

Friday, May 17, 2024  
Time of Issue: 0800 hours IST  
(MORNING)

## ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

### Significant Weather Features:

#### Weather Systems and Forecast & Warnings:

- ❖ Southwest Monsoon is very likely to advance into South Andaman Sea, some parts of Southeast Bay of Bengal and Nicobar Islands around 19<sup>th</sup> May, 2024.
- ❖ A cyclonic circulation lies over Comorin area & adjoining south Tamil Nadu coast and a trough runs from this cyclonic circulation to Lakshadweep 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 Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe, Lakshadweep, south Karnataka and Isolated light to moderate rainfall accompanied with **thunderstorm, lightning & gusty winds (30-40 kmph)** over Coastal Andhra Pradesh & Yanam, Telangana and Rayalaseema during next 7 days.
  - **Isolated heavy rainfall very likely over Tamil Nadu-Puducherry-Karaikal, Kerala-Mahe; South Interior Karnataka during 17<sup>th</sup>-21<sup>st</sup>; over Coastal Karnataka during 17<sup>th</sup>-19<sup>th</sup> and Lakshadweep during 19<sup>th</sup>-21<sup>st</sup> May, 2024.**
  - **Isolated very heavy rainfall very likely over Tamil Nadu, Puducherry & Karaikal during 17<sup>th</sup>-21<sup>st</sup>; Kerala & Mahe and South Interior Karnataka during 18<sup>th</sup>-21<sup>st</sup> May, 2024.**
  - **Isolated extremely heavy rainfall also very likely over Tamil Nadu and Kerala on 20<sup>th</sup> May, 2024.**
  - Isolated light rainfall accompanied with **thunderstorm, lightning & gusty winds (30-40 kmph)** very likely over Konkan & Goa, Madhya Maharashtra, Marathwada during 17<sup>th</sup>-18<sup>th</sup> May.
  - Scattered to fairly widespread light to moderate rainfall very likely over Andaman & Nicobar Islands during next 7 days. **Isolated heavy rainfall very likely over Nicobar Islands on 20<sup>th</sup> May.**
  - Isolated light to moderate rainfall accompanied with **thunderstorm, lightning & gusty winds (30-40 kmph)** very likely over Odisha during next 7 days; over Bihar, Jharkhand, Gangetic West Bengal during 19<sup>th</sup>-22<sup>nd</sup> May.
- ❖ A cyclonic circulation lies over northeast Assam & neighbourhood in lower tropospheric levels. Under its influence:
  - Scattered to fairly widespread light to moderate rainfall accompanied with **thunderstorm, lightning & gusty winds (40-50 kmph)** very likely over Sub-Himalayan West Bengal & Sikkim during next 7 days.
  - Fairly widespread to widespread light to moderate rainfall accompanied with **thunderstorm, lightning & gusty winds (30-40 kmph)** very likely over Arunachal Pradesh, Assam, Meghalaya, Nagaland, Manipur, Mizoram and Tripura during next 7 days.
  - **Isolated heavy rainfall also likely over Sikkim on 19<sup>th</sup> & 20<sup>th</sup>; Arunachal Pradesh during 17<sup>th</sup>-19<sup>th</sup> and Assam & Meghalaya during 17<sup>th</sup>-20<sup>th</sup> May, 2024.**
- ❖ A fresh Western Disturbance likely to affect Western Himalayan region from 17<sup>th</sup> May. Under its influence; Isolated to scattered light rainfall activity very likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh and Uttarakhand during 17<sup>th</sup>-19<sup>th</sup> May, 2024.

#### Maximum temperature observation:

- ❖ **Areas having maximum temperatures greater than 43°C:** Yesterday, maximum temperatures were in the range of 43-46°C in most places over Rajasthan; in many places over south Haryana, Gujarat Region and Uttar Pradesh, in some places over Bihar and Madhya Pradesh. These were above normal by 2-4°C over these regions.

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

- ❖ **Heat wave conditions** very likely in isolated/some pockets over Rajasthan, Punjab, Haryana and Uttar Pradesh during 17<sup>th</sup>-21<sup>st</sup>; north Madhya Pradesh during 18<sup>th</sup>-21<sup>st</sup> May, 2024. **Severe Heat wave conditions also very likely in some parts of West Rajasthan during 17<sup>th</sup>-21<sup>st</sup>; Punjab, Haryana-Delhi during 18<sup>th</sup>-21<sup>st</sup> May, 2024.**
- ❖ **Heat wave conditions** very likely in isolated pockets over Gujarat state during 17<sup>th</sup>-18<sup>th</sup>; Bihar during 17<sup>th</sup>-19<sup>th</sup>; Jharkhand during 18<sup>th</sup>-21<sup>st</sup>; Gangetic West Bengal on 18<sup>th</sup> & 19<sup>th</sup>; Odisha during 19<sup>th</sup>-21<sup>st</sup> May, 2024.
- ❖ **Hot and humid weather** very likely to prevail over Sub-Himalayan West Bengal on 17<sup>th</sup> May.

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Forecast and Warning for any day is valid from 0830 hours IST of day till 0830 hours IST of next day.

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### Main Weather Observations:

- ❖ **Rainfall distribution** (from 0830 hours IST to 1730 hours IST of yesterday): at many places over Kerala & Mahe and Tamil Nadu, Puducherry & Karaikal; at a few places over Coastal Andhra Pradesh & Yanam and at isolated places over Assam & Meghalaya, Sub-Himalayan West Bengal & Sikkim, East Madhya Pradesh, Vidarbha, Telangana, Konkan & Goa, Interior Karnataka, Madhya Maharashtra.
- ❖ **Heavy rainfall** observed (from 0830 hours IST to 1730 hours IST of yesterday): **Very heavy rainfall recorded** at isolated places over Assam & Meghalaya.
- ❖ **Significant amount of rainfall** (from 0830 hours IST to 1730 hours IST of yesterday): (in cm): **Assam & Meghalaya:** Shillong-13; **Telangana:** Hyderabad-6; **Tamil Nadu, Puducherry & Karaikal:** valparai-6 and Kanyakumari-3; **Kerala & Mahe:** Thiruvananthapuram- 6 and Panalur-2; **Coastal Andhra Pradesh & Yanam:** Onngole-5; **North Interior Karnataka:** Belgaum-4 and Vidarbha-2.
- ❖ Yesterday, **Heatwave conditions** prevailed in isolated pockets of Gujarat state.
- ❖ **Minimum Temperature Departures (as on 16-05-2024):** Minimum temperatures were **appreciably above normal (3.1°C to 5.0°C)** at a few places over Bihar; at isolated places over West Rajasthan, Sub-Himalayan West Bengal & Sikkim, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura; **above normal (1.6°C to 3.0°C)** at a few places over Gangetic West Bengal and Andaman & Nicobar Islands; at isolated places over East Rajasthan, East Uttar Pradesh, Jharkhand, Odisha, Gujarat State, Konkan & Goa and Madhya Maharashtra. These were **appreciably below normal (-3.1°C to -5.0°C)** at a few places over Tamil Nadu, Puducherry & Karaikal; at isolated places over East Madhya Pradesh, Vidarbha and Telangana; **below normal (-1.6°C to -3.0°C)** at a few places over West Madhya Pradesh and Lakshadweep; at isolated places over Himachal Pradesh, Uttarakhand and Delhi and **near normal** over rest parts of the country. Yesterday, **the lowest minimum temperature** of 19.0°C was reported at **Bulandshahr (West Uttar Pradesh)** over the plains of the country.
- ❖ **Maximum Temperature Departures (as on 16-05-2024):** Maximum temperatures were **markedly above normal (5.1°C or more)** at few places over Assam & Meghalaya; at isolated places over Arunachal Pradesh; **appreciably above normal (3.1°C to 5.0°C)** at a few places over Nagaland, Manipur, Mizoram & Tripura and Bihar; at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Punjab, Himachal Pradesh, Gujarat state and Konkan & Goa; **above normal (1.6°C to 3.0°C)** at most places over Haryana-Chandigarh-Delhi; at many places over Uttarakhand; at a few places over Uttar Pradesh; at isolated places over Andaman & Nicobar Islands, Rajasthan, Jharkhand, Gangetic West Bengal and Kerala & Mahe. These were **markedly above normal (-5.1°C or less)** at isolated places over East Madhya Pradesh, Vidarbha, Telangana, Marathwada, North Interior Karnataka and Coastal Andhra Pradesh & Yanam; **below normal (-1.6°C to -3.0°C)** at a few places over Chhattisgarh; at isolated places over West Madhya Pradesh, Rayalaseema, Tamil Nadu, Puducherry & Karaikal and **near normal** over rest parts of the country. Yesterday, **the highest maximum temperature** of 46.3°C was reported at **Sri Ganganagar (Rajasthan)** over the country.

## Meteorological Analysis (Based on 0530 hours IST)

- ❖ The cyclonic circulation over Comorin area & adjoining south Tamil Nadu coast between 1.5 km & 4.5 km above mean sea level persists.
- ❖ The east-west trough from the cyclonic circulation over Comorin area & adjoining south Tamil Nadu to Lakshadweep area at 1.5 km above mean sea level persists.
- ❖ The trough in mid-tropospheric westerlies with its axis at 5.8 km above mean sea level roughly along long. 82°E to the north of lat. 25°N persists.
- ❖ The cyclonic circulation over central parts of East Rajasthan & neighbourhood at 0.9 km above mean sea level persists.
- ❖ The cyclonic circulation over northwest Rajasthan & neighbourhood at 0.9 km above mean sea level persists.
- ❖ The cyclonic circulation over south Bihar & neighbourhood at 0.9 km above mean sea level persists.
- ❖ The cyclonic circulation over south Bangladesh at 1.5 km above mean sea level persists.
- ❖ The cyclonic circulation over northeast Assam & neighbourhood extending upto 1.5 km above mean sea level persists.
- ❖ The cyclonic circulation over southwest Madhya Pradesh at 0.9 km above mean sea level persists.
- ❖ The cyclonic circulation over westcentral Arabian Sea off Yemen coast between 3.1 & 4.5 km above mean sea level persists.
- ❖ **Southwest Monsoon** is very likely to advance into South Andaman Sea, some parts of Southeast Bay of Bengal and Nicobar Islands around 19<sup>th</sup> May, 2024.
- ❖ A fresh Western Disturbance is likely to affect Western Himalayan Region from 17<sup>th</sup> May, 2024.

## Weather Forecast for next 7 days (Upto 0830 hours IST of 24<sup>th</sup> May, 2024)

- ❖ Meteorological sub-division wise detailed 7 days rainfall forecast is given in Table-1
- ❖ Gradual rise by about 2-3°C in maximum temperatures very likely over many parts of Northwest India and Gujarat state during next 2 days and no significant change thereafter.
- ❖ Gradual rise by about 2-4°C in maximum temperatures very likely over many parts of Central, East India and Maharashtra during next 3-4 days.
- ❖ No significant change in maximum temperatures very likely over rest parts of the country.

## Weather Outlook for subsequent 3 days (During 24<sup>th</sup>-26<sup>th</sup> May, 2024)

- ❖ Isolated to scattered light/moderate rainfall likely over Western Himalayan Region, Central, East, Northeast & south Peninsular India.
- ❖ Isolated to scattered fairly widespread to widespread rainfall likely over Islands.
- ❖ Dry weather likely to prevail over rest parts of the country.

Table-1

**7 Days Rainfall Forecast**

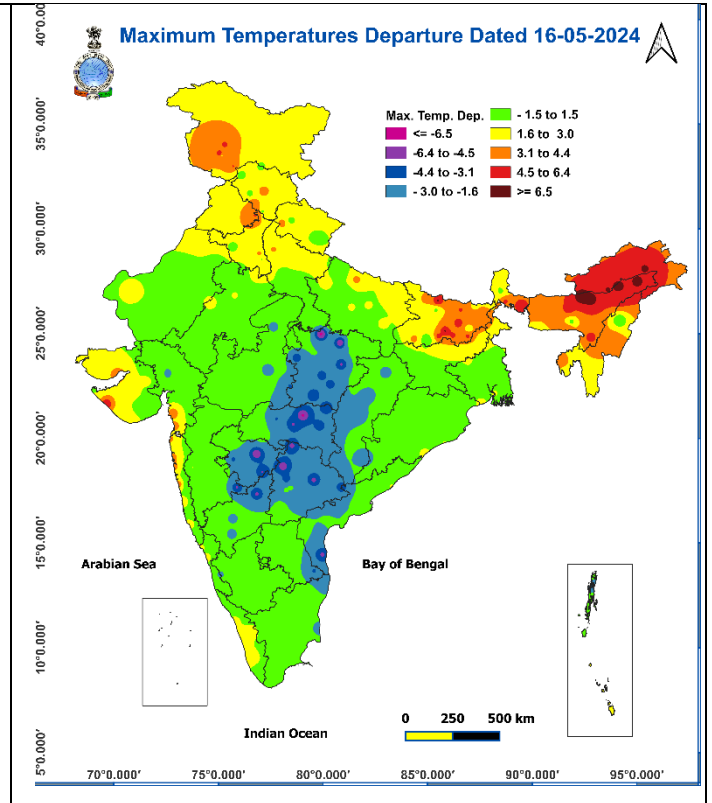
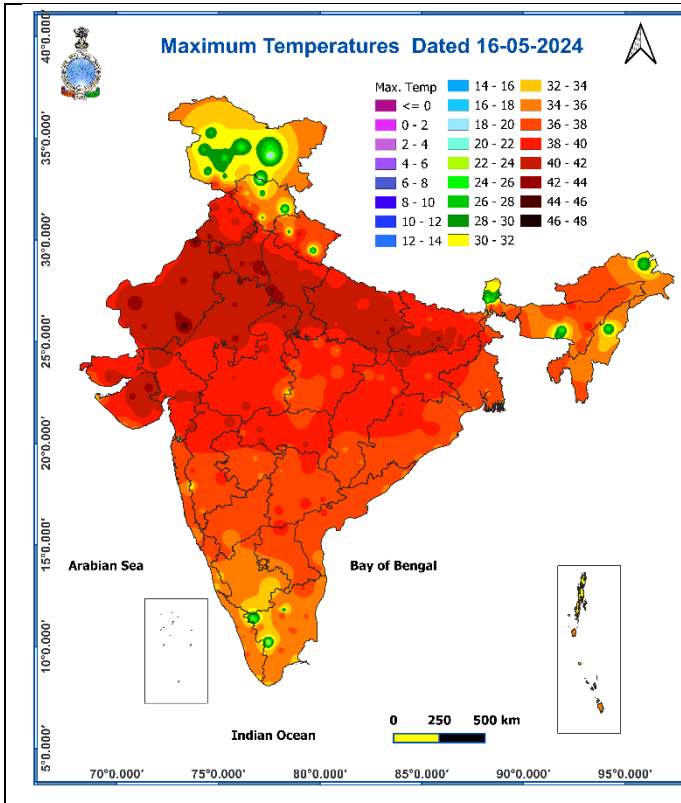
S. No.	Subdivision	17-May	18-May	19-May	20-May	21-May	22-May	23-May
		Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
1	ANDAMAN & NICOBAR ISLANDS	FWS	WS	WS	WS	WS	WS	WS
2	ARUNACHAL PRADESH	WS	WS	WS	WS	FWS	FWS	FWS
3	ASSAM & MEGHALAYA	FWS	WS	WS	WS	FWS	FWS	FWS
4	NAGALAND, MANIPUR, MIZORAM & TRIPURA	SCT	SCT	FWS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

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

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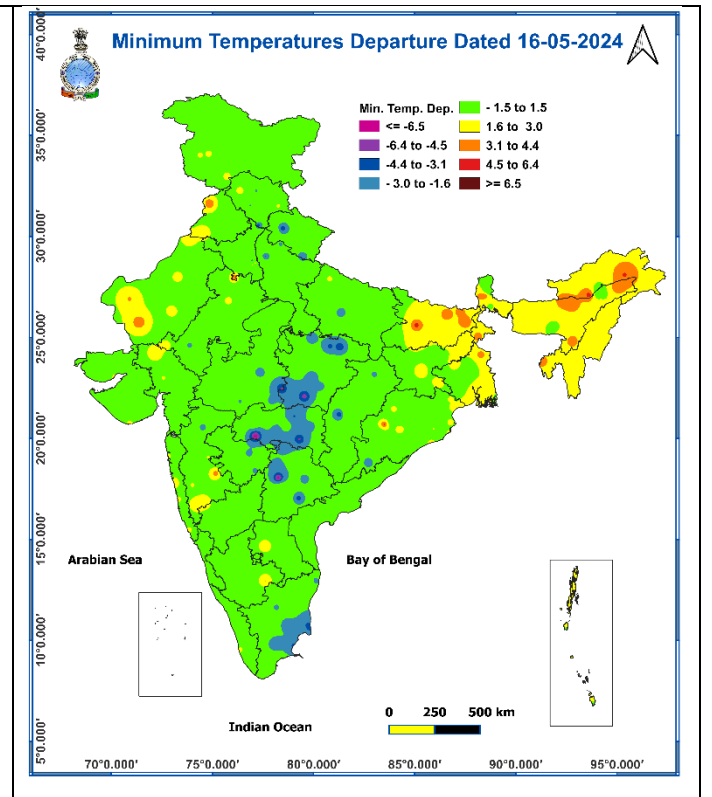
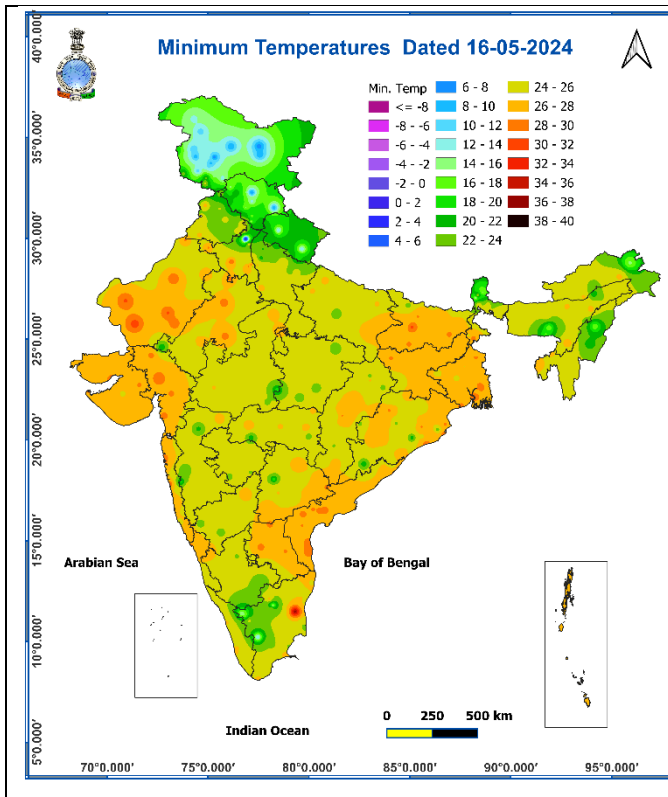
**Fig. 1: Maximum Temperatures**

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



**Fig. 3: Minimum Temperatures**

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

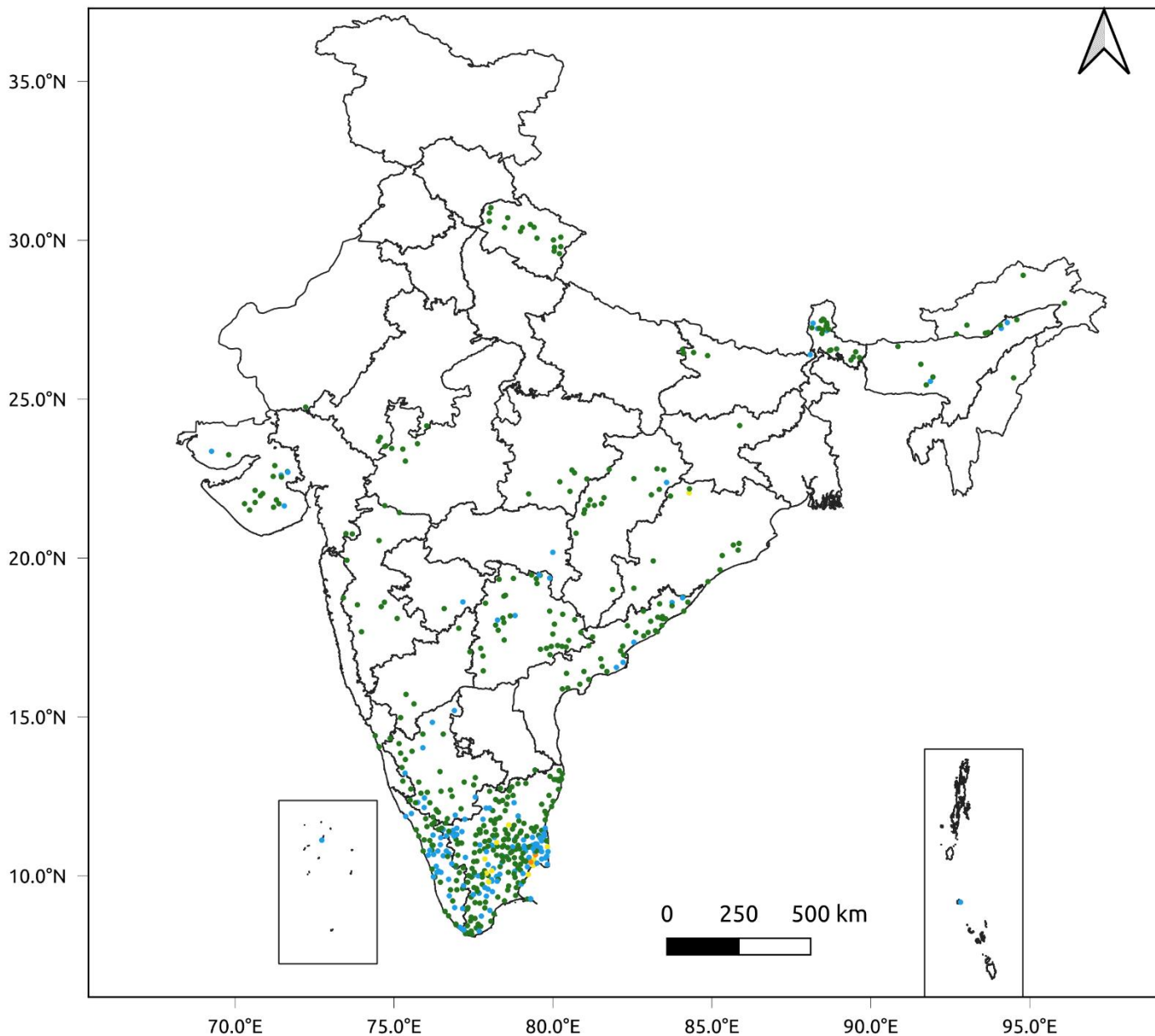


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Fig. 5: Accumulated Rainfall (mm) during past 24 hours



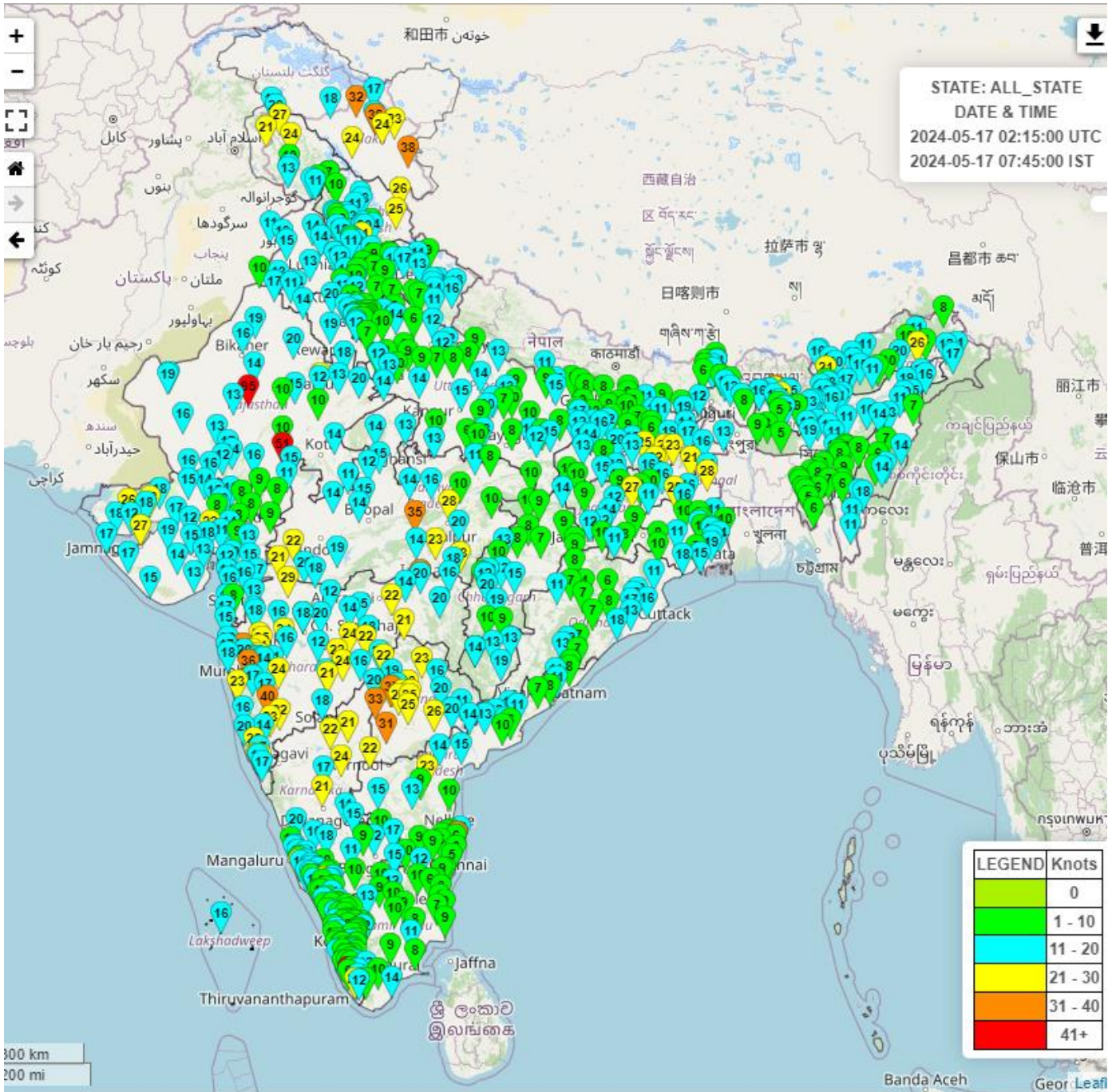
24 Hr cumulative rainfall recorded over different stations during 0830 IST of 15-5-2024 to 0830 IST of 16-5-2024



## 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)

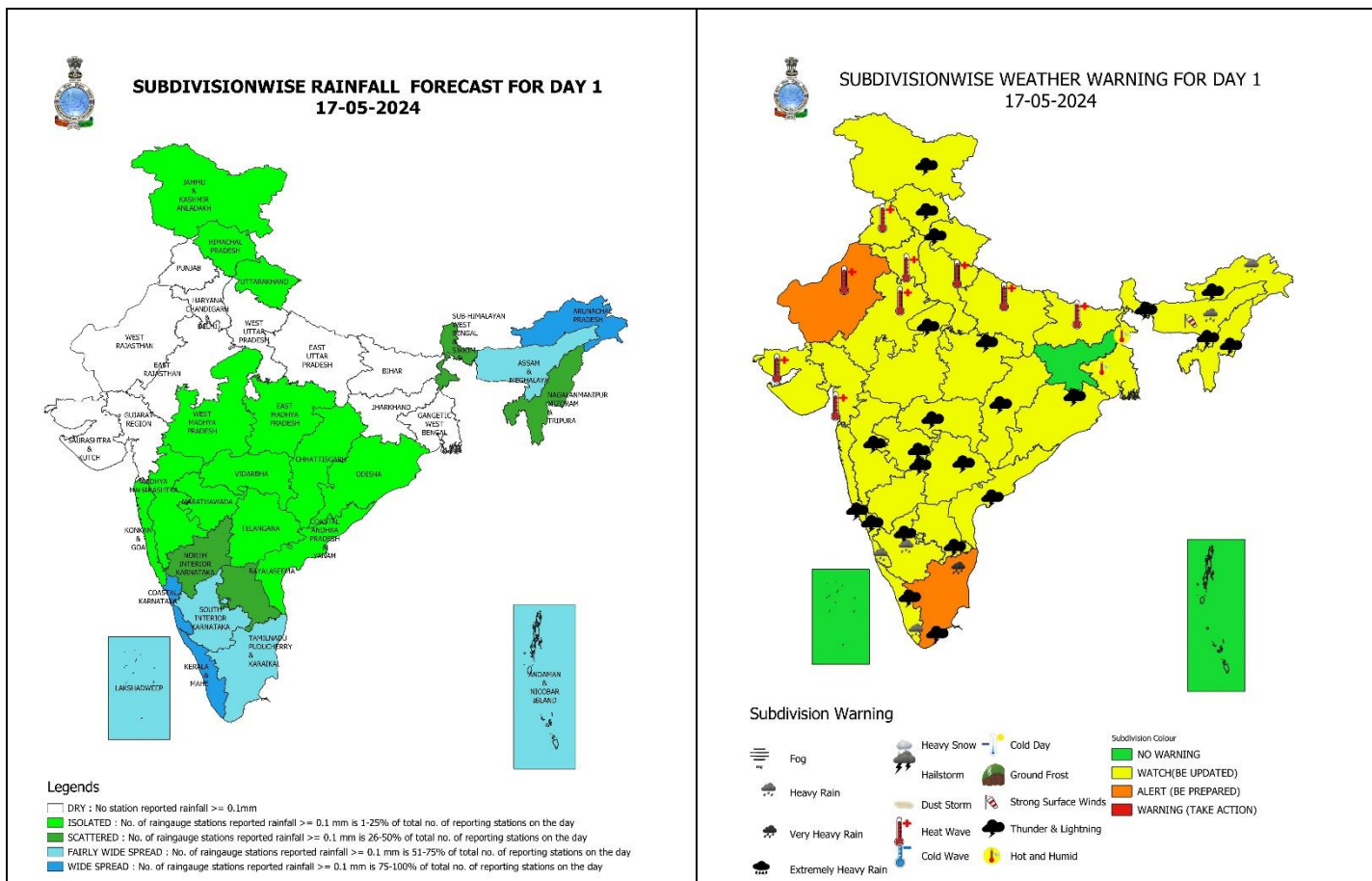
Gusty winds reported over the country (in knots) from 0830 hrs IST of 16.05.2024 to 0745 hrs IST of 17.05.2024



1 Knot = 1.852 kmph

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

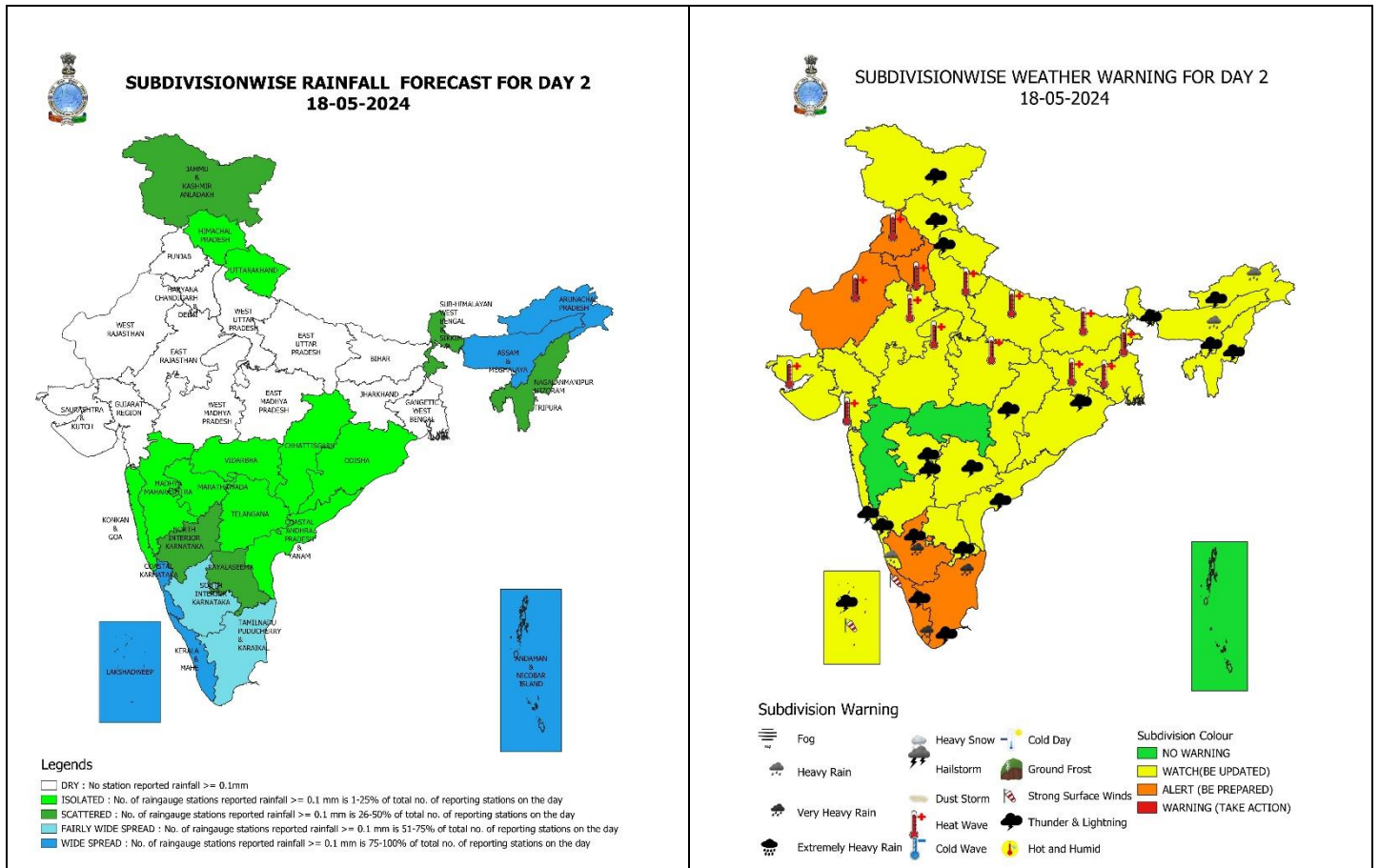
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## 17 May (Day 1):

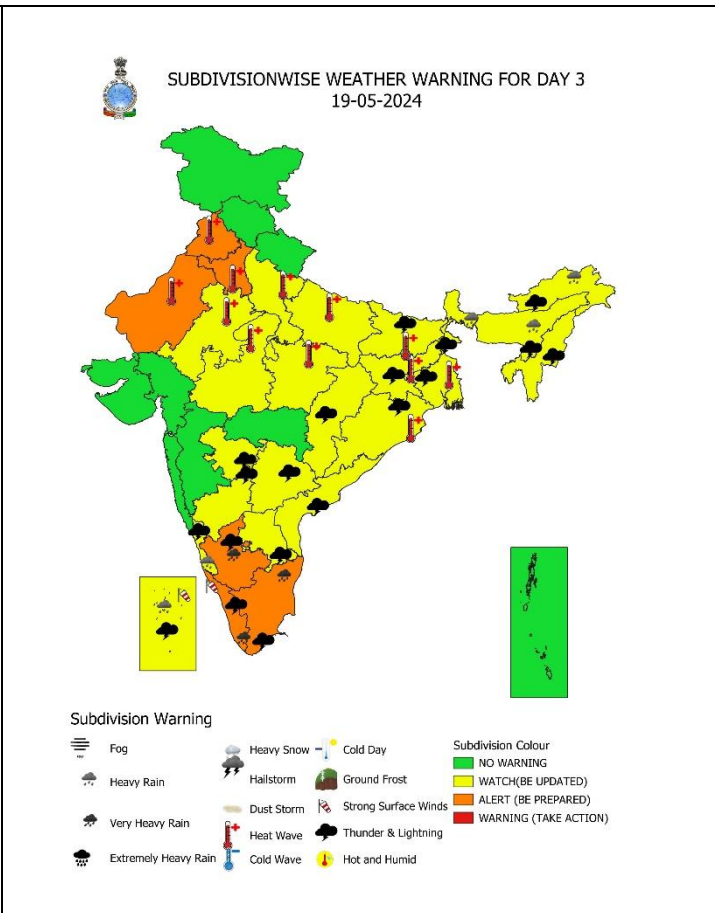
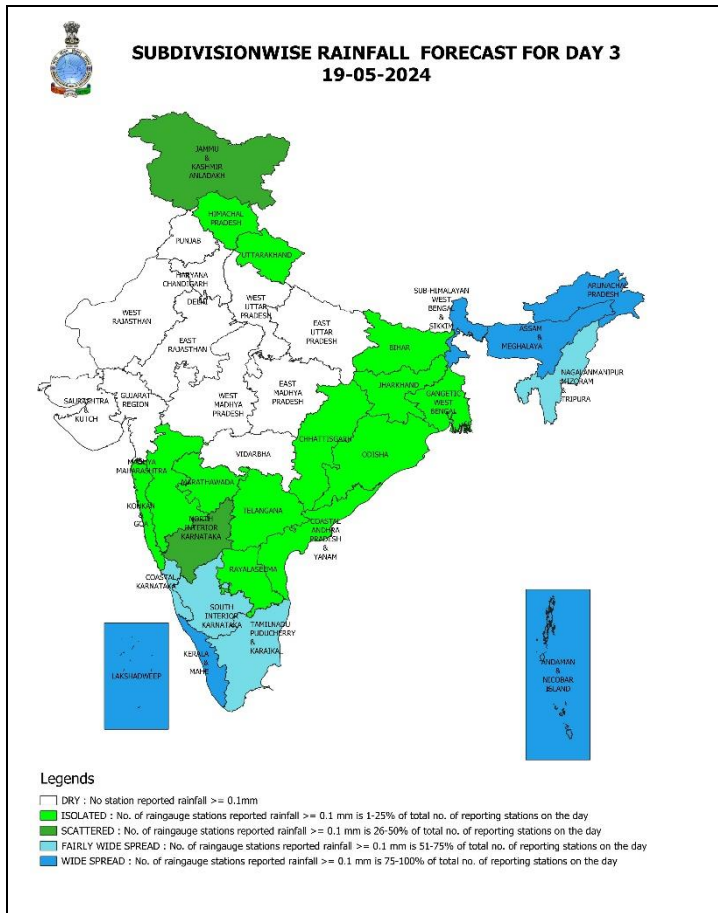
- ❖ **Thunderstorm accompanied with lightning & gusty winds (speed reaching 40-50 kmph)** very likely at isolated places over East Madhya Pradesh, Assam & Meghalaya, Coastal Andhra Pradesh & Yanam, Rayalaseema, Interior Karnataka, Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe; **with lightning & gusty winds (speed reaching 30-40 kmph)** at isolated places over Vidarbha, Chhattisgarh, Odisha, Nagaland, Manipur, Mizoram & Tripura and Telangana; **with lightning** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand, West Madhya Pradesh, Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh, Konkan & Goa, Madhya Maharashtra, Marathwada and Coastal Karnataka.
- ❖ **Heavy to very Heavy rainfall** very likely at isolated places over Tamil Nadu, Puducherry & Karaikal; **Heavy rainfall** at isolated places over Arunachal Pradesh, Assam & Meghalaya, Coastal Karnataka, South Interior Karnataka and Kerala & Mahe.
- ❖ **Heat Wave to severe heat wave Conditions** very likely to prevail in some parts of West Rajasthan, **Heat Wave conditions** very likely in some parts of Punjab, Haryana; in isolated pockets Uttar Pradesh, East Rajasthan, Bihar and Gujarat State.
- ❖ **Hot and humid weather** very likely to prevail over West Bengal.
- ❖ **Squally weather with wind speed 40 kmph to 45 kmph gusting to 55 kmph** very likely to prevail Comorin area, Gulf of Mannar, along and off south Tamil Nadu coast, along and off Sri Lanka coast and adjoining southwest Bay of Bengal. Fishermen are advised not to venture into these areas.





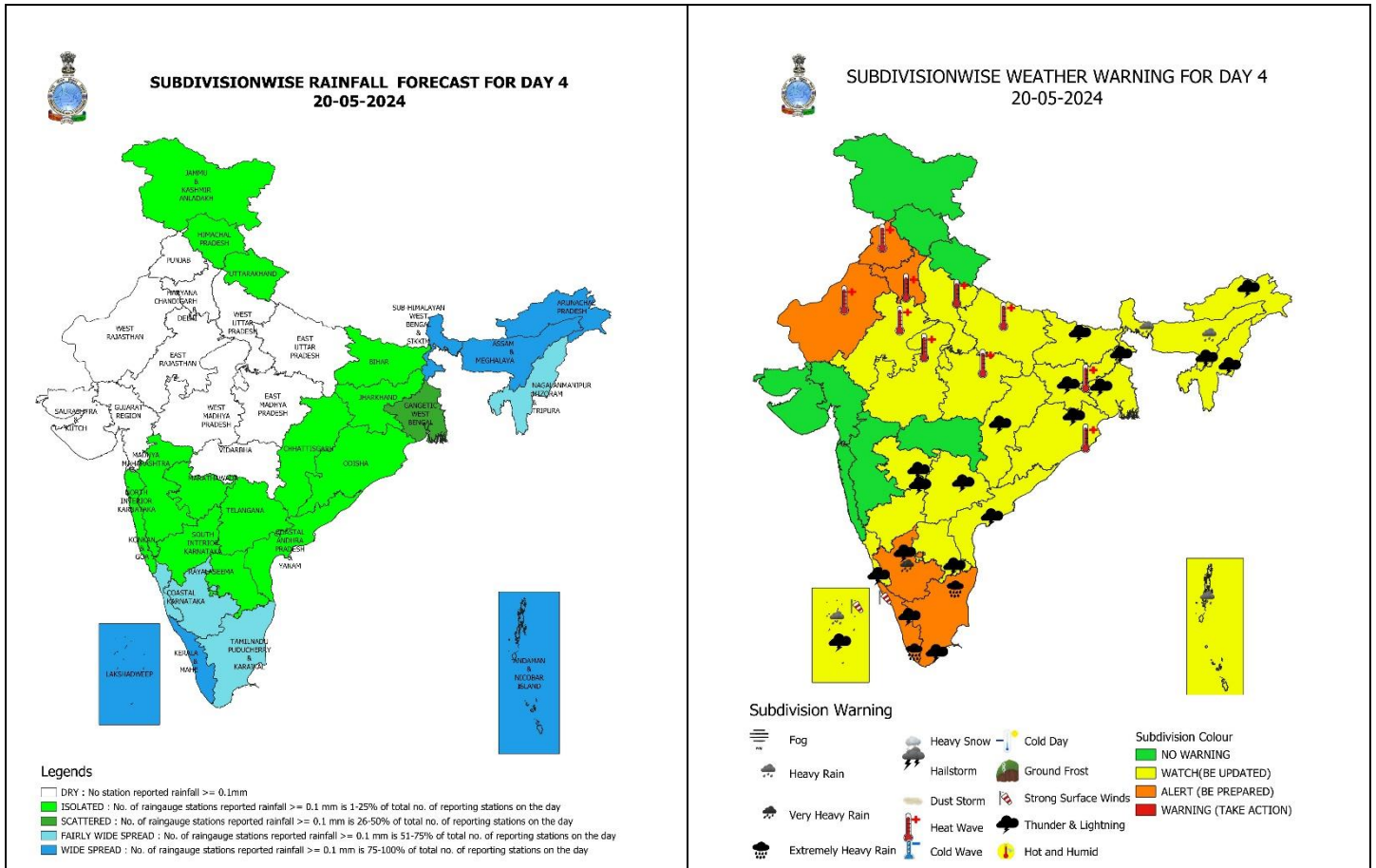
**18 May (Day 2):**

- ❖ **Thunderstorm accompanied with lightning & gusty winds (speed reaching 40-50 kmph)** very likely at isolated places over Coastal Andhra Pradesh & Yanam, Rayalaseema, Interior Karnataka, Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe; **with lightning & gusty winds (speed reaching 30-40 kmph)** at isolated places over Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Telangana and Chhattisgarh; **with lightning** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand, Marathwada, Konkan & Goa, Sub-Himalayan West Bengal & Sikkim, Odisha, Arunachal Pradesh, Coastal Karnataka and Lakshadweep.
- ❖ **Heavy to very heavy rainfall** very likely at isolated places over Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe and South Interior Karnataka and **Heavy rainfall** at isolated places over Arunachal Pradesh, Assam & Meghalaya and Coastal Karnataka.
- ❖ **Heat Wave to severe heat wave Conditions** very likely to prevail in many parts of Punjab and Haryana; in some parts of West Rajasthan and **heat wave conditions** in some parts of Uttar Pradesh; in isolated pockets over Delhi, West Bengal, Bihar, Jharkhand, Gujarat State and north Madhya Pradesh.
- ❖ **Squally weather with wind speed 40 kmph to 45 kmph gusting to 55 kmph** Likely to Prevailing Over Maldives Area and Adjoining Lakshadweep Area, along and off south Kerala Coast, Comorin Area, Gulf of Mannar. Fishermen are advised not to venture into these areas.



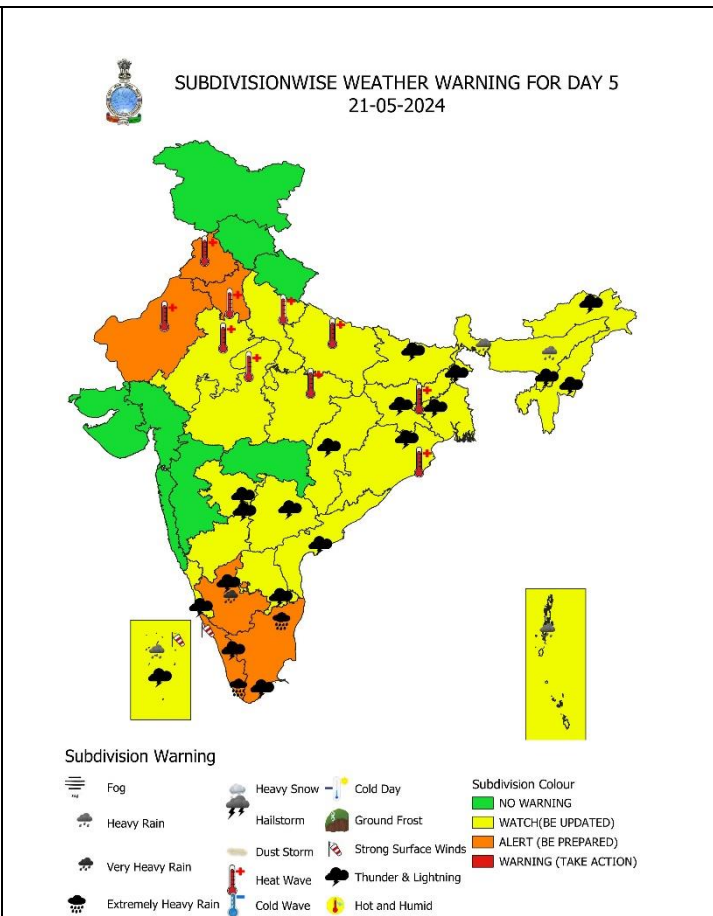
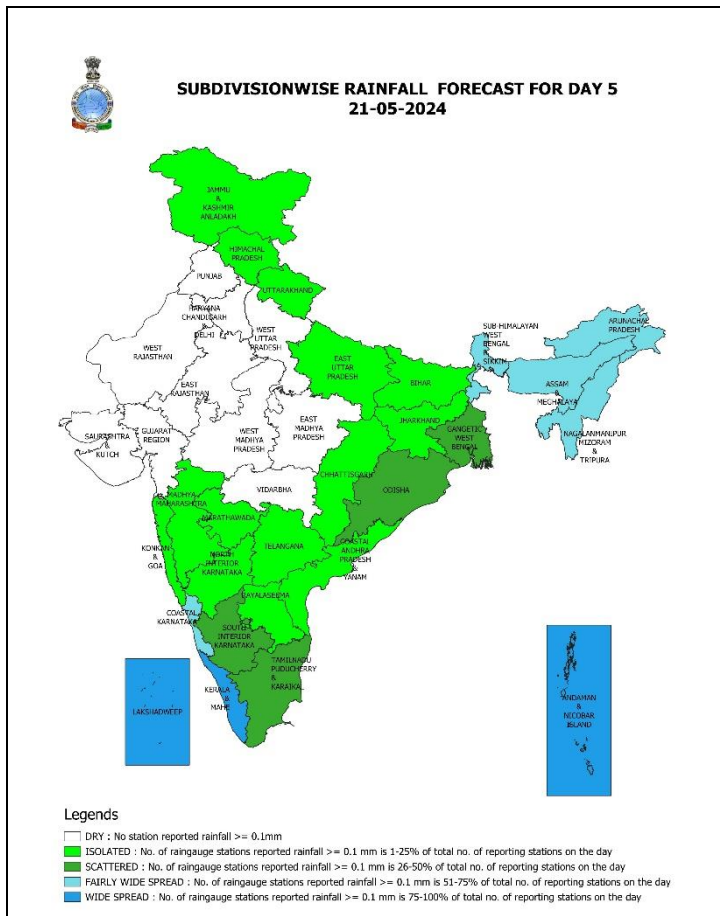
**19 May (Day 3):**

- ❖ **Thunderstorm accompanied with lightning & gusty winds (speed reaching 40-50 kmph)** likely at isolated places over Sub-Himalayan West Bengal & Sikkim, Bihar, Tamil Nadu, Puducherry & Karaikal and Interior Karnataka; **with lightning & gusty winds (speed reaching 30-40 kmph)** at isolated places over Jharkhand, Assam & Meghalaya, Coastal Andhra Pradesh & Yanam, Rayalaseema, Telangana, Chhattisgarh and Kerala & Mahe; **with lightning** at isolated places over Marathwada, Gangetic West Bengal, Arunachal Pradesh, Nagaland, Manipur, Mizoram & Tripura, Coastal Karnataka and Lakshadweep.
- ❖ **Heavy to very heavy rainfall** likely at isolated places over Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe and South Interior Karnataka and **Heavy rainfall** at isolated places over Arunachal Pradesh, Assam & Meghalaya, Coastal Karnataka, Lakshadweep and Sikkim.
- ❖ **Heat Wave to severe heat wave Conditions** likely to prevail in many parts over Punjab and Haryana; in some parts over West Rajasthan; and **heat wave conditions** in some parts of Uttar Pradesh; in isolated pockets over Delhi, East Rajasthan, Gangetic West Bengal, Bihar, Jharkhand, Odisha and north Madhya Pradesh.
- ❖ **Squally weather with wind speed 40 kmph to 45 kmph gusting to 55 kmph** Likely to Prevailing Over Maldives Area and Adjoining Lakshadweep Area, along and off south Kerala Coast, Comorin Area, Gulf of Mannar. Fishermen are advised not to venture into these areas.



**20 May (Day 4):**

- ❖ **Thunderstorm accompanied with lightning & gusty winds (speed reaching 40-50 kmph)** likely at isolated places over Sub-Himalayan West Bengal & Sikkim, Bihar and Tamil Nadu, Puducherry & Karaikal; **with lightning & gusty winds (speed reaching 30-40 kmph)** at isolated places over Chhattisgarh, Gangetic West Bengal, Jharkhand, Kerala & Mahe, Coastal Andhra Pradesh & Yanam, Rayalaseema and Telangana; **with lightning** at isolated places over Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Lakshadweep and Interior Karnataka.
- ❖ **Heavy to very Heavy rainfall with extremely heavy falls** likely at isolated places over Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe; **Heavy to very heavy rainfall** at isolated places over South Interior Karnataka and **Heavy rainfall** at isolated places over Sikkim, Assam & Meghalaya, Lakshadweep and Nicobar Islands.
- ❖ **Heat Wave to severe heat wave Conditions** likely to prevail in many parts over Punjab and Haryana; in some parts over West Rajasthan; and **heat wave conditions** in some parts of Uttar Pradesh; in isolated pockets over Delhi, East Rajasthan, Gangetic West Bengal, Bihar, Jharkhand, Odisha and north Madhya Pradesh.
- ❖ **Squally weather with wind speed 40 kmph to 45 kmph gusting to 55 kmph** Likely to Prevailing Over Maldives Area and Adjoining Lakshadweep Area, along and off south Kerala Coast, Comorin Area, Gulf of Mannar. Fishermen are advised not to venture into these areas.

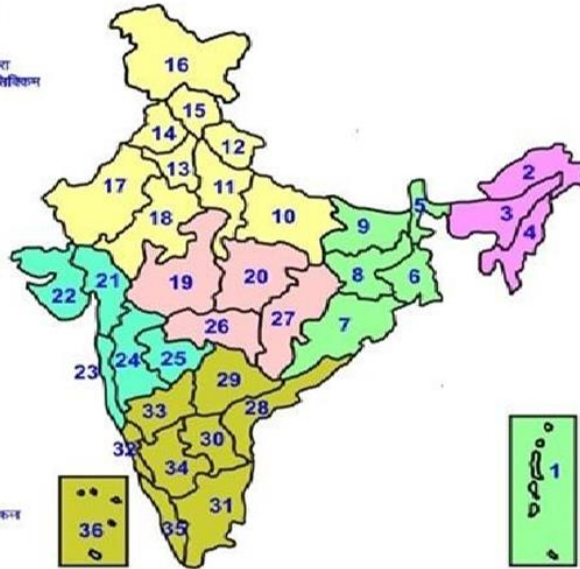


**21 May (Day 5):**

- ❖ **Thunderstorm accompanied with lightning & gusty winds (speed reaching 40-50 kmph)** likely at isolated places over Sub-Himalayan West Bengal & Sikkim, Bihar and Tamil Nadu, Puducherry & Karaikal; **with lightning & gusty winds (speed reaching 30-40 kmph)** at isolated places over Chhattisgarh, Gangetic West Bengal, Jharkhand, Kerala & Mahe, Coastal Andhra Pradesh & Yanam, Rayalaseema and Telangana; **with lightning** at isolated places over Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Lakshadweep and Interior Karnataka.
- ❖ **Heavy to very Heavy rainfall** likely at isolated places over South Interior Karnataka, Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe and **Heavy rainfall** at isolated places over Sikkim, Assam & Meghalaya, Lakshadweep and Nicobar Islands.
- ❖ **Heat Wave to severe heat wave Conditions** likely to prevail in many parts over Punjab and Haryana; in some parts over West Rajasthan; and **heat wave conditions** in some parts of Uttar Pradesh; in isolated pockets over Delhi, East Rajasthan, Gangetic West Bengal, Bihar, Jharkhand, Odisha and north Madhya Pradesh.
- ❖ **Squally weather with wind speed 40 kmph to 45 kmph gusting to 55 kmph** likely to Prevailing Over Maldives Area and Adjoining Lakshadweep Area, along and off south Kerala Coast, Comorin Area, Gulf of Mannar. 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 सौराष्ट्र
- 23 कोंकण एवं गोवा
- 24 मध्य महाराष्ट्र
- 25 मराठवाड़ा
- 26 विदर्भ
- 27 छत्तीसगढ़
- 28 आंध्र प्रदेश एवं यानम
- 29 तेलंगाना
- 30 तमिलनाडु, पुदुचेरी एवं केरल
- 31 उत्तरीय कर्नाटक
- 32 दक्षिणी कर्नाटक
- 33 उत्तरीय कर्नाटक
- 34 दक्षिणी कर्नाटक
- 35 केरल एवं माहे
- 36 लक्षद्वीप



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

## SPATIAL DISTRIBUTION (% of Stations reporting)

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

## WARNING

<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

## 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)

\* 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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