

Wednesday, June 12, 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 20.5°N/60°E, 20.5°N/63°E, 20.5°N/70°E, Navsari, Jalgaon, Akola, Pusad, Ramagundam, 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 Telangana and Chhattisgarh during next 24 hours.

#### Weather Systems and Forecast & Warnings:

- ❖ A cyclonic circulation lies over northeast Assam & neighbourhood in lower tropospheric levels. A trough runs from East Uttar Pradesh to Nagaland and another north-south trough runs roughly along Long. 86°E to the north of Lat. 22°N 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 to very heavy rainfall** very likely over Sub-Himalayan West Bengal & Sikkim, Assam & Meghalaya and isolated **heavy rainfall** over Arunachal Pradesh during next 5 days; Nagaland, Manipur, Mizoram & Tripura during 13<sup>th</sup>-16<sup>th</sup> June, 2024.
  - ✓ Isolated **extremely heavy rainfall** also likely over Sub-Himalayan West Bengal & Sikkim during 12<sup>th</sup>-13<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, Jharkhand, Odisha during next 5 days and increase thereafter. Isolated to scattered light to moderate rainfall accompanied with **thunderstorm, lightning & gusty winds (40-60 kmph)** very likely over Madhya Pradesh, Vidarbha, Chhattisgarh during next 5 days.
- ❖ A shear zone runs roughly along 17°N in lower & middle tropospheric levels. Under its influence:
  - ✓ Scattered to fairly 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 during next 2 days; isolated light to moderate rainfall over Coastal Andhra Pradesh & Yanam, Rayalaseema, Tamil Nadu, Puducherry & Karaikal during next 5 days.
  - ✓ Isolated **heavy rainfall** very likely over Kerala & Mahe, Marathwada, Interior Karnataka, Telangana on 12<sup>th</sup>; Coastal Karnataka during 12<sup>th</sup>-13<sup>th</sup> June, 2024.
  - ✓ Isolated **very heavy rainfall** also very likely North Interior Karnataka on 12<sup>th</sup> June, 2024.

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

- ❖ Yesterday, Maximum temperatures were in the range of 42-46°C over many parts of Punjab, Haryana-Chandigarh-Delhi, West Rajasthan and Uttar Pradesh; in some parts of East Rajasthan and in isolated places over Bihar, Jharkhand, Gangetic West Bengal, Chhattisgarh & East Madhya Pradesh. These were above normal by 3-5°C over these areas.

#### Heat Wave and Warm Night warning for next 5 days:

- ❖ **Heat wave conditions** very likely in isolated to some pockets of Uttarakhand, Punjab, Haryana-Chandigarh-Delhi, Odisha during next 5 days; Himachal Pradesh, Jammu Division, East Madhya Pradesh during 12<sup>th</sup>-13<sup>th</sup>; Rajasthan on 12<sup>th</sup> & 13<sup>th</sup> June, 2024.
- ❖ **Heat wave to severe heat wave conditions** very likely in some parts of Gangetic West Bengal, Bihar, Jharkhand during 12<sup>th</sup>-14<sup>th</sup> and isolated heat wave on 15<sup>th</sup>; **Heat wave to severe heat wave conditions** in some parts of Uttar Pradesh during 12<sup>th</sup>-16<sup>th</sup> June, 2024.
- ❖ **Warm Night** very likely to prevail over isolated pockets of Odisha during 12<sup>th</sup>-14<sup>th</sup> June, 2024.

## Main Weather Observations:

- ❖ **Rainfall distribution** (from 0830 hours IST to 1730 hours IST of yesterday): **at many places** over Konkan & Goa, Kerala & Mahe, Andaman & Nicobar Islands; **at a few places** over Madhya Maharashtra, Coastal Karnataka, South Interior Karnataka and **at isolated places** over Assam & Meghalaya, West Bengal & Sikkim, Chhattisgarh, Madhya Pradesh, Vidarbha, East Rajasthan, North Interior Karnataka, Telangana, Rayalaseema, Tamil Nadu, Puducherry & Karaikal and Lakshadweep.
- ❖ **Significant amount of rainfall** (from 0830 hours IST to 1730 hours IST of yesterday) (in cm): **Sub-Himalayan West Bengal & Sikkim:** Darjeeling-1, **Konkan & Goa:** TBIA (Thane)-3, Mumbai (Colaba)-2, **Madhya Maharashtra:** Mahabaleshwar-4, Sangli-1, **Assam & Meghalaya:** Shillong-1, **Kerala & Mahe:** Pallakkad-2, Karipur & Kozhikode-1 each, **Andaman & Nicobar Islands:** Maya Bandar-3, Long Island-1, **Lakshadweep:** Minicoy-1.
- ❖ Yesterday, **heat wave to severe heat wave conditions** prevailed over many parts of Gangetic West Bengal and East Uttar Pradesh; **heat wave conditions** over some parts of Punjab, Haryana-Chandigarh-Delhi, West Uttar Pradesh, south Bihar, Jharkhand and in isolated pockets of Uttarakhand, Chhattisgarh and northeast Madhya Pradesh.
- ❖ **Reported maximum wind speed** (in knot) (from 0830 hours IST of yesterday to 0530 hours IST of today): **West Bengal:** Raidighi-25, Diamond Harbour-21; **Gujarat State:** Panchmahal-32, Kandla-29, Mandvi-25, Dhari, Targhadia & Jamnagar-24 each; **Maharashtra:** Nimgiri-28, Nandurbar & Gondia-25 each, Yeotmal-24; **Haryana:** Mahendragarh-22, Ujha-21; **Chhattisgarh:** Mahasamund-35, Balod-27, Rajnandgaon-24; **Madhya Pradesh:** Pala-31, Malwa-25; **Rajasthan:** Udaipur-39, Banas-27, Sirohi-26, Ajmer-24; **Ladakh:** Padum & Nyoma-30 each.
- ❖ **Minimum Temperature Departures (as on 11-06-2024):** Minimum temperatures were **appreciably above normal (3.1°C to 5.0°C)** at a few places over Andaman & Nicobar Islands; at isolated places over Rajasthan, Uttar Pradesh, Bihar, Odisha, Gangetic West Bengal; **above normal (1.6°C to 3.0°C)** at isolated places over Haryana-Chandigarh-Delhi, Punjab, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Arunachal Pradesh, Chhattisgarh, Jharkhand, East Madhya Pradesh, Gujarat Region, Vidarbha. 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 Saurashtra & Kutch, Marathwada, Konkan & Goa, Tamil Nadu, Puducherry & Karaikal, Telangana and **near normal** over rest parts of the country. Yesterday, **the lowest minimum temperature** of 24.0°C was reported at **Najibabad (West Uttar Pradesh)** over the plains of the country.
- ❖ **Maximum Temperature Departures (as on 11-06-2024):** Maximum temperatures were **Markedly above normal (5.1°C or more)** at a few places over Punjab, Haryana-Chandigarh-Delhi, East Uttar Pradesh, Bihar and Jharkhand; at isolated places over Uttarakhand, Himachal Pradesh, Gangetic West Bengal and West Uttar Pradesh; **appreciably above normal (3.1°C to 5.0°C)** at a few places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad; at isolated places over Rajasthan, East Madhya Pradesh, Chhattisgarh, Odisha, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura; **above normal (1.6°C to 3.0°C)** at most places over Arunachal Pradesh; at a few places over Vidarbha; at isolated places over Gujarat state, West Madhya Pradesh and Kerala & Mahe. These were **below normal (-1.6°C to -3.0°C)** at most places over Marathwada; at a few places over Madhya Maharashtra and North Interior Karnataka; at isolated places over Coastal Andhra Pradesh & Yanam, Telangana and Rayalaseema and **near normal** over rest parts of the country. Yesterday, **the highest maximum temperature** of 47.1°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/63°E, 20.5°N/70°E, Navsari, Jalgaon, Akola, Pusad, Ramagundam, 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 Telangana & Chhattisgarh during next 24 hours.
- ❖ The Western Disturbance as a cyclonic circulation over Jammu & Kashmir at 5.8 km above mean sea level persists.
- ❖ The cyclonic circulation over northwest Uttar Pradesh at 1.5 km above mean sea level persists.
- ❖ The cyclonic circulation over East Uttar Pradesh & neighbourhood at 0.9 km above mean sea level persists.
- ❖ The east-west trough from above cyclonic circulation over East Uttar Pradesh to Nagaland across Bihar, Sub-Himalayan West Bengal and south Assam at 0.9 km above mean sea level persists.
- ❖ The cyclonic circulation over north Gujarat & adjoining south Rajasthan at 3.1 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 cyclonic circulation over northeast Assam & neighbourhood at 3.1 km above mean sea level persists.
- ❖ The shear zone roughly along 17°N between 3.1 & 5.8 km above mean sea level persists.
- ❖ A fresh feeble Western Disturbance likely to affect Western Himalaya Region from night of 13<sup>th</sup> June.

### Weather Forecast for next 7 days (Upto 0830 hours IST of 19<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 Maharashtra during next 4-5 days
- ❖ No significant change in maximum temperatures very likely over rest parts of the country.
- ❖ Thunderstorm accompanied with lightning at isolated places over Coastal Andhra Pradesh & Yanam & Rayalaseema next 5 days; Assam & Meghalaya & Tamil Nadu on 12<sup>th</sup> June.

### Weather Outlook for subsequent 3 days (During 19<sup>th</sup>-21<sup>st</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

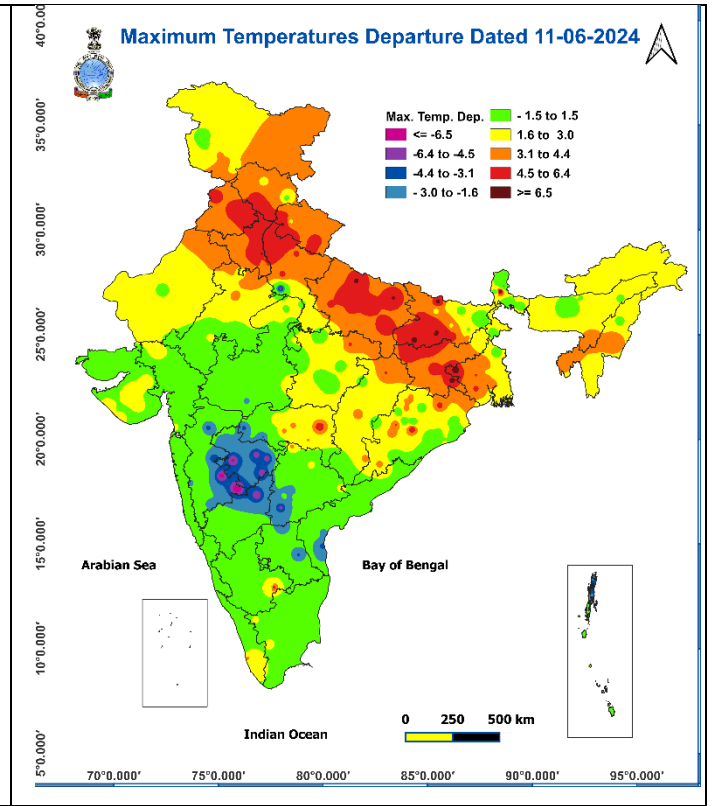
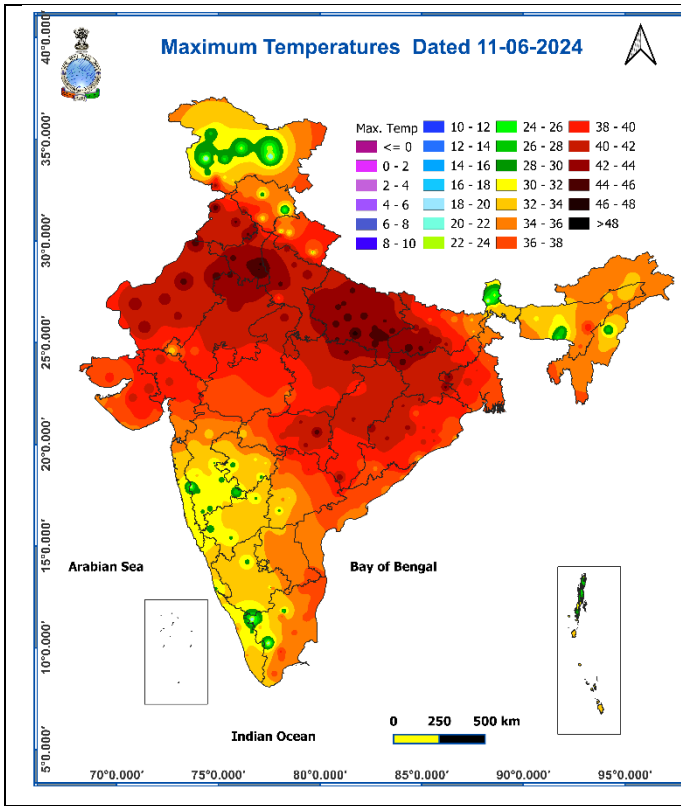
7 Days Rainfall Forecast								
S. No.	Subdivision	12- Jun	13- Jun	14- Jun	15- Jun	16- Jun	17- Jun	18- Jun
		Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
1	ANDAMAN & NICOBAR ISLANDS	WS	WS	WS	WS	WS	WS	WS
2	ARUNACHAL PRADESH	FWS	WS	WS	WS	WS	WS	WS
3	ASSAM & MEGHALAYA	WS	WS	WS	WS	WS	WS	WS
4	NAGALAND, MANIPUR, MIZORAM & TRIPURA	FWS	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	SCT	FWS	FWS	FWS	FWS
7	ODISHA	ISOL	ISOL	ISOL	ISOL	SCT	FWS	FWS
8	JHARKHAND	ISOL	SCT	SCT	SCT	SCT	SCT	SCT
9	BIHAR	ISOL	ISOL	SCT	SCT	FWS	FWS	FWS
10	EAST UTTAR PRADESH	DRY	DRY	ISOL	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	ISOL	DRY	DRY	DRY	DRY
15	HIMACHAL PRADESH	ISOL	ISOL	ISOL	DRY	DRY	DRY	DRY
16	JAMMU & KASHMIR AND LADAKH	ISOL	ISOL	ISOL	DRY	DRY	DRY	DRY
17	WEST RAJASTHAN	DRY	DRY	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	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
22	SAURASHTRA & KUTCH	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
23	KONKAN & GOA	FWS	SCT	SCT	SCT	SCT	SCT	SCT
24	MADHYA MAHARASHTRA	SCT	SCT	ISOL	ISOL	ISOL	ISOL	ISOL
25	MARATHAWADA	SCT	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
26	VIDARBHA	SCT	SCT	ISOL	ISOL	ISOL	ISOL	ISOL
27	CHHATTISGARH	ISOL	ISOL	ISOL	ISOL	SCT	SCT	SCT
28	COASTAL ANDHRA PRADESH & YANAM	ISOL	ISOL	ISOL	SCT	SCT	SCT	SCT
29	TELANGANA	FWS	SCT	SCT	SCT	SCT	SCT	SCT
30	RAYALASEEMA	SCT	ISOL	ISOL	SCT	SCT	SCT	SCT
31	TAMILNADU PUDUCHERRY & KARAIKAL	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
32	COASTAL KARNATAKA	WS	WS	WS	FWS	FWS	FWS	FWS
33	NORTH INTERIOR KARNATAKA	FWS	FWS	SCT	SCT	SCT	SCT	SCT
34	SOUTH INTERIOR KARNATAKA	FWS	SCT	SCT	SCT	SCT	SCT	SCT
35	KERALA & MAHE	WS	FWS	FWS	FWS	FWS	FWS	FWS
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

\* 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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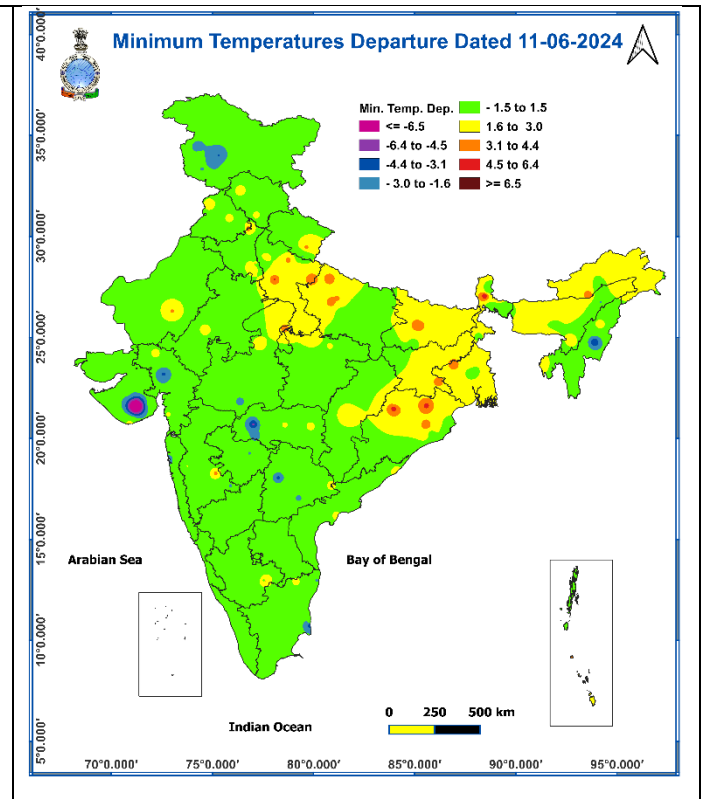
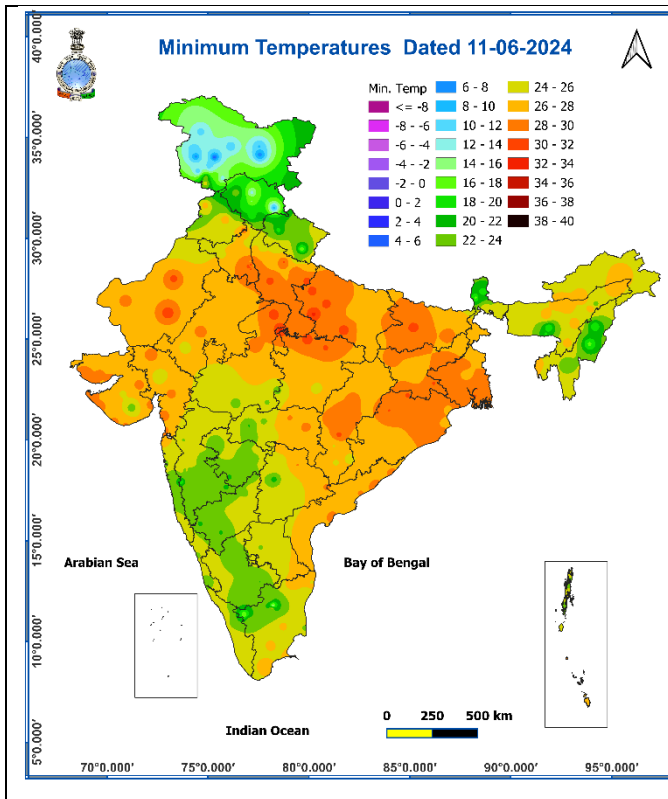
**Fig. 1: Maximum Temperatures**

**Fig. 2: Departure of Maximum Temperatures**



**Fig. 3: Minimum Temperatures**

**Fig. 4: Departure of Minimum Temperatures**

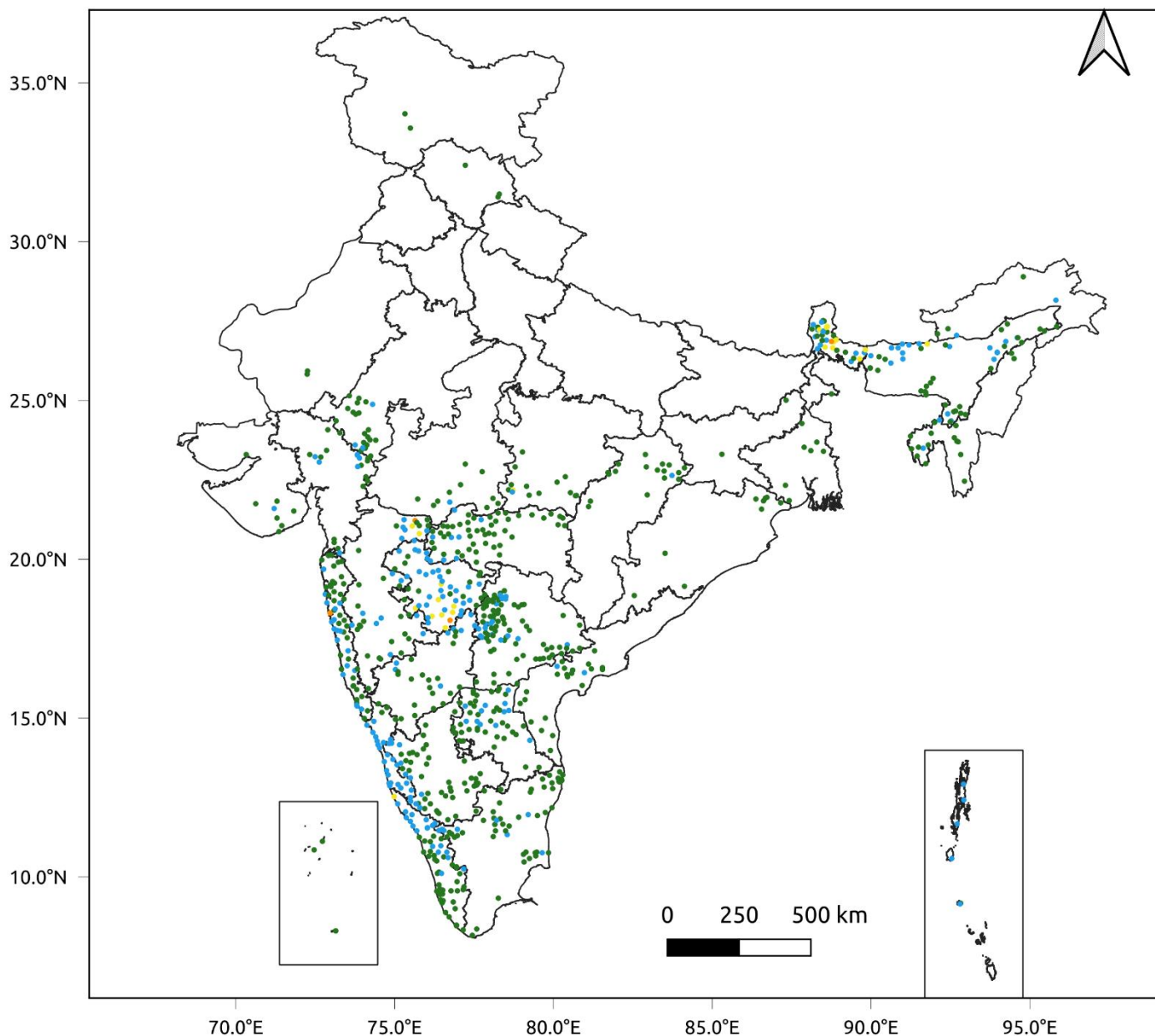


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Fig. 5: Accumulated Rainfall (mm) during past 24 hours



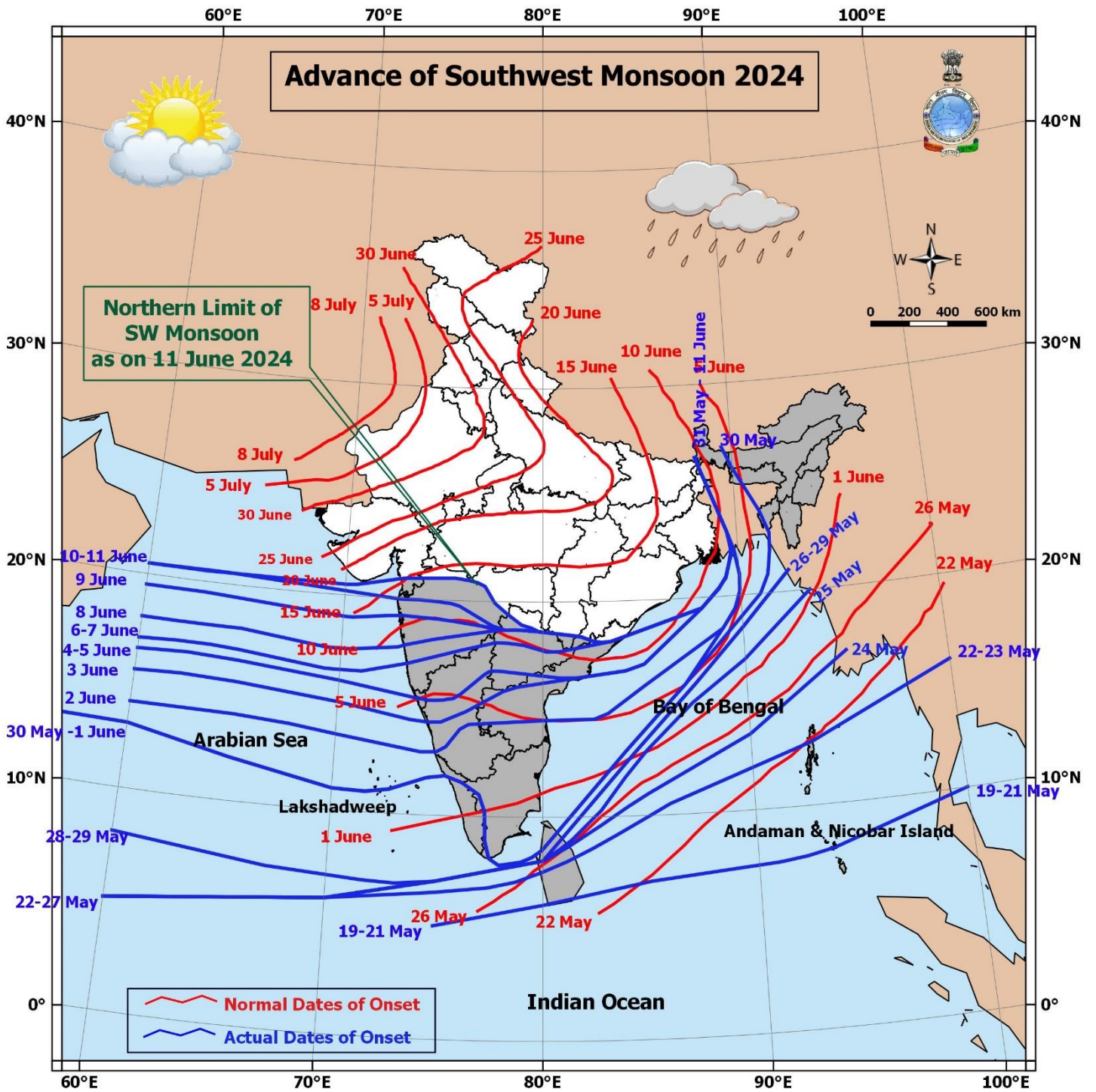
24 Hr cumulative rainfall recorded over different stations during 0830 IST of 10-6-2024 to 0830 IST of 11-6-2024



## Legends

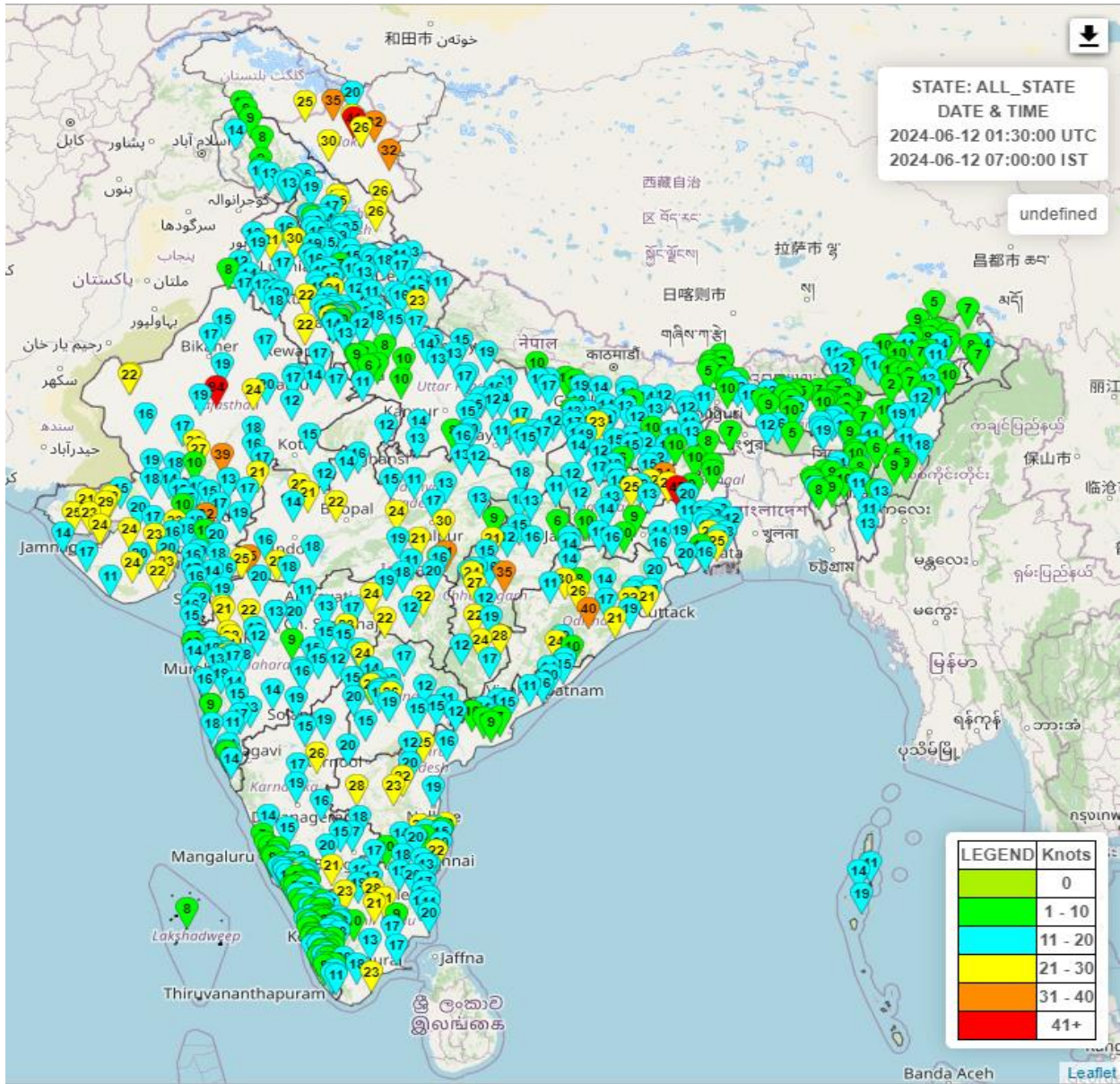
- Very Light to Light Rainfall (0.1 - 15.5 mm)
- Moderate Rainfall (15.6 - 64.4 mm)
- Heavy Rainfall (64.5 - 115.5 mm)
- Very Heavy Rainfall (115.6 - 204.4 mm)
- Extremely Heavy Rainfall ( $\geq 204.5$  mm)

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



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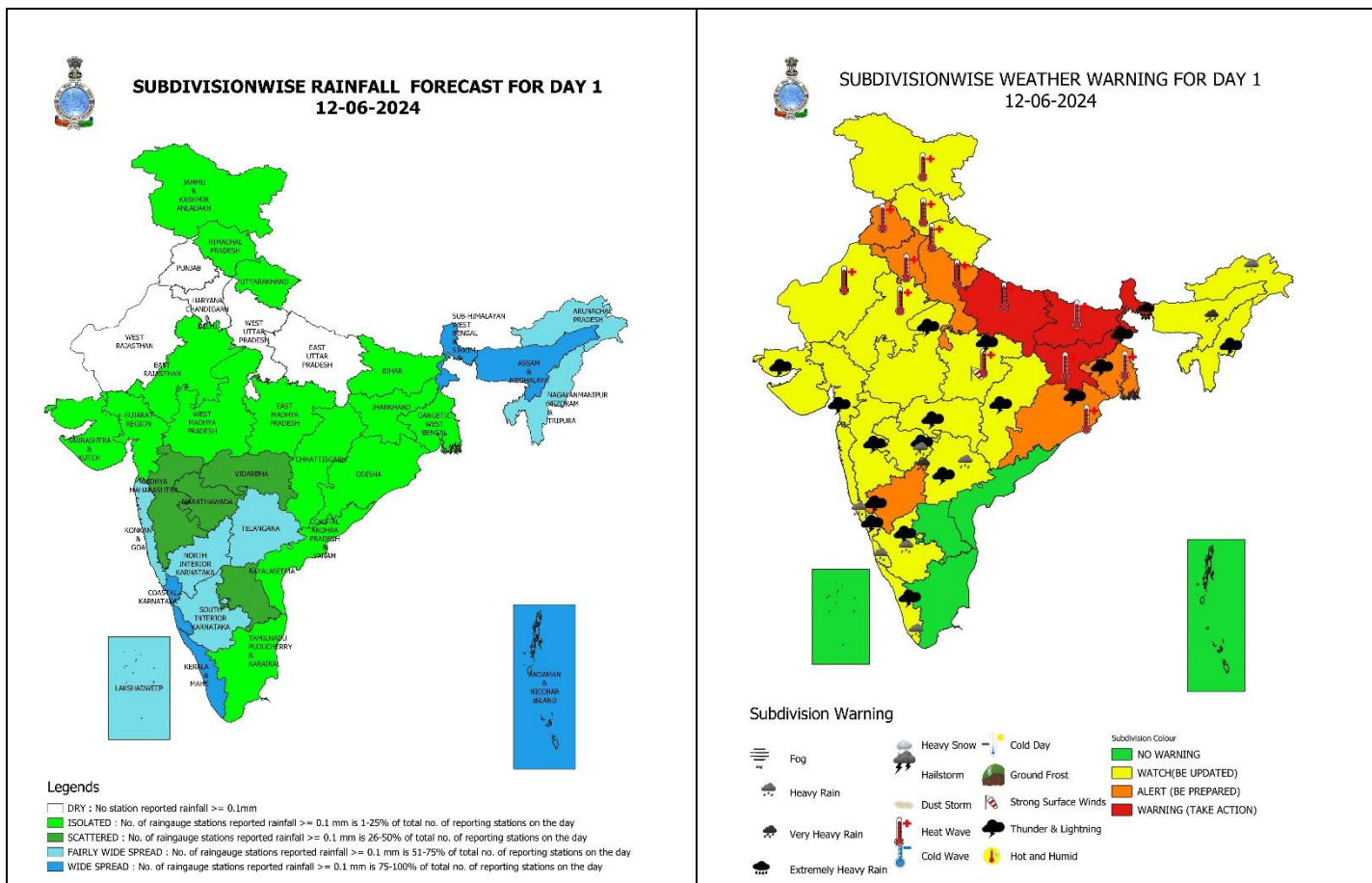
Fig. 7: Gusty winds reported over the country (in knots) from 0830 hours IST of 11.06.2024 to 0530 hours IST of 12.06.2024



1 Knot = 1.852 kmph

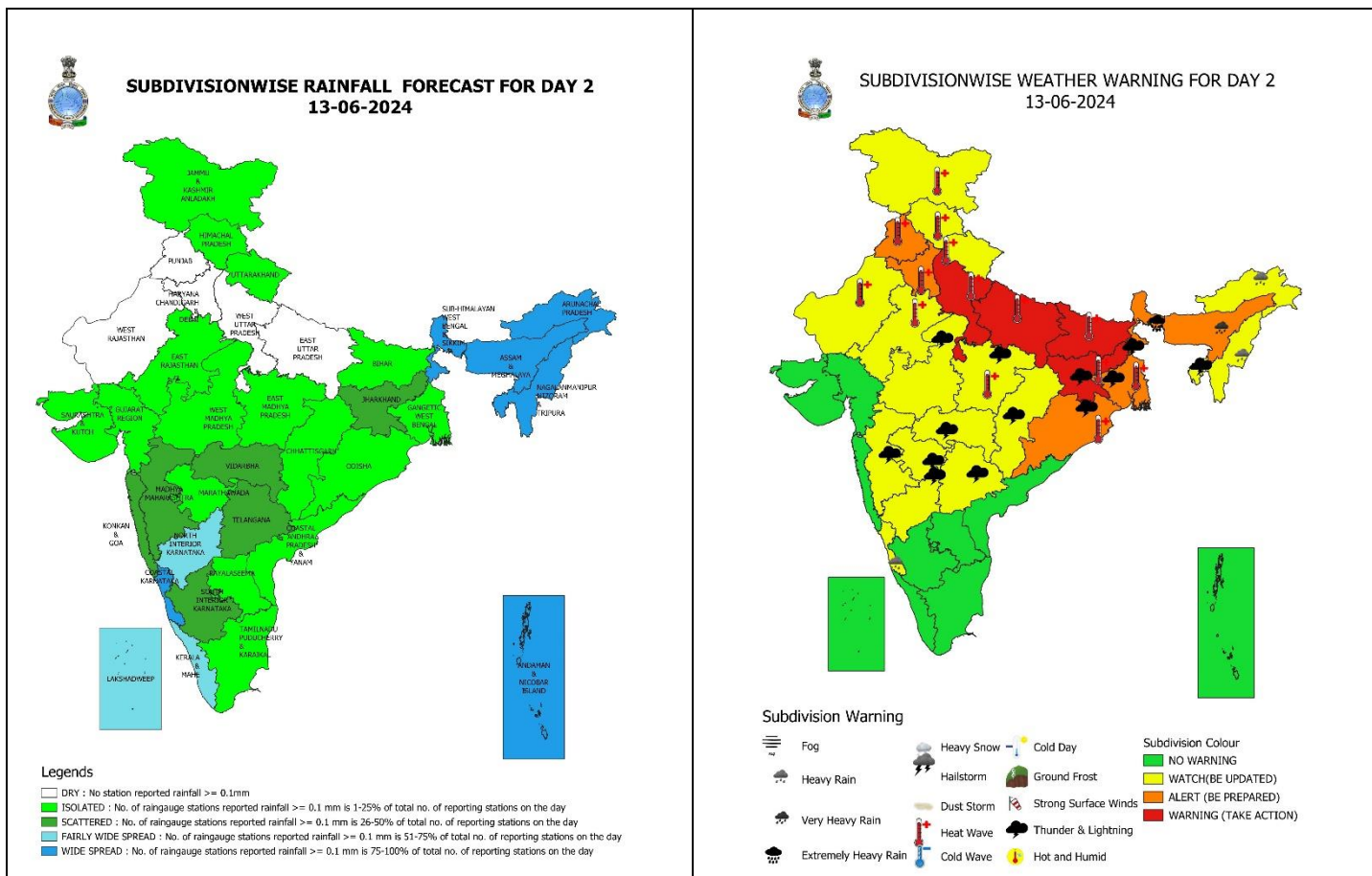
For more details, kindly refer: <http://aws.imd.gov.in:8091/>

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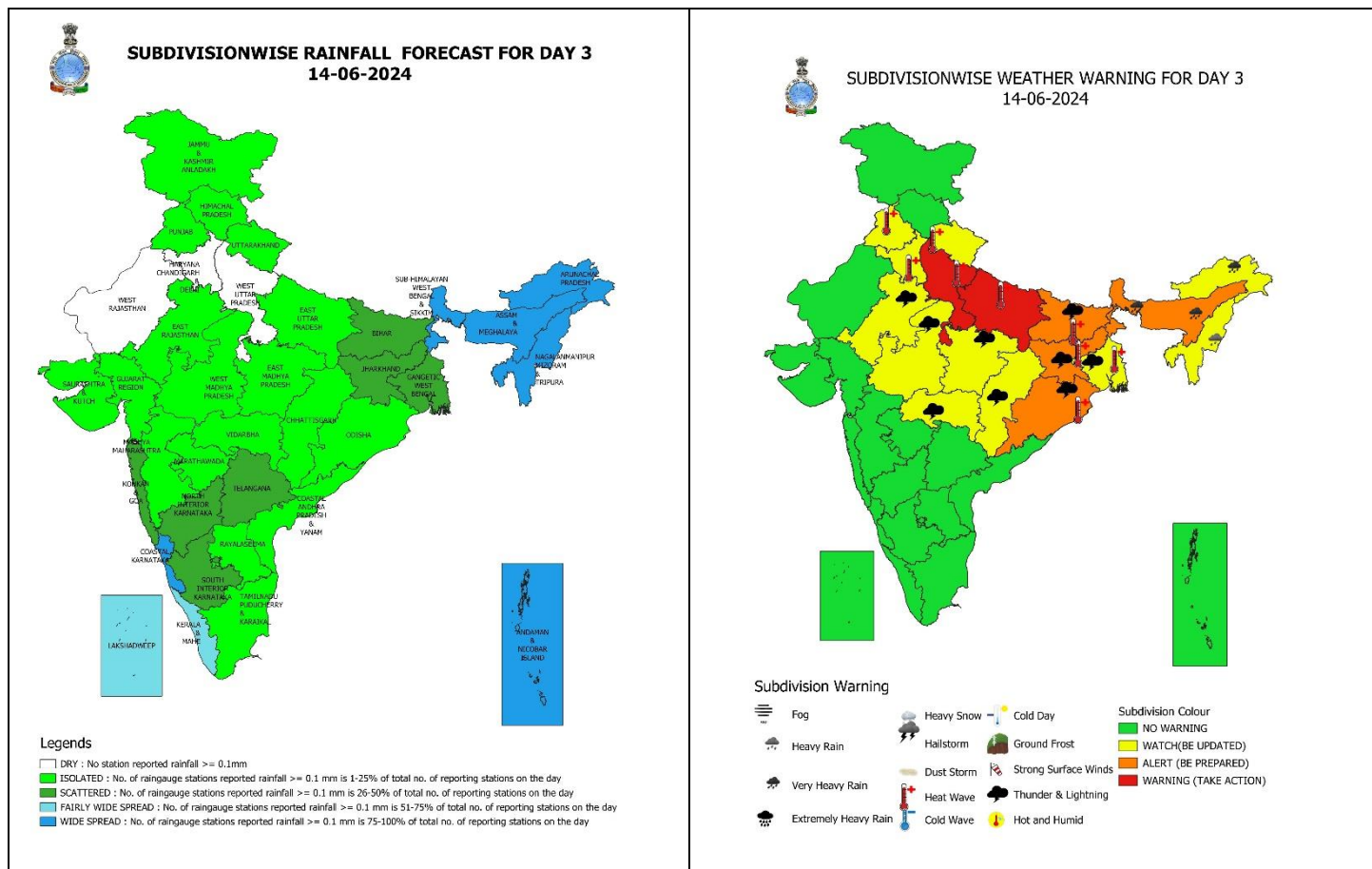
**12 June (Day 1):**

- ❖ **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, North Interior Karnataka; **heavy rainfall** at isolated places over Arunachal Pradesh, Konkan & Goa, Madhya Maharashtra, Marathwada, Kerala & Mahe, Telangana, Coastal & South Interior Karnataka.
- ❖ **Thunderstorm accompanied with lightning, squall (speed reaching 50-60 kmph)** very likely at isolated places over East Madhya Pradesh; **with lightning & gusty winds (speed reaching 40-50 kmph)** at isolated places over Vidarbha, West Madhya Pradesh; **with lightning & gusty winds (speed reaching 30-40 kmph)** at isolated places over Chhattisgarh, Sub-Himalayan West Bengal & Sikkim, Telangana, Interior Karnataka; **with lightning** at isolated places over Gangetic West Bengal, Odisha, Nagaland, Manipur, Mizoram & Tripura, Madhya Maharashtra, Marathwada, Gujarat state, Kerala & Mahe, Coastal Karnataka.
- ❖ **Heat wave conditions to severe heat wave conditions** very likely at a few places over Gangetic West Bengal, Bihar, Jharkhand, Uttar Pradesh; **Heat wave conditions** at a few places over Uttarakhand; in isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Punjab, Haryana-Chandigarh-Delhi, Rajasthan, East Madhya Pradesh, Odisha.
- ❖ **Warm night conditions** very likely to prevail in isolated places 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 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 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, most parts of southwest Bay of Bengal and southern parts of 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.



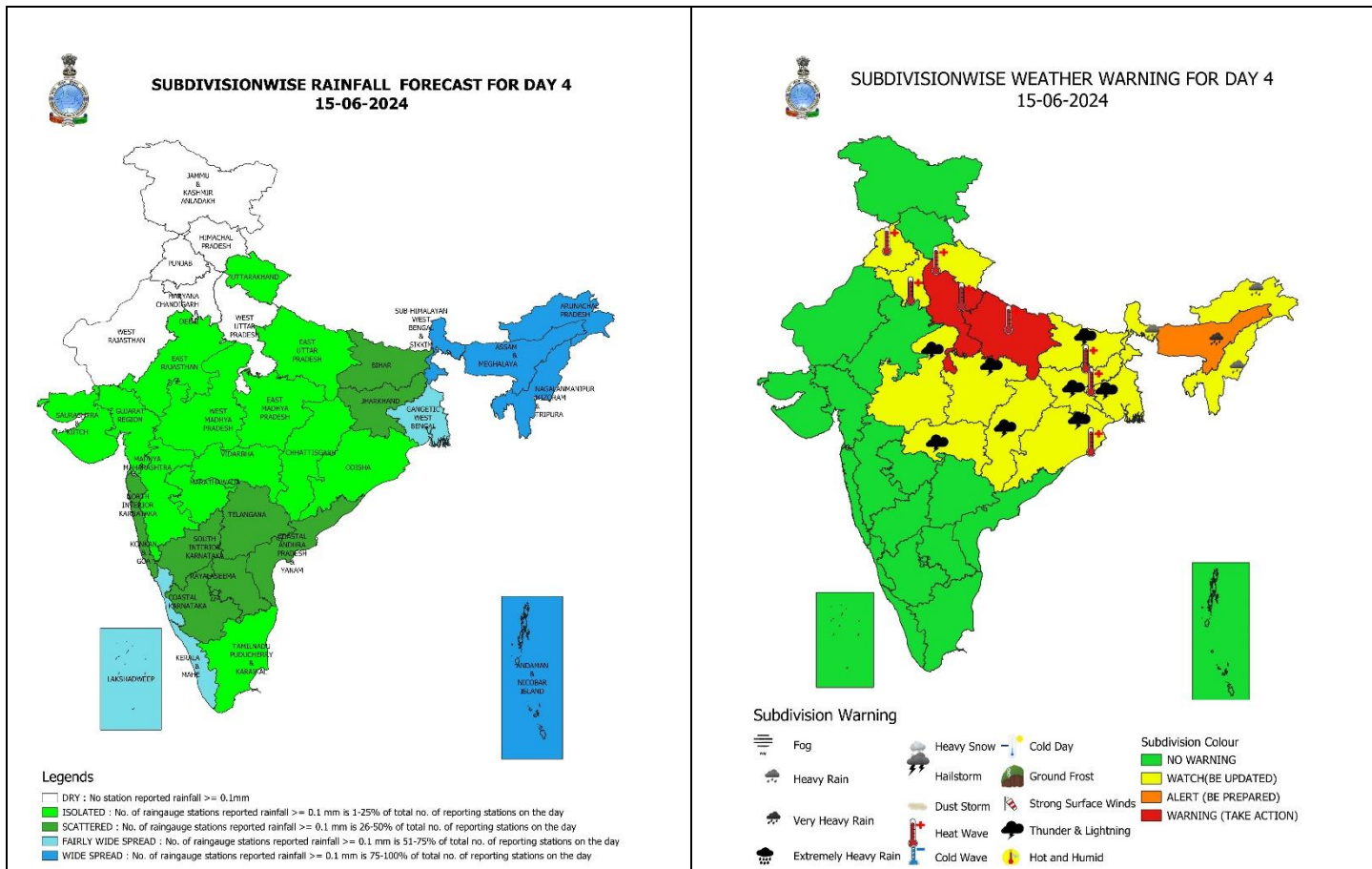
**13 June (Day 2):**

- ❖ **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 Arunachal Pradesh, Nagaland, Manipur, Mizoram & Tripura, Coastal Karnataka.
- ❖ **Thunderstorm accompanied with lightning, squall (speed reaching 40-50 kmph)** very likely at isolated places over West Madhya Pradesh; with **lightning & gusty winds (speed reaching 30-40 kmph)** at isolated places over East Madhya Pradesh, Vidarbha, Chhattisgarh, West Bengal & Sikkim, Jharkhand, Telangana, North Interior Karnataka; **with lightning** at isolated places over Odisha, Madhya Maharashtra, Marathwada, Nagaland, Manipur, Mizoram & Tripura.
- ❖ **Heat wave conditions to severe heat wave conditions** very likely at a few places over Bihar, Jharkhand, Uttar Pradesh; at isolated places over Gangetic West Bengal; **Heat wave conditions** at a few places over Uttarakhand; in isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Punjab, Haryana-Chandigarh-Delhi, Rajasthan, East Madhya Pradesh, Odisha.
- ❖ **Warm night conditions** very likely to prevail in isolated places 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 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 Andhra Pradesh coasts, western parts of north Andaman Sea. **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.



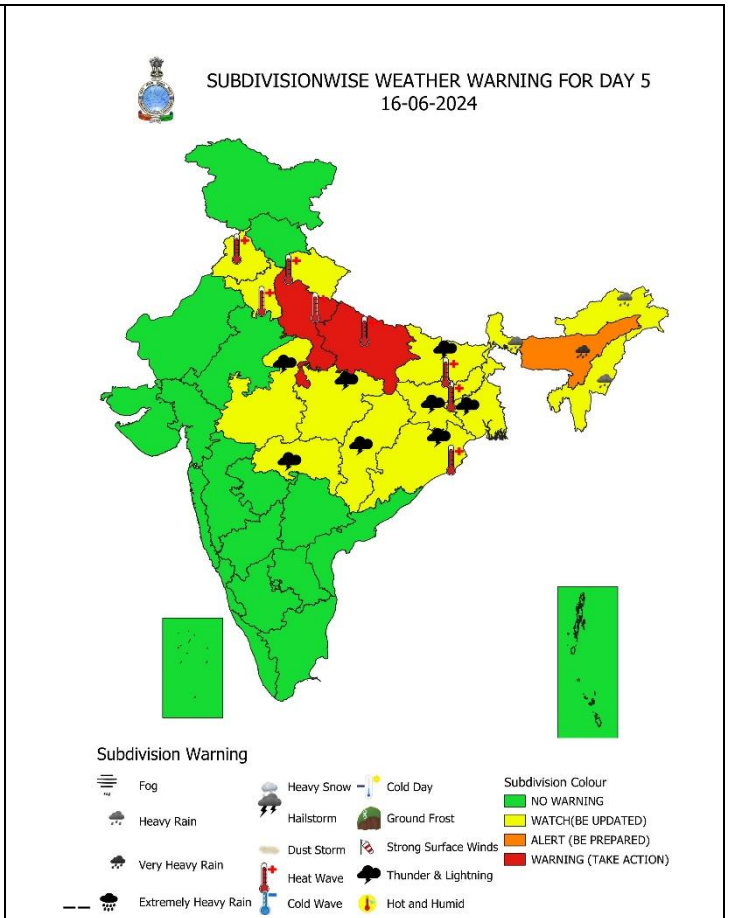
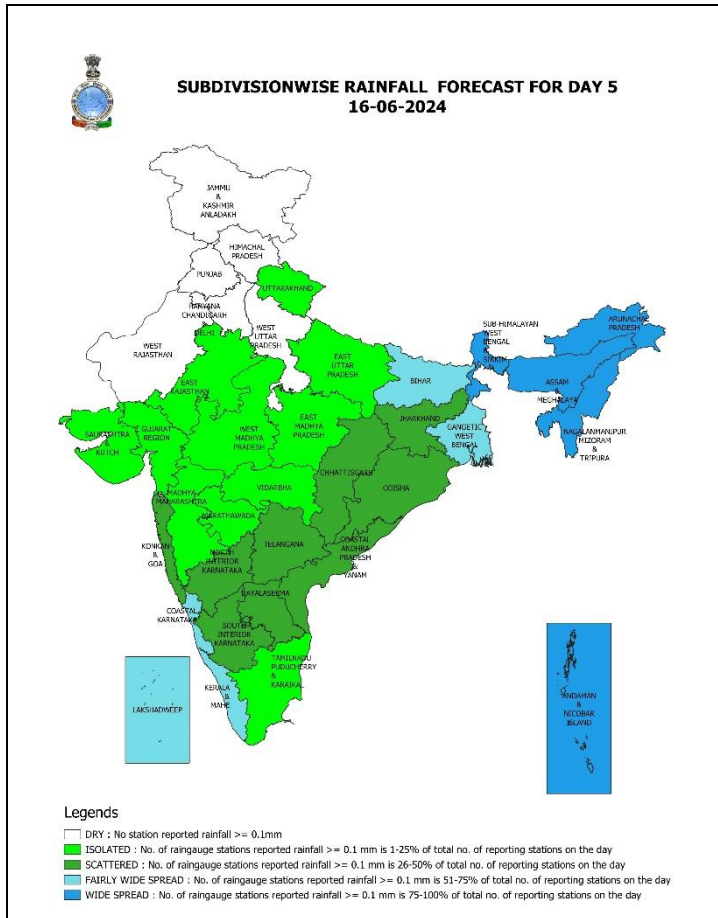
**14 June (Day 3):**

- ❖ **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, squall (speed reaching 40-50 kmph)** very likely at isolated places over Gangetic West Bengal; **with lightning & gusty winds (speed reaching 30-40 kmph)** at isolated places over Madhya Pradesh, Vidarbha, Bihar, Jharkhand; **with lightning** at isolated places over East Rajasthan, Chhattisgarh, Odisha.
- ❖ **Heat wave conditions to severe heat wave conditions** likely at a few places over Uttar Pradesh; at isolated places over Jharkhand; **Heat wave conditions** at isolated places over Uttarakhand, Punjab, Haryana-Chandigarh, Gangetic West Bengal, Bihar, Odisha.
- ❖ **Warm night conditions** very likely to prevail in isolated places 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 and central 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. **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 4):**

- ❖ **Heavy to very heavy rainfall** likely at isolated places over Assam & Meghalaya; **heavy rainfall** at isolated places over Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh, 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 Madhya Pradesh, Vidarbha, Jharkhand; **with lightning** at isolated places over Chhattisgarh, Odisha.
- ❖ **Heat wave conditions to severe heat wave conditions** likely at a few places over Uttar Pradesh; **Heat wave conditions** at isolated places over Uttarakhand, Punjab, Haryana-Chandigarh, Bihar, Jharkhand, 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 and central 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. **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, along & off Oman Coast. Fishermen are advised not to venture into these areas.

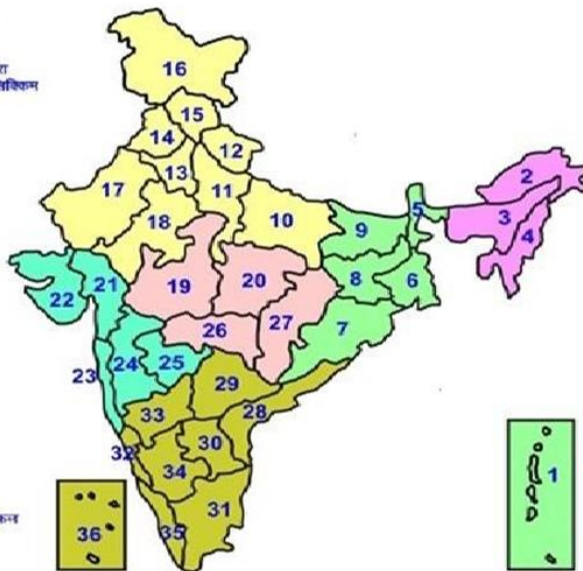


**16 June (Day 5):**

- ❖ **Heavy to very heavy rainfall** likely at isolated places over Assam & Meghalaya; **heavy rainfall** at isolated places over Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh, 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 Madhya Pradesh, Vidarbha, Jharkhand; **with lightning** at isolated places over Chhattisgarh, Odisha.
- ❖ **Heat wave conditions to severe heat wave conditions** likely at a few places over Uttar Pradesh; **Heat wave conditions** at isolated places over Uttarakhand, Punjab, Haryana-Chandigarh, Bihar, Jharkhand, 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 and central 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. **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, along & off Oman Coast. 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

<b>WARNING (TAKE ACTION)</b>
<b>ALERT ( BE PREPARED)</b>
<b>WATCH (BE UPDATED)</b>
<b>NO WARNING ( NO ACTION)</b>

## Probabilistic Forecast

Terms	Probability of Occurrence (%)
Unlikely	< 25
Likely	25 - 50
Very Likely	50 - 75
Most Likely	> 75

\* 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)

## LEGENDS

### WARNING

WARNING (TAKE ACTION)
ALERT ( BE PREPARED)
WATCH (BE UPDATED)
NO WARNING ( NO ACTION)

### Probabilistic Forecast

Terms	Probability of Occurrence (%)
Unlikely	< 25
Likely	25 - 50
Very Likely	50 - 75
Most Likely	> 75



Rain/ Snow \*

Heavy: 64.5 to 115.5 mm/cm \*  
Very Heavy: 115.6 to 204.4 mm/cm\*  
Extremely Heavy: > 204.4 mm/cm \*



Heat Wave

When maximum temperature of a station reaches  $\geq 40^{\circ}\text{C}$  for plains and  $\geq 30^{\circ}\text{C}$  for hilly regions  
(a) Based on Departure from normal

Heat Wave: Maximum Temperature Departure from normal  $4.5^{\circ}\text{C}$  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)

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