

Tuesday, June 11, 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 continues to pass through 20.5°N/60°E, 20.5°N/65°E, Dahanu, Nasik, Chhatrapati Sambhajanagar, Nizamabad, 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 more parts of north Arabian Sea, some parts of South Gujarat and some more parts of Maharashtra during next 24 hours.

#### Weather Systems and Forecast & Warnings:

- ❖ A cyclonic circulation lies over northeast Assam & neighbourhood in lower & middle tropospheric levels and a trough runs from northwest Bihar to Nagaland 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 11<sup>th</sup>-15<sup>th</sup>; Nagaland, Manipur, Mizoram & Tripura during 13<sup>th</sup>-15<sup>th</sup> June, 2024.
  - ✓ Isolated **very heavy rainfall** also likely over Assam & Meghalaya and Sub-Himalayan West Bengal & Sikkim during 11<sup>th</sup>-15<sup>th</sup> and Arunachal Pradesh during 13<sup>th</sup>-15<sup>th</sup> 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, Odisha during 12<sup>th</sup>-15<sup>th</sup>; Madhya Pradesh, Vidarbha, Chhattisgarh during 11<sup>th</sup>-15<sup>th</sup> June, 2024.
  - ✓ Isolated **hailstorm and squally winds (50-60 kmph)** very likely over south Madhya Pradesh on 11<sup>th</sup> 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, Telangana, Kerala & Mahe, Lakshadweep; isolated light to moderate rainfall over Coastal Andhra Pradesh & Yanam, Rayalaseema, Tamil Nadu, Puducherry & Karaikal during next 4-5 days.
  - ✓ Isolated **heavy rainfall** very likely over Konkan & Goa, Madhya Maharashtra, Marathwada, Rayalaseema & Telangana on 11<sup>th</sup>; Kerala & Mahe on 11<sup>th</sup> & 12<sup>th</sup>; Karnataka during 11<sup>th</sup>-13<sup>th</sup>; Coastal Andhra Pradesh & Yanam on 13<sup>th</sup> June, 2024.
  - ✓ Isolated **very heavy rainfall** also very likely Konkan & Goa and North Interior Karnataka on 11<sup>th</sup>; Kerala & Mahe and Coastal Karnataka on 11<sup>th</sup> & 12<sup>th</sup> June, 2024.
- ❖ **Strong surface** winds (speed reaching 25-35 kmph) very likely over Rajasthan, Uttar Pradesh, south Haryana during 11<sup>th</sup>-15<sup>th</sup> June, 2024.

#### Maximum temperatures ( $\geq 42^{\circ}\text{C}$ ):

- ❖ Yesterday, Maximum temperatures were in the range of 42-45°C over many parts of Rajasthan, Punjab & Delhi; in some parts of Haryana, Uttar Pradesh and in isolated places over Bihar, Jharkhand, Gangetic West Bengal & East Madhya Pradesh. These were above normal by 3-5°C over some parts of these regions.

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

- ❖ **Heat wave conditions** very likely in isolated to some pockets of Jammu Division, Uttarakhand, Punjab, Haryana-Chandigarh-Delhi, Jharkhand, Odisha during 11<sup>th</sup>-15<sup>th</sup>; Himachal Pradesh and Madhya Pradesh during 12<sup>th</sup>-15<sup>th</sup>; Rajasthan on 12<sup>th</sup> & 13<sup>th</sup> June, 2024.
- ❖ **Heat wave conditions** very likely at many parts of Gangetic West Bengal during 11<sup>th</sup>-13<sup>th</sup> with **heat wave to severe heat wave conditions** in isolated pockets on 11<sup>th</sup> & 12<sup>th</sup>; **heat wave to severe heat wave conditions** in some parts of Bihar on 11<sup>th</sup> & 12<sup>th</sup> and isolated **heat wave** during 13<sup>th</sup>-15<sup>th</sup>; **Heat wave to severe heat wave conditions** in some parts of Uttar Pradesh during 11<sup>th</sup>-15<sup>th</sup> June, 2024.
- ❖ **Warm Night** very likely to prevail over isolated pockets of East Madhya Pradesh on 11<sup>th</sup> & 12<sup>th</sup> June, 2024.

## Main Weather Observations:

- ❖ **Rainfall distribution** (from 0830 hours IST to 1730 hours IST of yesterday): **at many places** over Kerala & Mahe; **at a few places** over Andaman & Nicobar Islands, Sub-Himalayan West Bengal & Sikkim, Coastal Karnataka and **at isolated places** over Uttarakhand, Tamil Nadu, Puducherry & Karaikal, Interior Karnataka, Telangana, Konkan & Goa, Madhya Maharashtra, Marathwada, Chhattisgarh, Assam & Meghalaya, Arunachal Pradesh, Nagaland, Manipur, Mizoram & Tripura, Lakshadweep, Gangetic West Bengal.
- ❖ **Significant amount of rainfall** (from 0830 hours IST to 1730 hours IST of yesterday) (in cm): **Kerala & Mahe:** Palakkat-5, Wayanad, Kasaragod-4 each, Ernakulam- 3, Kannur -2; **Madhya Maharashtra:** Ahmednagar- 5, Solapur-4; **Tripura:** West Tripura-5, Gomati- 3, North Tripura-2, **Andaman & Nicobar Islands:** North middle Andaman & South Andaman -4 each; **Coastal Karnataka:** Honnavar-3, Manglore-3, Shirali-2.
- ❖ Yesterday, **heat wave to severe heat wave** conditions prevailed over some parts of Gangetic West Bengal; **heat wave** conditions over some parts of Uttar Pradesh & South Bihar and in isolated parts of Delhi & Jharkhand.
- ❖ **Minimum Temperature Departures (as on 10-06-2024):** Minimum temperatures were **appreciably above normal (3.1°C to 5.0°C)** at a few places over East Madhya Pradesh; at isolated places over West Uttar Pradesh, Jharkhand, Odisha, Gangetic West Bengal, Bihar, Assam & Meghalaya, Kerala & Mahe and Haryana-Chandigarh-Delhi; **above normal (1.6°C to 3.0°C)** at isolated places over Andaman & Nicobar Islands, Rajasthan, Gujarat State, Chhattisgarh, Telangana, Coastal Andhra Pradesh & Yanam, Sub-Himalayan West Bengal & Sikkim and Lakshadweep. These were **appreciably below normal (-3.1°C to -5.0°C)** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad; **below normal (-1.6°C to -3.0°C)** at isolated places over Himachal Pradesh, East Uttar Pradesh, West Madhya Pradesh, Vidarbha, Madhya Maharashtra, Konkan & Goa, Marathwada and Tamil Nadu, Puducherry & Karaikal and **near normal** over rest parts of the country. Yesterday, **the lowest minimum temperature** of 20.0°C was reported at **Narnaul (Haryana)** over the plains of the country.
- ❖ **Maximum Temperature Departures (as on 10-06-2024):** Maximum temperatures were **Markedly above normal (5.1°C or more)** at a few places over East Uttar Pradesh, Gangetic West Bengal, at isolated places over Bihar, Jharkhand, Odisha; **appreciably above normal (3.1°C to 5.0°C)** at many places over Punjab, Delhi; at a few places over West Uttar Pradesh and at isolated places over Vidarbha, Saurashtra & Kutch; **above normal (1.6°C to 3.0°C)** at a few places over Assam & Meghalaya, Chhattisgarh, Rajasthan, at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Haryana, Telangana, Himachal Pradesh, Gujarat Region. These were **markedly below normal (-5.1°C or less)** at isolated places over Madhya Maharashtra; **appreciably below normal (-3.1°C to -5.0°C)** at isolated places over West Madhya Pradesh, Rayalaseema; **below normal (-1.6°C to -3.0°C)** at a few places over Konkan & Goa, Andaman & Nicobar Islands; at isolated places over North Interior Karnataka, Coastal Karnataka, Coastal Andhra Pradesh & Yanam, Nagaland, Manipur, Mizoram & Tripura and **near normal** over rest parts of the country. Yesterday, **the highest maximum temperature** of 46.3°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 20.5°N/60°E, 20.5°N/65°E, Dahanu, Nasik, Chhatrapati Sambhajnagar, Nizamabad, 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 more parts of north Arabian Sea, some parts of South Gujarat and some more parts of Maharashtra during next 24 hours.
- ❖ The Western Disturbance as a trough in middle tropospheric westerlies with its axis at 5.8 km above mean sea level now runs roughly along Long. 72°E to the north of Lat. 30°N.
- ❖ The cyclonic circulation over northwest Uttar Pradesh extending upto 3.1 km above mean sea level persists.
- ❖ The east-west trough from northwest Bihar to Nagaland across Sub-Himalayan West Bengal and south Assam at 0.9 km above mean sea level persists.
- ❖ The cyclonic circulation over northeast Assam & neighbourhood at 3.1 km above mean sea level persists.
- ❖ The cyclonic circulation over Marathwada & neighbourhood at 3.1 km above mean sea level persists.
- ❖ The shear zone roughly along 18°N between 3.1 & 5.8 km above mean sea level persists.

### Weather Forecast for next 7 days (Upto 0830 hours IST of 18<sup>th</sup> June, 2024)

- ❖ Meteorological sub-division wise detailed 7 days rainfall forecast is given in Table-1.
- ❖ Gradual rise in maximum temperatures by 2-3°C very likely over Northwest & Central India during next 5 days.
- ❖ No significant change in maximum temperatures very likely over rest parts of the country.

### Weather Outlook for subsequent 3 days (During 18<sup>th</sup>-20<sup>th</sup> 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	11- Jun	12- Jun	13- Jun	14- Jun	15- Jun	16- Jun	17- Jun
		Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
1	ANDAMAN & NICOBAR ISLANDS	WS	WS	FWS	FWS	WS	WS	WS
2	ARUNACHAL PRADESH	FWS	FWS	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	ISOL	SCT	FWS	FWS	FWS
7	ODISHA	ISOL	ISOL	ISOL	ISOL	SCT	SCT	SCT
8	JHARKHAND	ISOL	ISOL	SCT	SCT	SCT	SCT	ISOL
9	BIHAR	ISOL	ISOL	ISOL	SCT	SCT	FWS	SCT
10	EAST UTTAR PRADESH	DRY	DRY	DRY	ISOL	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	ISOL
16	JAMMU & KASHMIR AND LADAKH	DRY	DRY	DRY	DRY	ISOL	ISOL	SCT
17	WEST RAJASTHAN	ISOL	DRY	DRY	DRY	DRY	DRY	DRY
18	EAST RAJASTHAN	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL	DRY
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	WS	WS	WS	FWS	FWS	FWS	FWS
24	MADHYA MAHARASHTRA	FWS	SCT	SCT	SCT	SCT	SCT	ISOL
25	MARATHAWADA	FWS	SCT	ISOL	ISOL	ISOL	ISOL	ISOL
26	VIDARBHA	SCT	ISOL	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	FWS	FWS	SCT	SCT	SCT	SCT	SCT
30	RAYALASEEMA	SCT	SCT	ISOL	ISOL	SCT	SCT	FWS
31	TAMILNADU PUDUCHERRY & KARAIKAL	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
32	COASTAL KARNATAKA	WS	WS	WS	WS	FWS	FWS	FWS
33	NORTH INTERIOR KARNATAKA	WS	FWS	FWS	FWS	SCT	SCT	SCT
34	SOUTH INTERIOR KARNATAKA	SCT	FWS	FWS	FWS	SCT	SCT	FWS
35	KERALA & MAHE	WS	WS	FWS	FWS	FWS	FWS	WS
36	LAKSHADWEEP	FWS	FWS	FWS	FWS	FWS	FWS	FWS

Legend	Category	% Stations
WS	Widespread/Most Places	76-100
FWS	Fairly Widespread/Many Places	51-75
SCT	Scattered/ A Few Places	26-50
ISOL	Isolated Places	1-25
DRY	No Rain	0

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Fig. 1: Maximum Temperatures

Fig. 2: Departure of Maximum Temperatures

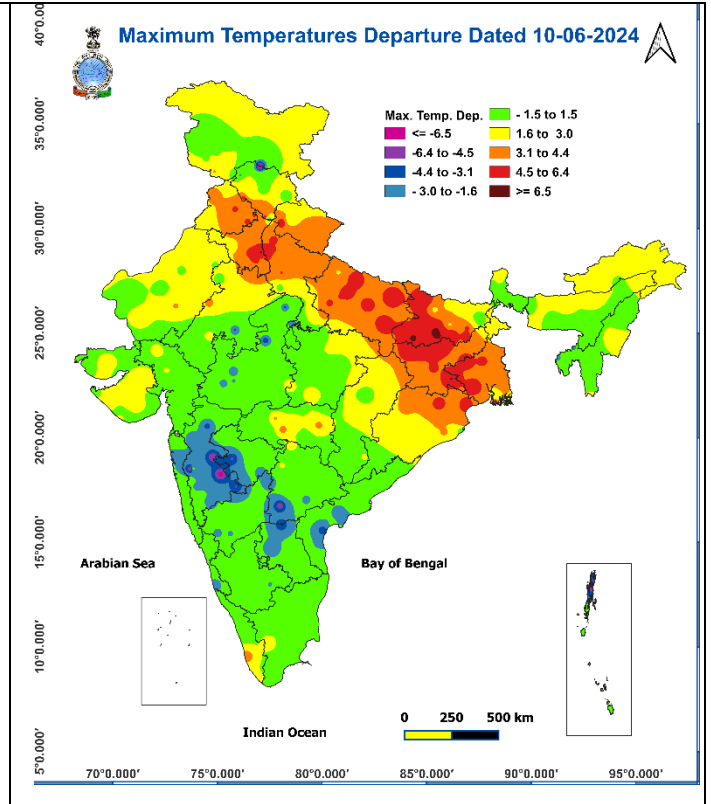
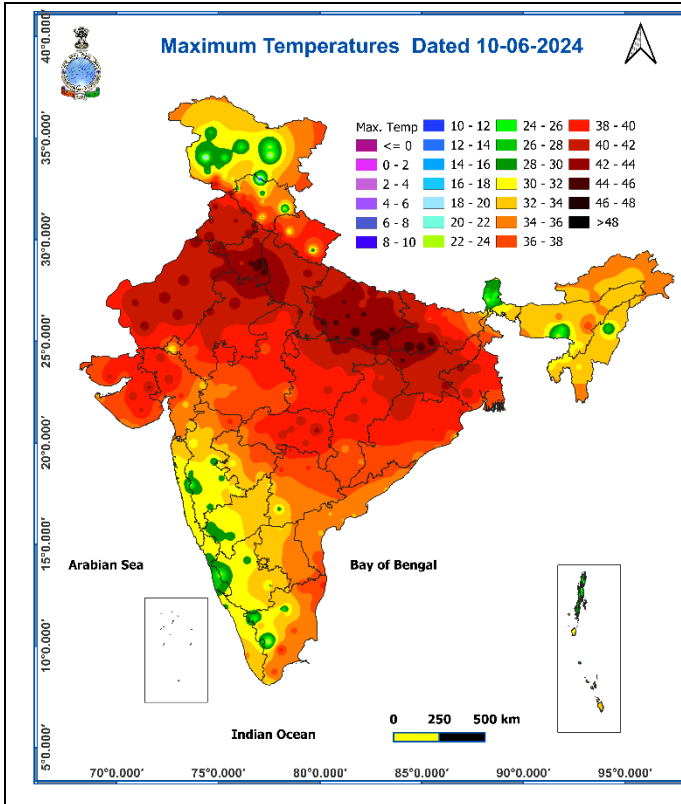


Fig. 3: Minimum Temperatures

Fig. 4: Departure of Minimum Temperatures

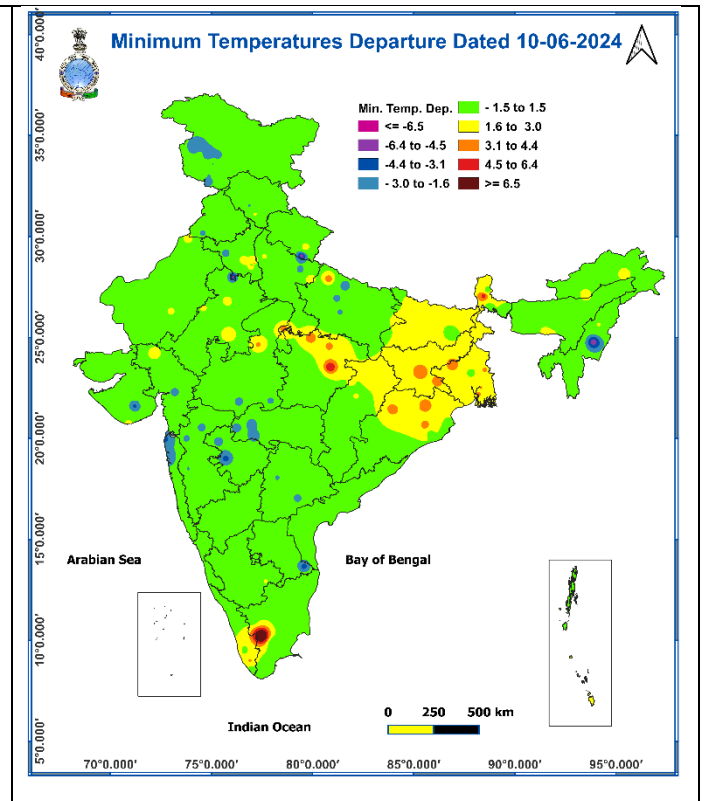
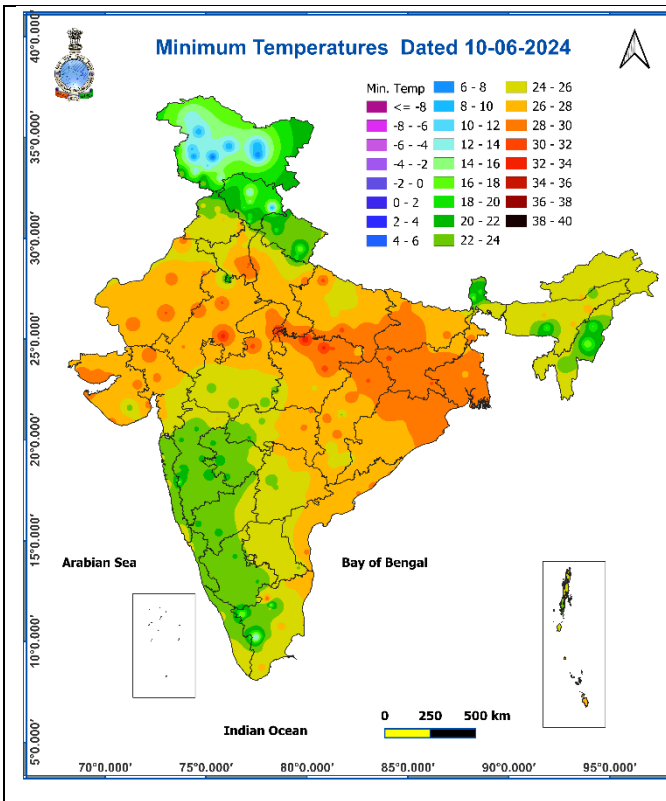
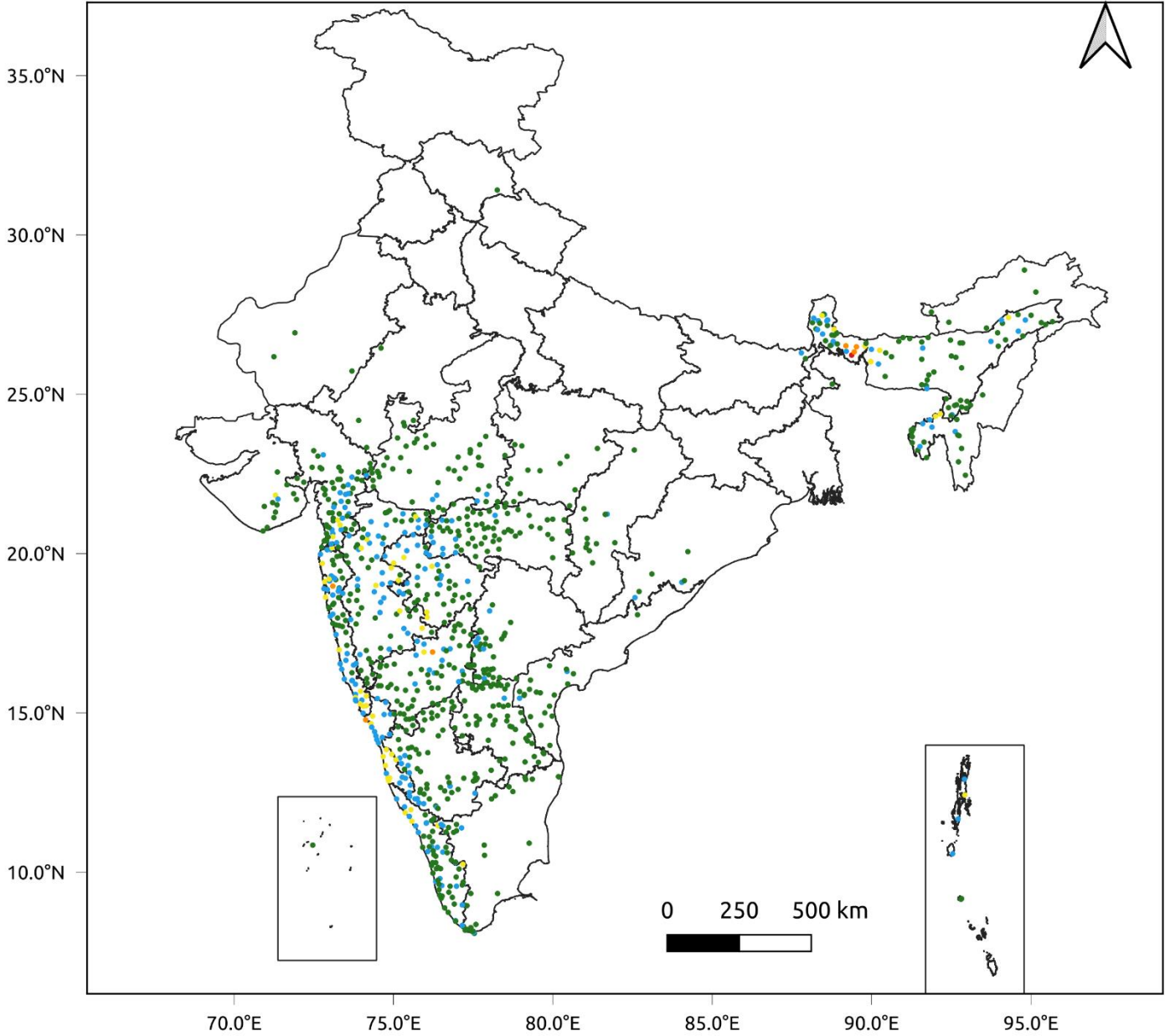


Fig. 5: Accumulated Rainfall (mm) during past 24 hours



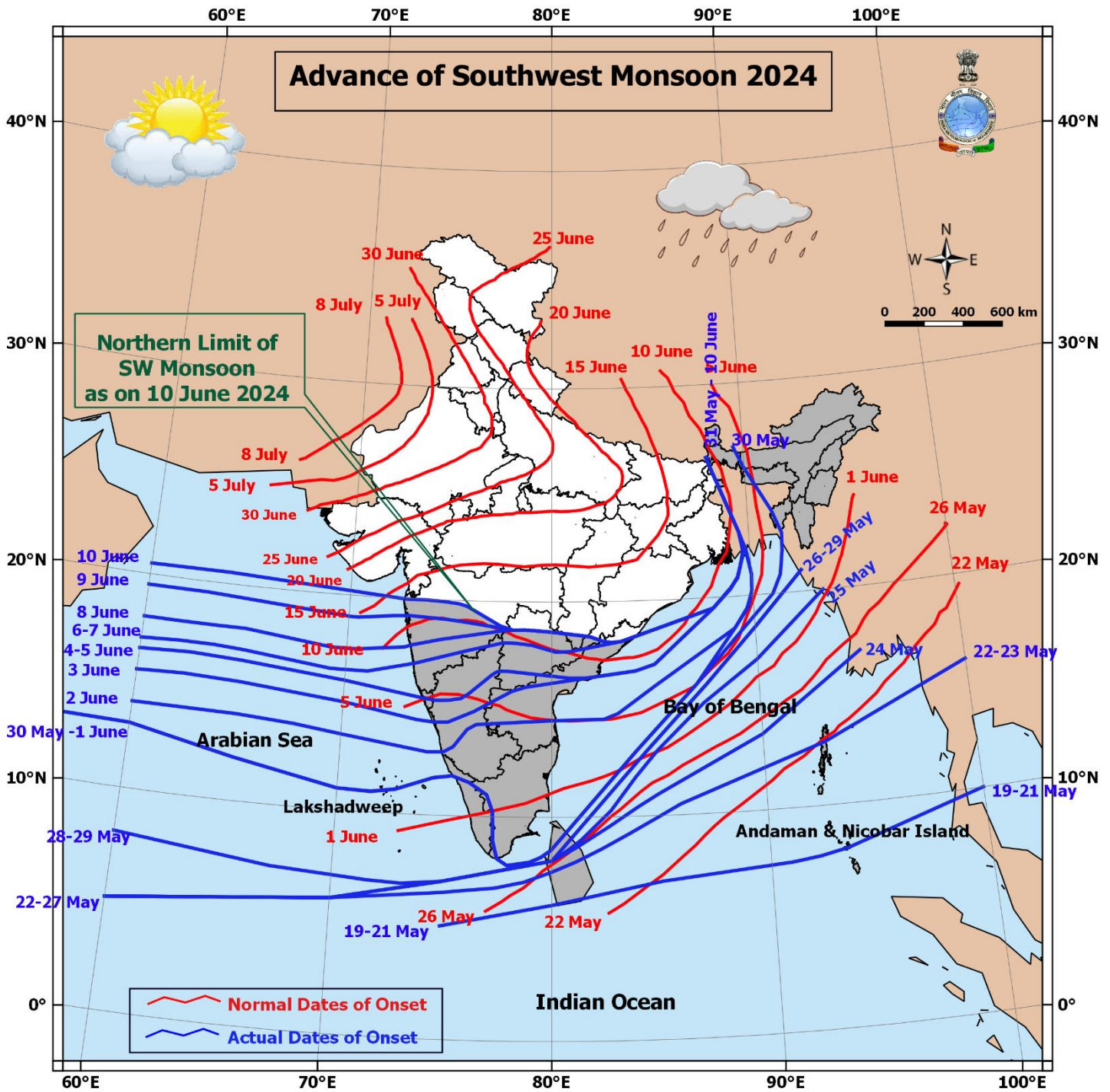
24 Hr cumulative rainfall recorded over different stations during 0830 IST of 9-6-2024 to 0830 IST of 10-6-2024



## Legends

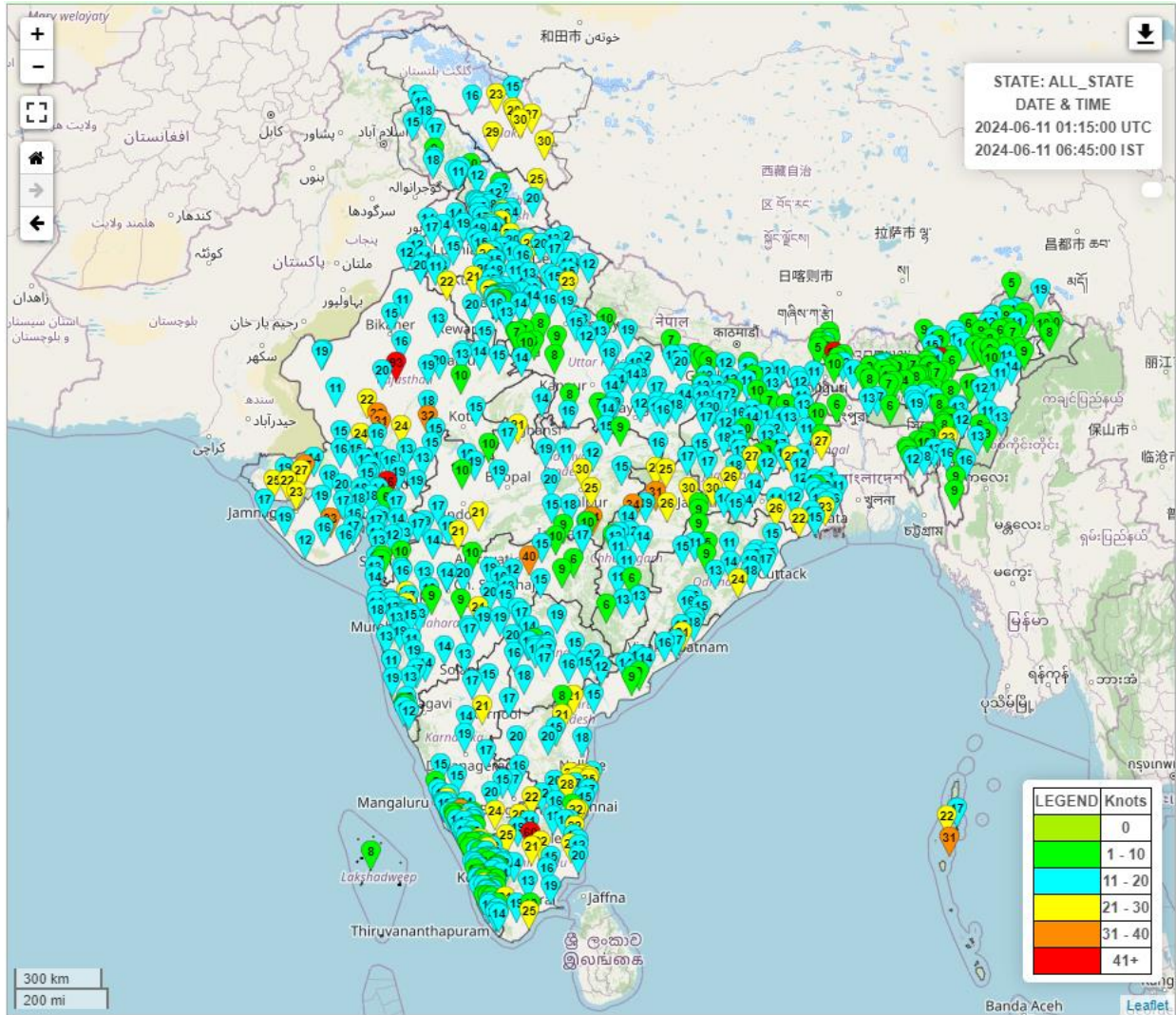
- Very Light to Light Rainfall (0.1 - 15.5 mm)
- Moderate Rainfall (15.6 - 64.4 mm)
- Heavy Rainfall (64.5 - 115.5 mm)
- Very Heavy Rainfall (115.6 - 204.4 mm)
- Extremely Heavy Rainfall ( $\geq 204.5$  mm)

**Fig. 6: Advance of Southwest Monsoon 2024**



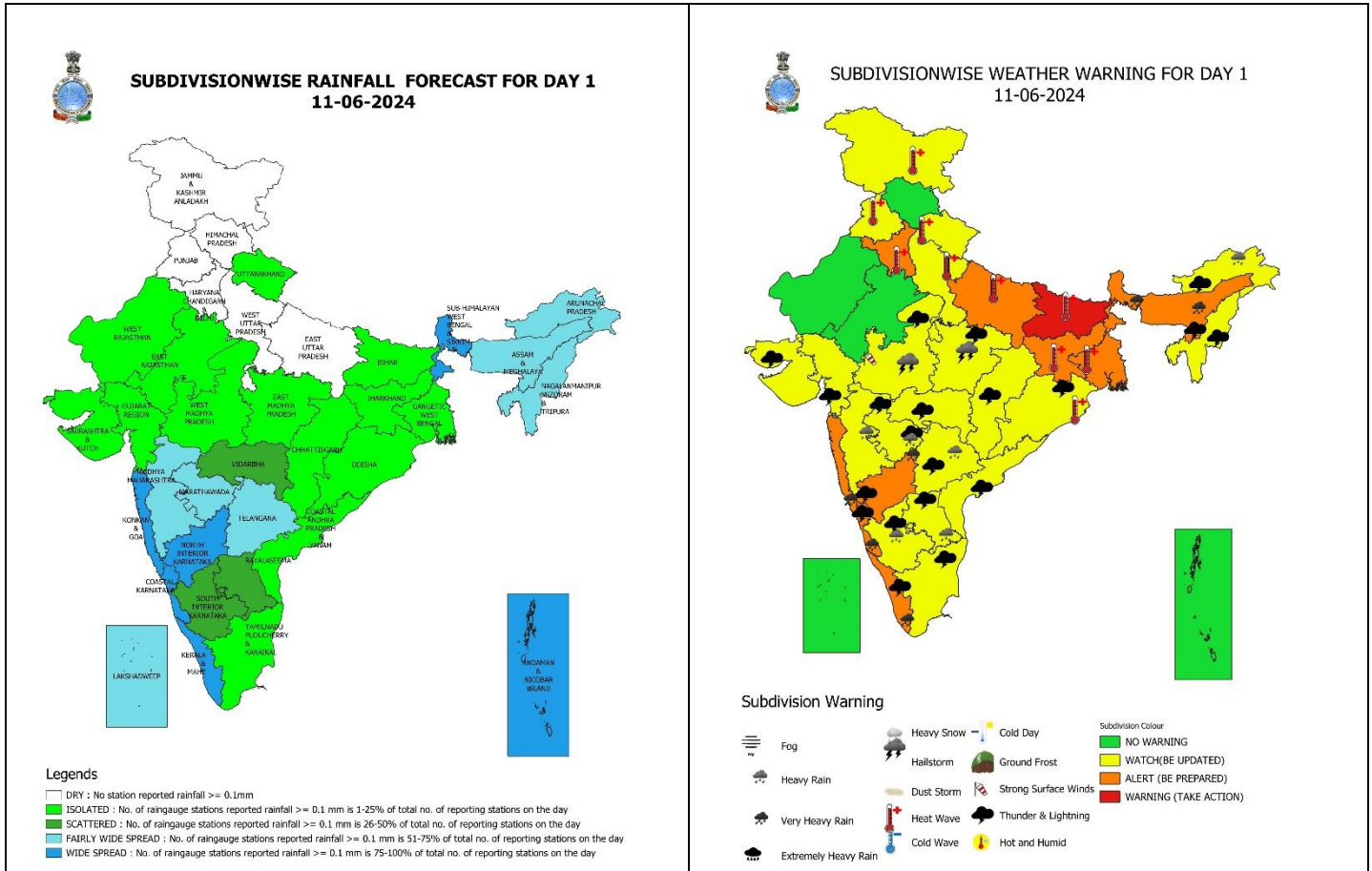
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**Fig. 7: Gusty winds reported over the country (in knots) from 0830 hours IST of 10.06.2024 to 0645 hours IST of 11.06.2024**



**1 Knot = 1.852 kmph**

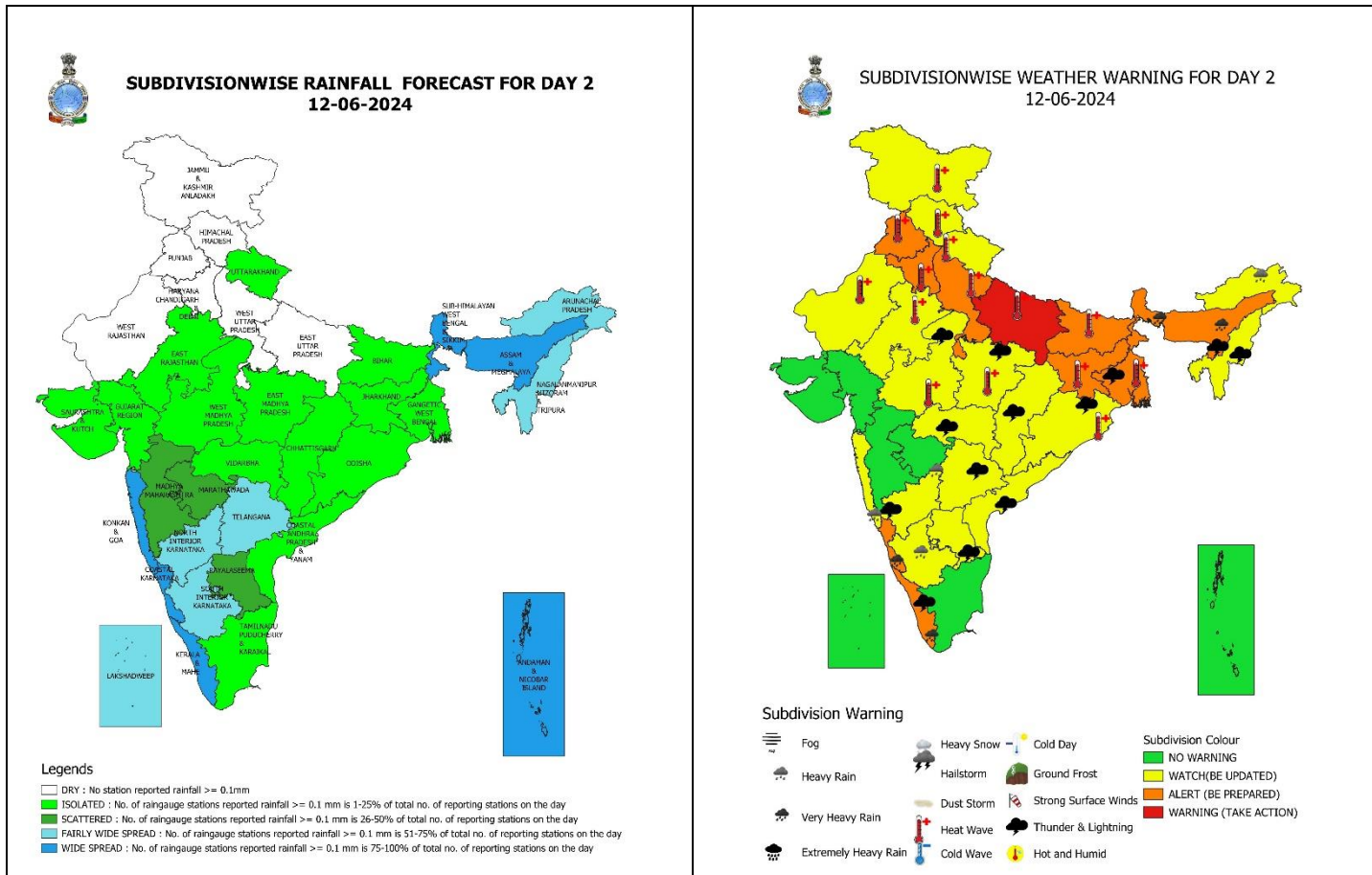
For more details, kindly refer: <http://aws.imd.gov.in:8091/>



**11 June (Day 1):**

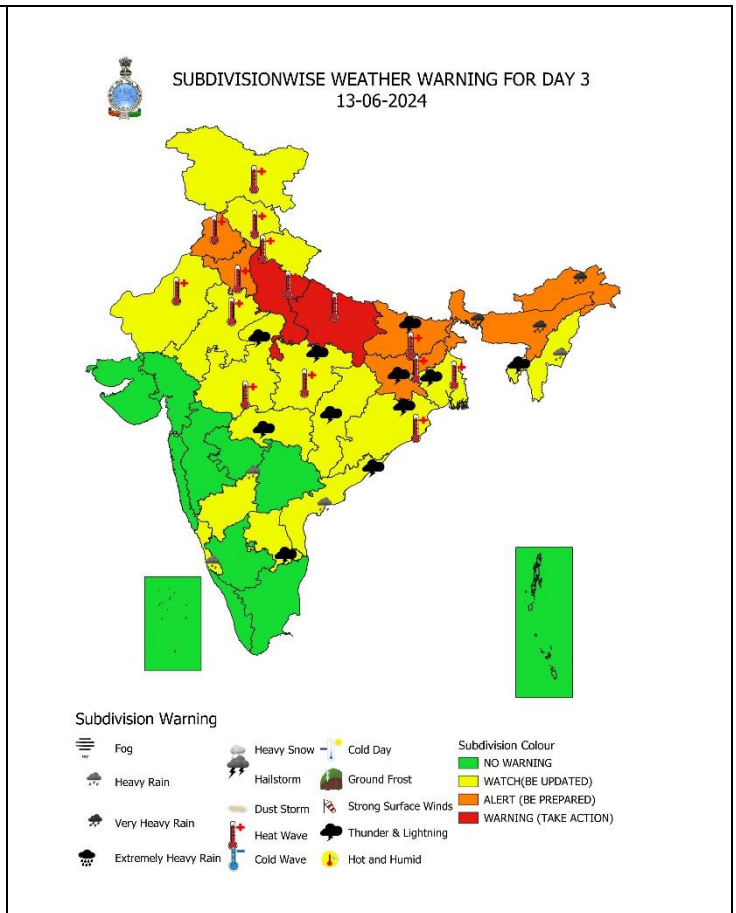
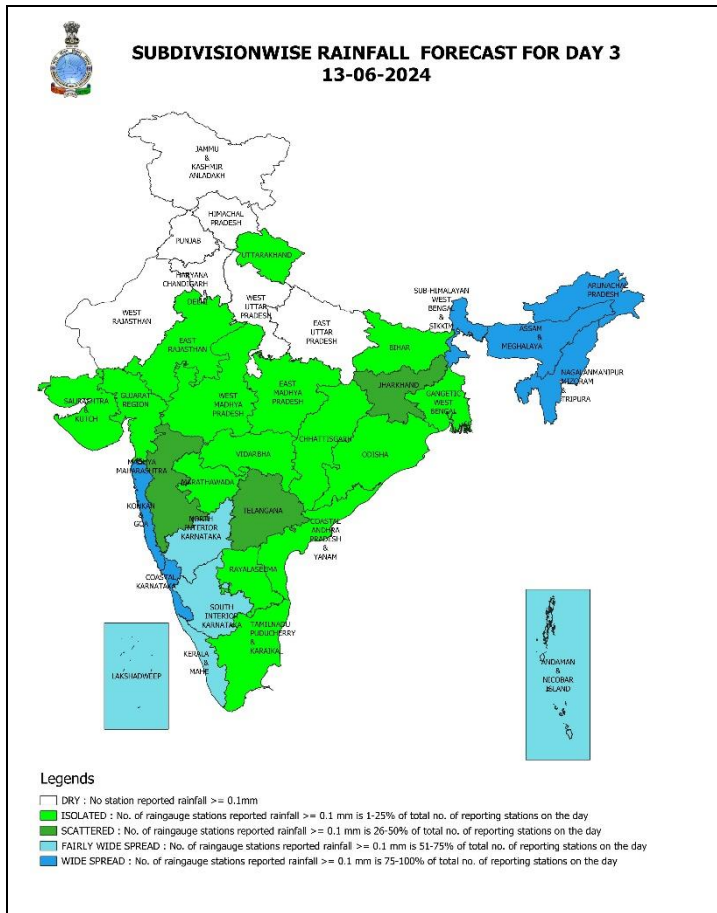
- ❖ **Heavy to very heavy rainfall** very likely at isolated places over Sub-Himalayan West Bengal & Sikkim, Assam & Meghalaya, Konkan & Goa, Coastal & North Interior Karnataka and Kerala & Mahe; **heavy rainfall** at isolated places over Arunachal Pradesh, Madhya Maharashtra, Marathwada, Rayalaseema, Telangana and South Interior Karnataka.
- ❖ **Thunderstorm accompanied with lightning, squall (speed reaching 50-60 kmph) & hailstorm** very likely at isolated places over Madhya Pradesh; **with lightning & gusty winds (speed reaching 40-50 kmph)** at isolated places over Vidarbha and Chhattisgarh; **with lightning & gusty winds (speed reaching 30-40 kmph)** at isolated places over Bihar, Odisha, Coastal Andhra Pradesh & Yanam, Rayalaseema, Telangana and Interior Karnataka; **with lightning** at isolated places over Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Madhya Maharashtra, Marathwada, Gujarat state, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe and Coastal Karnataka.
- ❖ **Heat wave conditions at many places with severe heat wave conditions** very likely at isolated places over Gangetic West Bengal; **Heat wave to severe heat wave conditions** very likely to prevail in some parts of East Uttar Pradesh and Bihar; **Heat wave conditions** very likely to prevail in some parts of Jharkhand; in isolated pockets of Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Uttarakhand, Punjab, Haryana-Chandigarh-Delhi, West Uttar Pradesh and Odisha.
- ❖ **Warm night conditions** very likely to prevail in isolated places over East Madhya Pradesh.
- ❖ **Squally weather with wind speed 35 kmph to 45 kmph gusting to 55 kmph** very likely to prevail over southern parts of eastcentral and northern parts of southeast Arabian sea and adjoining sea areas, along and off Maharashtra, Konkan, goa, Karnataka, Kerala coasts, adjoining Lakshadweep, Comorin areas, off Sri Lanka coast, south and central Bay of Bengal, off Tamil Nadu, off south Andhra Pradesh coasts, north Andaman Sea. **Squally weather with wind speed 45 kmph to 55 kmph gusting to 65 kmph** very likely to prevail over gulf of Mannar, northern parts of southwest Bay of Bengal and adjoining westcentral Bay of Bengal. **Squally wind 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.

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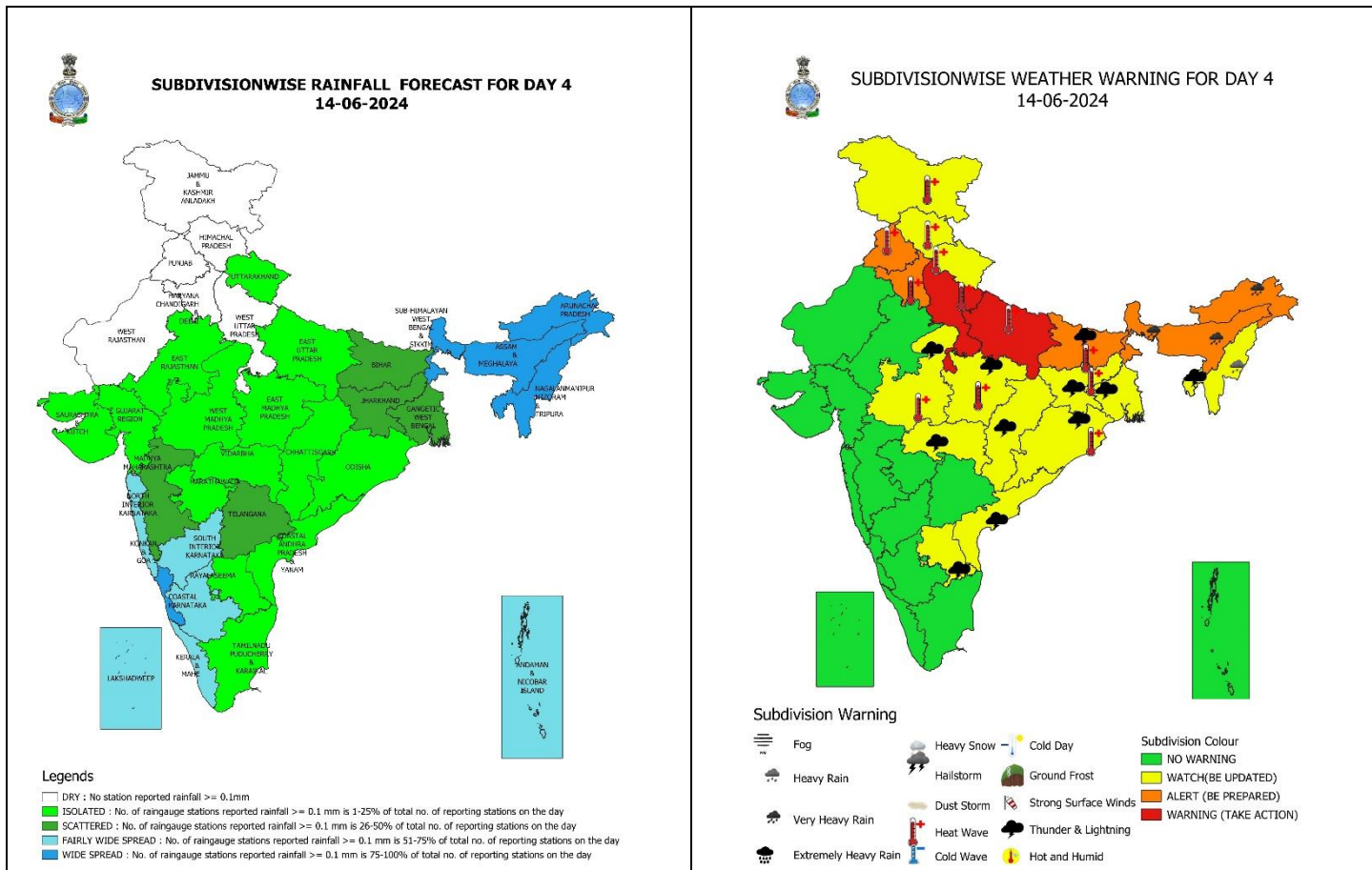
**12 June (Day 2):**

- ❖ **Heavy to very heavy rainfall** very likely at isolated places over Sub-Himalayan West Bengal & Sikkim, Assam & Meghalaya, Kerala & Mahe and Coastal Karnataka; **heavy rainfall** at isolated places over Arunachal Pradesh, Konkan & Goa and Interior Karnataka.
- ❖ **Thunderstorm accompanied with lightning & gusty winds (speed reaching 40-50 kmph)** very likely at isolated places over Madhya Pradesh; **with lightning & gusty winds (speed reaching 30-40 kmph)** at isolated places over Vidarbha, Coastal Andhra Pradesh & Yanam, Rayalaseema, Telangana and North Interior Karnataka; **with lightning** at isolated places over Chhattisgarh, Gangetic West Bengal, 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 Bihar; in isolated pockets of Gangetic West Bengal and **Heat wave conditions** in some parts of Jharkhand; in isolated pockets of Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand, Punjab, Haryana-Chandigarh-Delhi, Rajasthan and Madhya Pradesh and Odisha.
- ❖ **Warm night conditions** very likely to prevail in isolated places over 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, along and off south Maharashtra, Konkan, goa, Karnataka, Kerala coasts, adjoining Lakshadweep, Comorin areas, off Sri Lanka coast, south and central Bay of Bengal, off Tamil Nadu, off south Andhra Pradesh coasts, north Andaman Sea. **Squally weather with wind speed 45 kmph to 55 kmph gusting to 65 kmph** likely to prevail over gulf of Mannar, northern parts of southwest Bay of Bengal, southern parts of central Bay of Bengal. **Squally wind 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.



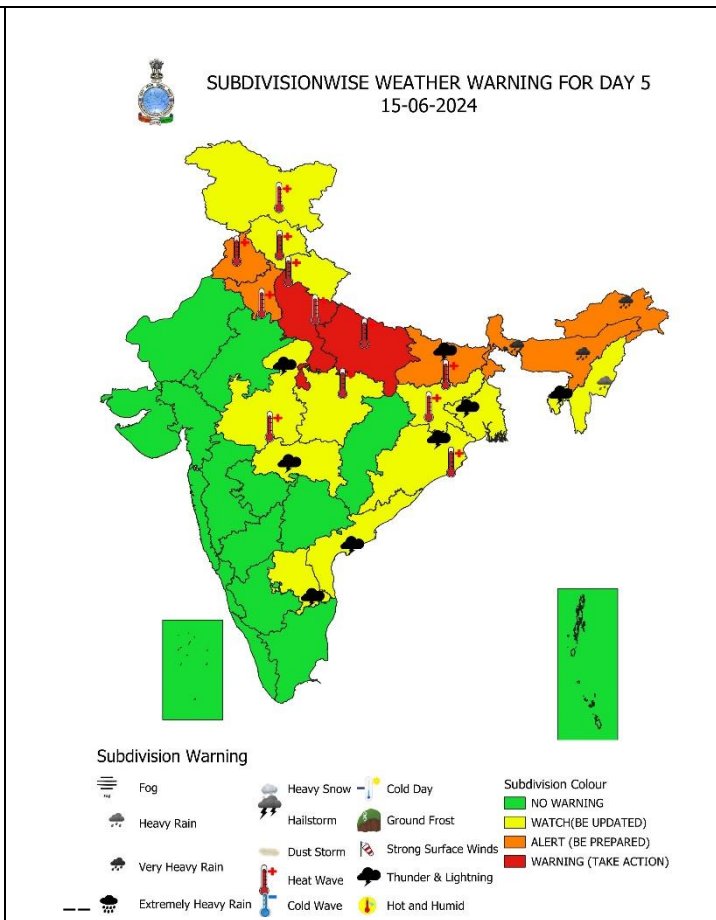
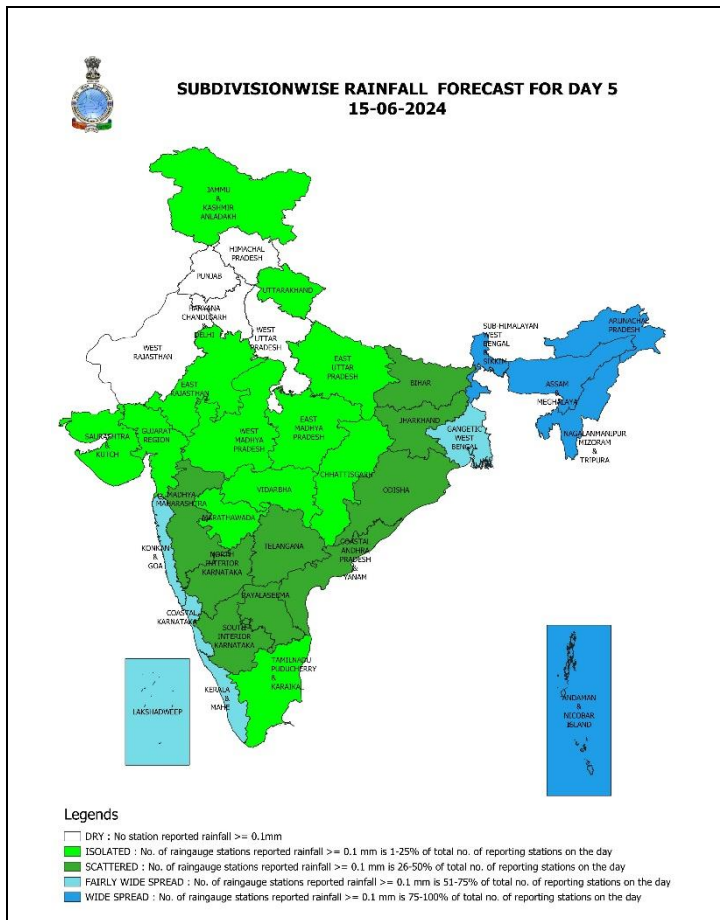
### 13 June (Day 3):

- ❖ **Heavy to very heavy rainfall** very likely at isolated places over Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh and Assam & Meghalaya; **heavy rainfall** at isolated places over Tripura & Nagaland, Coastal Andhra Pradesh & Yanam, Coastal & North Interior Karnataka.
- ❖ **Thunderstorm accompanied with lightning & gusty winds (speed reaching 30-40 kmph)** very likely at isolated places over West Madhya Pradesh, Vidarbha, Gangetic West Bengal, Bihar, Jharkhand, Odisha, Coastal Andhra Pradesh & Yanam and Rayalaseema; **with lightning** at isolated places over East Madhya Pradesh, Chhattisgarh and Nagaland, Manipur, Mizoram & Tripura.
- ❖ **Heat wave to severe heat wave conditions** very likely to prevail in some parts of Uttar Pradesh; **Heat wave conditions** in some parts of Jharkhand; in isolated pockets of Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand, Punjab, Haryana-Chandigarh-Delhi, Rajasthan, Madhya Pradesh, Gangetic West Bengal, Bihar and 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, off Sri Lanka coast, gulf of Mannar, south, central Bay of Bengal & adjoining north Bay of Bengal, off Tamil Nadu, off Andhra Pradesh coasts. **Squally weather with wind speed 45 kmph to 55 kmph gusting to 65 kmph** likely to prevail over central Bay of Bengal. **Squally wind 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.



**14 June (Day 4):**

- ❖ **Heavy to very heavy rainfall** likely at isolated places over Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh and Assam & Meghalaya; **heavy rainfall** at isolated places over Nagaland, Manipur, Mizoram & Tripura.
- ❖ **Thunderstorm accompanied with lightning & gusty winds (speed reaching 40-50 kmph)** likely at isolated places over Gangetic West Bengal and Bihar; **with lightning & gusty winds (speed reaching 30-40 kmph)** at isolated places over West Madhya Pradesh, Vidarbha, Jharkhand, Odisha, Coastal Andhra Pradesh & Yanam and Rayalaseema; **with lightning** at isolated places over East Madhya Pradesh, Chhattisgarh and Nagaland, Manipur, Mizoram & Tripura.
- ❖ **Heat wave to severe heat wave conditions** likely to prevail in some parts of Uttar Pradesh; **Heat wave conditions** in isolated pockets of Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand, Punjab, Haryana-Chandigarh-Delhi, Madhya Pradesh, Bihar, Jharkhand 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, off Sri Lanka coast, gulf of Mannar, south, central Bay of Bengal & adjoining north Bay of Bengal, off Tamil Nadu, off Andhra Pradesh coasts. **Squally weather with wind speed 45 kmph to 55 kmph gusting to 65 kmph** likely to prevail over westcentral Bay of Bengal. **Squally wind 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.

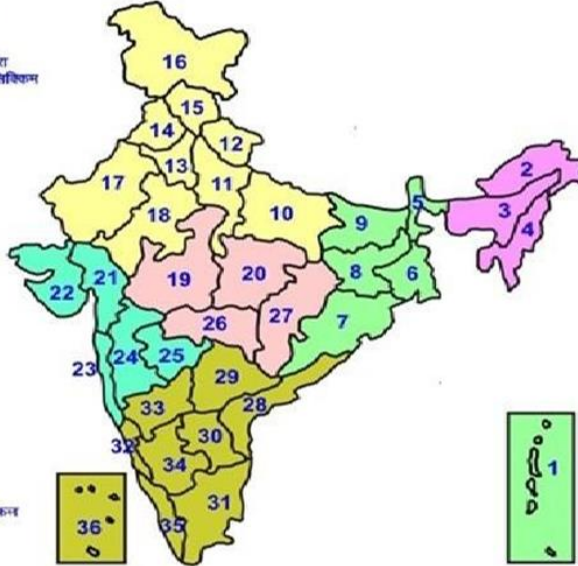


**15 June (Day 5):**

- ❖ **Heavy to very heavy rainfall** likely at isolated places over Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh and Assam & Meghalaya; **heavy rainfall** at isolated places over Nagaland, Manipur, Mizoram & Tripura.
- ❖ **Thunderstorm accompanied with lightning & gusty winds (speed reaching 40-50 kmph)** likely at isolated places over Gangetic West Bengal and east Bihar; **with lightning & gusty winds (speed reaching 30-40 kmph)** at isolated places over West Madhya Pradesh, Vidarbha, Odisha, Coastal Andhra Pradesh & Yanam and Rayalaseema; **with lightning** at isolated places over Nagaland, Manipur, Mizoram & Tripura.
- ❖ **Heat wave to severe heat wave conditions** likely to prevail in some parts of Uttar Pradesh; **Heat wave conditions** in isolated pockets of Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand, Punjab, Haryana-Chandigarh-Delhi, north Madhya Pradesh, south Bihar, Jharkhand and north Odisha.
- ❖ **Squally weather with wind speed 35 kmph to 45 kmph gusting to 55 kmph** likely to prevail over central parts of Arabian sea, off Sri Lanka coast, gulf of Mannar, south, central Bay of Bengal & adjoining north Bay of Bengal, off Tamil Nadu, off Andhra Pradesh coasts. **Squally weather with wind speed 45 kmph to 55 kmph gusting to 65 kmph** likely to prevail over westcentral Bay of Bengal. **Squally wind 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 उत्तराखण्ड
- 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 सागराश्रम
- 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)
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: 64.5 to 115.5 mm/cm \*  
Very Heavy: 115.6 to 204.4 mm/cm\*  
Extremely Heavy: > 204.4 mm/cm \*

Rain/ Snow \*



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  $4.5^{\circ}\text{C}$  to  $6.4^{\circ}\text{C}$ .

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  $40^{\circ}\text{C}$

Warm Night: When minimum temperature departure  $4.5^{\circ}\text{C}$  to  $6.4^{\circ}\text{C}$ .

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  $-4.5^{\circ}\text{C}$  to  $-6.4^{\circ}\text{C}$ .

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  $-4.5^{\circ}\text{C}$  to  $-6.4^{\circ}\text{C}$ .

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

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