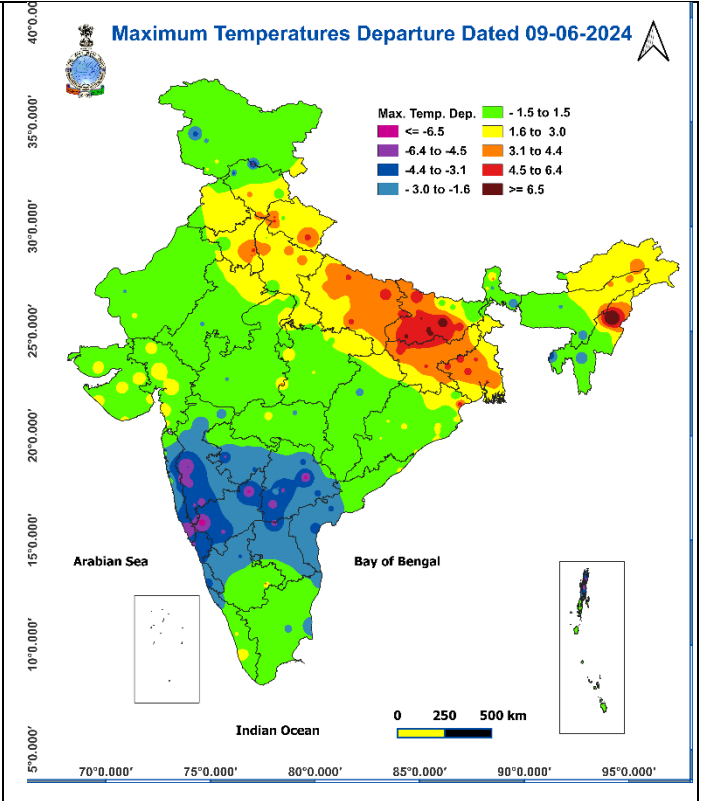
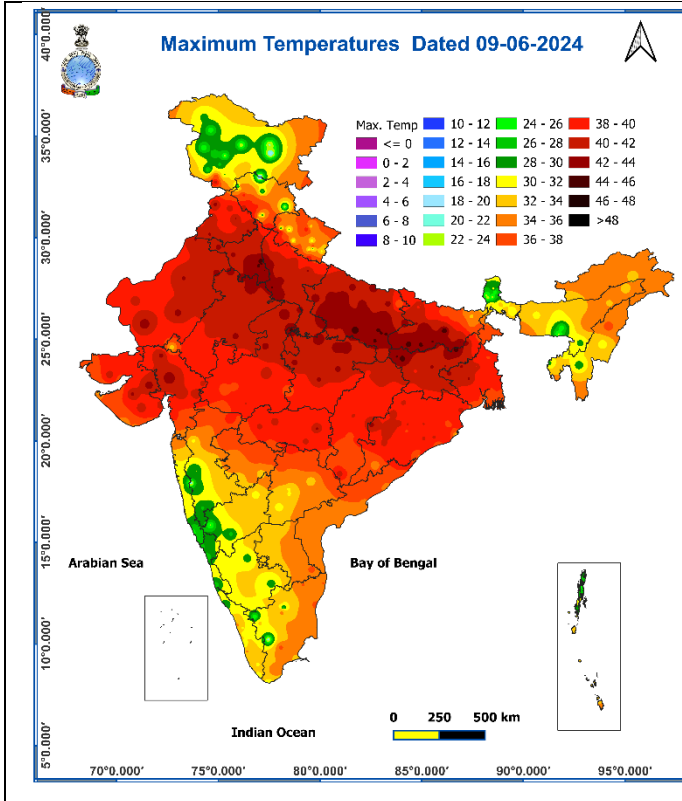


Fig. 3: Minimum Temperatures

Fig. 4: Departure of Minimum Temperatures

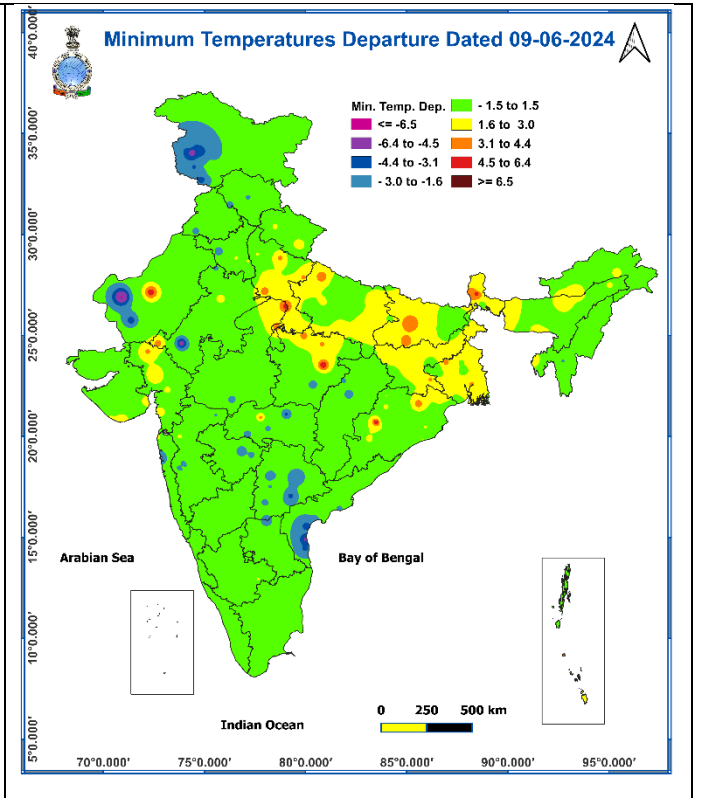
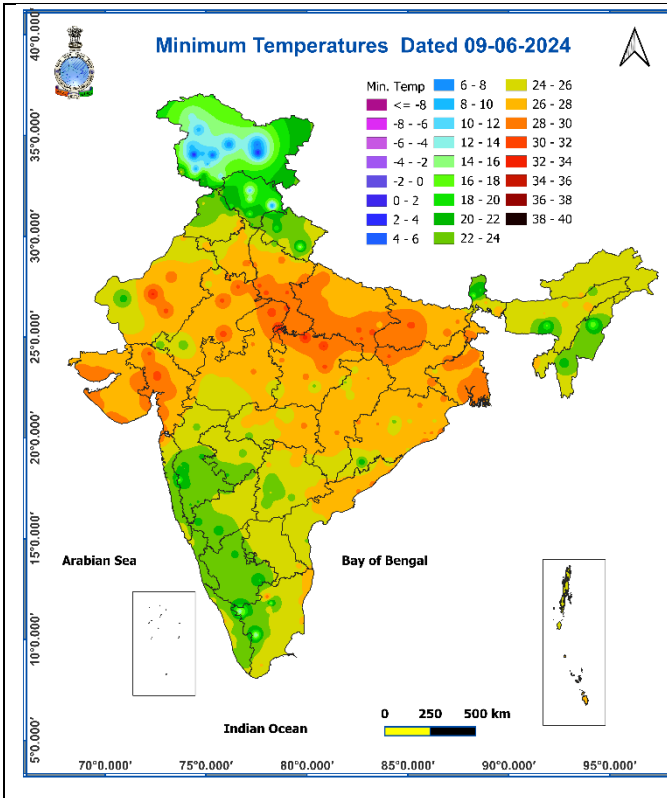
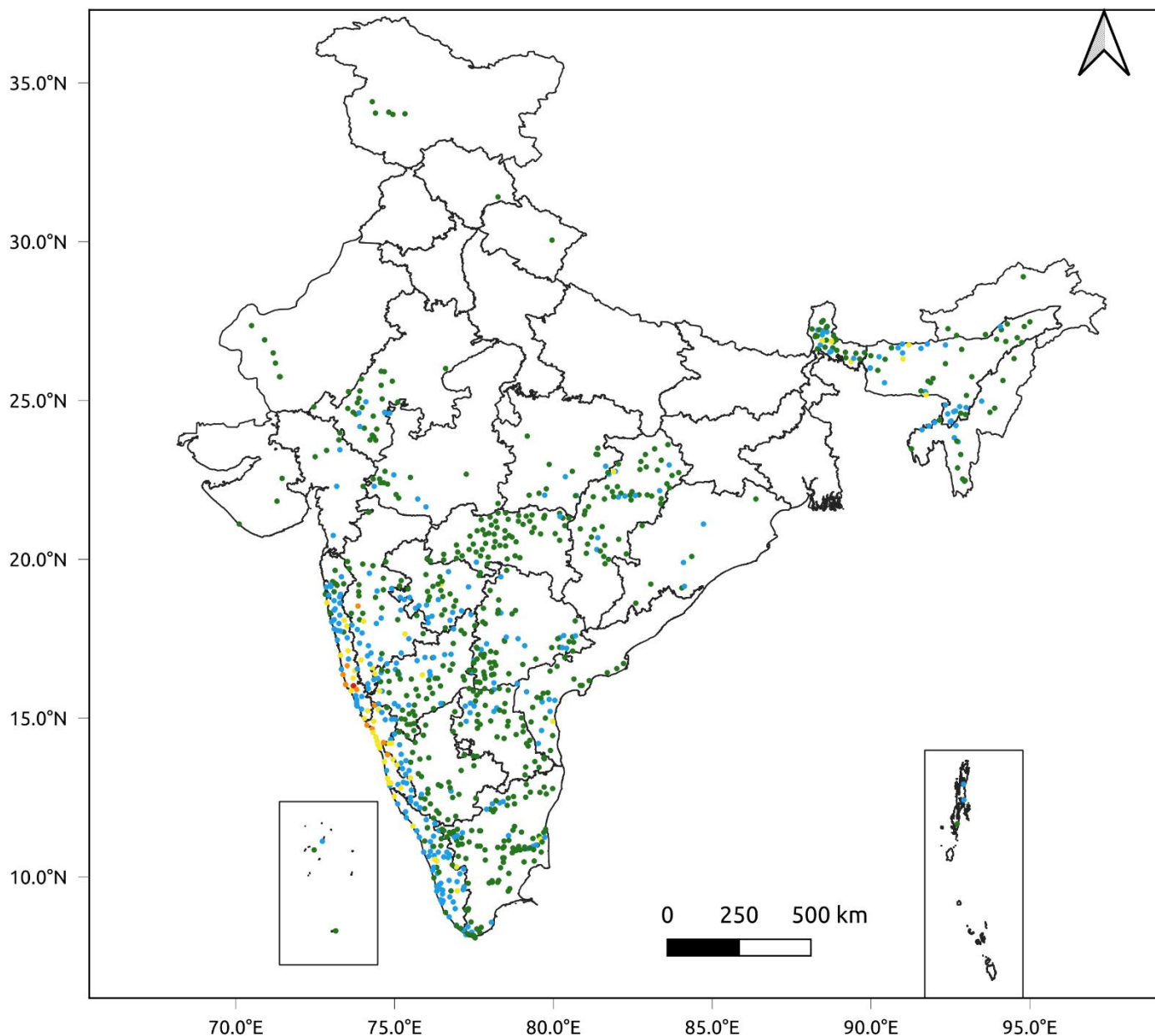


Fig. 5: Accumulated Rainfall (mm) during past 24 hours



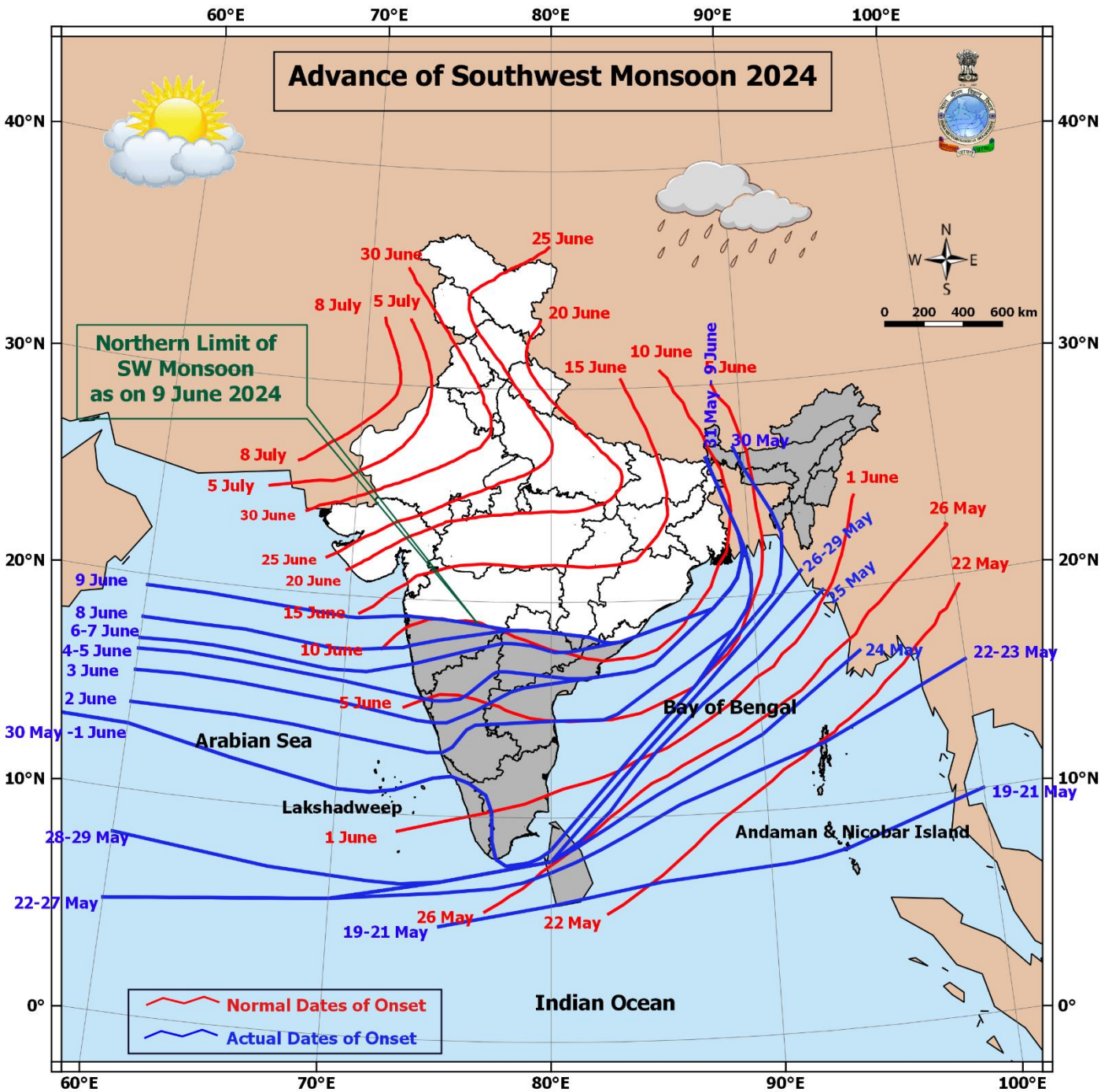
24 Hr cumulative rainfall recorded over different stations during 0830 IST of 8-6-2024 to 0830 IST of 9-6-2024



Legends

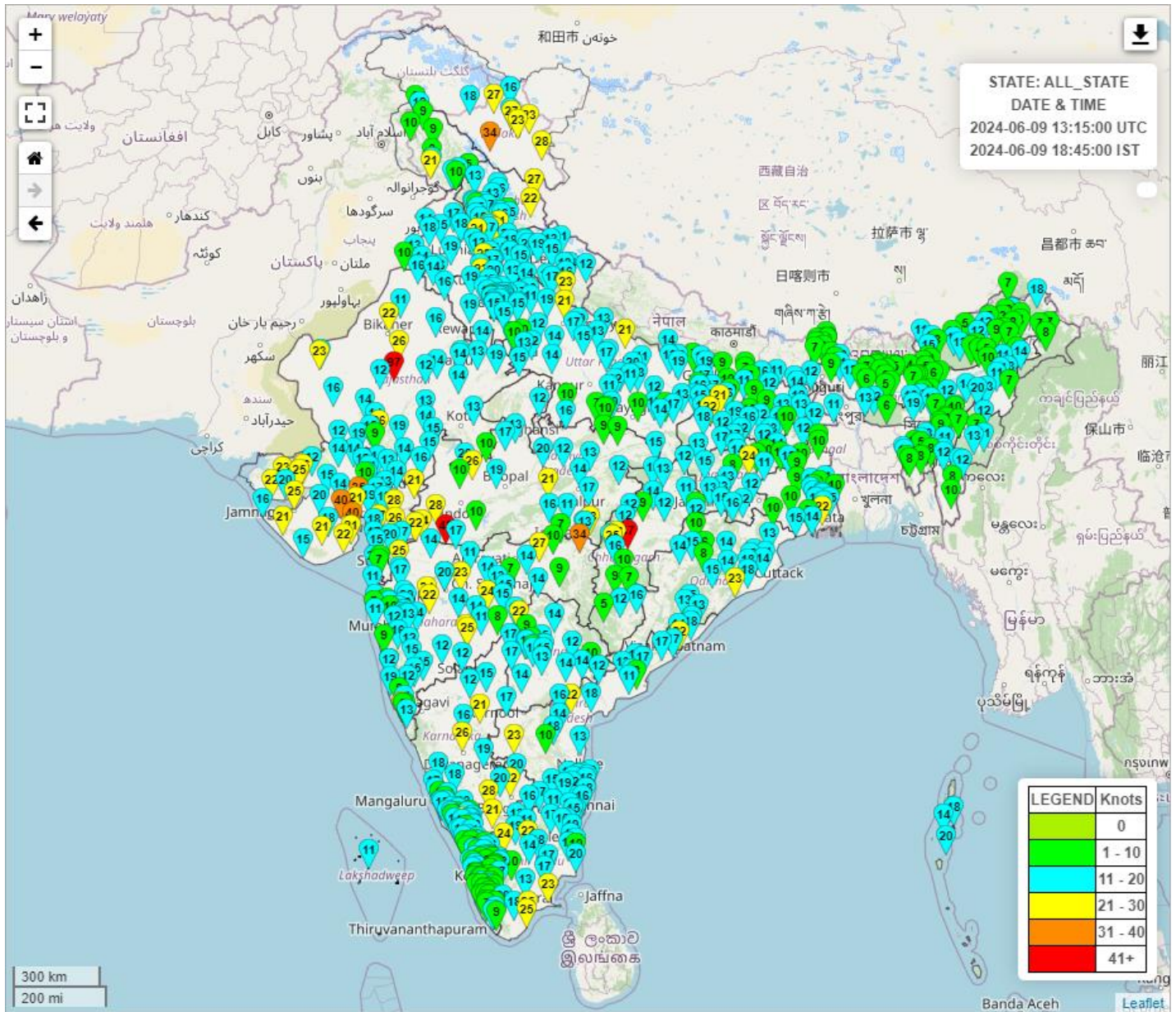
- Very Light to Light Rainfall (0.1 - 15.5 mm)
- Moderate Rainfall (15.6 - 64.4 mm)
- Heavy Rainfall (64.5 - 115.5 mm)
- Very Heavy Rainfall (115.6 - 204.4 mm)
- Extremely Heavy Rainfall (≥ 204.5 mm)

Fig. 6: Advance of Southwest Monsoon 2024



* Red colour warning does not mean "Red Alert", Red colour 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)

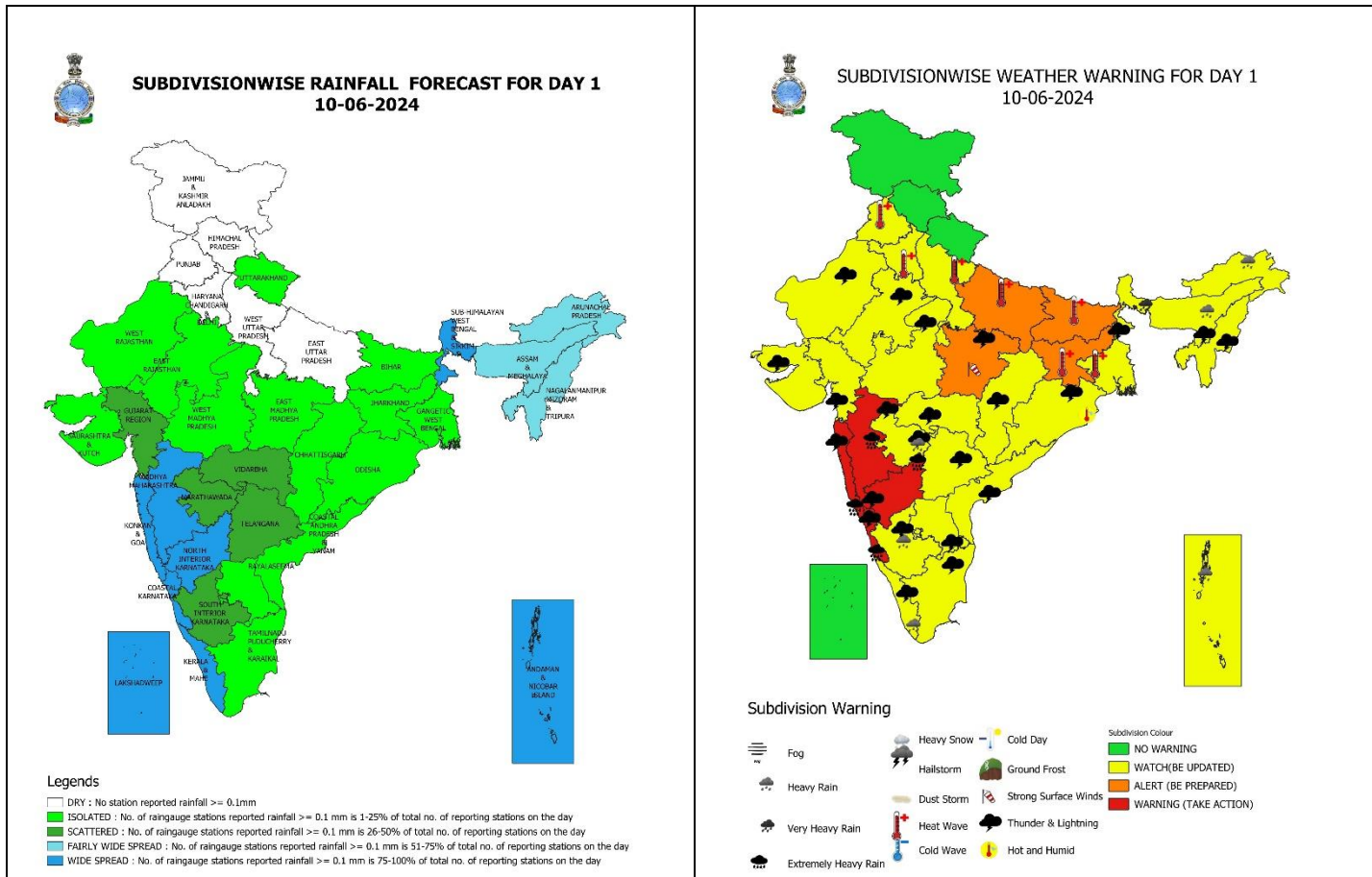
Fig. 7: Gusty winds reported over the country (in knots) from 0830 hours IST to 1845 hours IST of 09.06.2024



1 Knot = 1.852 kmph

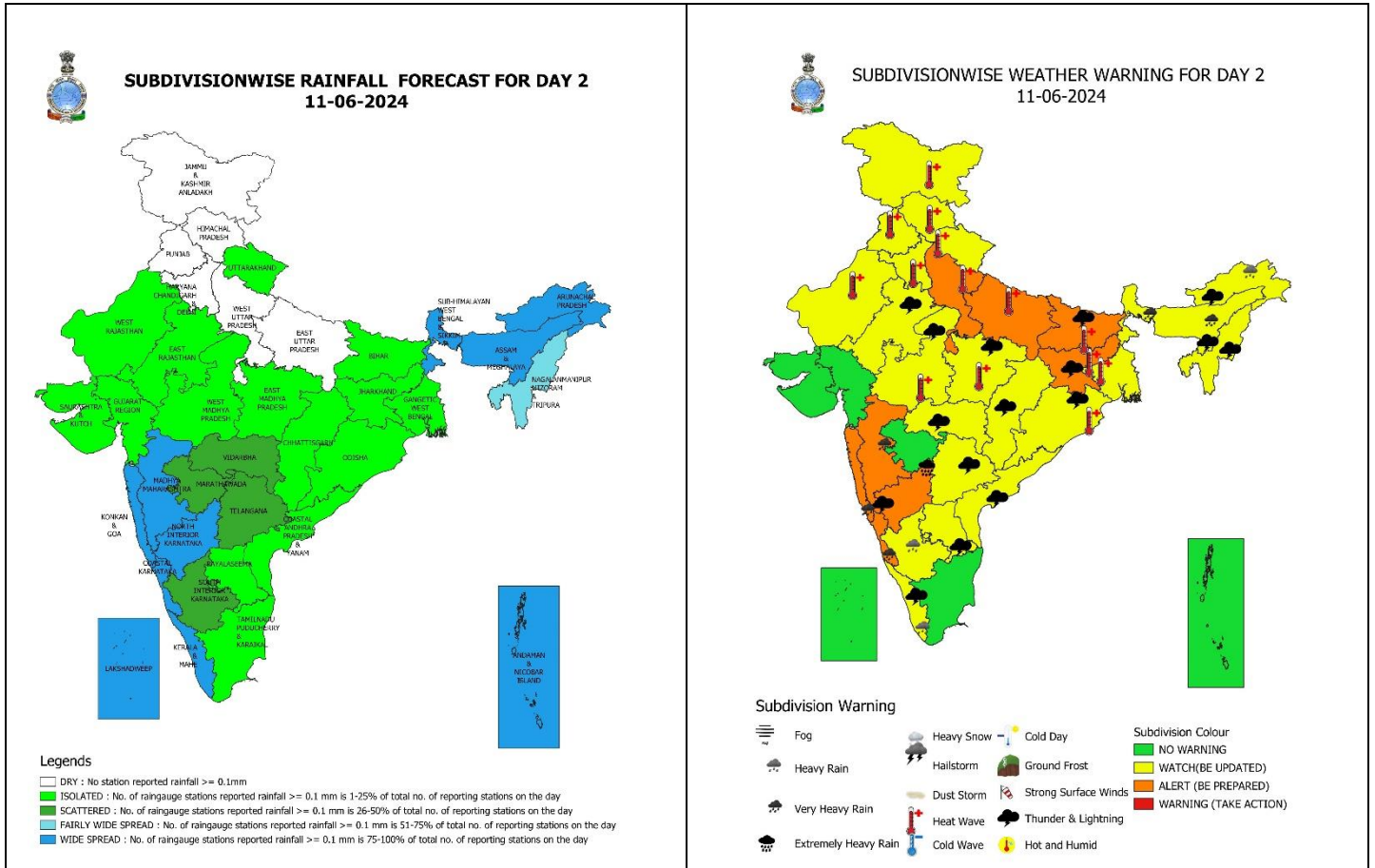
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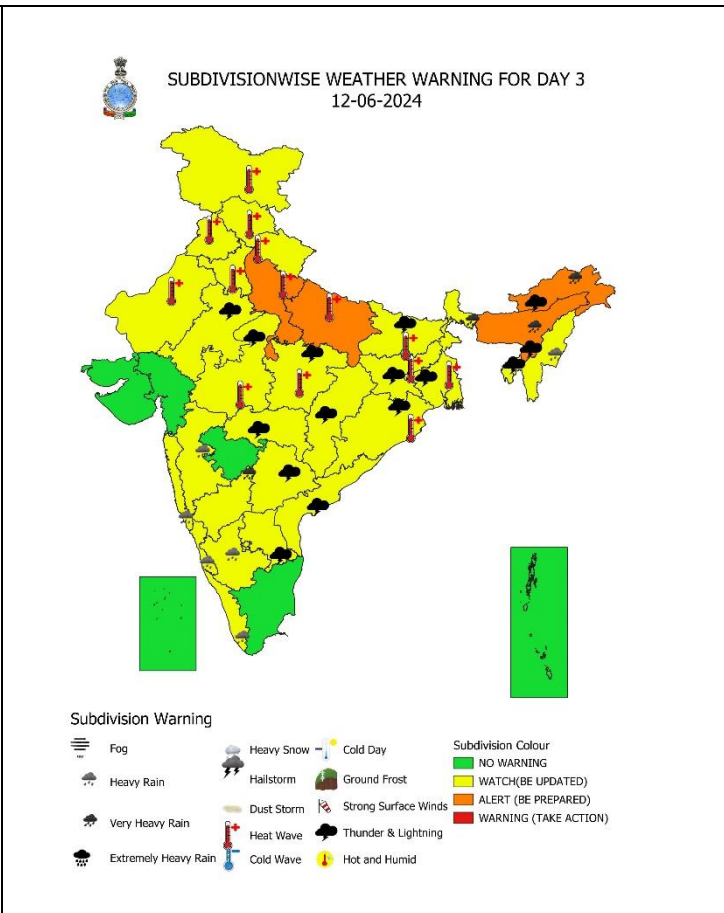
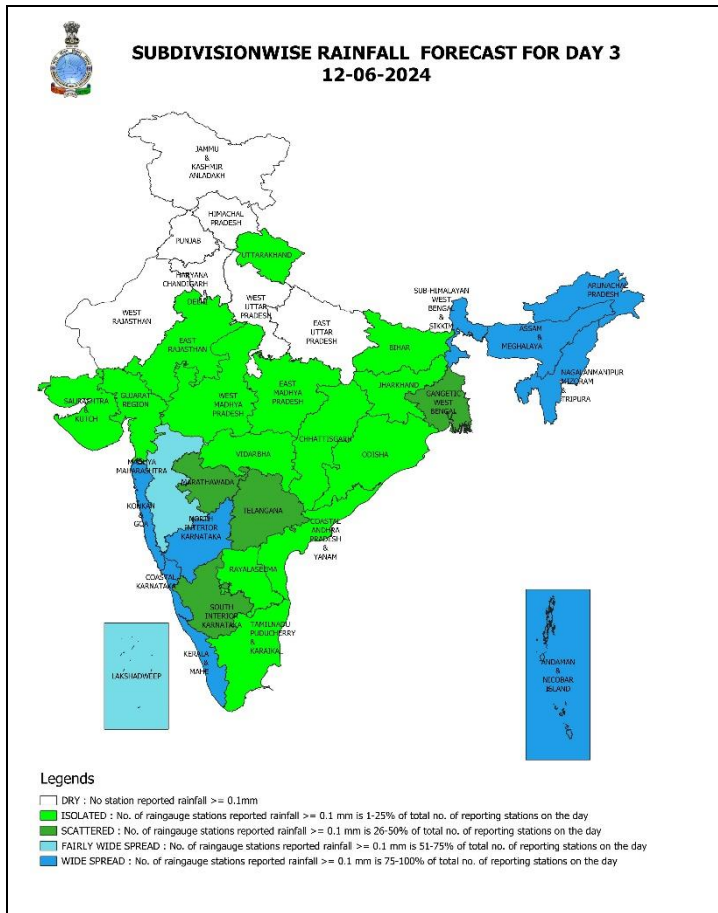
10 June (Day 1):

- ❖ **Heavy to very heavy rainfall at a few places with extremely heavy falls** very likely at isolated places over Konkan & Goa and Madhya Maharashtra; **Heavy to very heavy rainfall with extremely heavy falls** at isolated places over Coastal & North Interior Karnataka; **Heavy to very heavy rainfall** at isolated places over Sub-Himalayan West Bengal & Sikkim and South Interior Karnataka; **heavy rainfall** at isolated places over Andaman & Nicobar Islands, Arunachal Pradesh, Assam & Meghalaya, Marathwada and Kerala & Mahe.
- ❖ **Thunderstorm accompanied with lightning, squall (speed reaching 50-60 kmph) & hailstorm** very likely at isolated places over East Madhya Pradesh; **with lightning & gusty winds (speed reaching 40-50 kmph)** at isolated places over West Madhya Pradesh, Vidarbha, Konkan & Goa, Madhya Maharashtra, Marathwada and North Interior Karnataka; **with lightning & gusty winds (speed reaching 30-40 kmph)** at isolated places over Rajasthan, Chhattisgarh, Sub-Himalayan West Bengal & Sikkim and Odisha; **with lightning** at isolated places over Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Gujarat state, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe, Coastal & South Interior Karnataka.
- ❖ **Heat wave conditions** very likely to prevail in some parts of Bihar; in isolated pockets of Punjab, Haryana-Chandigarh-Delhi, Uttar Pradesh, Gangetic West Bengal and Jharkhand.
- ❖ **Hot and humid weather** very likely to prevail over Odisha.
- ❖ **Squally weather with wind speed 35 kmph to 45 kmph gusting to 55 kmph** very likely to prevail over Maharashtra, Konkan, Goa coasts along off Karnataka, Kerala coasts, adjoining Lakshadweep, Comorin areas, Gulf of Mannar off Sri Lanka, off south Tamil Nadu, central and south Bay of Bengal, north Andaman sea; **squally weather with wind speed 45 kmph to 55 kmph gusting to 65 kmph** prevail over along and off Maharashtra, Konkan, Goa coasts; along and off Somalia coast, southwest and adjoining west central Arabian sea. Fishermen are advised not to venture into these areas.



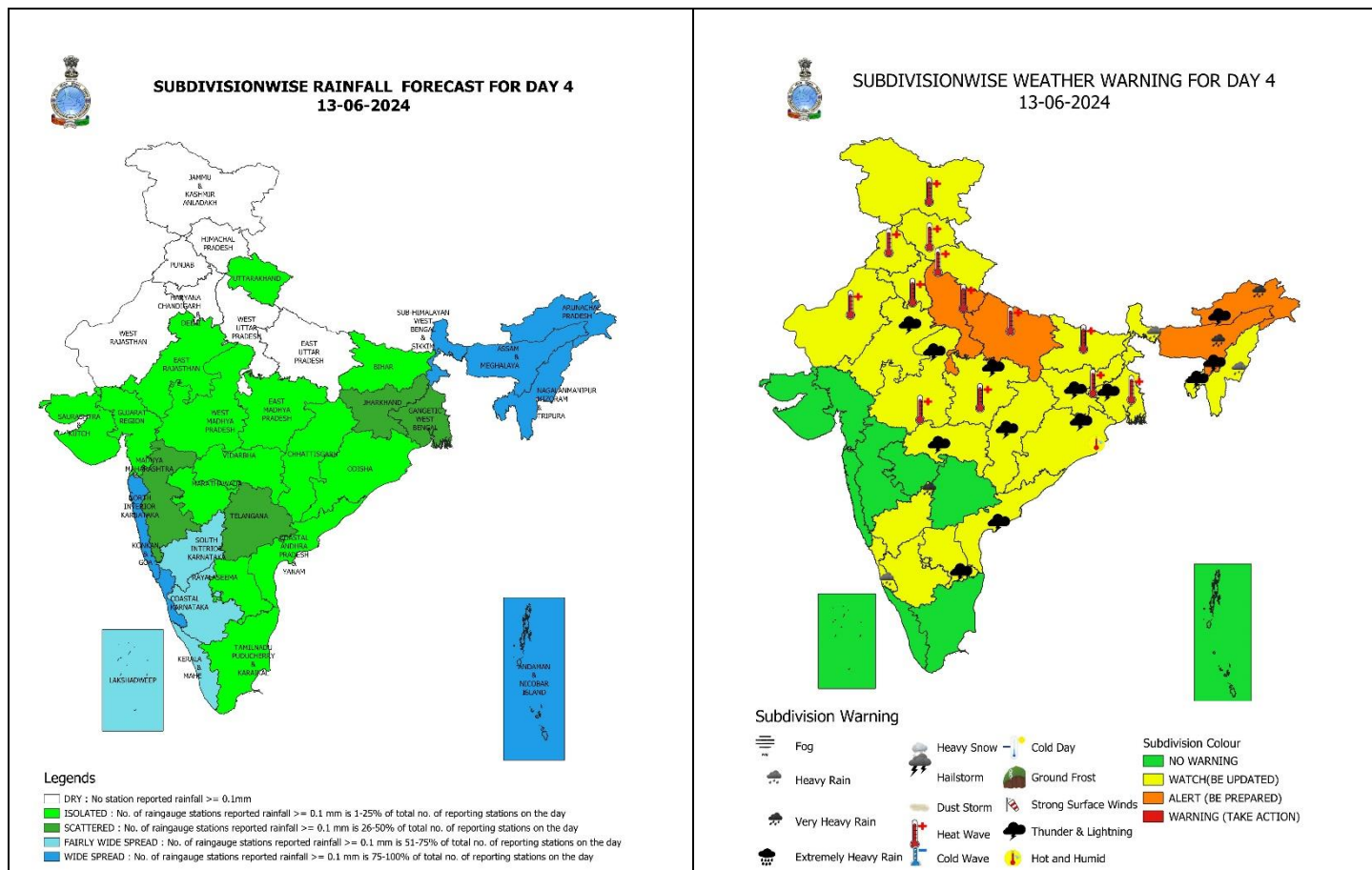
11 June (Day 2):

- ❖ **Heavy to very heavy rainfall with extremely heavy falls** very likely at isolated places over North Interior Karnataka; **Heavy to very heavy rainfall** at isolated places over Sub-Himalayan West Bengal & Sikkim, Assam & Meghalaya and South Interior Karnataka; **heavy rainfall** at a few places over Konkan & Goa, Madhya Maharashtra; at isolated places over Arunachal Pradesh, Kerala & Mahe and Coastal Karnataka.
- ❖ **Thunderstorm accompanied with lightning & gusty winds (speed reaching 40-50 kmph)** very likely at isolated places over West Madhya Pradesh, Vidarbha, Bihar, Jharkhand and North Interior Karnataka; **with lightning & gusty winds (speed reaching 30-40 kmph)** at isolated places over East Rajasthan, East Madhya Pradesh, Chhattisgarh and Odisha; **with lightning** at isolated places over Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura and Kerala & Mahe.
- ❖ **Heat wave to severe heat wave conditions** very likely to prevail in some parts of Uttar Pradesh and **Heat wave conditions** in some parts of Bihar; in isolated pockets of Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand, Punjab, Haryana-Chandigarh-Delhi, West Rajasthan, Madhya Pradesh, Gangetic West Bengal, Odisha and Jharkhand.
- ❖ **Squally weather with wind speed 35 kmph to 45 kmph gusting to 55 kmph** very likely to prevail over Maharashtra, Konkan, goa coasts along off Karnataka, Kerala coasts, adjoining Lakshadweep, Comorin areas, Gulf of Mannar off Sri Lanka, off south Tamil Nadu, central and south Bay of Bengal, north Andaman sea; **squally weather with wind speed 45 kmph to 55 kmph gusting to 65 kmph** prevail over along and off Maharashtra, Konkan, Goa coasts, west central bob; along and off Somalia coast, southwest and adjoining west central Arabian sea. Fishermen are advised not to venture into these areas.



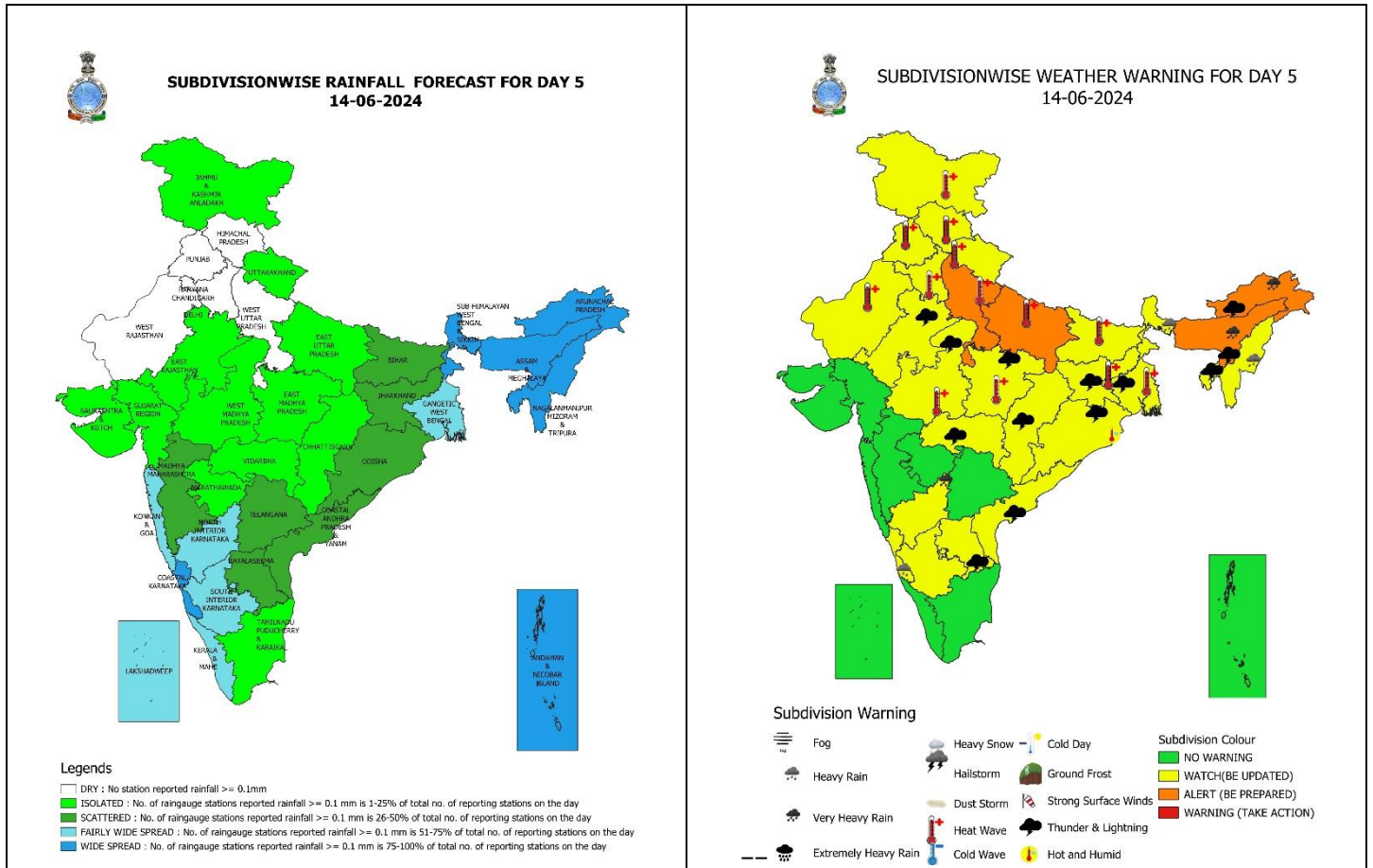
12 June (Day 3):

- ❖ **Heavy to very heavy rainfall** likely at isolated places over Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh, Assam & Meghalaya and Interior Karnataka; **heavy rainfall** at isolated places over Nagaland, Manipur, Mizoram & Tripura, Konkan & Goa, Madhya Maharashtra, Kerala & Mahe and Coastal Karnataka.
- ❖ **Thunderstorm accompanied with lightning & gusty winds (speed reaching 40-50 kmph)** likely at isolated places over Madhya Pradesh and Bihar; **with lightning & gusty winds (speed reaching 30-40 kmph)** at isolated places over East Rajasthan, Vidarbha, Chhattisgarh, Gangetic West Bengal, Jharkhand, Odisha; **with lightning** at isolated places over Arunachal Pradesh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.
- ❖ **Heat wave to severe heat wave conditions** likely to prevail in some parts of Uttar Pradesh and **Heat wave conditions** in isolated pockets of Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand, Punjab, Haryana-Chandigarh-Delhi, West Rajasthan, Madhya Pradesh, Gangetic West Bengal, Bihar, Odisha and Jharkhand.
- ❖ **Squally weather with wind speed 35 kmph to 45 kmph gusting to 55 kmph** likely to prevail over Konkan, Goa Coasts along off Karnataka, Kerala Coasts, adjoining Lakshadweep, Comorin Areas, Gulf of Mannar, off Sri Lanka, off South Tamil Nadu, Central and South West Bay Of Bengal; **Squally Weather With Wind Speed 45 Kmph To 55 Kmph Gusting To 65 Kmph** prevail over along and off Konkan, Goa Coasts, West Central Bay of Bengal; along and off Somalia Coast, Southwest and adjoining West Central Arabian Sea. Fishermen are advised not to venture into these areas.



13 June (Day 4):

- ❖ **Heavy to very heavy rainfall** likely at isolated places over Arunachal Pradesh, Assam & Meghalaya and North Interior Karnataka; **heavy rainfall** at isolated places over Sub-Himalayan West Bengal & Sikkim, Nagaland, Manipur, Mizoram & Tripura and Coastal Karnataka.
- ❖ **Thunderstorm accompanied with lightning & gusty winds (speed reaching 40-50 kmph)** likely at isolated places over Madhya Pradesh; **with lightning & gusty winds (speed reaching 30-40 kmph)** at isolated places over East Rajasthan, Vidarbha, Chhattisgarh, Gangetic West Bengal, Jharkhand and Odisha; **with lightning** at isolated places over Arunachal Pradesh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.
- ❖ **Heat wave to severe heat wave conditions** likely to prevail in some parts of Uttar Pradesh; in isolated pockets of Haryana-Chandigarh-Delhi; **Heat wave conditions** in isolated pockets of Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand, Punjab, West Rajasthan, Madhya Pradesh, Bihar and Jharkhand.
- ❖ **Hot and humid weather** likely to prevail over Odisha.
- ❖ **Squally weather with wind speed 35 kmph to 45 kmph gusting to 55 kmph** likely to prevail over Konkan, Goa coasts along off Karnataka, Kerala coasts, adjoining Lakshadweep, south Bay of Bengal; **squally weather with wind speed 45 kmph to 55 kmph gusting to 65 kmph** prevail over along and off Konkan, Goa coasts, central and adjoining north bob; prevail along and off Somalia coast, southwest and adjoining west central Arabian sea. Fishermen are advised not to venture into these areas.

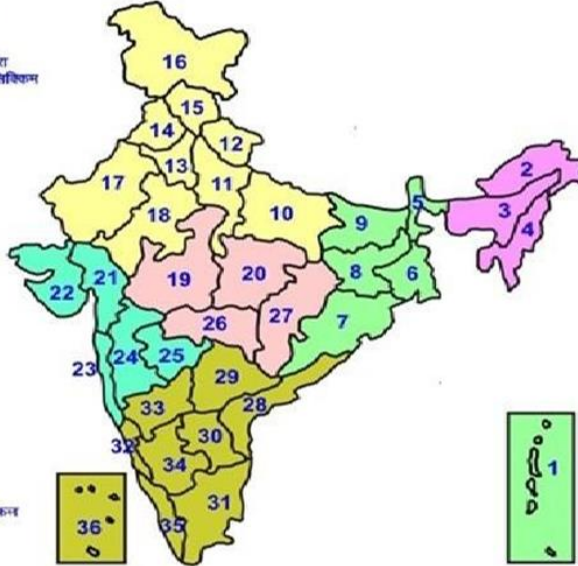


14 June (Day 5):

- ❖ **Heavy to very heavy rainfall** likely at isolated places over Arunachal Pradesh, Assam & Meghalaya and North Interior Karnataka; **heavy rainfall** at isolated places over Sub-Himalayan West Bengal & Sikkim, Nagaland, Manipur, Mizoram & Tripura and Coastal Karnataka.
- ❖ **Thunderstorm accompanied with lightning & gusty winds (speed reaching 40-50 kmph)** likely at isolated places over Madhya Pradesh; **with lightning & gusty winds (speed reaching 30-40 kmph)** at isolated places over East Rajasthan, Vidarbha, Chhattisgarh, Gangetic West Bengal, Jharkhand and Odisha; **with lightning** at isolated places over Arunachal Pradesh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.
- ❖ **Heat wave to severe heat wave conditions** likely to prevail in some parts of Uttar Pradesh; in isolated pockets of Haryana-Chandigarh-Delhi; **Heat wave conditions** in isolated pockets of Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand, Punjab, West Rajasthan, Madhya Pradesh, Bihar and Jharkhand.
- ❖ **Hot and humid weather** likely to prevail over Odisha.
- ❖ **Squally weather with wind speed 35 kmph to 45 kmph gusting to 55 kmph** likely to prevail over Konkan, Goa coasts along off Karnataka, Kerala coasts, adjoining Lakshadweep, south Bay of Bengal; **squally weather with wind speed 45 kmph to 55 kmph gusting to 65 kmph** prevail over along and off Konkan, Goa coasts, central and adjoining north bob; prevail along and off Somalia coast, southwest and adjoining west central Arabian sea. Fishermen are advised not to venture into these areas.

LEGENDS

- 1 अंडमन और निकोबार द्वीप समूह
- 2 अरुणाचल प्रदेश
- 3 असम और मेघालय
- 4 नागालैंड, मणिपुर, 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
- 22 सौराष्ट्र
- 23 कोंकण एवं गोवा
- 24 मध्य महाराष्ट्र
- 25 मराठवाड़ा
- 26 विदर्भ
- 27 छत्तीसगढ़
- 28 आंध्र प्रदेश एवं यानम
- 29 तेलंगाना
- 30 तमिलनाडु, पुदुचेरी एवं कराईकल
- 31 उत्तरी कर्नाटक
- 32 दक्षिणी कर्नाटक
- 33 उत्तरी कर्नाटक
- 34 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
Likely	25 - 50
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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)