

Tuesday, June 25, 2024  
Time of Issue: 0815 hours IST  
(MORNING)

## ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

### Significant Weather Features:

#### Advance of Southwest Monsoon:

- ❖ Northern Limit of Monsoon continues to pass through 20.5°N/60°E, 20.5°N/63°E, 20.5°N/70°E, Veraval, Rajpipla, Ujjain, Vidisha, Siddhi, Chaibasa, Haldia, Pakur, Sahibganj and Raxaul.
- ❖ Conditions are favourable for further advance of Southwest Monsoon into some more parts of North Arabian Sea and Gujarat State; some more parts of Madhya Pradesh; remaining parts of Chhattisgarh, West Bengal, Jharkhand and Bihar; some parts of Uttar Pradesh and Uttarakhand during next 3 days.

#### Weather Systems and Forecast & Warnings:

- ❖ A trough at mean sea level runs off Maharashtra-Kerala coasts. A cyclonic circulation lies over northeast Arabian sea off Gujarat-north Maharashtra coasts in lower & middle tropospheric levels and a trough runs from this cyclonic circulation to north Bihar in lower tropospheric levels. Under their influence:
  - Fairly widespread to widespread light to moderate rainfall accompanied with **thunderstorm, lightning & gusty winds (40-50 kmph)** very likely over Konkan & Goa, Madhya Maharashtra, Marathwada, Karnataka, Kerala & Mahe, Lakshadweep, Gujarat state, Madhya Pradesh, Vidarbha, Chhattisgarh; scattered to fairly widespread light to moderate rainfall over Coastal Andhra Pradesh & Yanam, Rayalaseema, Telangana, Tamil Nadu, Puducherry & Karaikal during next 5 days.
  - Isolated **heavy to very heavy rainfall** very likely over Konkan & Goa, Ghat areas of Madhya Maharashtra, Karnataka during next 5 days, Coastal Karnataka, South Interior Karnataka, Kerala & Mahe, Tamil Nadu on 25<sup>th</sup> & 26<sup>th</sup>; over Gujarat Region on 25<sup>th</sup> and isolated **heavy rainfall** over Saurashtra & Kutch on 25<sup>th</sup> & 26<sup>th</sup>; Gujarat Region during 26<sup>th</sup>-29<sup>th</sup>; Kerala & Mahe, Coastal Karnataka, South Interior Karnataka on 27<sup>th</sup> & 28<sup>th</sup>; North Interior Karnataka during 25<sup>th</sup>-28<sup>th</sup> and over Coastal Andhra Pradesh during 25<sup>th</sup>-27<sup>th</sup> June, 2024.
  - Isolated **heavy rainfall** very likely over West Madhya Pradesh, Vidarbha during 27<sup>th</sup> - 29<sup>th</sup>; East Madhya Pradesh during 25<sup>th</sup>-29<sup>th</sup> and over Chhattisgarh during 26<sup>th</sup>-29<sup>th</sup> June.
- ❖ A cyclonic circulation lies over northeast Assam in lower tropospheric levels. Strong southerly/southwesterly winds prevail in the lower tropospheric levels from the Bay of Bengal into east & northeast India. Under its influence;
  - Fairly widespread to widespread light to moderate rainfall accompanied with thunderstorm, lightning likely over Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura during next 5 days.
  - Isolated **heavy to very heavy rainfall** very likely over Sub-Himalayan West Bengal & Sikkim, Assam & Meghalaya, Arunachal Pradesh during 25<sup>th</sup> -29<sup>th</sup> and isolated **heavy rainfall** over Nagaland, Manipur, Mizoram & Tripura on 25<sup>th</sup>- 29<sup>th</sup> June.
  - **Isolated extremely heavy rainfall also likely over Assam & Meghalaya on 29<sup>th</sup> June, 2024.**
- ❖ A cyclonic circulation lies over southeast Rajasthan in the lower tropospheric levels. Under influence of these systems;
  - Scattered to fairly widespread light to moderate rainfall accompanied with **thunderstorm, lightning & gusty winds (30-40 kmph)** very likely over Gangetic West Bengal, Uttar Pradesh, East Rajasthan, Bihar, Jharkhand, Odisha during next 5 days.
  - Isolated **heavy to very heavy rainfall** very likely over Andaman & Nicobar Islands on 25<sup>th</sup> & 26<sup>th</sup> and isolated **heavy rainfall** over Bihar & Odisha during 25<sup>th</sup>-29<sup>th</sup>; Jharkhand on 27<sup>th</sup> & 29<sup>th</sup>; Gangetic West Bengal on 29<sup>th</sup> June.
  - Isolated **heavy rainfall** over East Uttar Pradesh during 26<sup>th</sup>-29<sup>th</sup>; West Uttar Pradesh on 28<sup>th</sup> & 29<sup>th</sup>; East Rajasthan & Uttarakhand during 27<sup>th</sup> - 29<sup>th</sup> June.

#### Heat Wave warning for next 5 days:

- ❖ **Heat wave conditions** very likely in isolated pockets of Punjab and Bihar on 25<sup>th</sup> and West Rajasthan during 25<sup>th</sup>-27<sup>th</sup> June and **abate thereafter.**

### 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 Himachal Pradesh, Nagaland, Manipur, Mizoram & Tripura, Konkan & Goa, Lakshadweep and Andaman & Nicobar Islands; **at isolated places** over Jammu-Kashmir, Uttarakhand, Haryana-Chandigarh-Delhi, East Rajasthan, Gujarat state, Madhya Pradesh, Uttar Pradesh, Chhattisgarh, Sub-Himalayan West Bengal & Sikkim, Nagaland, Manipur, Mizoram & Tripura, Odisha, Vidarbha, Madhya Maharashtra, Marathwada, Coastal Karnataka, Interior Karnataka, Coastal Andhra Pradesh & Yanam and Tamil Nadu, Puducherry & Karaikal.
- ❖ **Significant amount of rainfall** (from 0830 hours IST to 1730 hours IST of yesterday): (in cm): **Kerala & Mahe:** Kottayam 4, Kochi & Alapuzha 3 each, Palakkad, Cannanore & Punalur 2 each; **Lakshadweep:** Minicoy 3, **Assam & Meghalaya:** Barapani 4, Golaghat 2; **West Madhya Pradesh:** Ratlam 3, Hoshangabad 2, **Andaman & Nicobar Islands:** Mayabandar 2, Long Island & Port Blair 1 each; **Uttar Pradesh:** Prayagraj 2, Varanasi 1.
- ❖ Yesterday, **Heat wave conditions** observed in isolated pockets of Punjab and Bihar.
- ❖ **Minimum Temperature Departures (as on 24-06-2024):** Minimum temperatures were **appreciably above normal (3.1°C to 5.0°C)** at a few places over Bihar and West Rajasthan; at isolated places over Punjab, Haryana-Chandigarh-Delhi, East Uttar Pradesh and Sub-Himalayan West Bengal & Sikkim; **above normal (1.6°C to 3.0°C)** at most places over Uttarakhand and West Uttar Pradesh; at many places over East Rajasthan; at a few places over Jharkhand; at isolated places over Gangetic West Bengal, Odisha, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura. These were **below normal (-1.6°C to -3.0°C)** at isolated places over Gujarat state and Telangana and **near normal** over rest parts of the country. Yesterday, **the lowest minimum temperature of 21.0°C** was reported at **Bulandshahr (West Uttar Pradesh)** over the plains of the country.
- ❖ **Maximum Temperature Departures (as on 24-06-2024):** Maximum temperatures were **markedly above normal (5.1°C & above)** at isolated places over Gangetic West Bengal; **appreciably above normal (3.1°C to 5.0°C)** at a few places over East Uttar Pradesh, Bihar and Odisha and isolated places over Punjab, West Rajasthan, Jharkhand and Assam & Meghalaya; **above normal (1.6°C to 3.0°C)** at a few places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad and at isolated places over Haryana-Chandigarh-Delhi, West Uttar Pradesh, Nagaland, Manipur, Mizoram & Tripura, Saurashtra & Kutch, Madhya Pradesh, Chhattisgarh, Konkan & Goa and Coastal Andhra Pradesh & Yanam. These were **below normal (-1.6°C to -3.0°C)** at isolated places over Andaman & Nicobar Islands, Gujarat Region, Kerala & Mahe and Tamil Nadu, Puducherry & Karaikal and **near normal** over rest parts of the country. Yesterday, **the highest Maximum Temperature of 45.0°C** was reported at **Jaisalmer (West Rajasthan)** over the country.

### Meteorological Analysis (Based on 0530 hours IST)

- ❖ Northern Limit of Monsoon continues to pass through 20.5°N/60°E, 20.5°N/63°E, 20.5°N/70°E, Veraval, Rajpipla, Ujjain, Vidisha, Siddhi, Chaibasa, Haldia, Pakur, Sahibganj and Raxaul.
- ❖ Conditions are favourable for further advance of Southwest Monsoon into some more parts of North Arabian Sea and Gujarat State; some more parts of Madhya Pradesh; remaining parts of Chhattisgarh, West Bengal, Jharkhand and Bihar; some parts of Uttar Pradesh and Uttarakhand during next 3 days.
- ❖ The Western Disturbance as a trough in middle tropospheric westerlies with its axis at 5.8 km above mean sea level roughly along Long. 70°E to the north of Lat. 28°N persists.
- ❖ The cyclonic circulation over southeast Pakistan & neighbourhood at 0.9 km above mean sea level persists.
- ❖ The cyclonic circulation over northeast Assam extending upto 1.5 km above mean sea level persists.
- ❖ The cyclonic circulation over south Gujarat & neighbourhood now lies over northeast Arabian sea off Gujarat-north Maharashtra coasts between 1.5 & 5.8 km above mean sea level tilting southwestwards with height.
- ❖ The trough now runs from above cyclonic circulation over northeast Arabian sea off Gujarat-north Maharashtra coasts to north Bihar across Gujarat Region, Madhya Pradesh & southeast Uttar Pradesh between 1.5 & 3.1 km above mean sea level.
- ❖ The trough at mean sea level off Maharashtra- Kerala coasts persists.
- ❖ The east-west trough from southeast Rajasthan to north Bangladesh across Madhya Pradesh, Bihar and Sub-Himalayan West Bengal at 0.9 km above mean sea level has become less marked.

### Weather Forecast for next 7 days (Upto 0830 hours IST of 02<sup>nd</sup> July, 2024)

- ❖ Meteorological sub-division wise detailed 7 days rainfall forecast is given in Table-1.
- ❖ Thunderstorm accompanied with lightning, very likely at isolated places over Northwest, Northeast & south peninsular India during next 5 days.
- ❖ No significant change in maximum temperatures very likely over Central India during next 3 days and no significant change thereafter.
- ❖ No significant change in maximum temperatures very likely over rest parts of the country.

### Weather Outlook for subsequent 3 days (During 02<sup>nd</sup> -03<sup>rd</sup> July, 2024)

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

Table-1

### 7 Days Rainfall Forecast

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

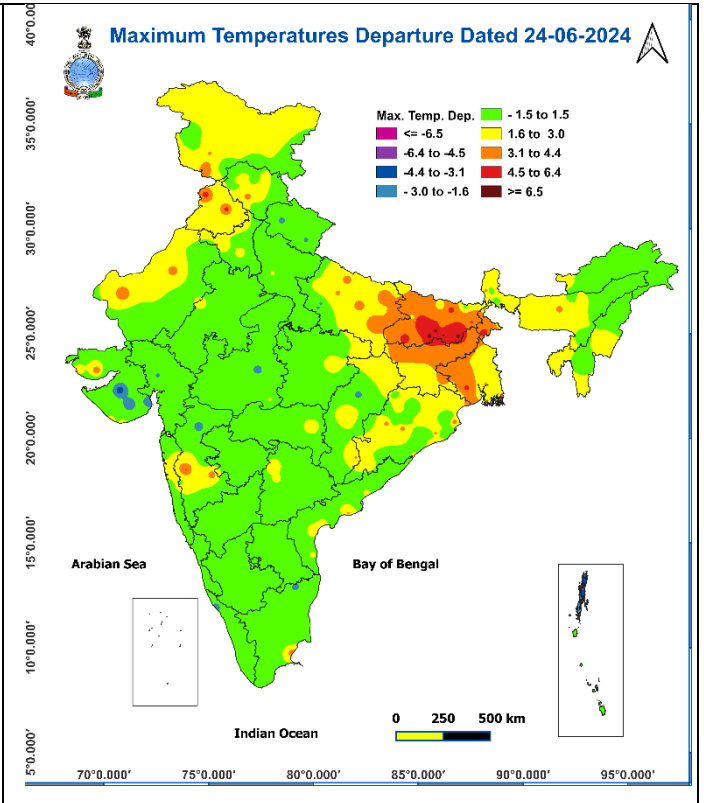
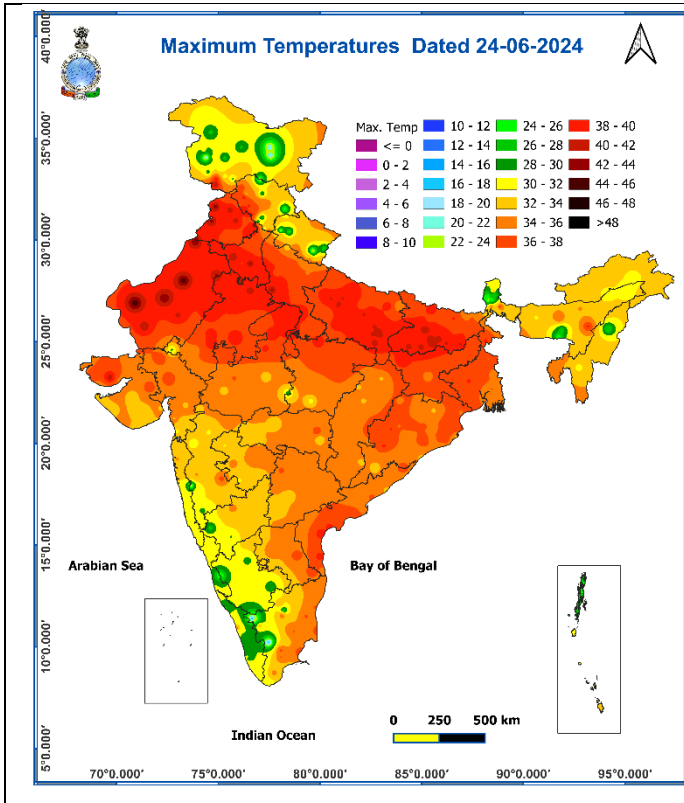


Fig. 3: Minimum Temperatures

Fig. 4: Departure of Minimum Temperatures

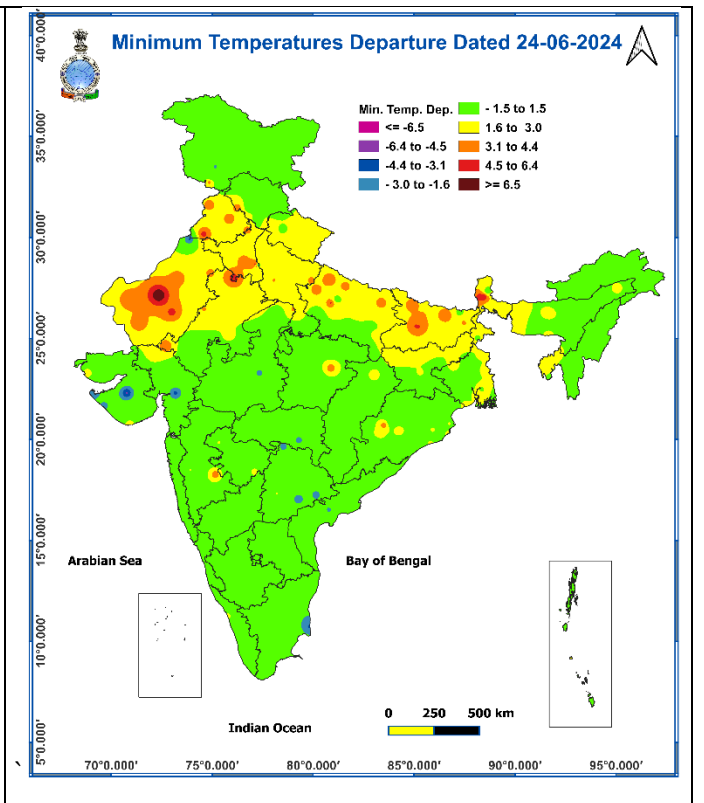
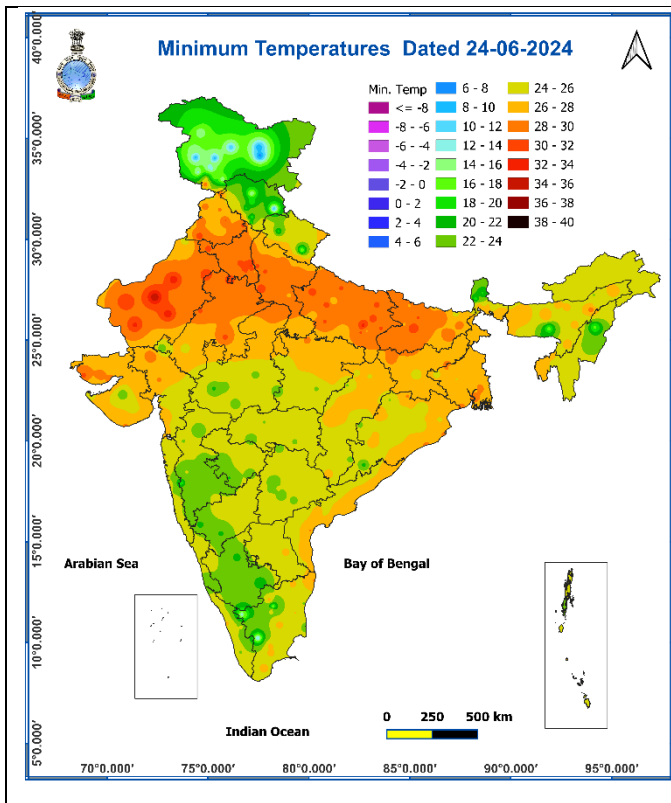
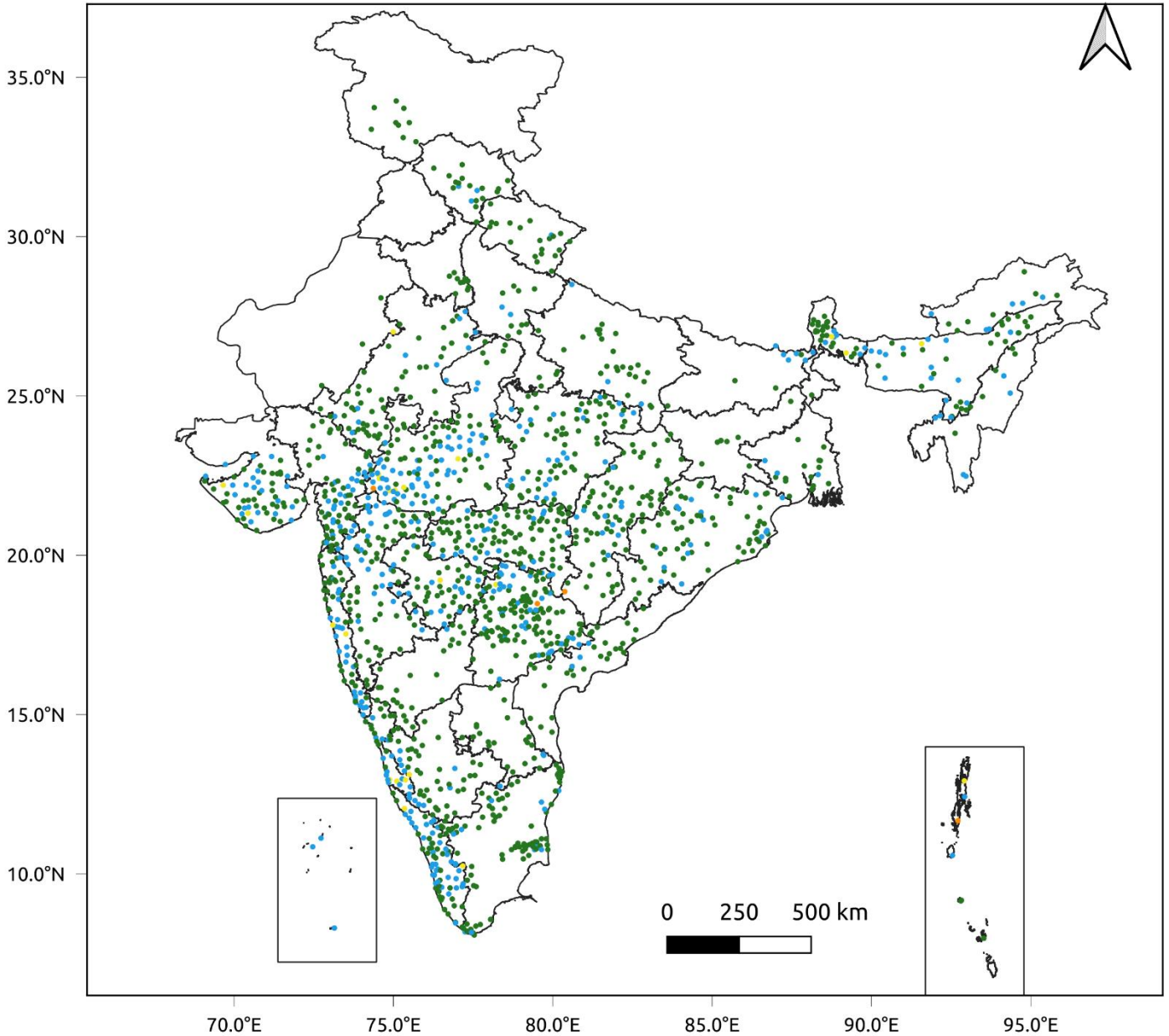


Fig. 5: Accumulated Rainfall (mm) during past 24 hours



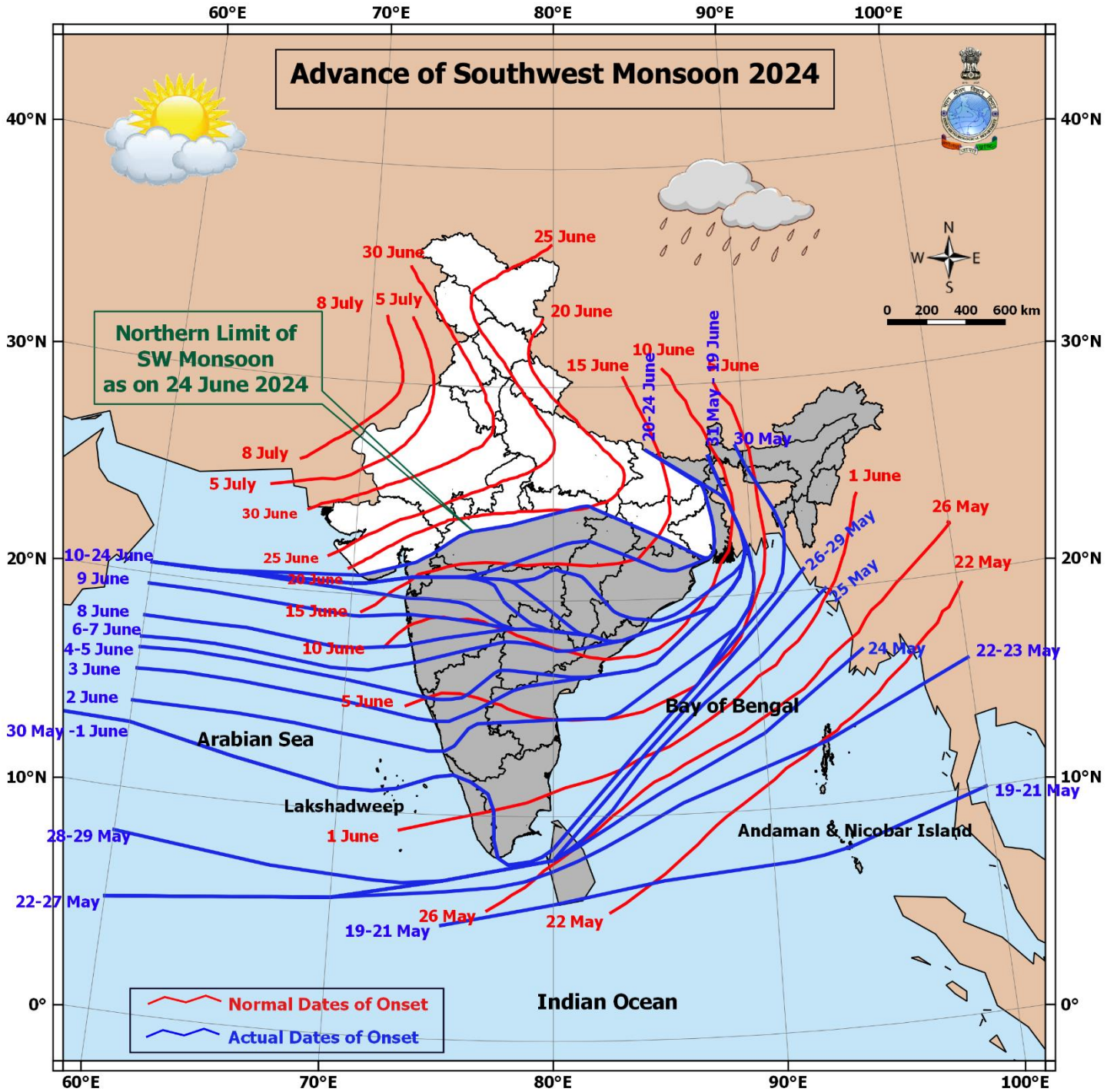
24 Hr cumulative rainfall recorded over different stations during 0830 IST of 23-6-2024 to 0830 IST of 24-6-2024



## Legends

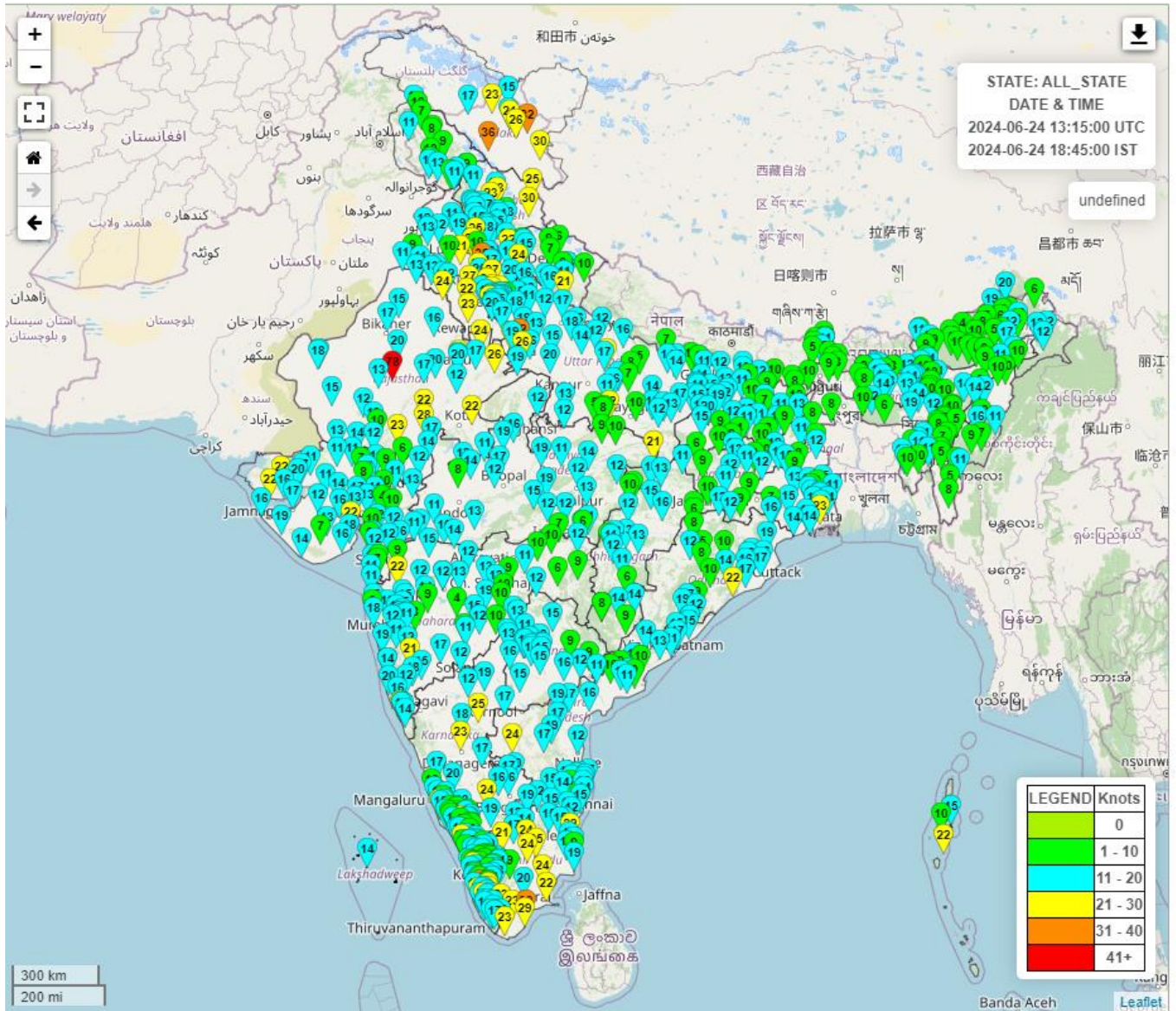
- Very Light to Light Rainfall (0.1 - 15.5 mm)
- Moderate Rainfall (15.6 - 64.4 mm)
- Heavy Rainfall (64.5 - 115.5 mm)
- Very Heavy Rainfall (115.6 - 204.4 mm)
- Extremely Heavy Rainfall ( $\geq 204.5$  mm)

Fig. 6: Advance of Southwest Monsoon 2024



\* Red colour warning does not mean "Red Alert", Red colour warning means "Take Action".  
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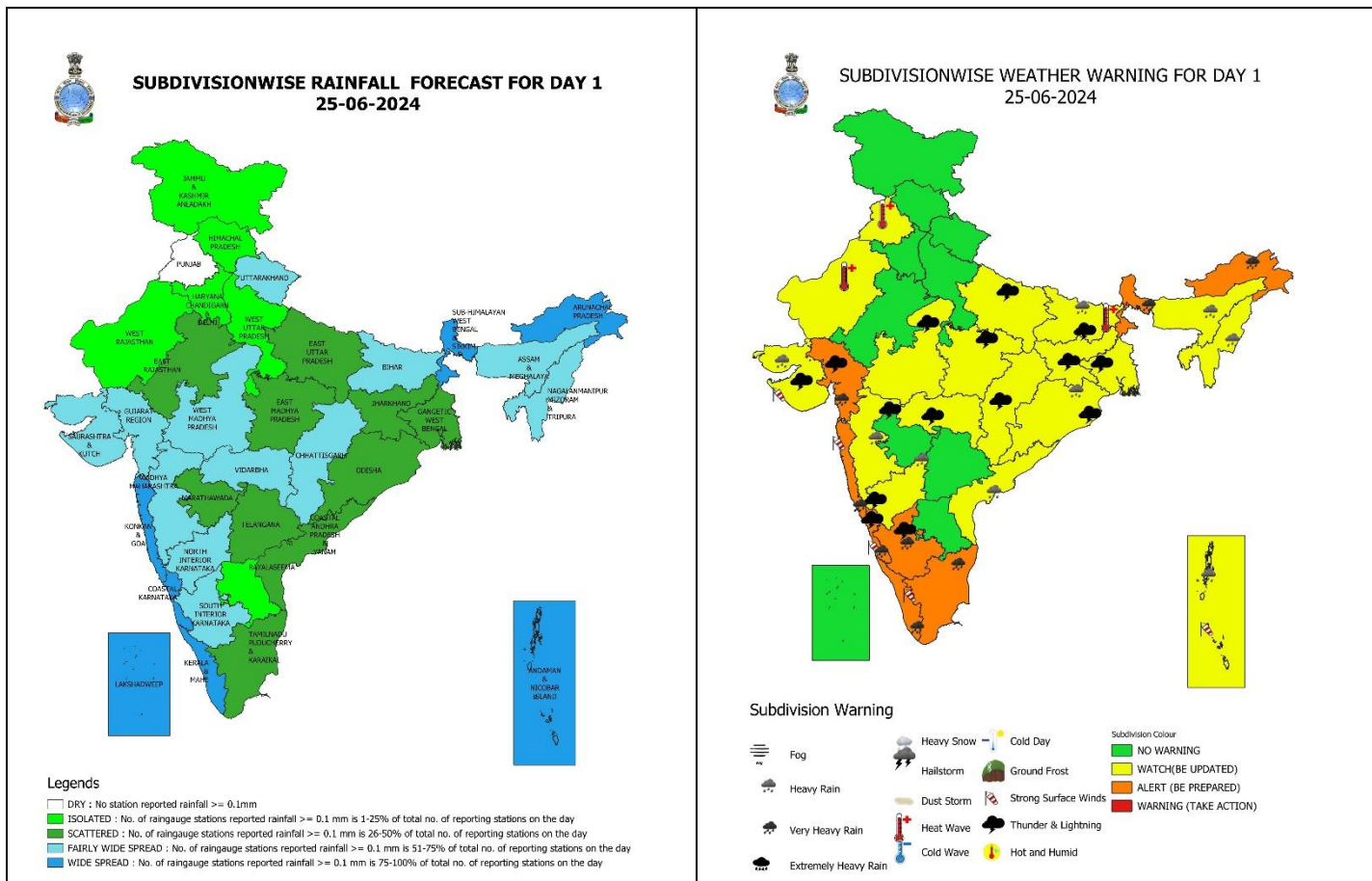
**Fig. 7: Gusty winds reported over the country (in knots) from 0830 hours IST to 1845 hours IST of 24.06.2024**



**1 Knot = 1.852 kmph**

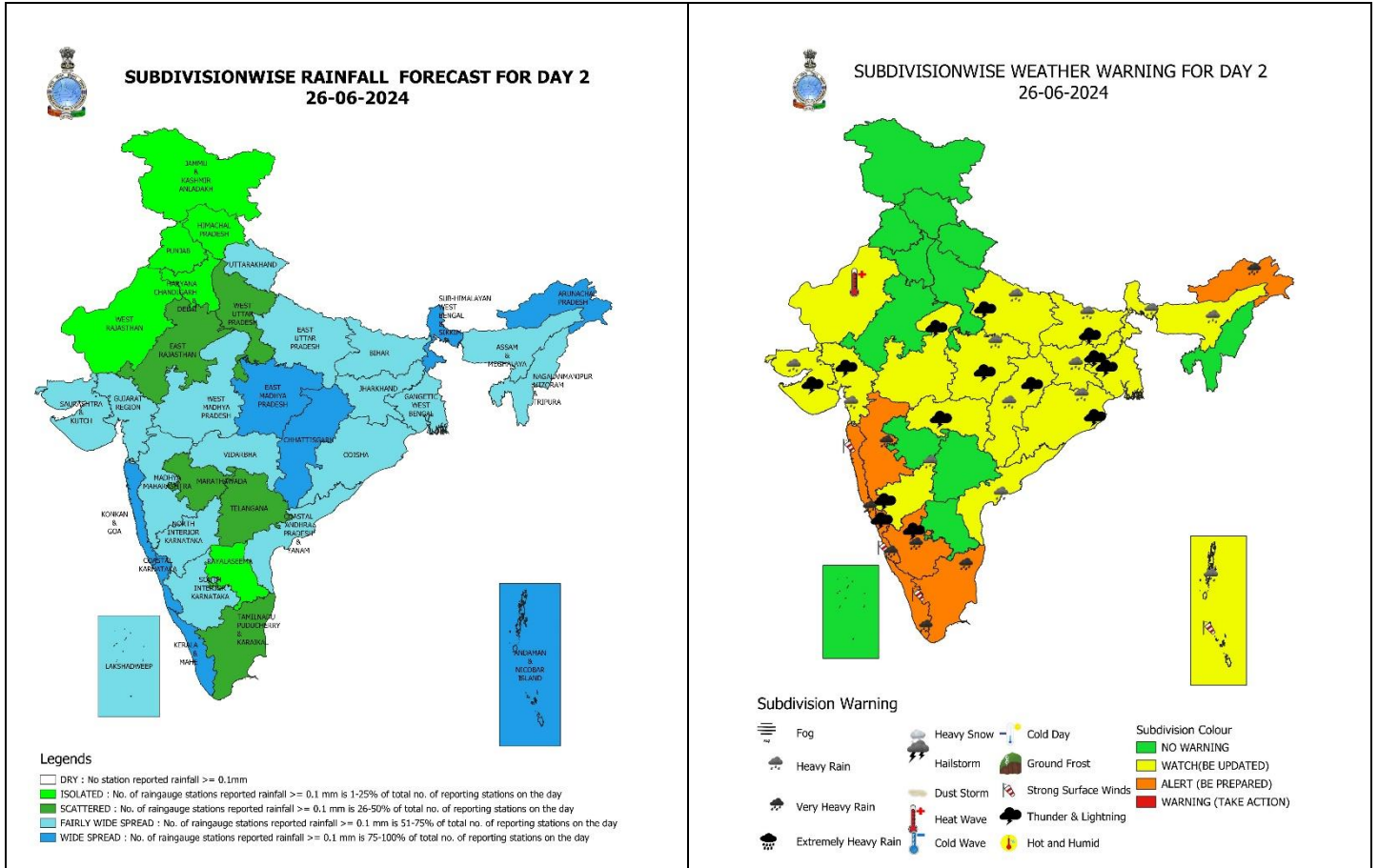
For more details, kindly refer: <http://aws.imd.gov.in:8091/>

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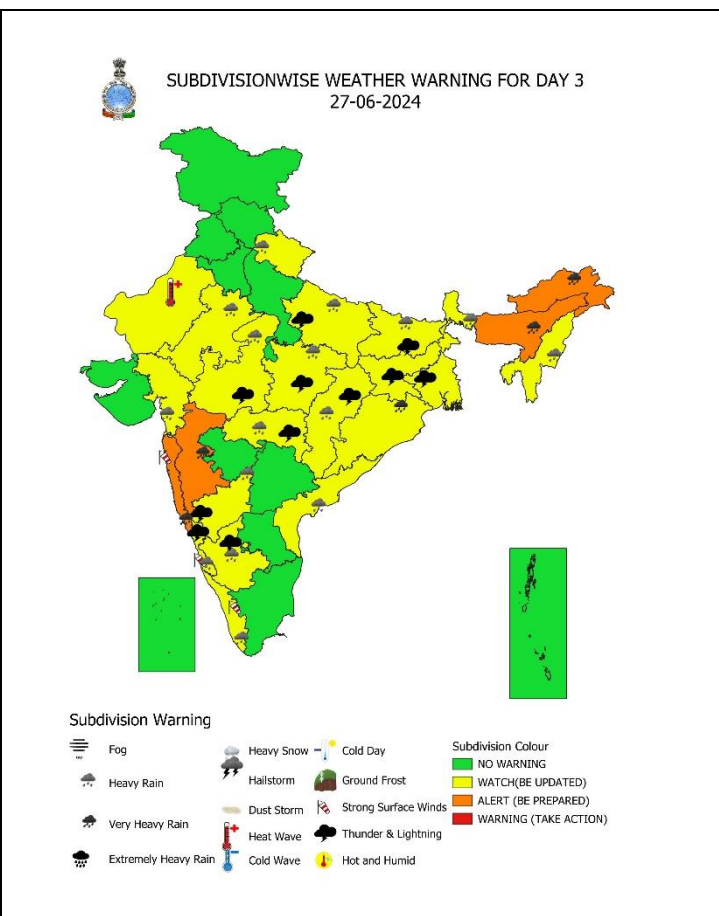
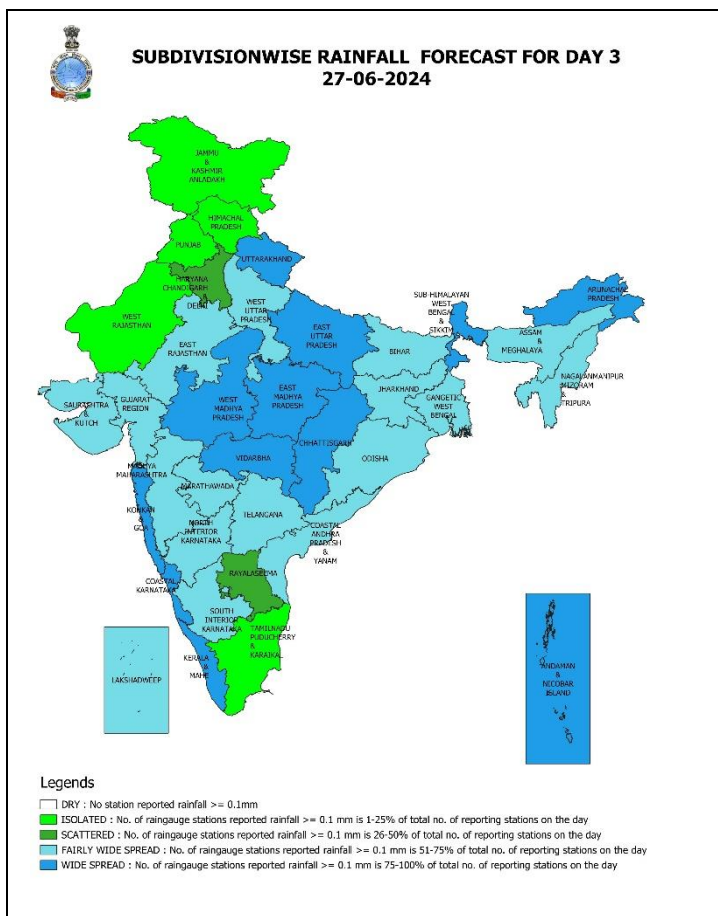
## 25 June (Day 1):

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



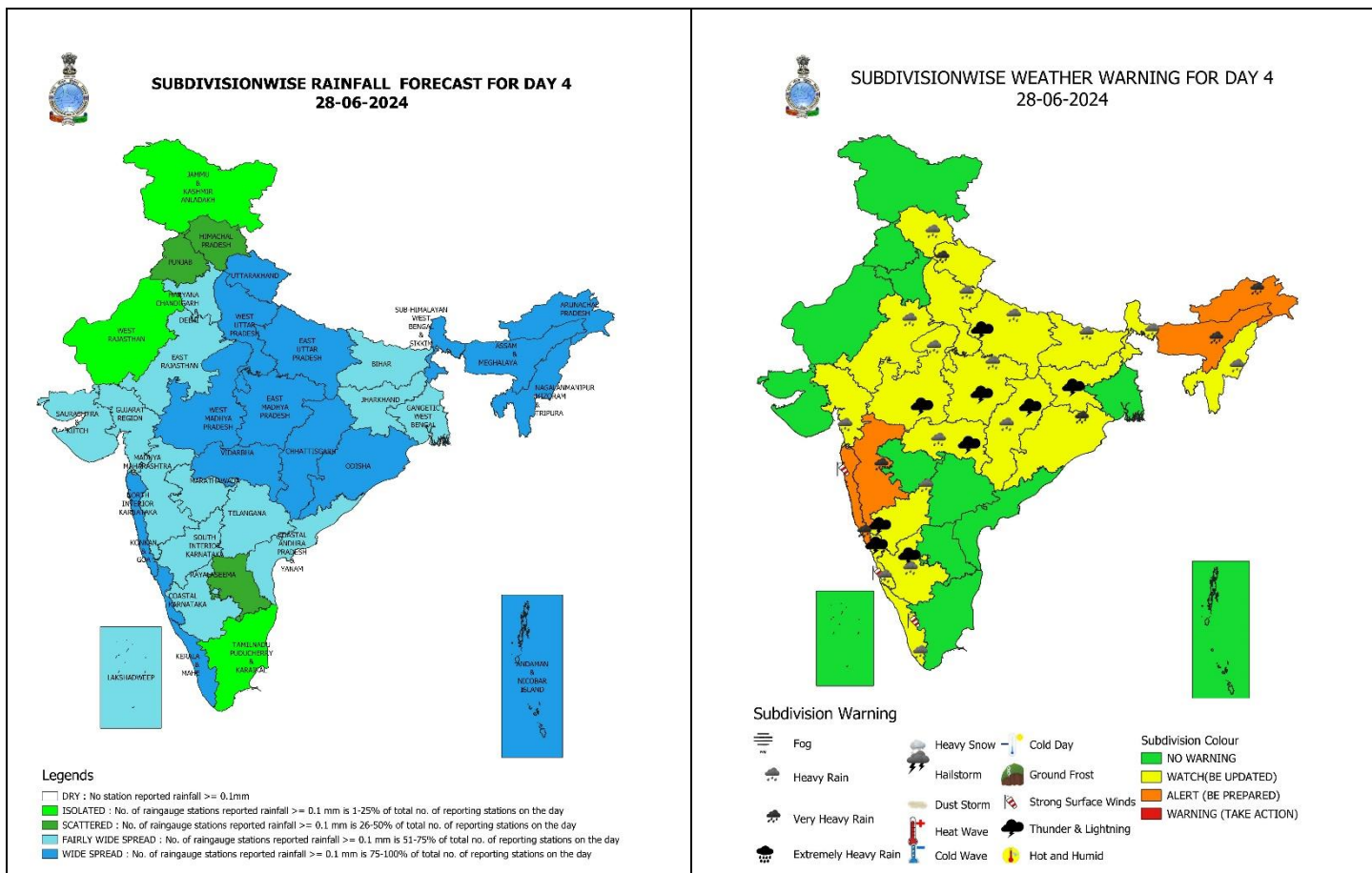
## 26 June (Day 2):

- ❖ **Heavy to very heavy rainfall** very likely at isolated places over Arunachal Pradesh, Konkan & Goa, Madhya Maharashtra, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe, Coastal & South Interior Karnataka; **heavy rainfall** at isolated places over East Uttar Pradesh, East Madhya Pradesh, Chhattisgarh, Andaman & Nicobar Islands, Sub-Himalayan West Bengal & Sikkim, Bihar, Jharkhand, Odisha, Assam & Meghalaya, Gujarat state, Coastal Andhra Pradesh & Yanam and North Interior Karnataka.
- ❖ **Thunderstorm accompanied with lightning, gusty winds (speed reaching 40-50 kmph)** very likely at isolated places over East Uttar Pradesh, Madhya Pradesh, Bihar, Gangetic West Bengal and Jharkhand; **with lightning & gusty winds (speed reaching 30-40 kmph)** at isolated places Vidarbha and Odisha; **with lightning** at isolated places over Chhattisgarh and Gujarat state.
- ❖ **Heat wave conditions** very likely in isolated pockets over West Rajasthan.
- ❖ **Squally weather with wind speed 35 kmph to 45 kmph gusting to 55 kmph** very likely to prevail over Lakshadweep area, adjoining Maldives area, along and off south Maharashtra, Konkan, goa, Karnataka, Kerala coasts, off Sri Lanka coast, south and central Bay of Bengal, north Andaman Sea. **squally weather with wind speed 45 kmph to 55 kmph gusting to 65 kmph** to prevail over gulf of Mannar, southwest Bay of Bengal and adjoining areas; along and off Somalia coast, south and central Arabian sea, along and off Yemen and Oman coasts. Fishermen are advised not to venture into these areas.



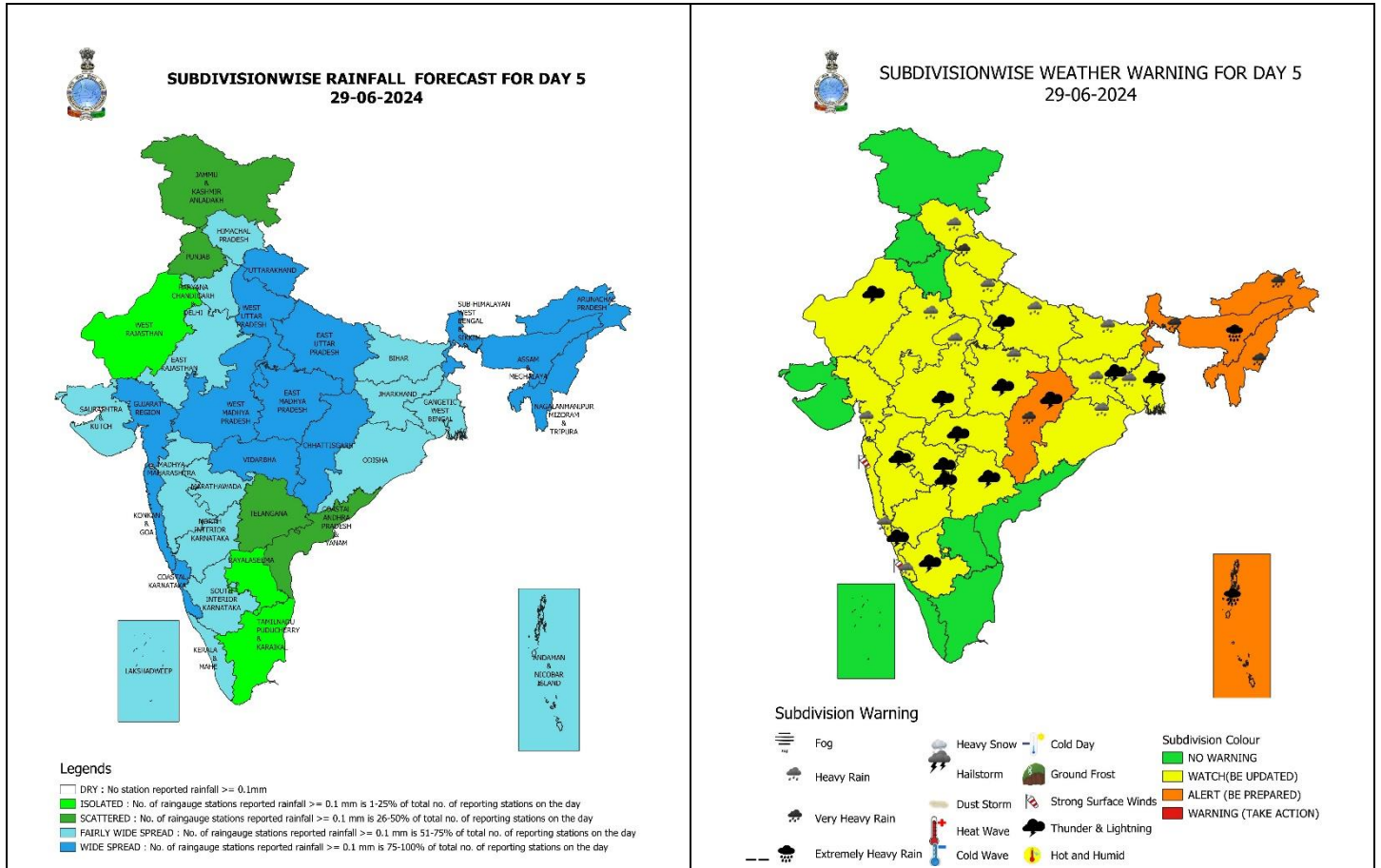
**27 June (Day 3):**

- ❖ **Heavy to very heavy rainfall** likely at isolated places over Odisha, Arunachal Pradesh, Assam & Meghalaya, Konkan & Goa and Madhya Maharashtra; **heavy rainfall** at isolated places over Uttarakhand, East Uttar Pradesh, East Rajasthan, Madhya Pradesh, Vidarbha, Chhattisgarh, Sub-Himalayan West Bengal & Sikkim, Bihar, Nagaland, Manipur, Mizoram & Tripura, Gujarat Region, Kerala & Mahe, Coastal Andhra Pradesh & Yanam and Karnataka.
- ❖ **Thunderstorm accompanied with lightning, gusty winds (speed reaching 40-50 kmph)** likely at isolated places over East Uttar Pradesh, Madhya Pradesh, Jharkhand and Gangetic West Bengal; **with lightning & gusty winds (speed reaching 30-40 kmph)** at isolated places Vidarbha and Bihar; **with lightning** at isolated places over Chhattisgarh.
- ❖ **Heat wave conditions** likely in isolated pockets over West Rajasthan.
- ❖ **Squally weather with wind speed 35 kmph to 45 kmph gusting to 55 kmph** likely to prevail over Lakshadweep area, adjoining Maldives area, along and off south Maharashtra, Konkan, goa, Karnataka, Kerala coasts, off Sri Lanka coast, south and central Bay of Bengal. **squally weather with wind speed 45 kmph to 55 kmph gusting to 65 kmph** to prevail over gulf of Mannar, southwest Bay of Bengal and adjoining central Bay of Bengal; along and off Somalia coast, south and central Arabian sea, along and off Yemen and Oman coasts. Fishermen are advised not to venture into these areas.



**28 June (Day 4):**

- ❖ **Heavy to very heavy rainfall** likely at isolated places over Uttarakhand, Odisha, Arunachal Pradesh, Assam & Meghalaya, Konkan & Goa, Madhya Maharashtra; **heavy rainfall** at isolated places over Himachal Pradesh, Uttar Pradesh, East Rajasthan, Madhya Pradesh, Vidarbha, Chhattisgarh, Sub-Himalayan West Bengal & Sikkim, Bihar, Nagaland, Manipur, Mizoram & Tripura, Gujarat Region, Kerala & Mahe and Karnataka.
- ❖ **Thunderstorm accompanied with lightning, gusty winds (speed reaching 40-50 kmph)** likely at isolated places over East Uttar Pradesh and Madhya Pradesh; **with lightning & gusty winds (speed reaching 30-40 kmph)** at isolated places Vidarbha and Jharkhand; **with lightning** at isolated places over Chhattisgarh.
- ❖ **Squally weather with wind speed 35 kmph to 45 kmph gusting to 55 kmph** likely to prevail over Lakshadweep area, adjoining Maldives area, along and off south Maharashtra, Konkan, goa, Karnataka, Kerala coasts, off Sri Lanka coast, south and central Bay of Bengal. **squally weather with wind speed 45 kmph to 55 kmph gusting to 65 kmph** to prevail over gulf of Mannar, southwest Bay of Bengal and adjoining central Bay of Bengal; along and off Somalia coast, south and central Arabian sea, along and off Yemen and Oman coasts. Fishermen are advised not to venture into these areas.

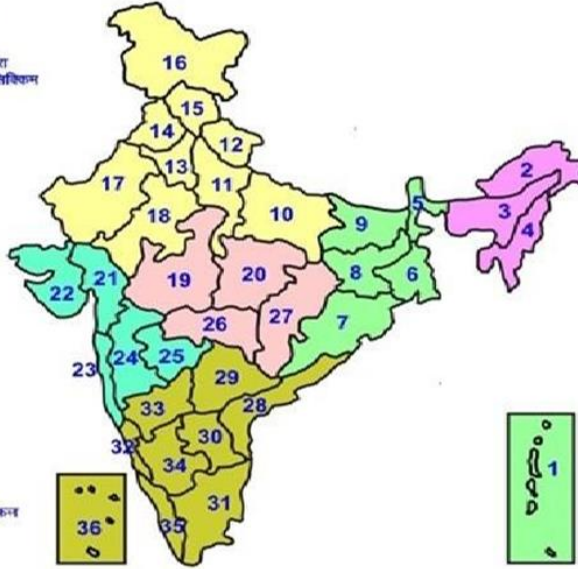


## 29 June (Day 5):

- ❖ **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 Nagaland, Manipur, Mizoram & Tripura, Uttarakhand, Odisha, Arunachal Pradesh, Sub-Himalayan West Bengal & Sikkim, Chhattisgarh; **heavy rainfall** at isolated places over Konkan & Goa, Odisha, Himachal Pradesh, Uttar Pradesh, East Rajasthan, Madhya Pradesh, Bihar, Gujarat Region, Jharkhand, Gangetic West Bengal and coastal Karnataka.
- ❖ **Thunderstorm accompanied with lightning, gusty winds (speed reaching 40-50 kmph)** likely at isolated places over East Uttar Pradesh and Madhya Pradesh; **with lightning & gusty winds (speed reaching 30-40 kmph)** at isolated places Vidarbha and Jharkhand; **with lightning** at isolated places over Chhattisgarh, Marathwada, Telangana, West Rajasthan, Gangetic West Bengal.
- ❖ **Squally weather with wind speed 35 kmph to 45 kmph gusting to 55 kmph** likely to prevail over Lakshadweep area, adjoining Maldives area, along and off south Maharashtra, Konkan, goa, Karnataka, Kerala coasts, off Sri Lanka coast, south and central Bay of Bengal. **squally weather with wind speed 45 kmph to 55 kmph gusting to 65 kmph** to prevail over gulf of Mannar, southwest Bay of Bengal and adjoining central Bay of Bengal; along and off Somalia coast, south and central Arabian sea, along and off Yemen and Oman coasts. Fishermen are advised not to venture into these areas.

## LEGENDS

- 1 अंडमान और निकोबार द्वीप समूह
- 2 अरुणाचल प्रदेश
- 3 असम और मेघालय
- 4 नागालैंड मनीपुर मिजोरम और त्रिपुरा
- 5 उप हिमालय पश्चिम बंगाल एवं सिक्किम
- 6 पश्चिम बंगाल
- 7 ओडिशा
- 8 झारखंड
- 9 बिहार
- 10 पूर्वी उत्तर प्रदेश
- 11 पश्चिम उत्तर प्रदेश
- 12 उत्तराखंड
- 13 हरियाणा चंडीगढ़ एवं दिल्ली
- 14 पंजाब
- 15 हिमाचल प्रदेश
- 16 जम्मू एवं कश्मीर एवं लद्दाख
- 17 पश्चिम राजस्थान
- 18 पूर्वी राजस्थान
- 19 पश्चिम मध्य प्रदेश
- 20 पूर्वी मध्य प्रदेश
- 21 गुजरात क्षेत्र
- 22 सोराष्ट्र एवं कच्छ
- 23 कोकण एवं गोवा
- 24 मध्य महाराष्ट्र
- 25 महाराष्ट्र
- 26 विदर्भ
- 27 उत्तरीसमूह, पुदुचेरी एवं कराईकल
- 28 तटीय आंध्र प्रदेश एवं यानम
- 29 तेलंगाना
- 30 रायलसेमा
- 31 तमिलनाडु, पुदुचेरी एवं कराईकल
- 32 उत्तरी कर्नाटक
- 33 अंतरीक उत्तरी कर्नाटक
- 34 अंतरीक दक्षिणी कर्नाटक
- 35 केरल एवं माहे
- 36 लक्षद्वीप



1. Andaman & Nicobar Islands
2. Arunachal Pradesh
3. Assam & Meghalaya
4. Nagaland, Manipur, Mizoram & Tripura
5. Sub-Himalayan West Bengal & Sikkim
6. Gangetic West Bengal
7. Odisha
8. Jharkhand
9. Bihar
10. East Uttar Pradesh
11. West Uttar Pradesh
12. Uttarakhand
13. Haryana, Chd & Delhi
14. Punjab
15. Himachal Pradesh
16. Jammu & Kashmir and Ladakh
17. West Rajasthan
18. East Rajasthan
19. West Madhya Pradesh
20. East Madhya Pradesh
21. Gujarat
22. Saurashtra
23. Konkan & Goa
24. Madhya Maharashtra
25. Marathwada
26. Vidharbha
27. Chhattisgarh
28. Coastal Andhra Pradesh & Yanam
29. Telangana
30. Rayalaseema
31. Tamilnada, Puducherry & Karaikal
32. Coastal Karnataka
33. North Interior Karnataka
34. South Interior Karnataka
35. Kerala & Mahe
36. Lakshadweep

## SPATIAL DISTRIBUTION (% of Stations reporting)

% Stations	Category	% Stations	Category
76-100	Widespread (WS/ Most Places)	26-50	Scattered (SCT/ A Few Places)
51-75	Fairly Widespread (FWS/ Many Places)	1-25	Isolated (ISOL)

## WARNING

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

## Probabilistic Forecast

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

## LEGENDS

### WARNING

WARNING (TAKE ACTION)
ALERT (BE PREPARED)
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)