



Monday, May 22, 2023
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 Southwest Monsoon continues to pass through 5°N/85°E, 6.5°N/90°E, Nancowry and 10°N/98°E.
- ❖ Conditions are favourable for further advance of southwest monsoon into some more parts of south Bay of Bengal, Andaman Sea and Andaman & Nicobar Islands during next 2 days.

Significant Meteorological features:

- ❖ Strong south-westerly winds from Bay of Bengal to northeast India are prevailing at lower tropospheric levels.
- ❖ A fresh Western Disturbance is likely to affect northwest India from 23rd May.

Forecast and warning over the country during next 5 days:

Northeast India:

- Light/moderate fairly widespread to widespread rainfall with thunderstorm/lightning/gusty winds very likely to continue over the Assam & Meghalaya during next 5 days.
- **Heavy rainfall** at isolated places very likely over Assam & Meghalaya during 22nd to 26th; over Nagaland, Manipur, Mizoram & Tripura during 24th - 26th May, 2023.

East India:

- Light/moderate fairly widespread to widespread rainfall with thunderstorm/lightning/gusty winds very likely over Sub-Himalayan West Bengal & Sikkim and isolated to scattered rainfall with thunderstorm/lightning/gusty winds over rest parts of the region during next 5 days.
- **Thundersquall (speed 50-60 kmph) with lightning** very likely at isolated places over Gangetic West Bengal on 23rd & 24th May.

Northwest India:

- Under the influence of a fresh Western Disturbance, fairly widespread to widespread rainfall with thunderstorm/lightning/gusty winds over Western Himalayan Region and isolated to scattered rainfall over plains of Northwest India mainly during 23rd to 26th and decrease thereafter.
- **Thundersquall (speed 50-60 kmph) with Hail & lightning** likely at isolated places over Uttarakhand on 24th & 25th May.
- **Heavy rainfall** at isolated places over Jammu & Kashmir and Himachal Pradesh on 23rd May.

Central India:

- Light/moderate isolated rainfall with thunderstorm/lightning/gusty winds over Vidarbha & Chhattisgarh during next 3 days and over Madhya Pradesh during 23rd to 26th May.

South India:

- Light/moderate isolated to scattered rainfall over many parts of the region during next 5 days and with thunderstorm/lightning/gusty winds very likely over Coastal Andhra Pradesh & Yanam, Telangana and Tamil Nadu, Puducherry & Karaikal on 22nd & 26th May; over Interior Karnataka during 22nd to 23rd; over Kerala & Mahe during next 5 days.

Observed Maximum Temperatures and Heat Wave conditions:

- Yesterday, **Maximum Temperatures** are in the range of **40-45°C** over most parts of plains of Northwest India, Central India and interior parts of West, East & Peninsular India and below **40°C** over rest parts of the country.
- **Maximum Temperatures** are either normal or above normal by **2-4°C** over most parts of the country except over many parts of Arunachal Pradesh, Assam & Coastal Andhra Pradesh where these are below normal by **2-4°C**.
- Yesterday, **Heat wave conditions** prevailed in some parts of West Rajasthan and in isolated pockets over south Uttar Pradesh, Jharkhand and adjoining central parts of Gangetic West Bengal.

Maximum Temperature Forecast and Heat Wave Warnings:

- **Maximum temperatures** are very likely to rise by 2-3°C over Northwest India during next 2 days and fall by 3-5°C thereafter. No significant change in maximum temperature very likely over rest parts of the country during next 5 days.
- **Heat wave conditions** in isolated pockets very likely over south Haryana & Delhi, southern parts of Uttar Pradesh, West Rajasthan, East Madhya Pradesh, Gangetic West Bengal and Jharkhand on 22nd May.

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Main Weather Observations

- ❖ **Rainfall/thundershowers observed** (from 0830 hrs IST to 1730 hrs IST of yesterday): **at a few places** over Assam & Meghalaya and South Interior Karnataka and **at isolated places** over Arunachal Pradesh, Sub-Himalayan West Bengal & Sikkim, Chhattisgarh, Odisha and Tamil Nadu.
- ❖ **Significant rainfall recorded** (from 0830 hrs IST to 1730 hrs IST of yesterday) (in cm): **South Interior Karnataka:** Bangalore 3; **Tamil Nadu:** Udhagamandalam 1.
- ❖ **Thunderstorm observed** (from 0830 hrs IST to 1730 hrs IST of today): at isolated places over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad, Madhya Pradesh, Sub-Himalayan West Bengal & Sikkim, Assam & Meghalaya, Odisha, Chhattisgarh, Coastal Andhra Pradesh & Yanam, Telangana, Rayalaseema, Nagaland, Manipur, Mizoram & Tripura, Interior Karnataka, Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe.
- ❖ **Yesterday, Heat wave conditions** prevailed in some parts of West Rajasthan and in isolated pockets of south Uttar Pradesh, Jharkhand and adjoining central parts of Gangetic West Bengal.
- ❖ **Minimum Temperature Departures (as on 21-05-2023):** Minimum temperatures were **above normal (1.6°C to 3.0°C)** at a few places over Kerala & Mahe, Odisha, Gangetic West Bengal and Andaman & Nicobar Islands. They were **appreciably below normal (-3.1°C to -5.0°C)** at a few places over Haryana, Chandigarh & Delhi, Telangana, Coastal Andhra Pradesh & Yanam and Assam & Meghalaya and at isolated places over Madhya Pradesh; **below normal (-1.6°C to -3.0°C)** at a few places over Uttarakhand, Uttar Pradesh and Vidarbha and at isolated places over Tamil Nadu, Puducherry & Karaikal and **near normal** over rest parts of the country. Yesterday, **the lowest minimum temperature of 18.5°C** was reported at **Pantnagar (Uttarakhand)** over the plains of the country.
- ❖ **Maximum Temperature Departures (as on 21-05-2023):** Maximum temperatures were **appreciably above normal (3.1°C to 5.0°C)** at most places over Jharkhand; at a few places over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad, Punjab, East Uttar Pradesh, Bihar and Nagaland, Manipur, Mizoram & Tripura; at isolated places over Gangetic West Bengal, Odisha, West Madhya Pradesh, Madhya Maharashtra and Kerala & Mahe; **above normal (1.6°C to 3.0°C)** at most places over Haryana, Chandigarh & Delhi; at many places over Andaman & Nicobar Islands; at a few places over Rajasthan, East Madhya Pradesh, Marathwada and Karnataka; at isolated places over West Uttar Pradesh, Vidarbha and Tamil Nadu, Puducherry & Karaikal. They were **appreciably below normal (-3.1°C to -5.0°C)** at a few places over Arunachal Pradesh, Assam & Meghalaya and Coastal Andhra Pradesh & Yanam; **below normal (-1.6°C to -3.0°C)** at isolated places over Saurashtra & Kutch and **near normal** over rest parts of the country. Yesterday, **the highest maximum temperature of 45.7°C** was reported at **Prayagraj (East Uttar Pradesh)**.

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Meteorological Analysis (Based on 0530 hours IST)

- ❖ The Northern Limit of Southwest Monsoon continues to pass through 5°N/85°E, 6.5°N/90°E, Nancowry and 10°N/98°E.
- ❖ Conditions are favourable for further advance of southwest monsoon into some more parts of south Bay of Bengal, Andaman Sea and Andaman & Nicobar Islands during next 2 days.
- ❖ The trough in middle & upper tropospheric westerlies with its axis at 5.8 km above mean sea level now runs roughly along Long. 88°E to the north of Lat. 28°N.
- ❖ The trough from Vidarbha to south Tamilnadu across Marathwada and Interior Karnataka at 0.9 km above mean sea level persists.
- ❖ A fresh Western Disturbance likely to affect over Northwest India from 23rd May 2023.

Weather Forecast for next 5 days (Upto 0830 hours IST of 27th May, 2023)

- ❖ Meteorological sub-division wise detailed 5 days rainfall forecast is given in Table-1.

Maximum Temperatures Forecast and Heat Wave Warnings:

- ❖ **Northwest India:** Maximum temperatures are very likely to rise by 2-3°C over northwest India during next 2 days and fall by 3-5°C thereafter.
- ❖ No significant change in Maximum temperatures likely over rest parts of the country.

Weather Outlook for subsequent 2 days (During 27th–29th May, 2023)

- ❖ Scattered to Fairly widespread light/moderate rainfall with thunderstorm likely to continue over Northwest & Northeast India.
- ❖ Isolated to Scattered rainfall over Karnataka, Kerala & Mahe, Tamil Nadu, Puducherry & Karaikal and isolated rainfall over part of East India and Islands.
- ❖ Dry weather over rest parts of the country.

Weather Warning during next 5 days

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22 May (Day 1): ♦ **Heavy rainfall** very likely at isolated places over Assam & Meghalaya.

♦ **Thunderstorm with lightning & gusty winds (speed 40-50 kmph)** very likely at isolated places over Rajasthan, Chhattisgarh, Gangetic West Bengal; **with lightning & gusty winds (speed 30-40 kmph)** likely at isolated places over Vidarbha, Jharkhand, Sub-Himalayan West Bengal & Sikkim, Coastal Andhra Pradesh & Yanam, Telangana and Kerala & Mahe **with lightning** at isolated places over Odisha, Karnataka and Tamil Nadu, Puducherry & Karaikal.

♦ **Heat wave conditions** very likely in isolated pockets over south Haryana & Delhi, Uttar Pradesh, West Rajasthan, East Madhya Pradesh, Jharkhand and Gangetic West Bengal.

23 May (Day 2): ♦ **Heavy rainfall** likely at isolated places over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad, Himachal Pradesh and Assam & Meghalaya.

♦ **Thunderstorm with lightning & squall (wind speed 50-60 kmph)** likely at isolated places over Gangetic West Bengal; **with lightning & gusty winds (speed 40-50 kmph)** at isolated places over Rajasthan; **with lightning & gusty winds (speed 30-40 kmph)** at isolated places over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad, Himachal Pradesh, Uttarakhand, Uttar Pradesh, West Madhya Pradesh, Vidarbha, Chhattisgarh, Bihar, Jharkhand, Sub-Himalayan West Bengal & Sikkim, Telangana and Kerala & Mahe; **with lightning** at isolated places over Punjab, south Haryana, Odisha, Andaman & Nicobar Islands and Interior Karnataka.

24 May (Day 3): ♦ **Heavy rainfall** likely at isolated places over Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.

♦ **Thunderstorm with lightning & squall (wind speed 50-60 kmph)** likely at isolated places over Gangetic West Bengal; **with lightning & gusty winds (speed 40-50 kmph)** very likely at isolated places over West Rajasthan, Jharkhand; **with lightning & gusty winds (speed 30-40 kmph)** at isolated places over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad, Himachal Pradesh, Uttar Pradesh, Madhya Pradesh, Chhattisgarh, Bihar, Sub-Himalayan West Bengal & Sikkim and Kerala & Mahe; **with lightning** at isolated places over Punjab, south Haryana, East Rajasthan, Odisha and Andaman & Nicobar Islands

♦ **Hailstorm with lightning & squall (wind speed 50-60 kmph)** likely at isolated places over Uttarakhand;

25 May (Day 4): ♦ **Heavy rainfall** likely at isolated places over Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.

♦ **Thunderstorm with lightning & gusty winds (speed 40-50 kmph)** likely at isolated places over Rajasthan and Gangetic West Bengal; **with lightning & gusty winds (speed 30-40 kmph)** at isolated places over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad, Himachal Pradesh, Uttar Pradesh, Madhya Pradesh, Bihar, Jharkhand, Sub-Himalayan West Bengal & Sikkim and Kerala & Mahe; **with lightning** at isolated places over Punjab, south Haryana, Odisha and Andaman & Nicobar Islands.

♦ **Hailstorm with lightning & squall (wind speed 50-60 kmph)** likely at isolated places over Uttarakhand.

26 May (Day 5): ♦ **Heavy rainfall** likely at isolated places over Assam & Meghalaya, Tripura, Sub-Himalayan West Bengal & Sikkim and east Bihar.

♦ **Thunderstorm with lightning & gusty winds (speed 40-50 kmph)** likely at isolated places over north Rajasthan, Uttarakhand and Gangetic West Bengal; **with lightning & gusty winds (speed 30-40 kmph)** at isolated places over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad, Himachal Pradesh, Uttar Pradesh, north Madhya Pradesh, Bihar, north Jharkhand, Sub-Himalayan West Bengal & Sikkim, South Interior Karnataka, north & Interior Tamil Nadu and Kerala & Mahe; **with lightning** at isolated places over Punjab, Haryana, Chandigarh & Delhi, Rayalaseema and Andaman & Nicobar Islands.

Table-1

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5 Day Rainfall Forecast

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

| 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 |

Fig. 1: Accumulated Rainfall (mm) during past 24 hours

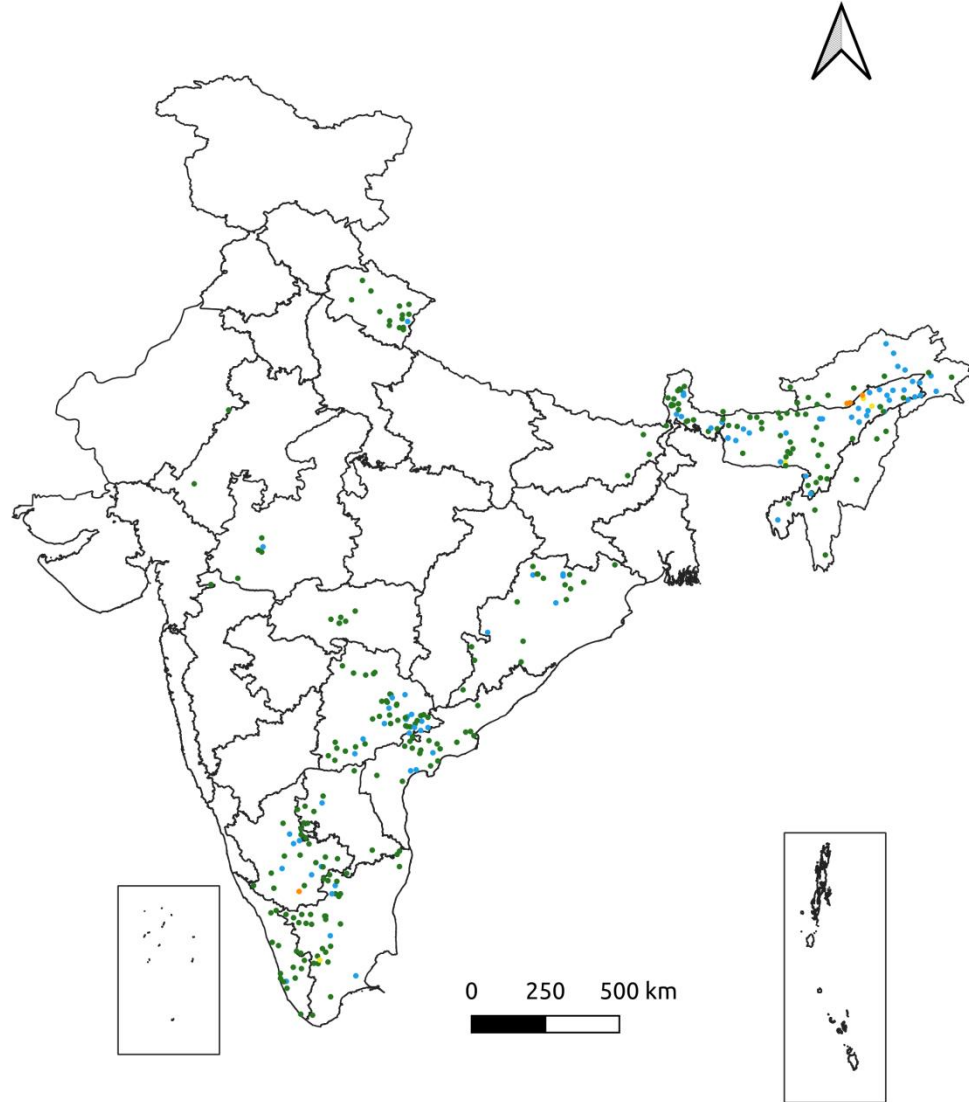
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24 Hr cumulative rainfall recorded over different stations during 0830 IST of 20-5-2023 to 0830 IST of 21-5-2023



Legends

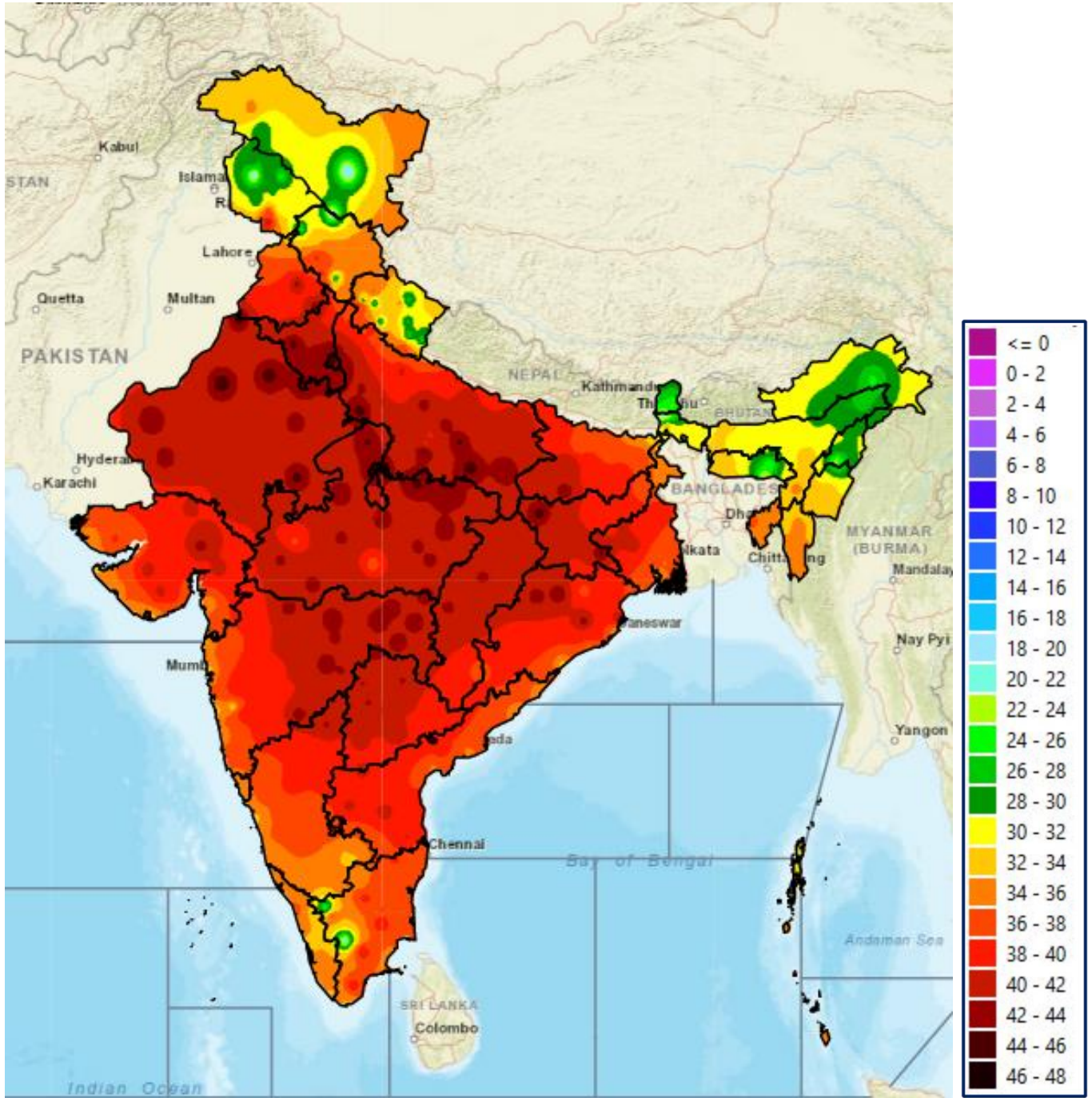
- Very Light to Light Rainfall (0.1 - 15.5 mm)
- Moderate Rainfall (15.6 - 64.4 mm)
- Heavy Rainfall (64.5 - 115.5 mm)
- Very Heavy Rainfall (115.6 - 204.4 mm)
- Extremely Heavy Rainfall (≥ 204.5 mm)

Fig. 2: Maximum Temperatures Dated 21.05.2023

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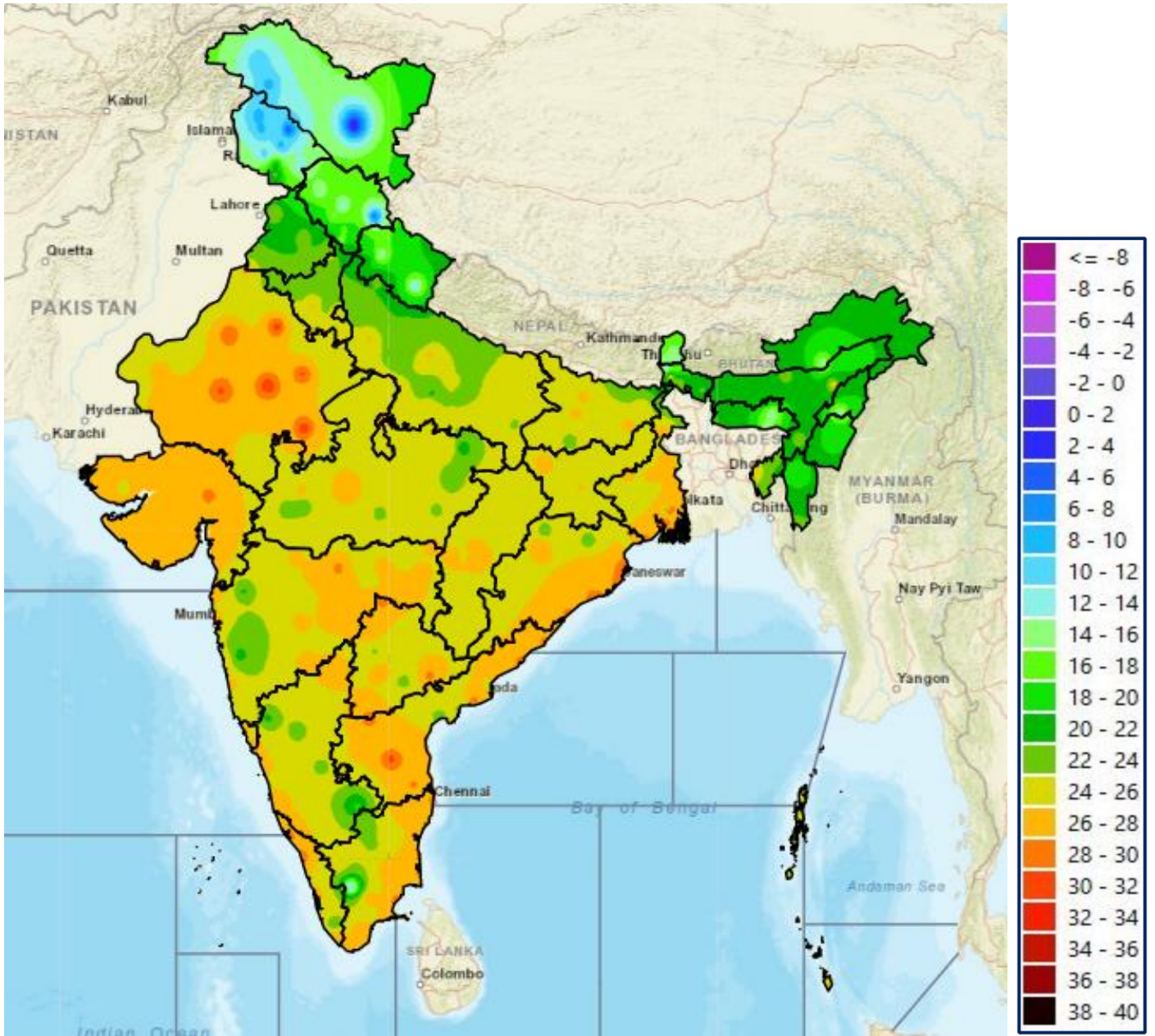
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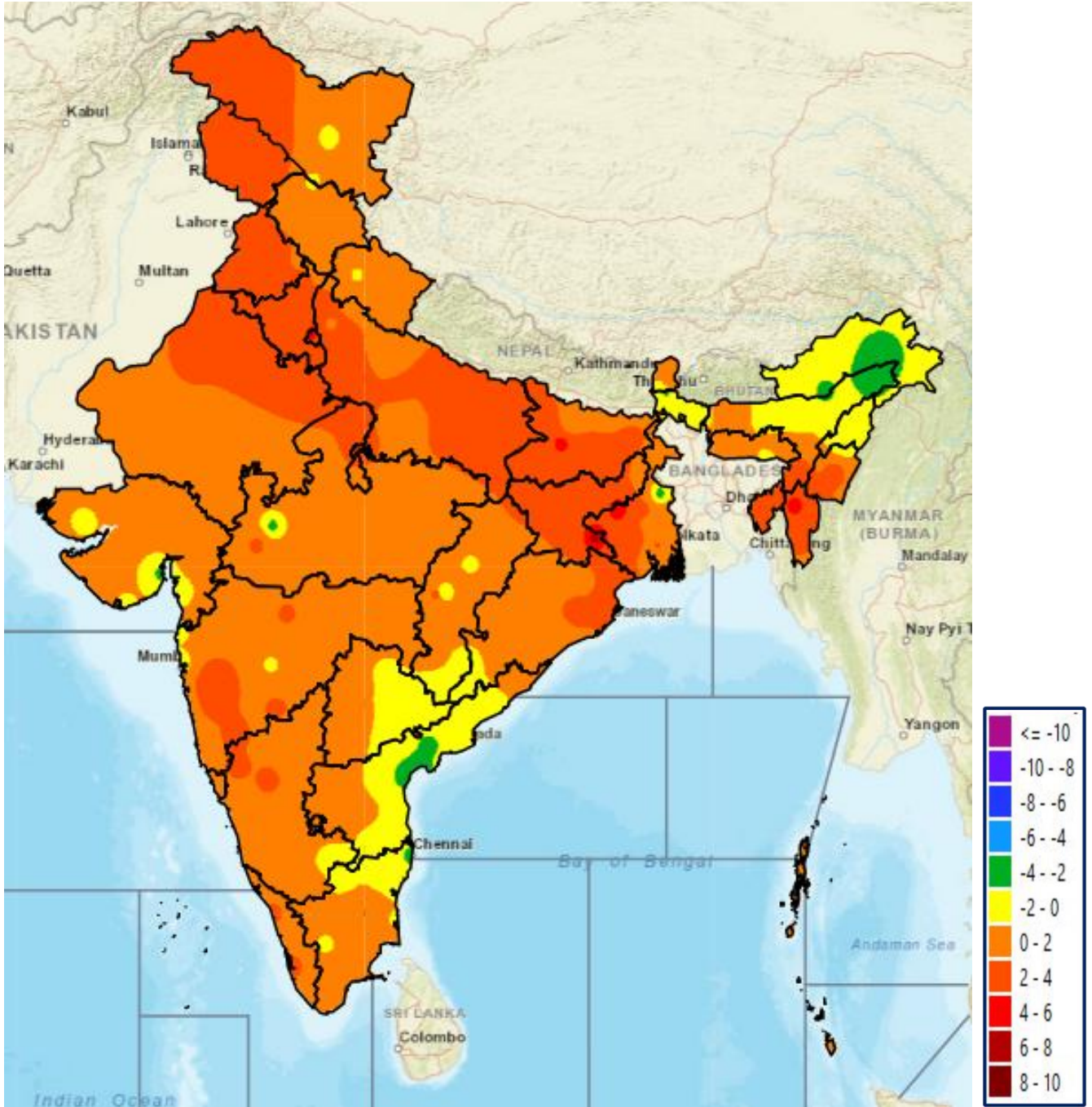
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Fig. 3: Minimum Temperatures Dated 21.05.2023



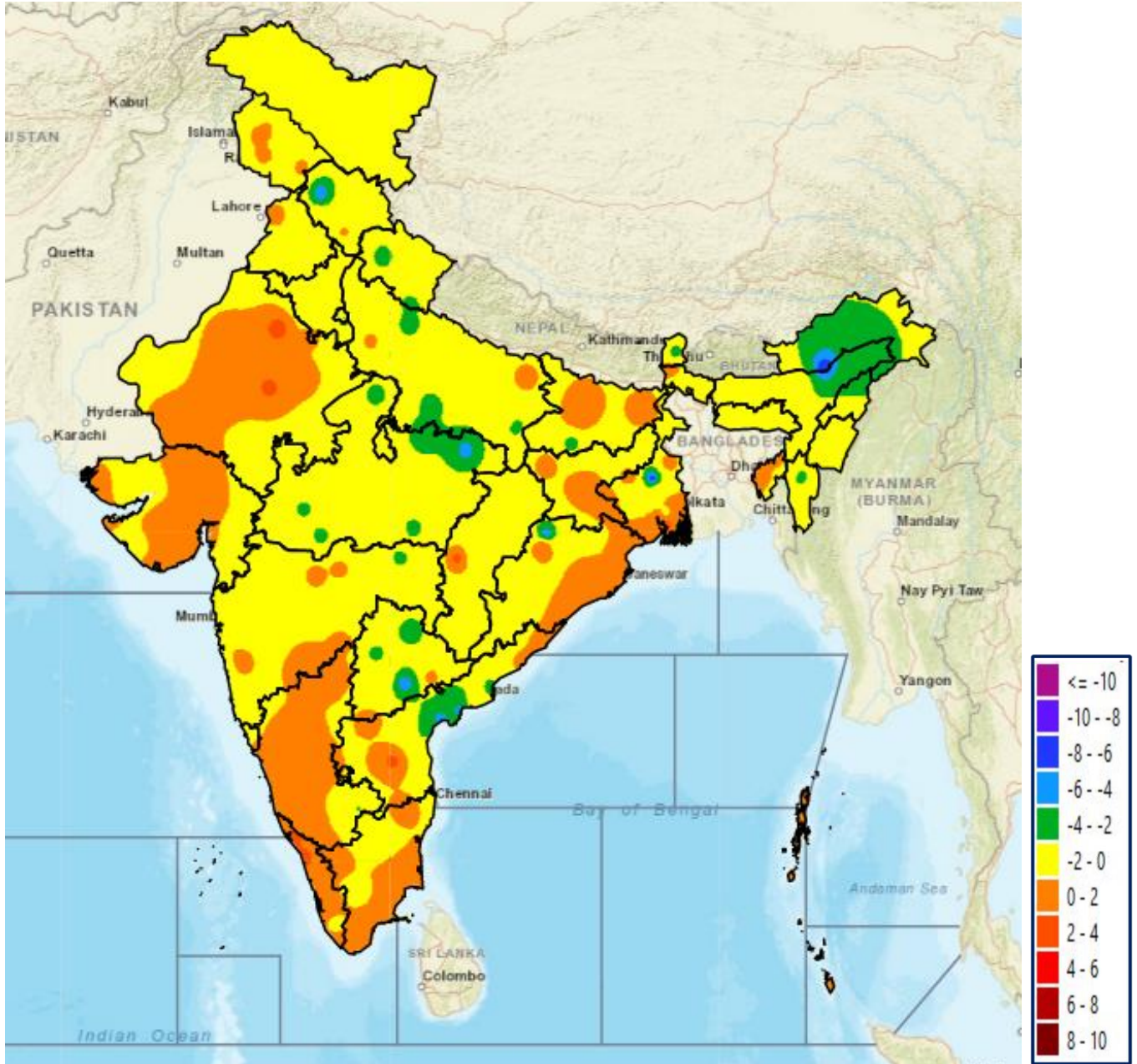
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Fig. 4: Departure from Normal of Maximum Temperatures Dated 21.05.2023



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Fig. 5: Departure from Normal of Minimum Temperatures Dated 21.05.2023



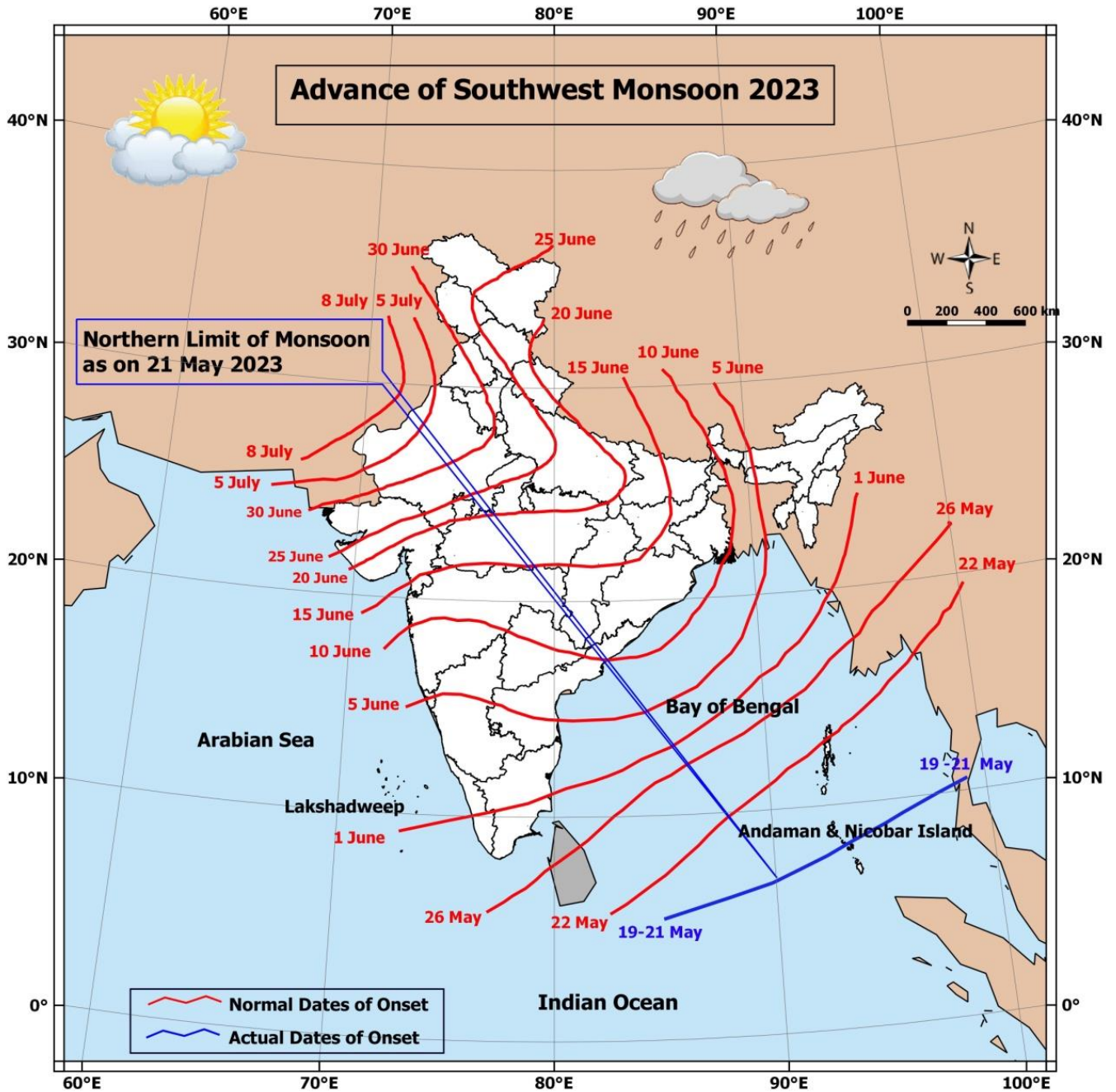
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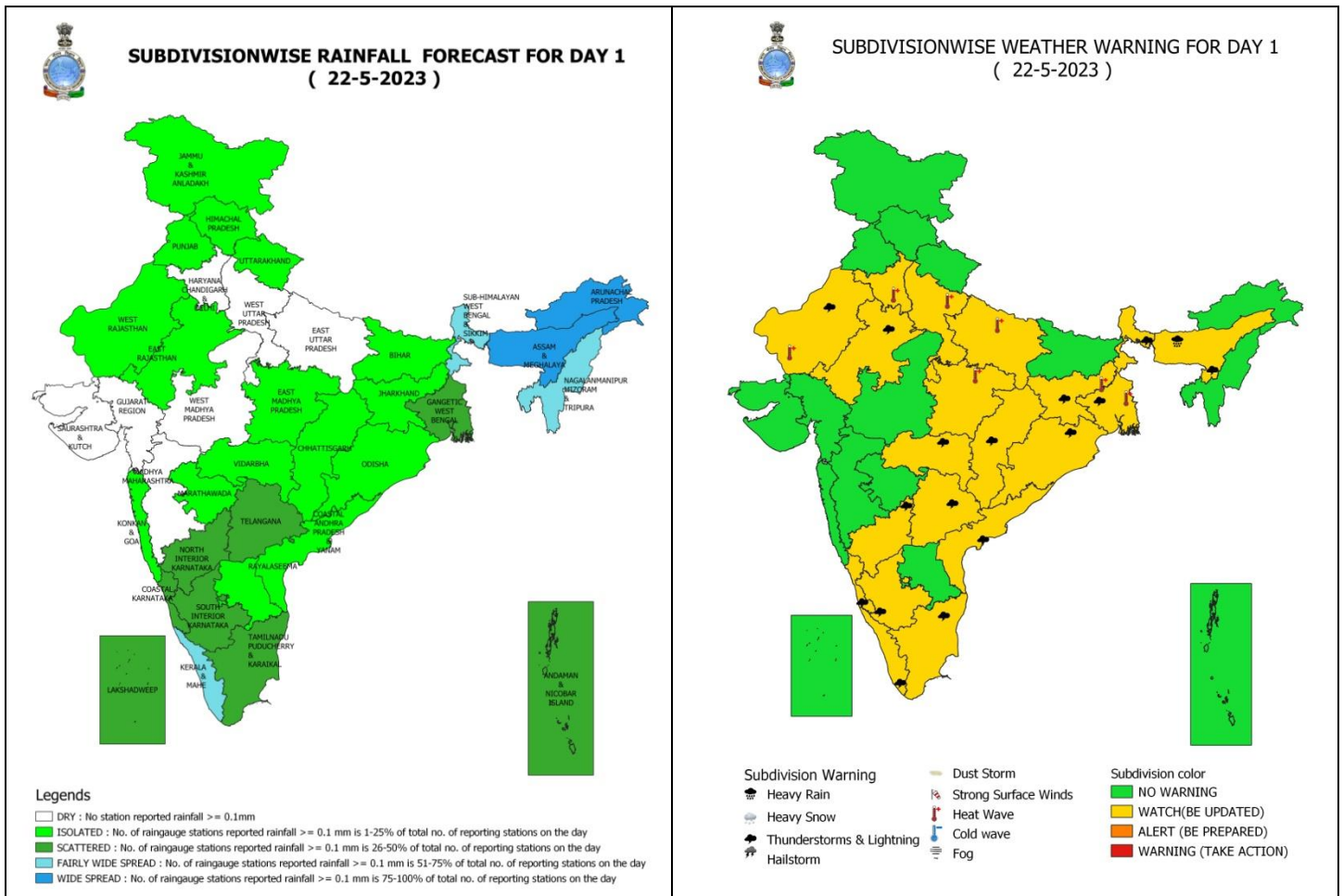
Fig. 6: Advance of Southwest Monsoon 21.05.2023



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22 May (Day 1): ♦ **Heavy rainfall** very likely at isolated places over Assam & Meghalaya.

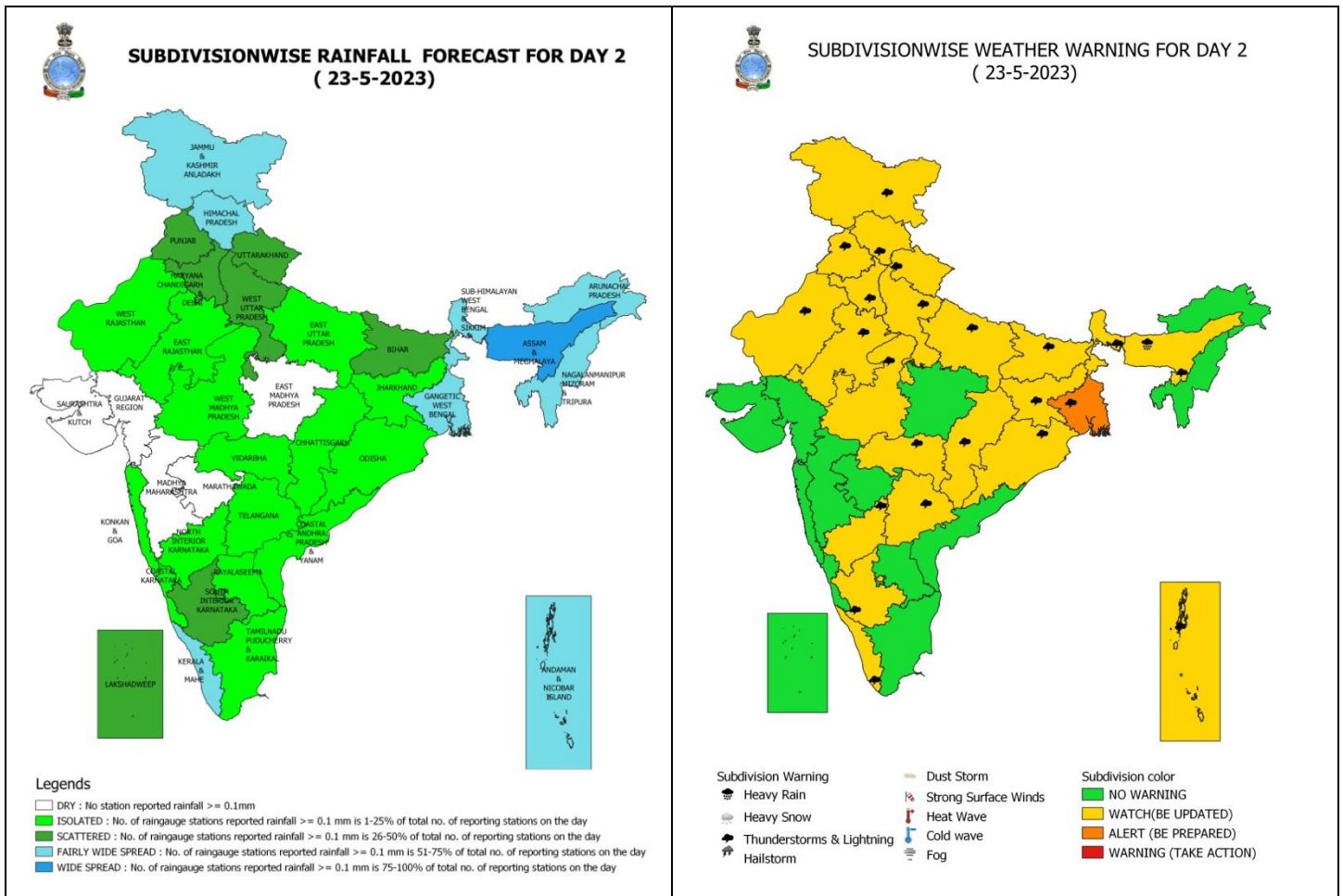
♦ **Thunderstorm with lightning & gusty winds (speed 40-50 kmph)** very likely at isolated places over Rajasthan, Chhattisgarh, Gangetic West Bengal; **with lightning & gusty winds (speed 30-40 kmph)** likely at isolated places over Vidarbha, Jharkhand, Sub-Himalayan West Bengal & Sikkim, Coastal Andhra Pradesh & Yanam, Telangana and Kerala & Mahe **with lightning** at isolated places over Odisha, Karnataka and Tamil Nadu, Puducherry & Karaikal.

♦ **Heat wave conditions** very likely in isolated pockets over south Haryana & Delhi, Uttar Pradesh, West Rajasthan, East Madhya Pradesh, Jharkhand and Gangetic West Bengal.

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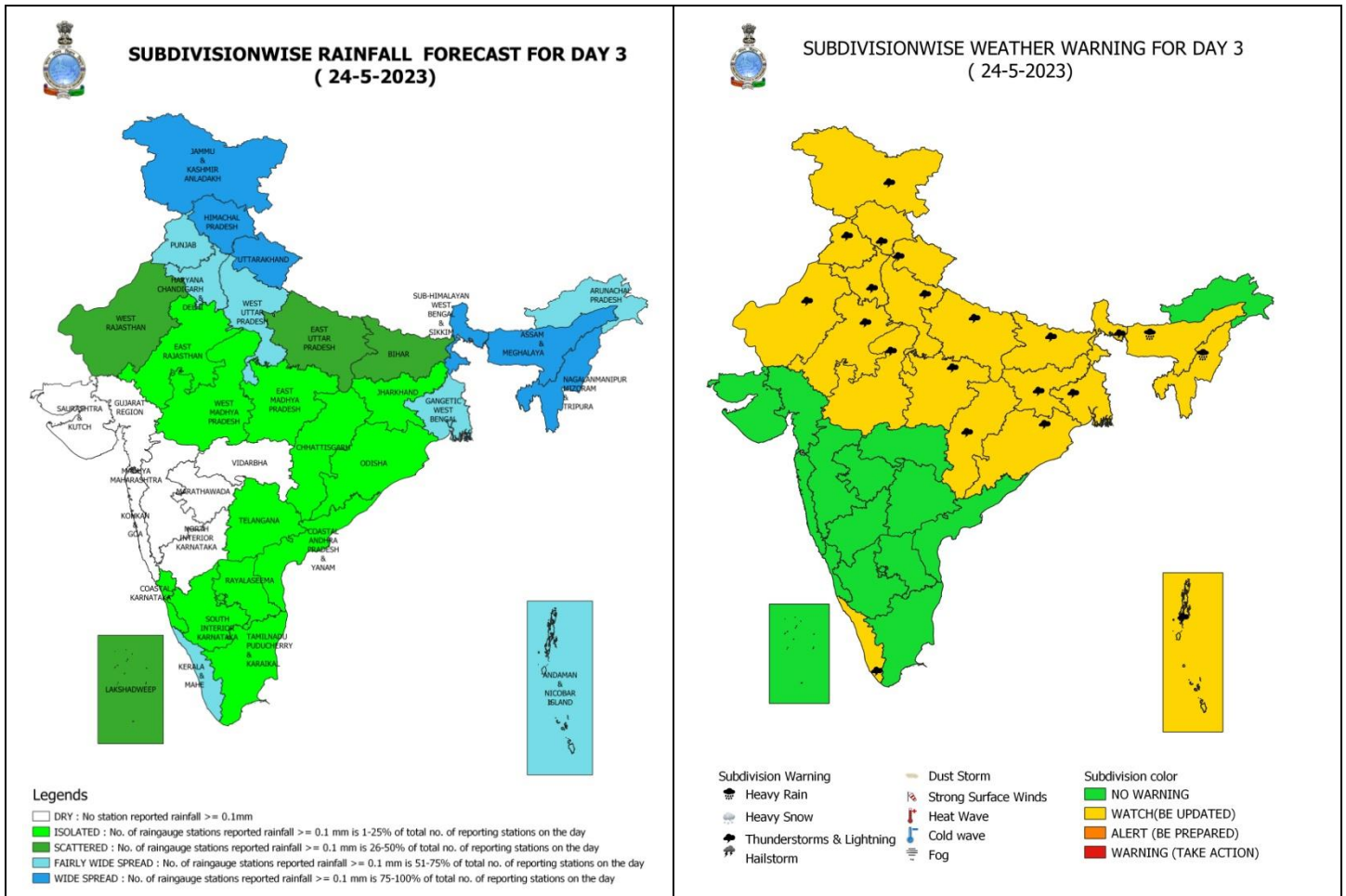
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23 May (Day 2): ♦ **Heavy rainfall** likely at isolated places over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad, Himachal Pradesh and Assam & Meghalaya.

♦ **Thunderstorm with lightning & squall (wind speed 50-60 kmph)** likely at isolated places over Gangetic West Bengal; **with lightning & gusty winds (speed 40-50 kmph)** at isolated places over Rajasthan; **with lightning & gusty winds (speed 30-40 kmph)** at isolated places over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad, Himachal Pradesh, Uttarakhand, Uttar Pradesh, West Madhya Pradesh, Vidarbha, Chhattisgarh, Bihar, Jharkhand, Sub-Himalayan West Bengal & Sikkim, Telangana and Kerala & Mahe; **with lightning** at isolated places over Punjab, south Haryana, Odisha, Andaman & Nicobar Islands and Interior Karnataka.



24 May (Day 3): ♦ Heavy rainfall likely at isolated places over Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.

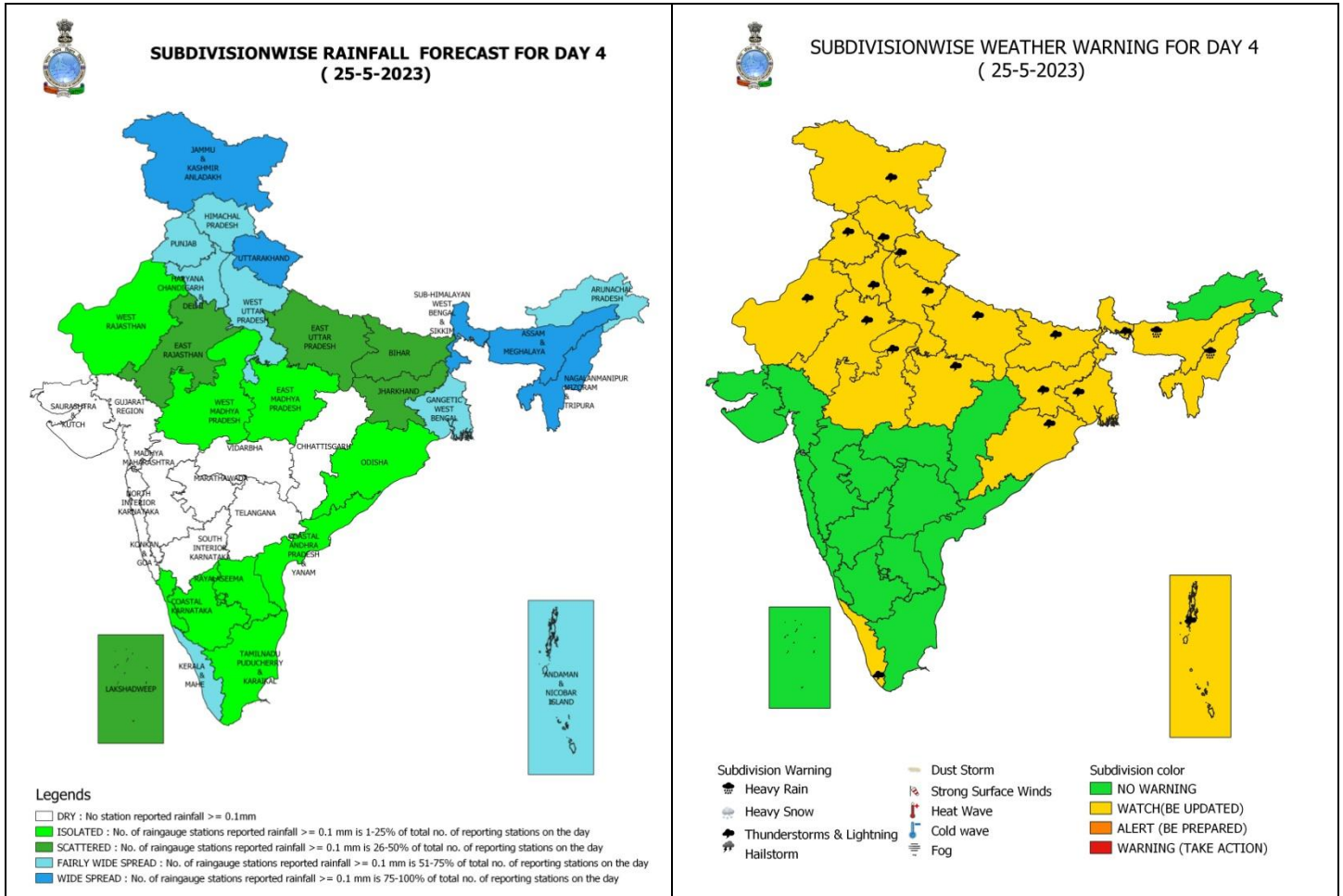
♦ Thunderstorm with lightning & squall (wind speed 50-60 kmph) likely at isolated places over Gangetic West Bengal; with lightning & gusty winds (speed 40-50 kmph) very likely at isolated places over West Rajasthan, Jharkhand; with lightning & gusty winds (speed 30-40 kmph) at isolated places over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad, Himachal Pradesh, Uttar Pradesh, Madhya Pradesh, Chhattisgarh, Bihar, Sub-Himalayan West Bengal & Sikkim and Kerala & Mahe; with lightning at isolated places over Punjab, south Haryana, East Rajasthan, Odisha and Andaman & Nicobar Islands

♦ Hailstorm with lightning & squall (wind speed 50-60 kmph) likely at isolated places over Uttarakhand;

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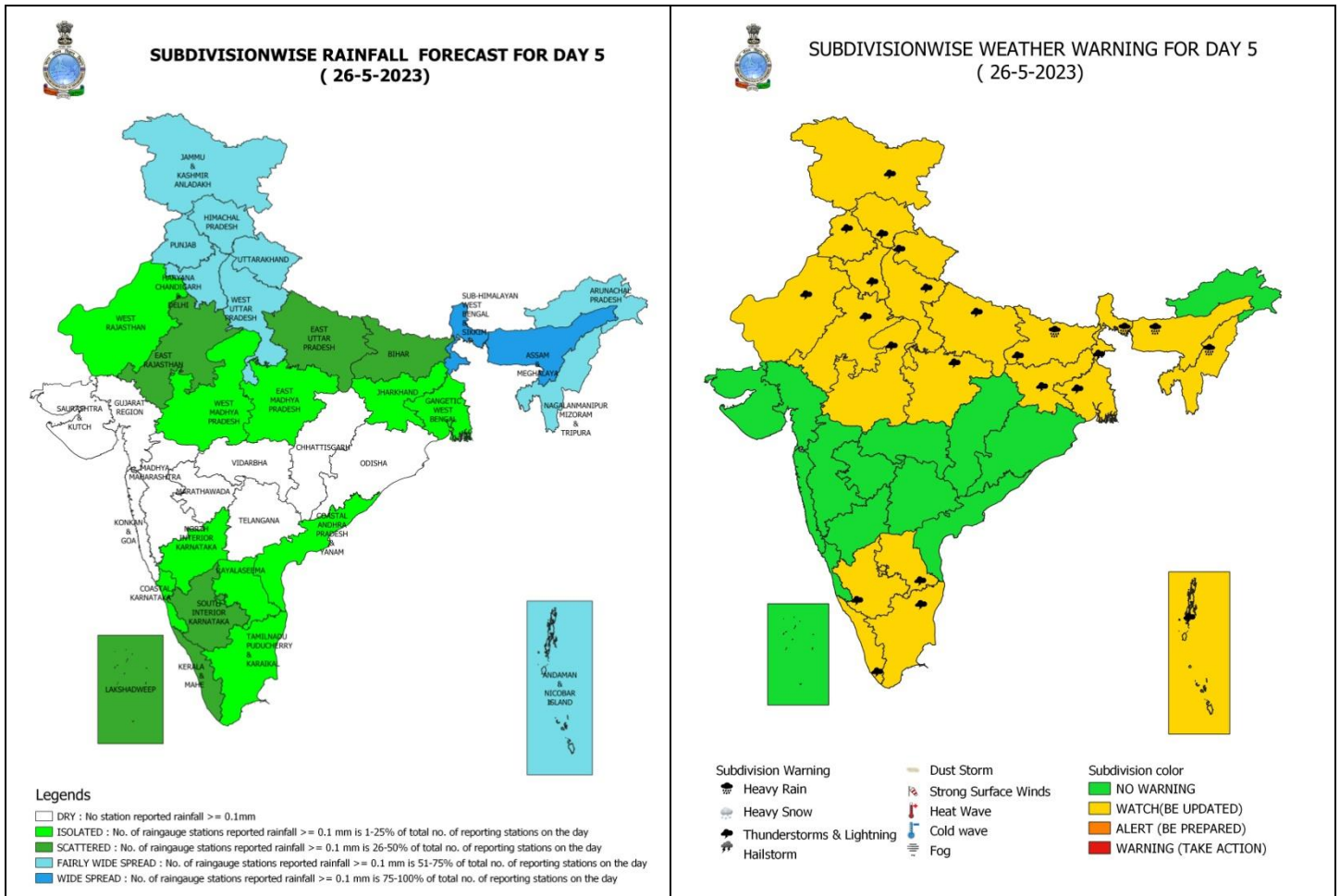
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25 May (Day 4): ♦ Heavy rainfall likely at isolated places over Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.

♦ **Thunderstorm with lightning & gusty winds (speed 40-50 kmph)** likely at isolated places over Rajasthan and Gangetic West Bengal; **with lightning & gusty winds (speed 30-40 kmph)** at isolated places over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad, Himachal Pradesh, Uttar Pradesh, Madhya Pradesh, Bihar, Jharkhand, Sub-Himalayan West Bengal & Sikkim and Kerala & Mahe; **with lightning** at isolated places over Punjab, south Haryana, Odisha and Andaman & Nicobar Islands.

♦ **Hailstorm with lightning & squall (wind speed 50-60 kmph)** likely at isolated places over Uttarakhand.



26 May (Day 5): ♦ **Heavy rainfall** likely at isolated places over Assam & Meghalaya, Tripura, Sub-Himalayan West Bengal & Sikkim and east Bihar.

♦ **Thunderstorm with lightning & gusty winds (speed 40-50 kmph)** likely at isolated places over north Rajasthan, Uttarakhand and Gangetic West Bengal; **with lightning & gusty winds (speed 30-40 kmph)** at isolated places over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad, Himachal Pradesh, Uttar Pradesh, north Madhya Pradesh, Bihar, north Jharkhand, Sub-Himalayan West Bengal & Sikkim, South Interior Karnataka, north & Interior Tamil Nadu and Kerala & Mahe; **with lightning** at isolated places over Punjab, Haryana, Chandigarh & Delhi, Rayalaseema and Andaman & Nicobar Islands.

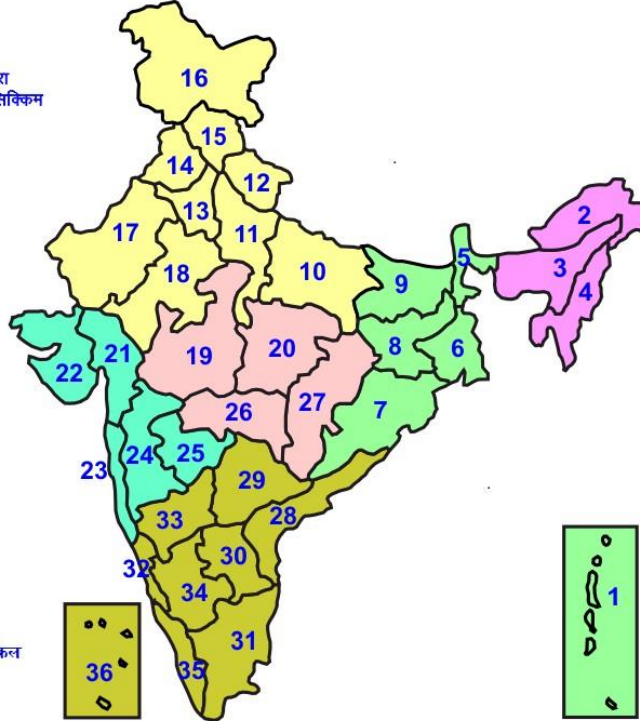
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LEGENDS

- 1 अंडमान और निकोबार द्वीप समुह
- 2 अरुणाचल प्रदेश
- 3 असम और मेघालय
- 4 नागालैंड मनीपुर मीजोरम और त्रिपुरा
- 5 उप हिमालय पश्चिम बंगाल एवं सिक्किम
- 6 पश्चिम गंगेय बंगाल
- 7 ओडिशा
- 8 झारखंड
- 9 बिहार
- 10 पूर्वी उत्तर प्रदेश
- 11 पश्चिम उत्तर प्रदेश
- 12 उत्तराखंड
- 13 हरियाणा चंडिगढ़ 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 सौराष्ट्र एवं कच्छ
- 23 कोंकण एवं गोवा
- 24 मध्य महाराष्ट्र
- 25 मराठावाडा
- 26 विदर्भ
- 27 छत्तीसगढ़
- 28 तटीय आंध्र प्रदेश एवं यनम
- 29 तेलंगाना
- 30 रायलसेमा
- 31 तमिलनाडु, पुदुचेरी एवं कराईकल
- 32 तटिय कर्नाटक
- 33 आंतरिक उत्तरी कर्नाटक
- 34 आंतरिक 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. Orissa
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. Marathawada
26. Vidharbha
27. Chhattisgarh
28. Coastal Andhra Pradesh & Yanam
29. Telangana
30. Rayalaseema
31. Tamilnadu, 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 |



Heavy Rain



Heavy Snow



Thunderstorm



Dust Storm



Strong Winds



Visibility



Cyclone



Squall/ Hail



Frost



Cold Wave



Heat Wave



Sea State

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LEGENDS

WARNING

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Rain/ Snow *

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



Heat Wave

When maximum temperature of a station reaches $\geq 40^{\circ}\text{C}$ for plains and $\geq 30^{\circ}\text{C}$ for hilly regions

(a) Based on Departure from normal

Heat Wave: Maximum Temperature Departure from normal 4.5°C to 6.4°C .

Severe Heat Wave: Maximum Temperature Departure from normal $\geq 6.5^{\circ}\text{C}$

(b). Based on Actual maximum temperature

Heat Wave: When actual maximum temperature $\geq 45^{\circ}\text{C}$.

Severe Heat Wave: When actual maximum temperature $\geq 47^{\circ}\text{C}$

(c). Criteria for heat wave for coastal stations

When maximum temperature departure is $>4.5^{\circ}\text{C}$ from normal. Heat Wave may be described provided maximum temperature $\geq 37^{\circ}\text{C}$



Warm Night

When maximum temperature remains 40°C

Warm Night: When minimum temperature departure 4.5°C to 6.4°C .

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



Cold Wave

When minimum temperature of a station $\leq 10^{\circ}\text{C}$ for plains and $\leq 0^{\circ}\text{C}$ for hilly regions.

(a). Based on departure

Cold Wave: Minimum Temperature Departure from normal -4.5°C to -6.4°C .

Severe Cold Wave: Minimum Temperature Departure from normal $\leq -6.5^{\circ}\text{C}$

(b) Based on actual Minimum Temperature (for Plains only)

Cold Wave : When Minimum Temperature is $\leq 4.0^{\circ}\text{C}$

Severe Cold Wave: When Minimum Temperature is $\leq 2.0^{\circ}\text{C}$

(c) For Coastal Stations

When Minimum Temperature departure is $\leq -4.5^{\circ}\text{C}$ & actual Minimum Temperature is $\leq 15^{\circ}\text{C}$



Cold Day

When minimum temperature of a station $\leq 10^{\circ}\text{C}$ for plains and $\leq 0^{\circ}\text{C}$ for hilly regions

Based on departure

Cold Day: Maximum Temperature Departure from normal -4.5°C to -6.4°C .

Severe Cold Day: Maximum Temperature Departure from normal $\leq -6.5^{\circ}\text{C}$



Fog

Phenomenon of small droplets suspended in air and the horizontal visibility $< 1\text{km}$

Moderate Fog: When the visibility between 500-200 metres

Dense Fog: when the visibility between 50- 200 metres

Very Dense Fog: when the visibility < 50 metres



Thunderstorm

Sudden electrical discharges manifested by a flash of light (Lightning) and a sharp rumbling sound (thunder)



Dust/Sand Storm

An ensemble of particles of dust or sand energetically lifted to great heights by a strong and turbulent wind.



Frost

Ice deposits on ground

Air temperature $\leq 4^{\circ}\text{C}$ (over Plains)



Squall

A strong wind that rises suddenly, lasts for atleast 1 minute.

Moderate: Wind speed 52-61 kmph

Severe: Wind speed 62-87 kmph

Very Severe: Wind speed >87 kmph



Sea State

Effect of various waves in the sea over specific area

Rough to very rough: Wind speed 41-62 kmph (22-33 knots) & Wave height 2.5-6 metre

High to very high: Wind speed 63-117 kmph (34-63 knots) & Wave height 6-14 metre

Phenomenal: Wind speed >117 kmph (>63 knots) & Wave height >14 metre



Cyclone

Cyclonic Storm: Wind speed 62-87 kmph (34-47 knots)

Severe Cyclonic Storm: Wind speed 88-117 kmph (48-63 knots)

Very Severe Cyclonic Storm: Wind speed 118-165 kmph (64 - 89 knots)

Extremely Severe Cyclonic Storm: Wind speed 166-220 kmph (90 -119 knots)

Super Cyclone Storm: Wind speed >220 kmph (>119 knots)

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