

Friday, June 14, 2024
Time of Issue: 0745 hours IST
(MORNING)

ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

Significant Weather Features:

Advance of Southwest Monsoon:

- ❖ The Northern Limit of Monsoon continues to pass through 20.5°N/60°E, 20.5°N/63°E, 20.5°N/70°E, Navsari, Jalgaon, Amravati, Chandrapur, Bijapur, Sukma, Malkangiri, Vizianagaram, 19.5°N/88°E, 21.5°N/89.5°E, 23°N/89.5°E and Islampur.
- ❖ Conditions are favourable for further advance of Southwest Monsoon into some more parts of Maharashtra, Chhattisgarh, Odisha, Coastal Andhra Pradesh & northwest Bay of Bengal during next 3-4 days.

Weather Systems and Forecast & Warnings:

- ❖ A cyclonic circulation lies over northeast Assam & neighbourhood and an east-west trough runs from northwest Bihar to Nagaland in lower tropospheric levels. A north-south trough runs roughly along Long. 91°E to the north of Lat. 23°N in lower & middle tropospheric levels. Strong southwesterly/southerly winds are prevailing from Bay of Bengal to northeastern States in lower tropospheric levels. Under their influence:
 - ✓ 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 to very heavy rainfall** very likely over Sub-Himalayan West Bengal & Sikkim, Assam & Meghalaya, Arunachal Pradesh during next 5 days and isolated **heavy rainfall** over Nagaland during 14th-18th June, 2024.
 - ✓ **Isolated extremely heavy rainfall also likely over Sub-Himalayan West Bengal & Sikkim on 14th; Arunachal Pradesh on 18th and over Meghalaya during 15th-18th June, 2024.**
 - ✓ Isolated to scattered light to moderate rainfall accompanied with **thunderstorm, lightning & gusty winds (30-40 kmph)** very likely over Gangetic West Bengal, Bihar, Jharkhand, Odisha during next 5 days.
 - ✓ Isolated **heavy rainfall** very likely over Odisha on 14th, 17th & 18th June, 2024.
- ❖ Strong westerly winds are prevailing along the west coast of India. A trough runs from Telangana to central parts of Bay of Bengal in lower & middle tropospheric levels. Under their influence:
 - ✓ Scattered to fairly widespread light to moderate rainfall accompanied with **thunderstorm, lightning & gusty winds (40-50 kmph)** likely over Konkan & Goa during next 5 days.
 - ✓ Fairly widespread to widespread light to moderate rainfall accompanied with **thunderstorm, lightning & gusty winds (30-40 kmph)** likely over Karnataka, Kerala & Mahe, Lakshadweep, Andaman & Nicobar Islands; isolated to scattered light to moderate rainfall over Coastal Andhra Pradesh & Yanam, Rayalaseema, Telangana, Tamil Nadu, Puducherry & Karaikal during next 5 days.
 - ✓ Isolated **heavy rainfall** very likely over Kerala & Mahe during 16th - 18th June, 2024.
- ❖ A cyclonic circulation lies over southwest Rajasthan & neighbourhood in lowest & middle tropospheric levels. Under its influence; light to moderate isolated to scattered rainfall with **thunderstorm, lightning & gusty winds (40-60 kmph)** very likely over Madhya Pradesh, Vidarbha, Chhattisgarh during next 5 days and over Rajasthan during next 2 days.
- ❖ A fresh feeble Western Disturbance as a trough in middle tropospheric westerlies with its axis at 5.8 km above mean sea level runs roughly along Long. 72°E to the north of Lat. 32°N. Under its influence; light isolated rainfall with **thunderstorm, lightning** very likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand, Rajasthan, Punjab, Haryana on 14th June, 2024.

Maximum Temperatures: Yesterday, Maximum temperatures were in the range of 44-47°C over many parts of Haryana-Chandigarh-Delhi; over some parts of west Jharkhand, southwest Bihar, Uttar Pradesh, north Rajasthan.

Heat Wave and Warm Night warning for next 5 days:

- ❖ **Heat wave to severe heat wave conditions** very likely in some/many parts of Uttar Pradesh during 14th-18th; Gangetic West Bengal, Bihar, Jharkhand during 14th-15th and isolated **heat wave** over Jharkhand on 16th June, 2024.
- ❖ **Heat wave conditions** very likely in some pockets of Punjab and Haryana-Chandigarh-Delhi during next 5 days with **severe heat wave conditions in isolated pockets** on 16th & 17th June.
- ❖ **Heat wave conditions** very likely in isolated to some pockets of Himachal Pradesh, Jammu Division, northeast Madhya Pradesh during 14th-16th; northwest Madhya Pradesh on 14th & 15th; Uttarakhand, north Chhattisgarh and Odisha on 14th and northwest Rajasthan on 17th June, 2024.
- ❖ **Warm night conditions** very likely in isolated pockets of northeast Madhya Pradesh and West Uttar Pradesh on 14th June, 2024.

Main Weather Observations:

- ❖ **Rainfall distribution** (from 0830 hours IST to 1730 hours IST of yesterday): **at many places** over Assam & Meghalaya; **at a few places** over Karnataka, Konkan & Goa, Odisha, Chhattisgarh, West Madhya Pradesh, East Rajasthan and Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad and **at isolated places** over Andaman & Nicobar Islands, Arunachal Pradesh, Nagaland, Manipur, Mizoram & Tripura, Sub-Himalayan West Bengal & Sikkim, Gujarat state, Madhya Maharashtra, Telangana, Coastal Andhra Pradesh & Yanam, Rayalaseema, Kerala & Mahe and Tamil Nadu, Puducherry & Karaikal.
- ❖ **Significant amount of rainfall** (from 0830 hours IST to 1730 hours IST of yesterday) (in cm): **Nagaland, Manipur, Mizoram & Tripura:** Agartala-6, Kailashahar-3; **Assam & Meghalaya:** Silchar-4, Shillong-2; **Madhya Maharashtra:** Mahabaleshwar-3; **Konkan & Goa:** panjim and Ratnagiri -3 each; **Gujarat Region:** Bulsar-2; **Telangana:** Khammam-2, Hyderabad-1; **Kerala & Mahe:** Kannur-1.
- ❖ Yesterday, **Heat wave conditions** observed in most parts with severe heat wave conditions in isolated pockets of Uttar Pradesh and Delhi; **Heatwave conditions** observed in some parts with **severe heat wave conditions** at isolated pockets of Jharkhand; **Heat wave to severe heat wave conditions** in some parts of Bihar and Punjab and in isolated pockets of north Odisha and Gangetic West Bengal; **Heat wave conditions** at isolated places over north Rajasthan; in many parts of Himachal Pradesh; in some parts of Uttarakhand and in isolated pockets of Chhattisgarh.
- ❖ **Reported maximum wind speed (in kmph)** (from 0830 hours IST to 1730 hours IST of yesterday): **Andhra Pradesh:** Garikapadu-70; **Jammu & Kashmir-** Chatha-57, Kathua-55, Jammu-51 and Samba-50; **Rajasthan:** Jaipur-55, Karauli-47; **Odisha:** Nit_Rourkela-55, Janhukuda-49; **Chhattisgarh:** Bilaspur-53; **Jharkhand:** Simdega & Bokaro-51; **Haryana-Balasmant-49;** **Himachal Pradesh:** Bajaura, Nauni & Sirmour-49 each; **Gujarat:** Rajkot & Arnej-49 each; **Maharashtra:** Latur & Jalgaon-49 each, Ambejohai & Wardha-47each.
- ❖ **Minimum Temperature Departures (as on 13-06-2024):** Minimum temperatures were **markedly above normal (5.1°C or more)** at isolated places over Haryana-Chandigarh-Delhi and East Madhya Pradesh; **appreciably above normal (3.1°C to 5.0°C)** at many places over West Rajasthan; at a few places over Punjab, Uttar Pradesh, Jharkhand and Odisha; at isolated places over East Rajasthan, Bihar and Chhattisgarh; **above normal (1.6°C to 3.0°C)** at many places over Gujarat Region and Kerala & Mahe; at a few places over Coastal Andhra Pradesh & Yanam and Lakshadweep; at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Uttarakhand, West Bengal & Sikkim, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Vidarbha, Telangana and Andaman & Nicobar Islands. These were **appreciably below normal (-3.1°C to -5.0°C)** at isolated places over Tamil Nadu, Puducherry & Karaikal; **below normal (-1.6°C to -3.0°C)** at isolated places over West Madhya Pradesh and Rayalaseema and **near normal** over rest parts of the country. Yesterday, **the lowest minimum temperature of 20.6°C** was reported at **Rajgarh (West Madhya Pradesh)** over the plains of the country.
- ❖ **Maximum Temperature Departures (as on 13-06-2024):** Maximum temperatures were **markedly above normal (5.1°C or more)** at many places over Uttar Pradesh; at a few places over Punjab, Haryana-Chandigarh-Delhi and Jharkhand; at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand, Bihar, Gangetic West Bengal, Chhattisgarh and Odisha; **appreciably above normal (3.1°C to 5.0°C)** at a few places over at isolated places over Gujarat Region, Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe; **above normal (1.6°C to 3.0°C)** at a few places over Rajasthan, Saurashtra & Kutch, Andaman & Nicobar Islands and Lakshadweep; at isolated places over Telangana, Coastal Andhra Pradesh & Yanam and Madhya Maharashtra. These were **appreciably below normal (-3.1°C to -5.0°C)** at a few places over Rayalaseema; at isolated places over Vidarbha, Konkan & Goa and Nagaland, Manipur, Mizoram & Tripura; **below normal (-1.6°C to -3.0°C)** at isolated places over Marathwada and **near normal** over rest parts of the country. Yesterday, **the highest maximum temperature of 47.2°C** was reported at **Buxar (Bihar)** over the country.

Meteorological Analysis (Based on 0530 hours IST)

- ❖ The Northern Limit of Monsoon continues to pass through 20.5°N/60°E, 20.5°N/63°E, 20.5°N/70°E, Navsari, Jalgaon, Amravati, Chandrapur, Bijapur, Sukma, Malkangiri, Vizianagaram, 19.5°N/88°E, 21.5°N/89.5°E, 23°N/89.5°E and Islampur.
- ❖ Conditions are favourable for further advance of Southwest Monsoon into some more parts of Maharashtra, Chhattisgarh, Odisha, Coastal Andhra Pradesh & Northwest Bay of Bengal during next 3-4 days.
- ❖ The feeble Western Disturbance as a trough in middle tropospheric westerlies with its axis at 5.8 km above mean sea level roughly along Long. 72°E to the north of Lat. 32°N persists.
- ❖ The cyclonic circulation over southwest Rajasthan & neighbourhood between 3.1 km & 5.8 km above mean sea level persists.
- ❖ The east-west trough from northwest Bihar to Nagaland across Sub-Himalayan West Bengal & Assam at 0.9 km above mean sea level persists.
- ❖ The trough in lower tropospheric westerlies with its axis at 1.5 km above mean sea level roughly along Long. 86°E to the north of Lat. 22°N persists.
- ❖ The trough in westerlies between 3.1 km & 5.8 km above mean sea level roughly along Long. 91°E to the north of Lat. 23°N persists.
- ❖ The cyclonic circulation over northeast Assam & neighbourhood at 1.5 km above mean sea level persists.
- ❖ The trough from Telangana to central parts of Bay of Bengal across Coastal Andhra Pradesh between 3.1 km & 5.8 km above mean sea level persists.

Weather Forecast for next 7 days (Upto 0830 hours IST of 21st June, 2024)

- ❖ Meteorological sub-division wise detailed 7 days rainfall forecast is given in Table-1.
- ❖ **Thunderstorm accompanied with lightning, gusty winds (speed reaching 30-40 kmph)** very likely at isolated places over Northeast India during 14th-15th; Tamil Nadu, Puducherry & Karaikal and Rayalaseema during 14th-17th and Coastal Karnataka on 14th June, 2024.
- ❖ **Strong surface winds (speed reaching 25-35 kmph)** very likely over plains of Northwest 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 21st-23rd June, 2024)

- ❖ Scattered to fairly widespread rainfall likely over Islands, Northeast and Peninsular India. Isolated to Scattered rainfall likely over Northwest, 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	14-Jun	15-Jun	16-Jun	17-Jun	18-Jun	19-Jun	20-Jun
		Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
1	ANDAMAN & NICOBAR ISLANDS	SCT	WS	WS	WS	FWS	FWS	SCT
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	WS	WS	WS	WS	WS
6	GANGETIC WEST BENGAL	ISOL	ISOL	FWS	FWS	FWS	FWS	WS
7	ODISHA	ISOL	SCT	SCT	FWS	FWS	FWS	FWS
8	JHARKHAND	ISOL	SCT	SCT	FWS	FWS	FWS	FWS
9	BIHAR	SCT	SCT	SCT	FWS	FWS	FWS	WS
10	EAST UTTAR PRADESH	DRY	DRY	ISOL	ISOL	SCT	SCT	SCT
11	WEST UTTAR PRADESH	DRY	DRY	DRY	DRY	ISOL	ISOL	ISOL
12	UTTARAKHAND	ISOL	ISOL	ISOL	ISOL	SCT	SCT	FWS
13	HARYANA CHANDIGARH & DELHI	ISOL	DRY	DRY	DRY	DRY	ISOL	ISOL
14	PUNJAB	ISOL	DRY	DRY	DRY	DRY	ISOL	SCT
15	HIMACHAL PRADESH	ISOL	DRY	DRY	DRY	ISOL	ISOL	SCT
16	JAMMU & KASHMIR AND LADAKH	ISOL	DRY	DRY	DRY	ISOL	ISOL	SCT
17	WEST RAJASTHAN	ISOL	ISOL	DRY	DRY	DRY	ISOL	ISOL
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	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
22	SAURASHTRA & KUTCH	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
23	KONKAN & GOA	SCT	SCT	SCT	SCT	SCT	FWS	WS
24	MADHYA MAHARASHTRA	ISOL	ISOL	ISOL	ISOL	ISOL	SCT	ISOL
25	MARATHAWADA	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
26	VIDARBHA	SCT	ISOL	ISOL	ISOL	SCT	SCT	ISOL
27	CHHATTISGARH	ISOL	ISOL	SCT	SCT	FWS	FWS	FWS
28	COASTAL ANDHRA PRADESH & YANAM	SCT	SCT	SCT	SCT	SCT	ISOL	ISOL
29	TELANGANA	SCT	ISOL	ISOL	SCT	SCT	SCT	SCT
30	RAYALASEEMA	ISOL	ISOL	SCT	SCT	SCT	ISOL	ISOL
31	TAMILNADU PUDUCHERRY & KARAIKAL	ISOL	ISOL	SCT	SCT	SCT	ISOL	ISOL
32	COASTAL KARNATAKA	WS	FWS	FWS	WS	WS	WS	WS
33	NORTH INTERIOR KARNATAKA	SCT	ISOL	SCT	SCT	FWS	FWS	SCT
34	SOUTH INTERIOR KARNATAKA	SCT	ISOL	SCT	SCT	FWS	FWS	SCT
35	KERALA & MAHE	FWS	FWS	WS	WS	WS	WS	WS
36	LAKSHADWEEP	FWS	FWS	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

* 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.
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Fig. 1: Maximum Temperatures

Fig. 2: Departure of Maximum Temperatures

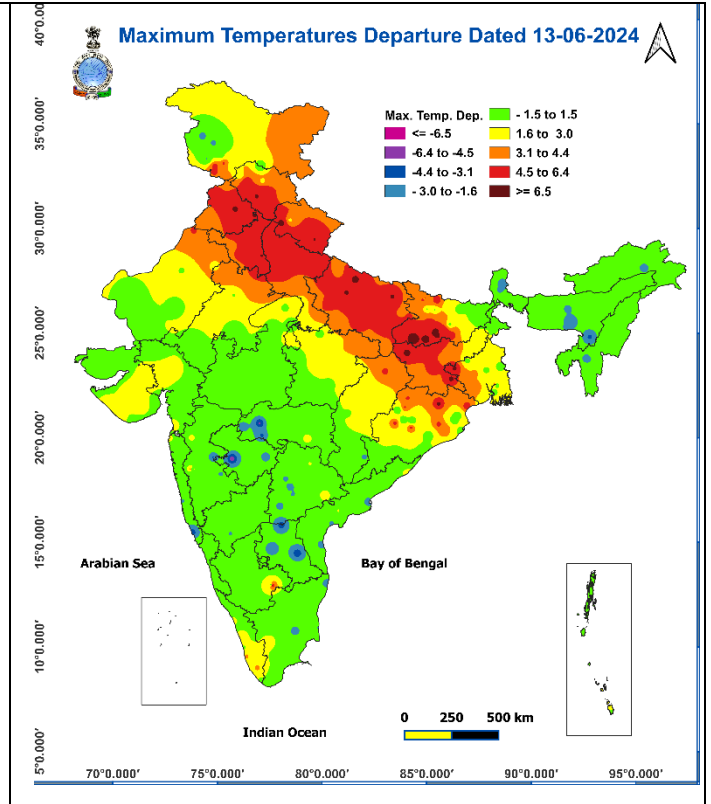
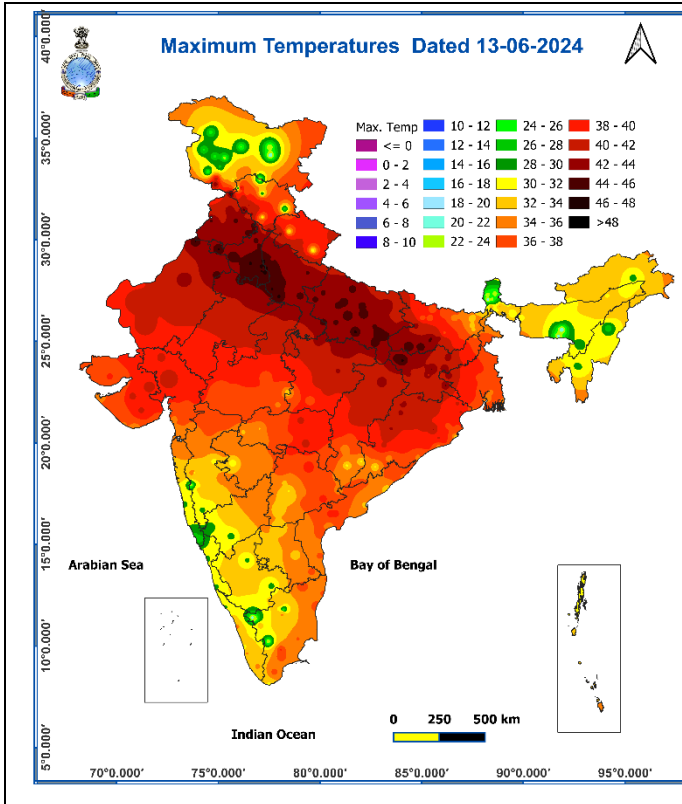


Fig. 3: Minimum Temperatures

Fig. 4: Departure of Minimum Temperatures

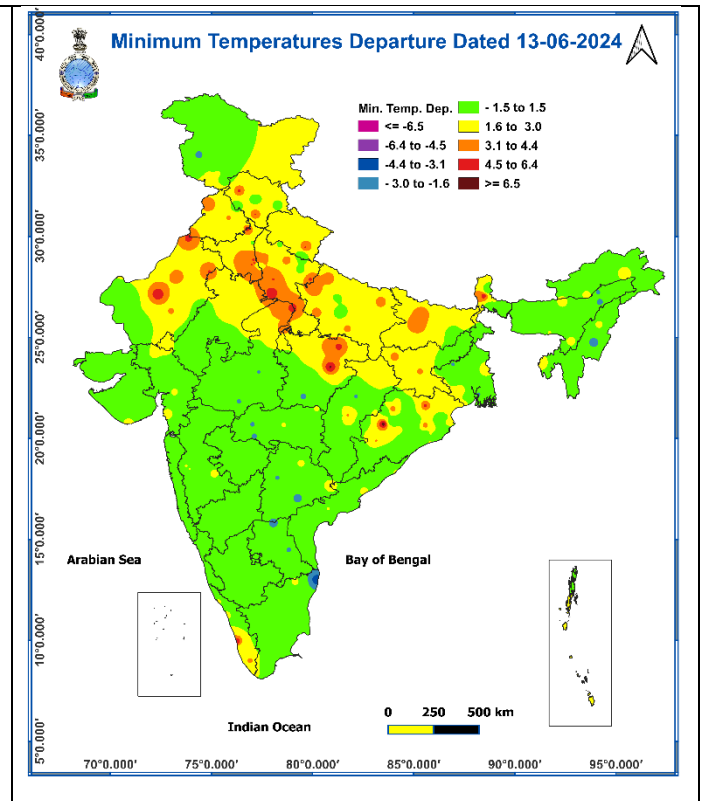
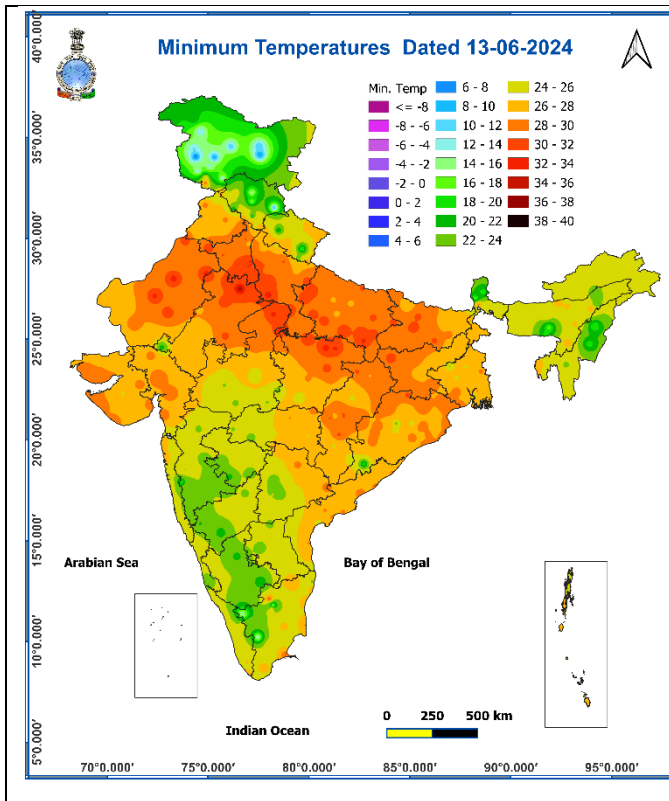
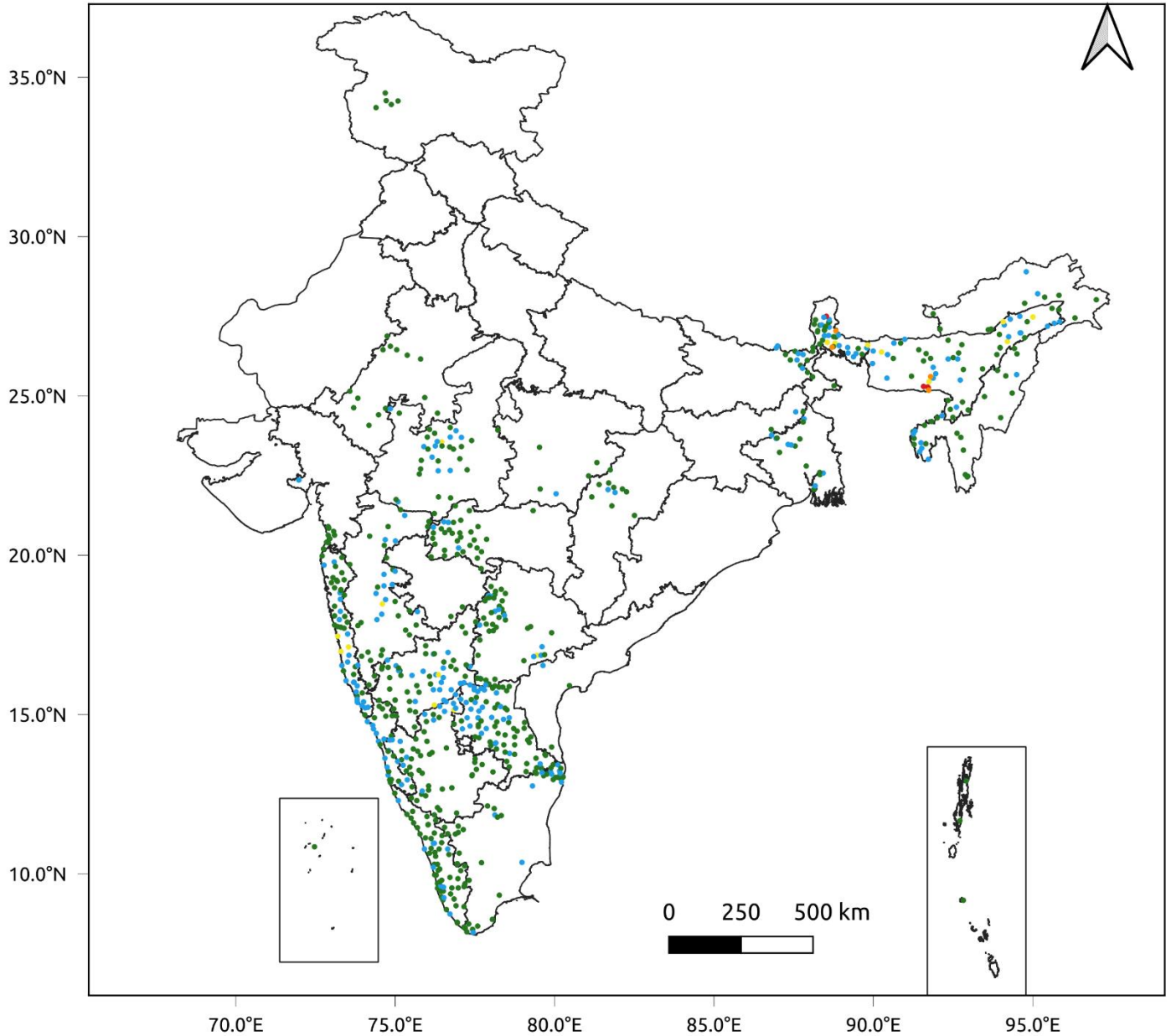


Fig. 5: Accumulated Rainfall (mm) during past 24 hours



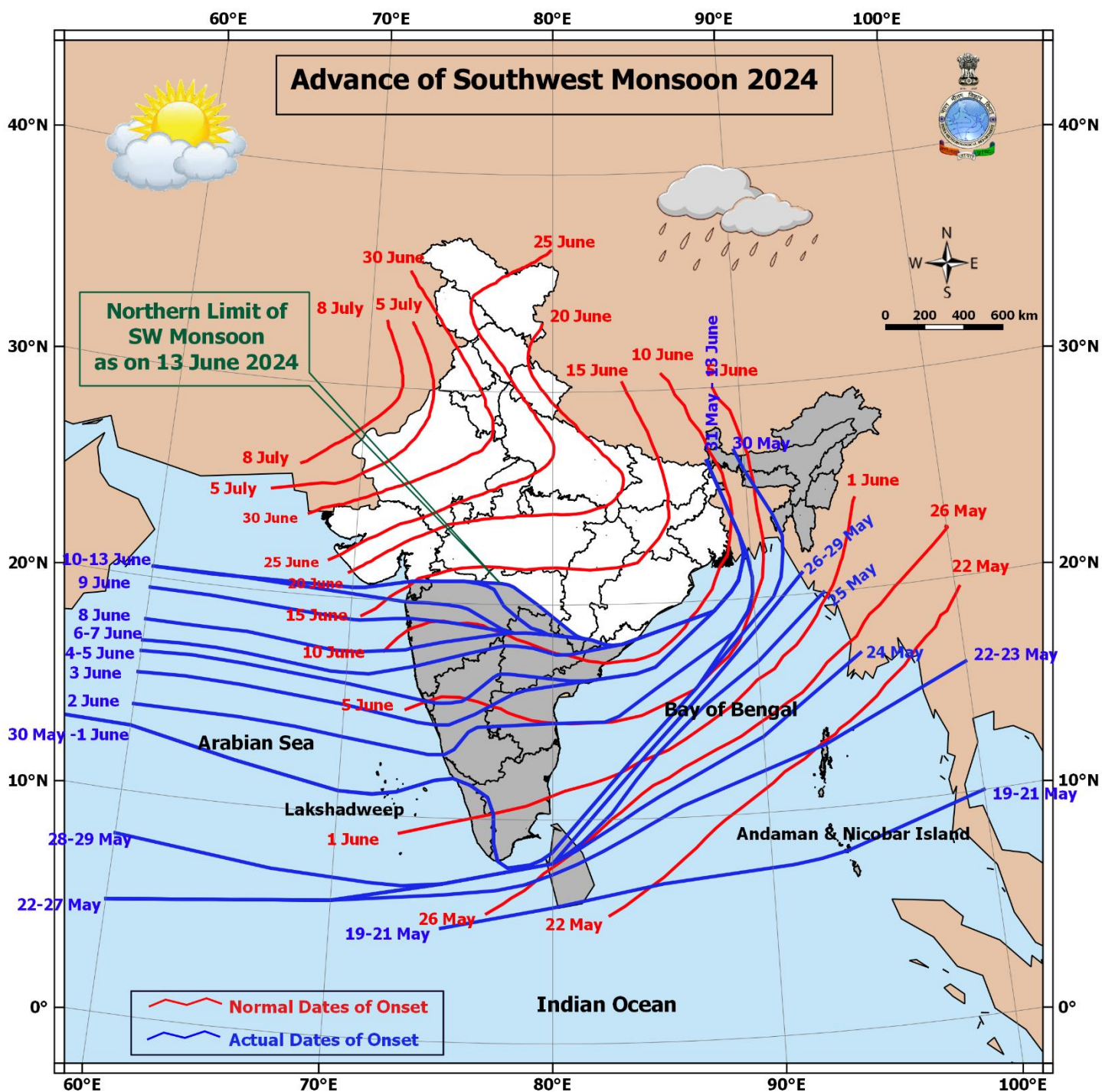
24 Hr cumulative rainfall recorded over different stations during 0830 IST of 12-6-2024 to 0830 IST of 13-6-2024



Legends

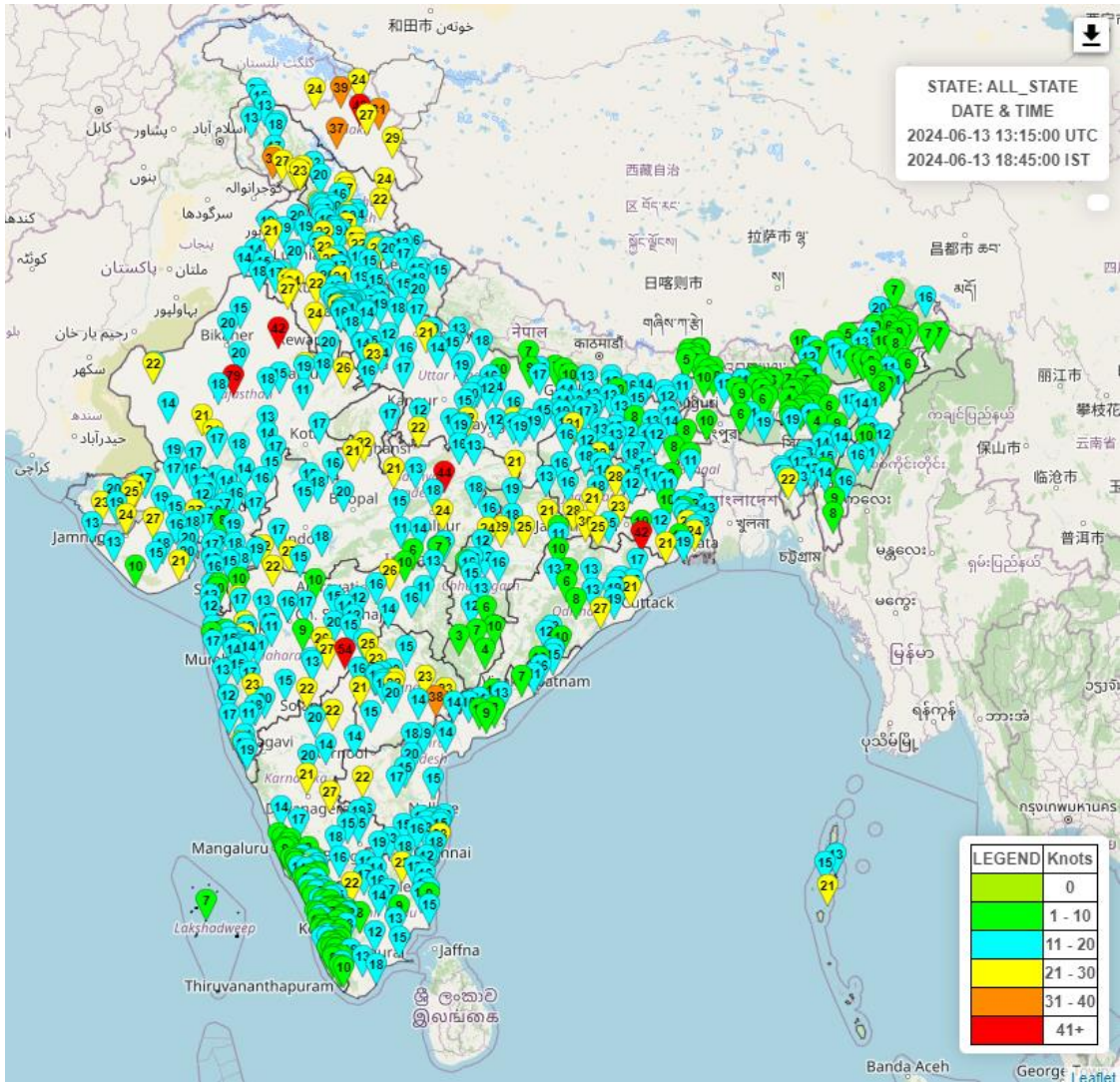
- Very Light to Light Rainfall (0.1 - 15.5 mm)
- Moderate Rainfall (15.6 - 64.4 mm)
- Heavy Rainfall (64.5 - 115.5 mm)
- Very Heavy Rainfall (115.6 - 204.4 mm)
- Extremely Heavy Rainfall (≥ 204.5 mm)

Fig. 6: Advance of Southwest Monsoon 2024



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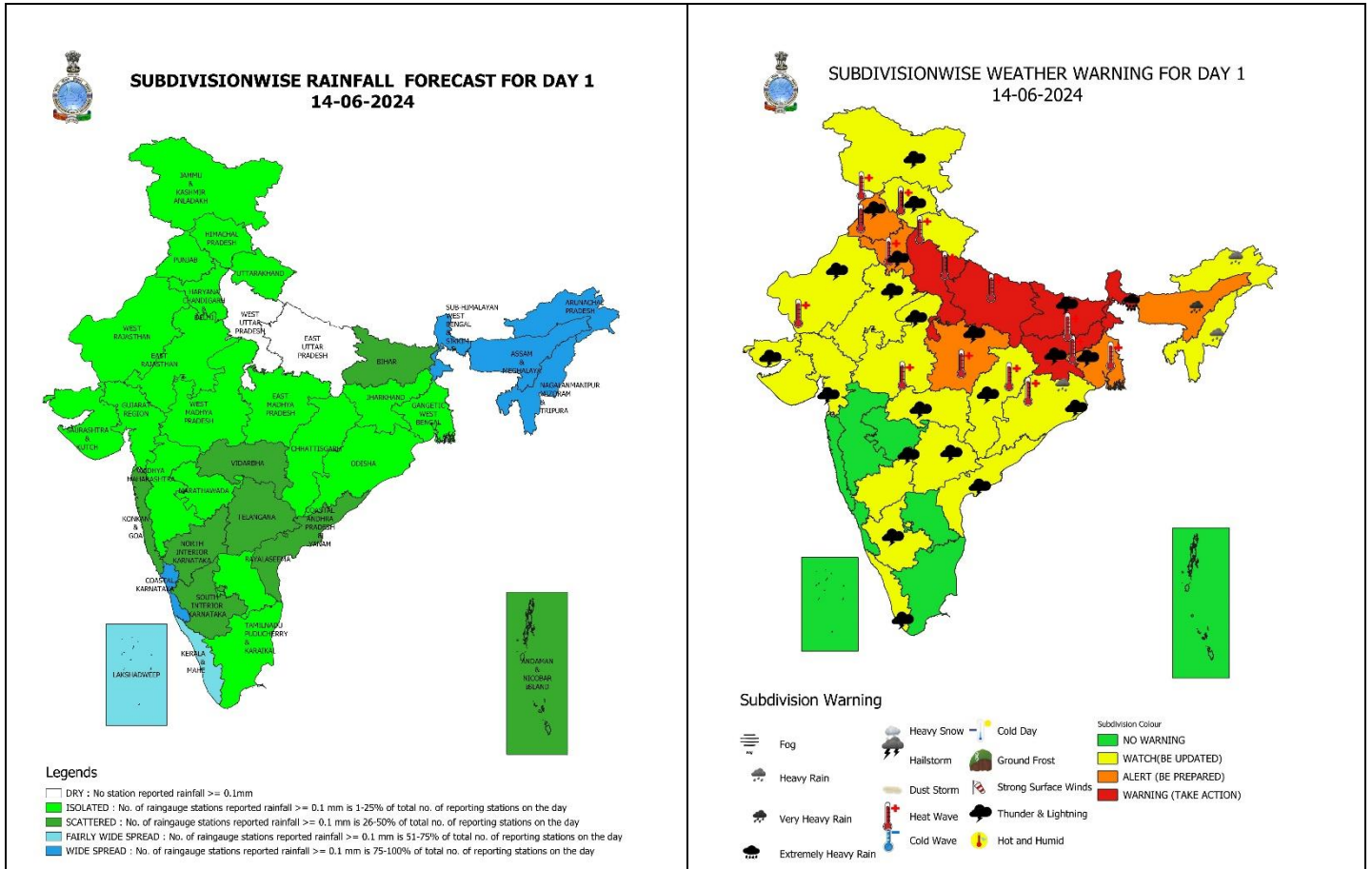
Fig. 7: Gusty winds reported over the country (in knots) from 0830 hours IST to 1845 hours IST of 13.06.2024



1 Knot = 1.852 kmph

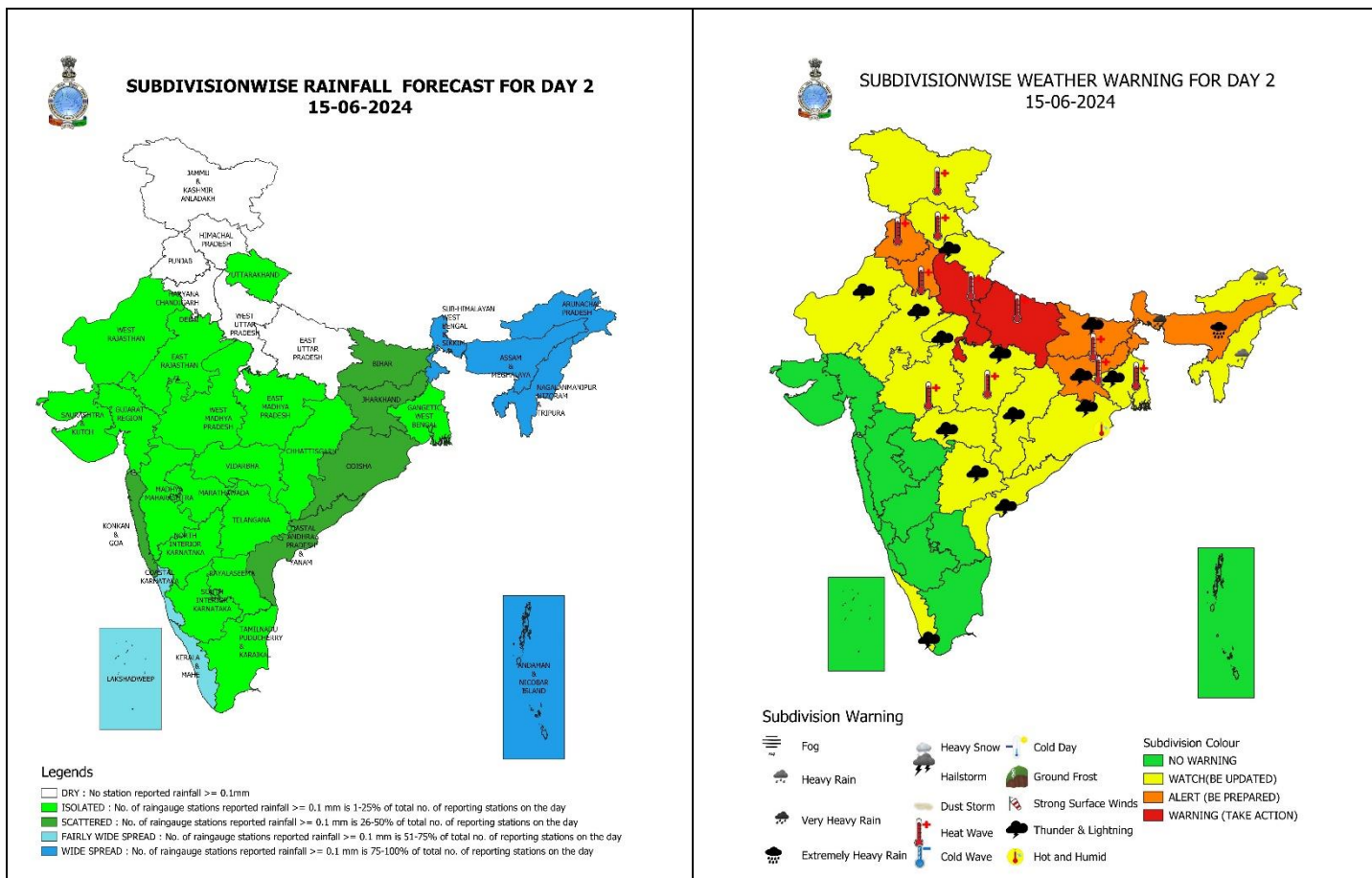
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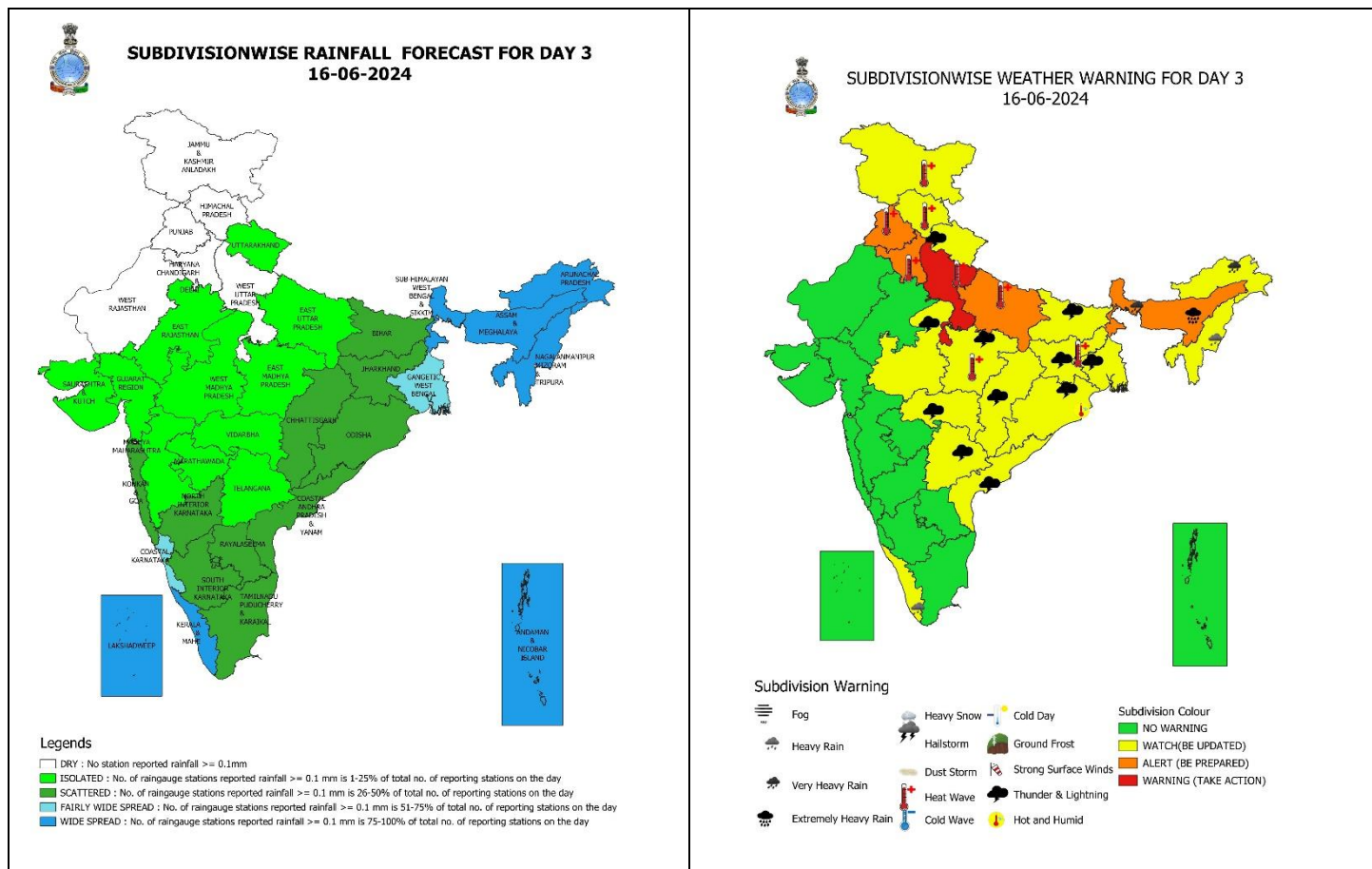
14 June (Day 1):

- ❖ **Heavy to very heavy rainfall with extremely heavy falls** very likely at isolated places over Sub-Himalayan West Bengal & Sikkim; **Heavy to very heavy rainfall** at isolated places over Assam & Meghalaya; **heavy rainfall** at isolated places over Odisha, Arunachal Pradesh and Nagaland, Manipur, Mizoram & Tripura.
- ❖ **Thunderstorm accompanied with lightning & squally winds (speed reaching 50-60 kmph gusting to 70 kmph)** 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, Chhattisgarh, Gangetic West Bengal; **with lightning & gusty winds (speed reaching 30-40 kmph)** at isolated places over Rajasthan, Vidarbha, Bihar, Jharkhand, Odisha, Coastal Andhra Pradesh & Yanam, Telangana and Interior Karnataka; **with lightning** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Punjab, Haryana-Chandigarh-Delhi, Gujarat state and Kerala & Mahe.
- ❖ **Heat wave conditions to severe heat wave conditions** very likely in many parts over Uttar Pradesh; in isolated pockets over West Bengal, Bihar and Jharkhand. **Heat wave conditions** in some parts over Punjab, Haryana-Chandigarh-Delhi; in isolated pockets over Jammu division, Himachal Pradesh, Uttarakhand, West Rajasthan, Madhya Pradesh, north Chhattisgarh and Odisha.
- ❖ **Warm night conditions** very likely to prevail in isolated pockets over West Uttar Pradesh and East Madhya Pradesh.
- ❖ **Squally weather with wind speed 35 kmph to 45 kmph gusting to 55 kmph** very likely to prevail over central parts of Arabian sea, off Sri Lanka coast, Gulf of Mannar, south & central and adjoining north Bay of Bengal. **Squally weather with wind speed 45 kmph to 55 kmph gusting to 65 kmph** likely to prevail over Somalia coast, southwest and adjoining west central Arabian sea, along and off Odisha coast. Fishermen are advised not to venture into these areas.



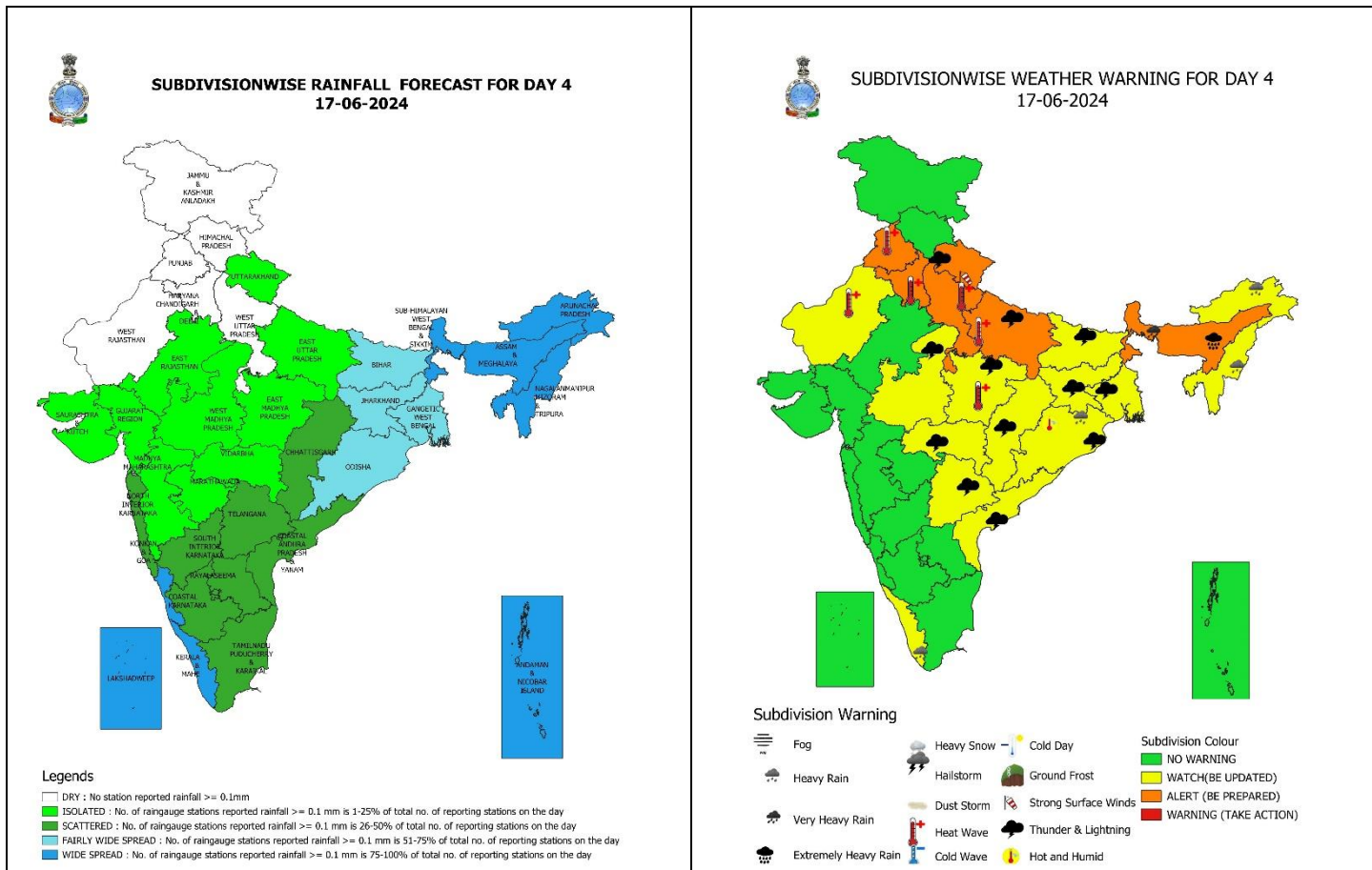
15 June (Day 2):

- ❖ **Heavy to very heavy rainfall with extremely heavy falls** very likely at isolated places over Assam & Meghalaya; **Heavy to very heavy rainfall** at isolated places over Sub-Himalayan West Bengal & Sikkim; **heavy rainfall** at isolated places over Arunachal Pradesh, Nagaland, Manipur, Mizoram & Tripura.
- ❖ **Thunderstorm accompanied with lightning & gusty winds (speed reaching 40-50 kmph)** very likely at isolated places over Madhya Pradesh, Jharkhand and Gangetic West Bengal; **with lightning & gusty winds (speed reaching 30-40 kmph)** at isolated places over Uttarakhand, Rajasthan, Vidarbha, Chhattisgarh, Bihar, Odisha, Coastal Andhra Pradesh & Yanam and Telangana; **with lightning** at isolated places over Kerala & Mahe.
- ❖ **Heat wave conditions to severe heat wave conditions** very likely in many parts over Uttar Pradesh; in isolated pockets over Jharkhand, Bihar; **Heat wave conditions** in some parts over Punjab, Haryana-Chandigarh-Delhi; in isolated pockets over Jammu division, Himachal Pradesh, Madhya Pradesh and West Bengal.
- ❖ **Hot & Humid weather** very likely over Odisha.
- ❖ **Squally weather with wind speed 35 kmph to 45 kmph gusting to 55 kmph** very likely to prevail over central parts of Arabian sea, along off Sri Lanka coast, gulf of Mannar, south & central and adjoining north Bay of Bengal. **Squally weather with wind speed 45 kmph to 55 kmph gusting to 65 kmph** likely to prevail over westcentral Bay of Bengal, along and off Somalia coast, southwest and adjoining west central Arabian sea, along & off Oman Coast. Fishermen are advised not to venture into these areas.



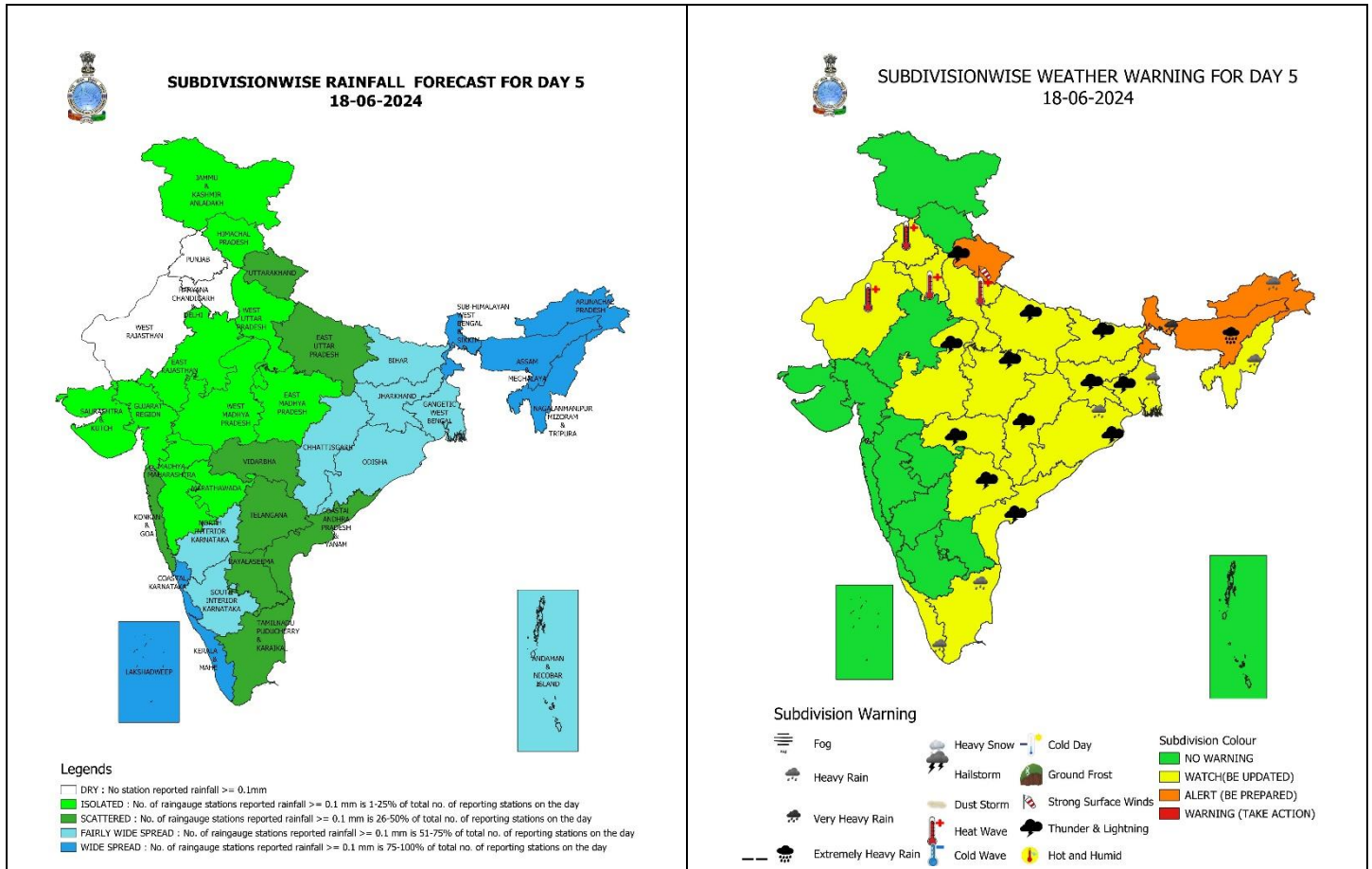
16 June (Day 3):

- ❖ **Heavy to very heavy rainfall with extremely heavy falls** likely at isolated places over Assam & Meghalaya; **Heavy to very heavy rainfall** at isolated places over Sub-Himalayan West Bengal & Sikkim and Arunachal Pradesh; **heavy rainfall** at isolated places over Nagaland, Manipur, Mizoram & Tripura and Kerala & Mahe.
- ❖ **Thunderstorm accompanied with lightning & gusty winds (speed reaching 40-50 kmph)** likely at isolated places over East Madhya Pradesh, Gangetic West Bengal, Bihar and Jharkhand; **with lightning & gusty winds (speed reaching 30-40 kmph)** at isolated places over Uttarakhand, West Madhya Pradesh, Vidarbha, Chhattisgarh, Odisha, Coastal Andhra Pradesh & Yanam and Telangana.
- ❖ **Heat wave conditions to severe heat wave conditions** likely in some parts over Uttar Pradesh; in isolated pockets over Punjab, Haryana-Chandigarh-Delhi; **Heat wave conditions** in isolated pockets over Jammu division, Himachal Pradesh, East Madhya Pradesh and Jharkhand.
- ❖ **Hot & Humid weather** likely over Bihar and Odisha.
- ❖ **Squally weather with wind speed 35 kmph to 45 kmph gusting to 55 kmph** likely to prevail over central parts of Arabian sea, along off Sri Lanka coast, gulf of Mannar, south & central and adjoining north Bay of Bengal. **Squally weather with wind speed 45 kmph to 55 kmph gusting to 65 kmph** likely to prevail along and off Somalia coast, southwest and adjoining west central Arabian sea, along & off Oman Coast. Fishermen are advised not to venture into these areas.



17 June (Day 4):

- ❖ **Heavy to very heavy rainfall with extremely heavy falls** likely at isolated places over Assam & Meghalaya; **Heavy to very heavy rainfall** likely at isolated places over Sub-Himalayan West Bengal & Sikkim; **heavy rainfall** at isolated places over Odisha, Arunachal Pradesh, Nagaland, Manipur, Mizoram & Tripura and Kerala & Mahe.
- ❖ **Thunderstorm accompanied with lightning & squally winds (speed reaching 50-60 kmph gusting to 70 kmph)** likely at isolated places over Uttarakhand; **with lightning, gusty winds (speed reaching 40-50 kmph)** at isolated places over East Madhya Pradesh, Gangetic West Bengal, Bihar and Jharkhand; **with lightning & gusty winds (speed reaching 30-40 kmph)** at isolated places over East Uttar Pradesh, West Madhya Pradesh, Vidarbha, Chhattisgarh, Odisha, Coastal Andhra Pradesh & Yanam and Telangana.
- ❖ **Heat wave conditions to severe heat wave conditions** likely in some parts over West Uttar Pradesh; in isolated pockets over Punjab, Haryana-Chandigarh-Delhi; **Heat wave conditions** in isolated pockets over East Uttar Pradesh, West Rajasthan and East Madhya Pradesh.
- ❖ **Hot & Humid weather** likely over Odisha.
- ❖ **Squally weather with wind speed 35 kmph to 45 kmph gusting to 55 kmph** likely to prevail over central parts of Arabian sea, along off Sri Lanka coast, gulf of Mannar, south & central and adjoining north Bay of Bengal. **Squally weather with wind speed 45 kmph to 55 kmph gusting to 65 kmph** likely to prevail along and off Somalia coast, southwest and adjoining west central Arabian sea. Fishermen are advised not to venture into these areas.

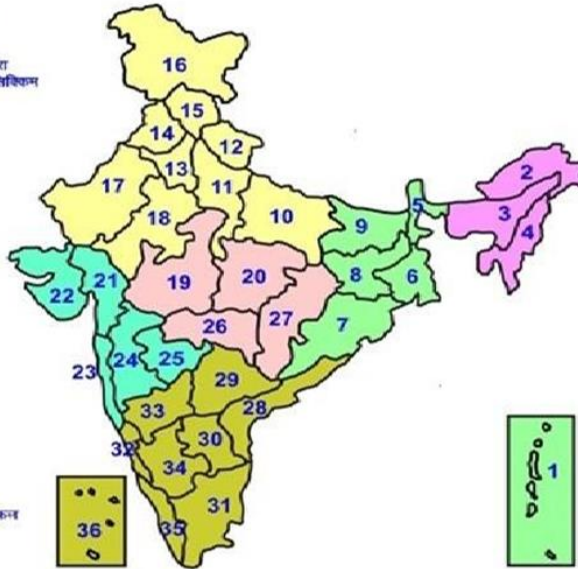


18 June (Day 5):

- ❖ **Heavy to very heavy rainfall with extremely heavy falls** likely at isolated places over Arunachal Pradesh, Assam & Meghalaya; **Heavy to very heavy rainfall** at isolated places over Sub-Himalayan West Bengal & Sikkim; **heavy rainfall** at isolated places over Gangetic West Bengal, Odisha, Nagaland, Manipur, Mizoram & Tripura, Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe.
- ❖ **Thunderstorm accompanied with lightning & squally winds (speed reaching 50-60 kmph gusting to 70 kmph)** likely at isolated places over Uttarakhand; **with lightning, gusty winds (speed reaching 40-50 kmph)** at isolated places over East Madhya Pradesh, Gangetic West Bengal, Bihar and Jharkhand; **with lightning & gusty winds (speed reaching 30-40 kmph)** at isolated places over East Uttar Pradesh, West Madhya Pradesh, Vidarbha, Chhattisgarh, Odisha, Coastal Andhra Pradesh & Yanam and Telangana.
- ❖ **Heat wave conditions** likely in isolated pockets over Punjab, Haryana-Chandigarh-Delhi, West Uttar Pradesh and West Rajasthan.
- ❖ **Squally weather with wind speed 35 kmph to 45 kmph gusting to 55 kmph** likely to prevail over central parts of Arabian sea, along off Sri Lanka coast, gulf of Mannar, south & central and adjoining north Bay of Bengal. **Squally weather with wind speed 45 kmph to 55 kmph gusting to 65 kmph** likely to 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 सागरा
- 23 कोंकण एवं गोवा
- 24 मध्य महाराष्ट्र
- 25 मराठवाड़ा
- 26 विदर्भ
- 27 छत्तीसगढ़
- 28 आंध्र प्रदेश एवं यानम
- 29 तेलंगाना
- 30 तेलंगाना
- 31 तमिलनाडु, पुदुचेरी एवं कराईकल
- 32 आंतरिक उत्तरी कर्नाटक
- 33 आंतरिक दक्षिणी कर्नाटक
- 34 केरल एवं माहे
- 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)
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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)

* 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)