



Friday, April 07, 2023

MID-DAY

Time of Issue: 1345 hours IST

## ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

### Significant Weather Features

#### **Weather Systems, Forecast & Warning:**

- ❖ A trough/wind discontinuity runs from central Madhya Pradesh to south Tamil Nadu in lower tropospheric levels.
- ❖ A cyclonic circulation lies over central parts of south Rajasthan in lower tropospheric levels.
- ❖ **Under the influence of above synoptic features, following weather is expected:**

#### **West India:**

- Light to moderate isolated to scattered rainfall with thunderstorm/lightning very likely over Maharashtra during next 3 days. Isolated **hailstorm** also very likely over Interior Maharashtra on 07<sup>th</sup> April.

#### **South India:**

- Light/moderate isolated to scattered rainfall with isolated thunderstorm/lightning very likely over Coastal Andhra Pradesh, Telangana and Karnataka during next 48 hours and over Kerala and Tamil Nadu during next 5 days. Isolated **hailstorm** also very likely over Telangana on 07<sup>th</sup> April.

#### **East India:**

- Light rainfall with thunderstorm/lightning/gusty winds over Odisha during next 3 days. Isolated **hailstorm** also very likely over Odisha on 07<sup>th</sup> April.

➤ **No significant weather likely over rest parts of the country.**

#### **Maximum Temperatures Forecast during next 5 days:**

- ❖ Maximum temperatures are in the range of 38-40°C over interior Maharashtra, North Interior Karnataka, Telangana and interior Odisha. They are below normal by 2-3°C over northwest India, Gujarat, Madhya Pradesh and Chhattisgarh and near normal over rest parts of the country.
- ❖ It is likely to rise gradually by 2-4°C over many parts of Northwest, Central & East India during next 5 days becoming near normal over most parts of the country except over interior Maharashtra, North Interior Karnataka, Telangana and interior Odisha where it would be above normal by 2-3°C.
- ❖ **No heat wave conditions likely over any part of country during next 5 days.**

\* Red color warning does not mean "Red Alert" Red color 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

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## Main Weather Observations

◆ **Rainfall/thundershowers observed** (from 0830 hours IST of yesterday to 0830 hours IST of today): **at many places** over North Interior Karnataka; **at a few places** over Arunachal Pradesh, Sub-Himalayan West Bengal & Sikkim, Odisha and Coastal Karnataka; **at isolated places** over Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad, Himachal Pradesh, West Madhya Pradesh, Saurashtra & Kutch, Madhya Maharashtra, Marathwada, Vidarbha, Chhattisgarh, Andhra Pradesh, Telangana, Tamil Nadu, Kerala and South Interior Karnataka.

◆ **Significant amount of rainfall recorded** (from 0830 hours IST of yesterday to 0830 hours IST of today)(in cm): **KARNATAKA:** Manthala (dist Bidar) 7, Kamalapur (dist Kalaburgi) 5, Badami (dist Bagalkote) 5, Yedrami (dist Kalaburgi) 5; **COASTAL ANDHRA PRADESH:** Jiyamma Valasa (dist Parvathipuram Manyam) 6, Kurupam (dist Parvathipuram Manyam) 6, Parvathipuram (dist Parvathipuram Manyam) 5; **ODISHA:** Lamataput (dist Koraput) 7; Kantapada (dist Cuttack) 6.

◆ **Heavy rainfall observed** at isolated places over Odisha and North Interior Karnataka.

◆ **Thunderstorm observed** (from 0830 hours IST to 0830 hours IST of today): at isolated places over Himachal Pradesh, West Madhya Pradesh, Madhya Maharashtra, Chhattisgarh, Coastal Andhra Pradesh & Yanam, Telangana, Coastal Karnataka, Kerala & Mahe.

◆ **Hailstorm observed** at isolated places over Odisha, Telangana and Madhya Maharashtra.

◆ **Minimum Temperature Departures (as on 07-04-2023):** Minimum temperatures are **above normal (1.6°C to 3.0°C)** at a few places over Saurashtra & Kutch, Madhya Maharashtra and Marathawada; at isolated places over Vidarbha. They are **appreciably below normal (-3.1°C to -5.1°C)** at many places over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad, Haryana, Chandigarh & Delhi and North Interior Karnataka; at isolated places over Bihar; **below normal (-1.6°C to -3.0°C)** at most places over Himachal Pradesh and Uttarakhand; at many places over Uttar Pradesh and Chhattisgarh; at a few places over Madhya Pradesh and Coastal Karnataka; at isolated places over Rajasthan, Jharkhand, Odisha, Gangetic West Bengal, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura and Coastal Andhra Pradesh & Yanam and **near normal** over rest parts of the country. Today, **the lowest minimum temperature of 13.0°C** is reported at **Karnal (Haryana)** over plains of the country.

◆ **Maximum Temperature Departures (as on 06-04-2023):** Maximum temperatures were **above normal (1.6°C to 3.0°C)** at a few places over Sub-Himalayan west Bengal & Sikkim; at isolated places over Kerala & Mahe and Tamil Nadu, Puducherry & Karaikal. They were **appreciably below normal (-3.1°C to -5.0°C)** at a few places over East Rajasthan; **below normal (-1.6°C to -3.0°C)** at most places over West Uttar Pradesh; at many places over Himachal Pradesh, Uttarakhand, Punjab, Haryana, Chandigarh & Delhi, West Rajasthan, Saurashtra & Kutch, East Uttar Pradesh and Chhattisgarh; at a few places over Andaman & Nicobar Islands, Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad, Madhya Pradesh, Odisha and Telangana and **near normal** over rest parts of the country. Yesterday, **the highest maximum temperature of 40.5°C** was reported at **Kurnool Anantapur (Rayalaseema)**.



### Meteorological Analysis (Based on 0830 hours IST)

- ◆ The cyclonic circulation over central parts of south Rajasthan persists and now seen between 1.5 & 3.1 km above mean sea level.
- ◆ The trough/wind discontinuity now runs from central Madhya Pradesh to south Tamil Nadu across Vidarbha, Marathawada, Interior Karnataka at 0.9 km above mean sea level.
- ◆ The Western Disturbance as a trough in mid & upper tropospheric westerlies with its axis at 5.8 km above mean sea level roughly along Long. 74°E to the north of Lat. 28°N has moved away.
- ◆ The cyclonic circulation over North Interior Karnataka & neighbourhood extending upto 1.5 km above mean sea level has become less marked.

### Weather Forecast for next 5 days\* upto 0830 hours IST of 12th April, 2023

- ◆ Meteorological sub-division wise detailed 5 days rainfall forecast is given in Table-1.
- ◆ **Northwest, Central & East India:** Gradual rise in Maximum Temperatures by 2-4°C very likely during next 5 days and no significant change thereafter.
- ◆ **Gujarat state:** Gradual rise in Maximum Temperatures by 2-3°C very likely during next 4 days and no significant change thereafter.
- ◆ **Maharashtra:** No significant change in Maximum Temperatures very likely during next 48 hours and gradual rise by 2-3°C thereafter.
- ◆ **South India:** No significant change in Maximum Temperatures very likely during next 24 hours and gradual rise by 2-3°C thereafter.
- ◆ **Rest parts of the Country:** No significant change in Maximum Temperatures very likely during next 5 days.

### Weather Outlook for subsequent 2 days during 12th-14th April, 2023

- ◆ Mainly dry weather likely over most parts of the country.



## Weather Warning during next 5 days

**07 April (Day 1):** ♦ **Hailstorm accompanied with lightning & gusty wind (40-50 kmph)** very likely at isolated places over Odisha and Vidarbha; **with lightning & gusty wind (30-40 kmph)** over Telangana and **with lightning** over Madhya Maharashtra and Marathawada.

♦ **Thunderstorm accompanied with lightning & gusty wind (30-40 kmph)** very likely at isolated places over Madhya Pradesh, Chhattisgarh, Coastal Andhra Pradesh & Yanam, Kerala & Mahe and **with lightning** over East Rajasthan, Karnataka, Konkan & Goa.

**08 April (Day 2):** ♦ **Thunderstorm accompanied with lightning & gusty wind (40-50 kmph)** very likely at isolated places over Vidarbha and Odisha; **with lightning & gusty wind (40-50 kmph)** very likely at isolated places over Madhya Pradesh, Chhattisgarh, Telangana and Kerala & Mahe and **with lightning** over East Rajasthan, Madhya Maharashtra, Marathawada Konkan & Goa and Karnataka.

**09 April (Day 3):** ♦ **Thunderstorm accompanied with lightning & gusty wind (30-40 kmph)** very likely at isolated places over Kerala & Mahe and **with lightning** over Madhya Pradesh, Vidarbha, Odisha, Madhya Maharashtra, Marathawada and Tamil Nadu, Puducherry & Karaikal.

**10 April (Day 4):** ♦ **Thunderstorm accompanied with lightning & gusty wind (30-40 kmph)** likely at isolated places over Kerala & Mahe and **with lightning** over Tamil Nadu, Puducherry & Karaikal.

**11 April (Day 5):** ♦ **Thunderstorm accompanied with lightning & gusty wind (30-40 kmph)** likely at isolated places over Kerala & Mahe.



Table-1

5 Day Rainfall Forecast						
S. No.	Subdivision	07-Apr	08-Apr	09-Apr	10-Apr	11-Apr
		Day 1	Day 2	Day 3	Day 4	Day 5
1	ANDAMAN & NICOBAR ISLAND	DRY	DRY	DRY	DRY	DRY
2	ARUNACHAL PRADESH	SCT	ISOL	ISOL	SCT	SCT
3	ASSAM & MEGHALAYA	ISOL	DRY	DRY	ISOL	ISOL
4	NAGALAND, MANIPUR, MIZORAM & TRIPURA	ISOL	DRY	DRY	ISOL	ISOL
5	SUB-HIMALAYAN WEST BENGAL & SIKKIM	ISOL	ISOL	ISOL	ISOL	ISOL
6	GANGETIC WEST BENGAL	DRY	DRY	DRY	DRY	DRY
7	ODISHA	ISOL	ISOL	ISOL	ISOL	ISOL
8	JHARKHAND	DRY	ISOL	ISOL	DRY	DRY
9	BIHAR	DRY	DRY	DRY	DRY	DRY
10	EAST UTTAR PRADESH	DRY	DRY	DRY	DRY	DRY
11	WEST UTTAR PRADESH	DRY	DRY	DRY	DRY	DRY
12	UTTARAKHAND	DRY	DRY	ISOL	ISOL	ISOL
13	HARYANA CHANDIGARH & DELHI	DRY	DRY	DRY	DRY	DRY
14	PUNJAB	DRY	DRY	DRY	DRY	DRY
15	HIMACHAL PRADESH	DRY	DRY	DRY	ISOL	ISOL
16	JAMMU & KASHMIR AND LADAKH	DRY	DRY	DRY	ISOL	ISOL
17	WEST RAJASTHAN	DRY	DRY	DRY	DRY	DRY
18	EAST RAJASTHAN	ISOL	ISOL	DRY	DRY	DRY
19	WEST MADHYA PRADESH	ISOL	ISOL	ISOL	DRY	DRY
20	EAST MADHYA PRADESH	ISOL	ISOL	ISOL	DRY	DRY
21	GUJARAT REGION	ISOL	DRY	DRY	ISOL	ISOL
22	SAURASHTRA & KUTCH	ISOL	DRY	DRY	ISOL	ISOL
23	KONKAN & GOA	ISOL	ISOL	ISOL	ISOL	ISOL
24	MADHYA MAHARASHTRA	ISOL	ISOL	ISOL	ISOL	ISOL
25	MARATHAWADA	SCT	SCT	ISOL	ISOL	ISOL
26	VIDARBHA	SCT	SCT	ISOL	ISOL	ISOL
27	CHHATTISGARH	ISOL	ISOL	ISOL	ISOL	DRY
28	COASTAL ANDHRA PRADESH & YANAM	ISOL	DRY	DRY	DRY	DRY
29	TELANGANA	SCT	ISOL	DRY	DRY	DRY
30	RAYALASEEMA	DRY	DRY	DRY	DRY	DRY
31	TAMILNADU PUDUCHERRY & KARAIKAL	ISOL	ISOL	ISOL	ISOL	ISOL
32	COASTAL KARNATAKA	SCT	ISOL	ISOL	ISOL	ISOL
33	NORTH INTERIOR KARNATAKA	SCT	ISOL	ISOL	DRY	DRY
34	SOUTH INTERIOR KARNATAKA	ISOL	ISOL	ISOL	ISOL	ISOL
35	KERALA & MAHE	ISOL	ISOL	ISOL	ISOL	ISOL
36	LAKSHADWEEP	DRY	DRY	DRY	DRY	DRY

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 color warning does not mean "Red Alert" Red color 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

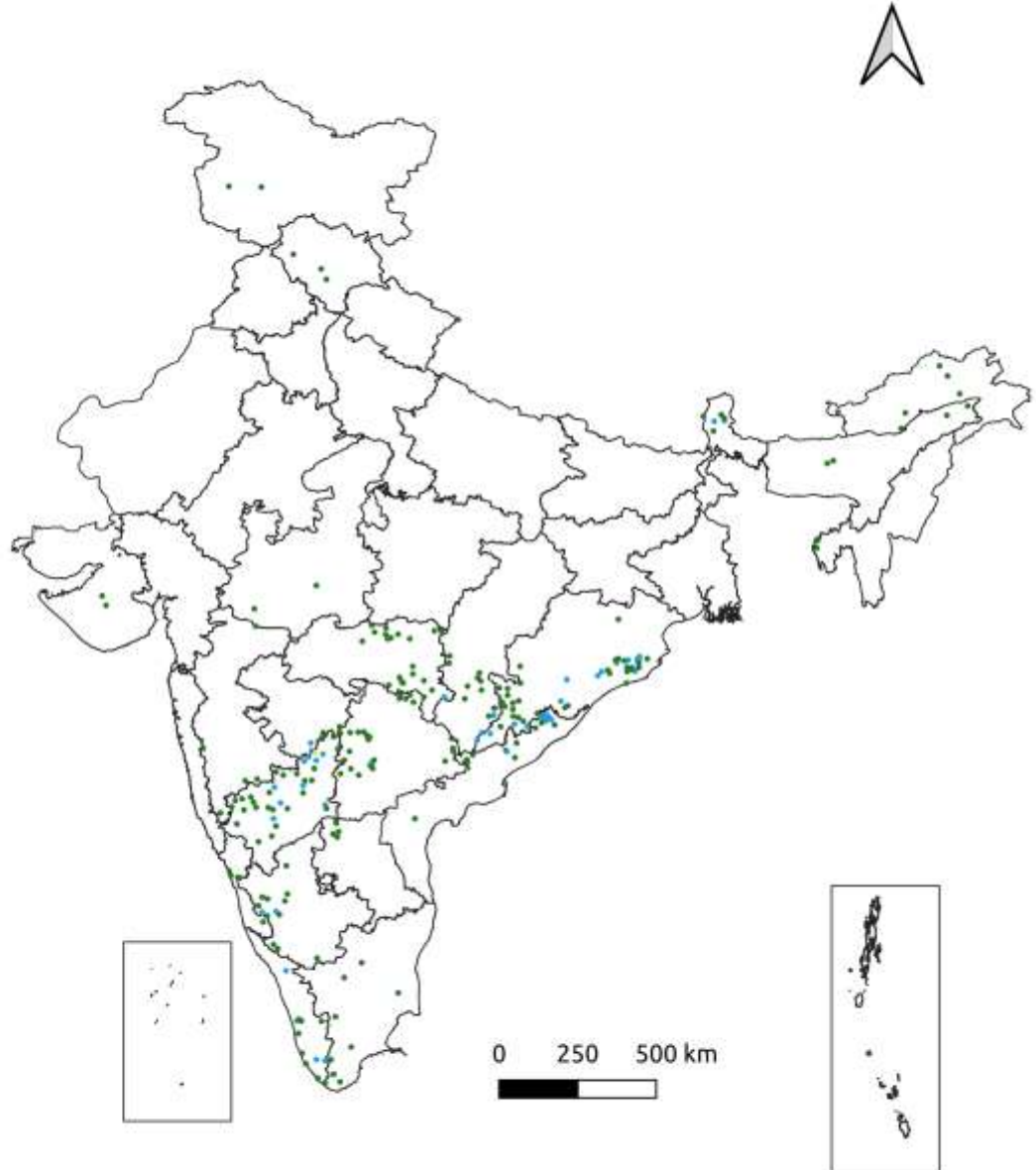
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Fig. 1: Accumulated Rainfall (mm) during past 24 hours



24 Hr cumulative rainfall recorded over different stations  
during 0830 IST of 6-4-2023 to 0830 IST of 7-4-2023



## 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 ( $\geq 204.5$  mm)

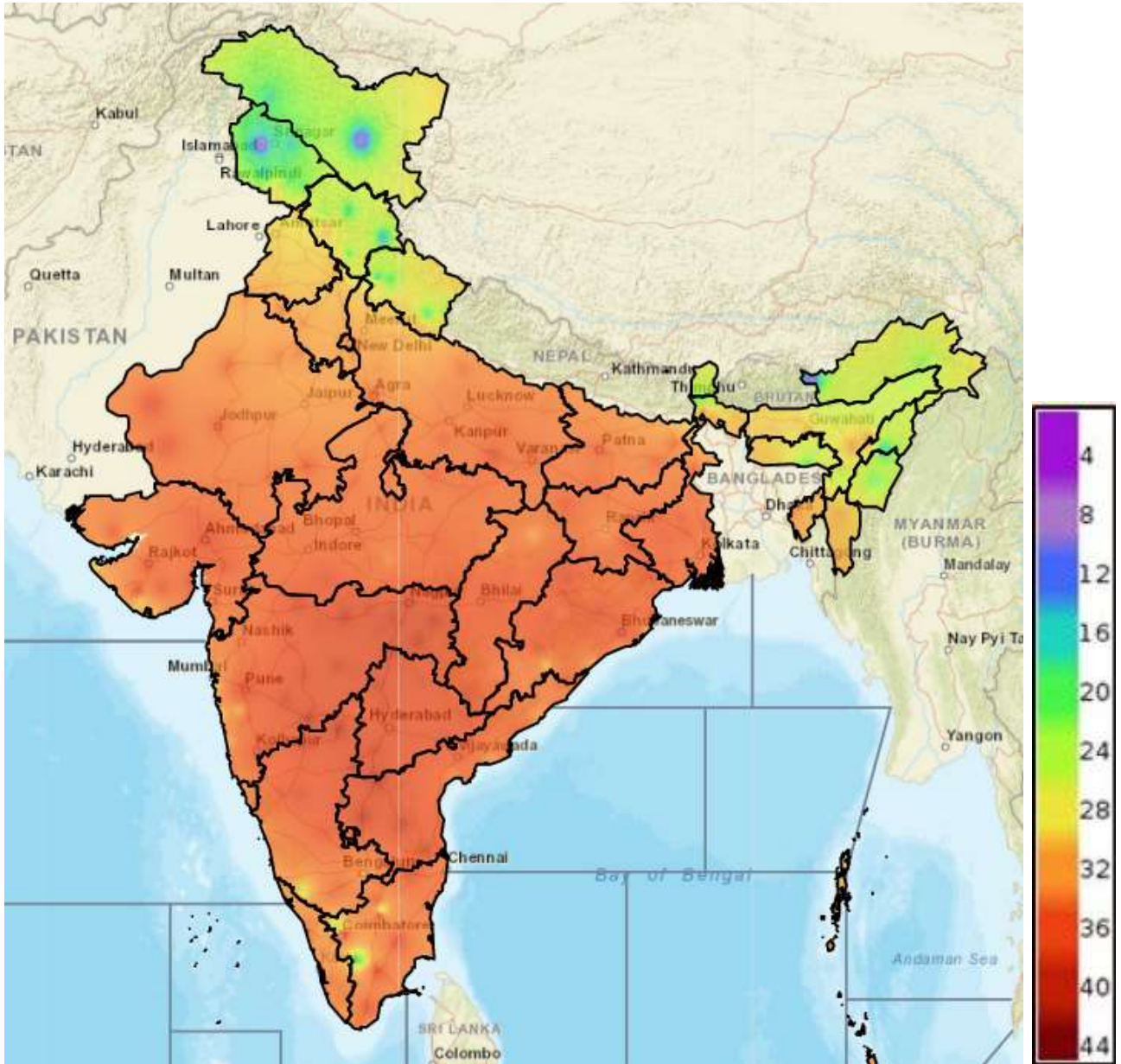
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Fig. 2: Maximum Temperature Dated 06.04.2023



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Fig. 3: Minimum Temperatures Dated 07.04.2023

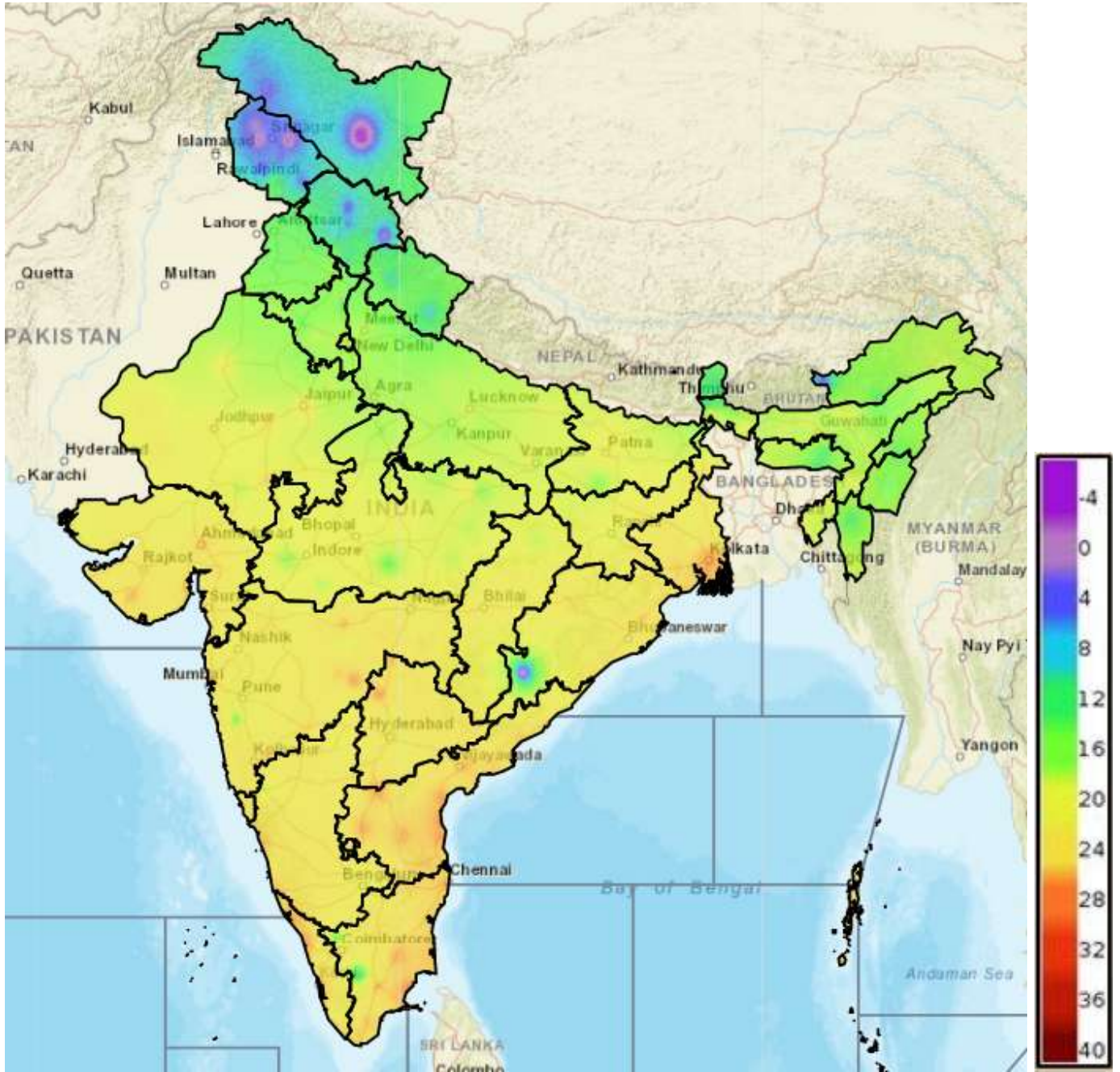
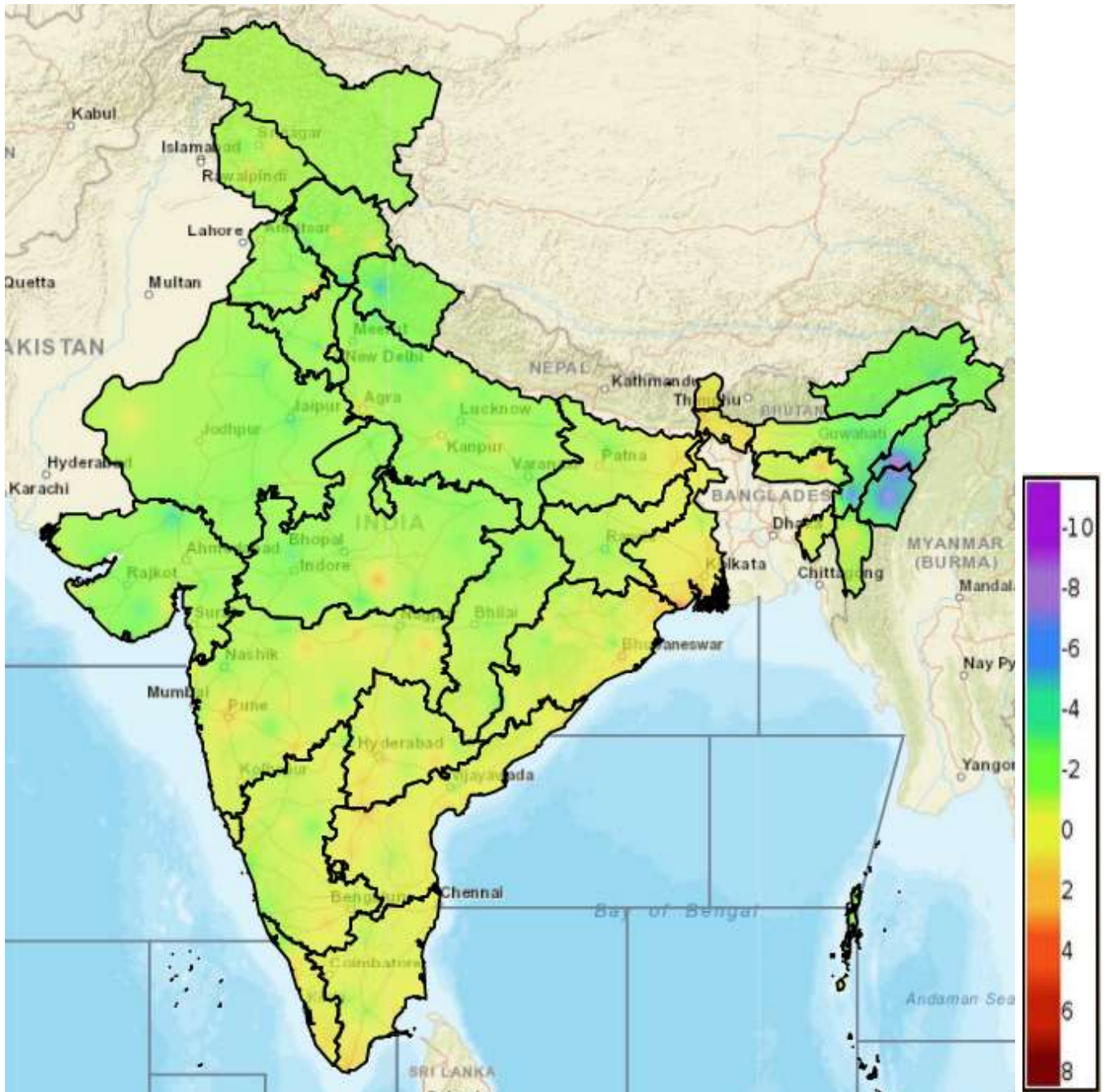




Fig. 4: Departure from Normal of Maximum Temperatures Dated 06.04.2023



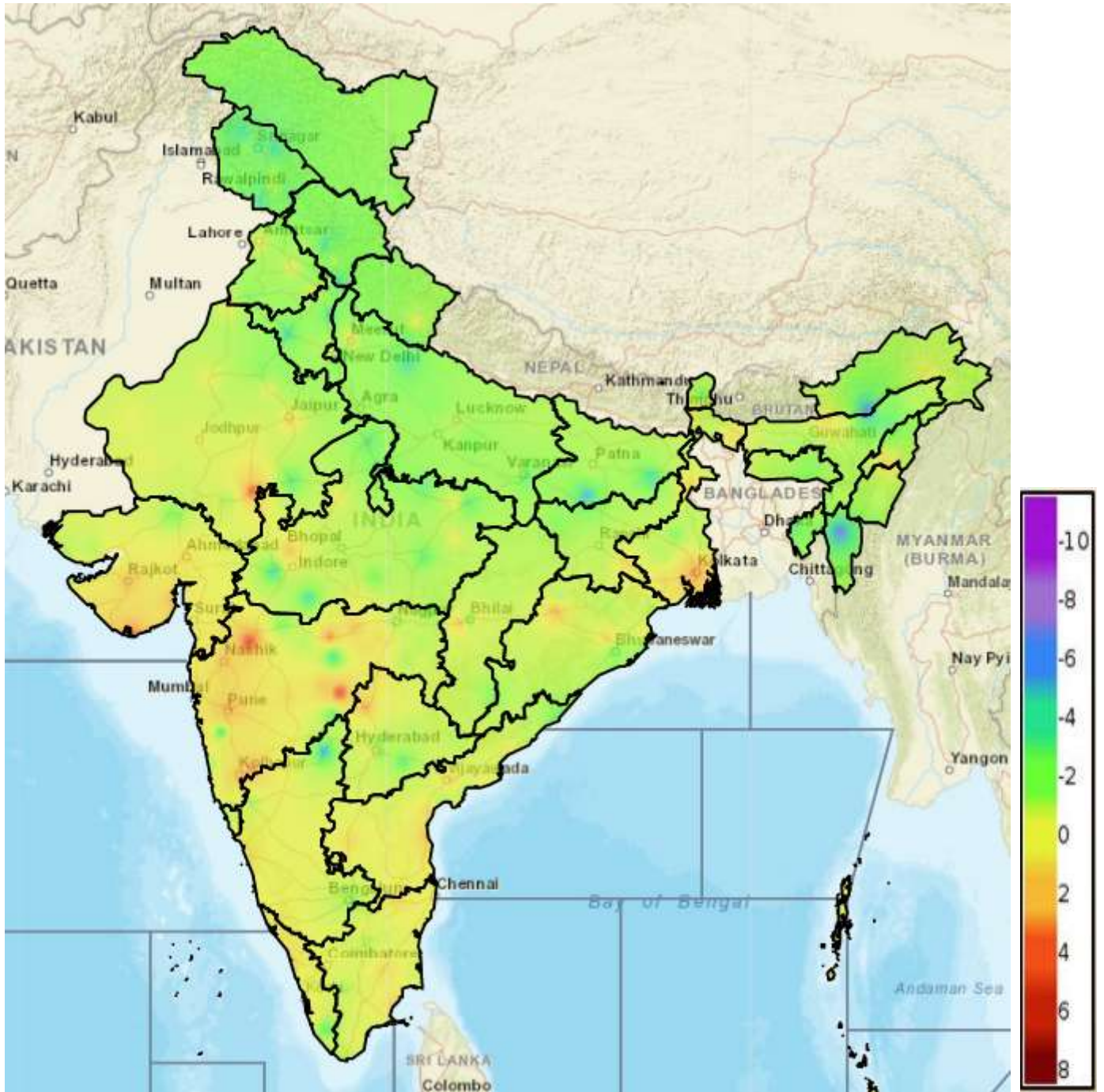
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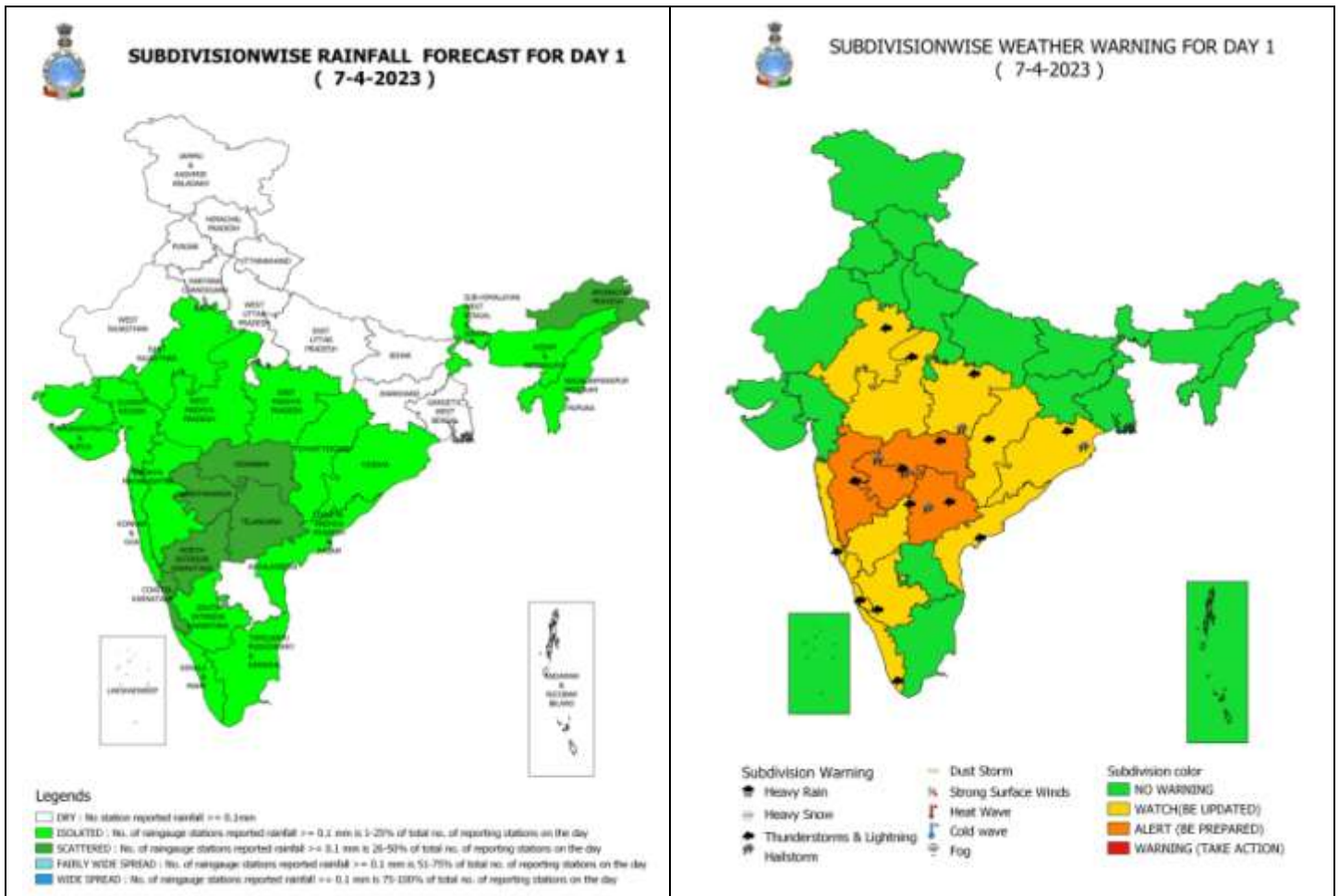
Fig. 5: Departure from Normal of Minimum Temperatures Dated 07.04.2023



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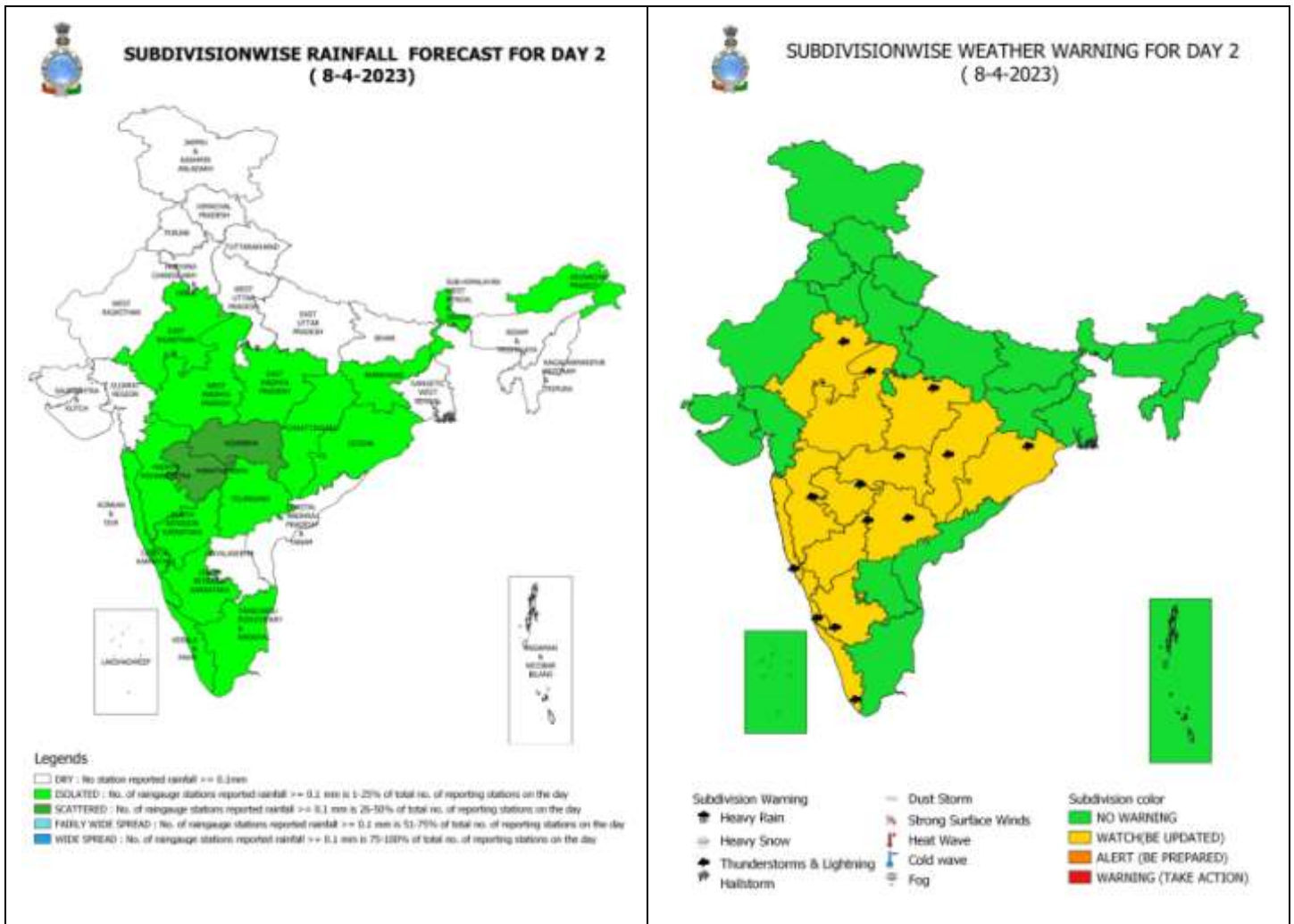
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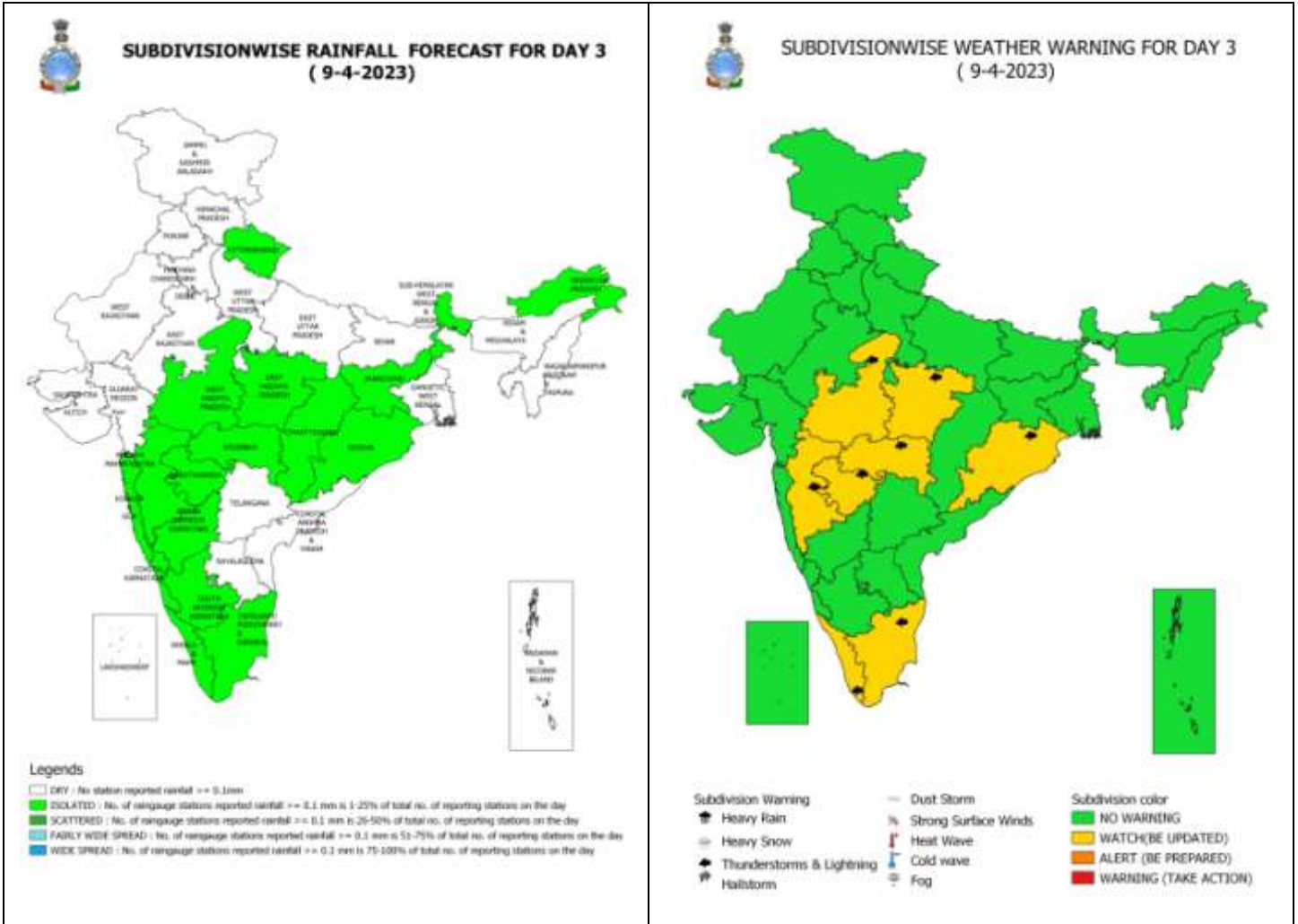
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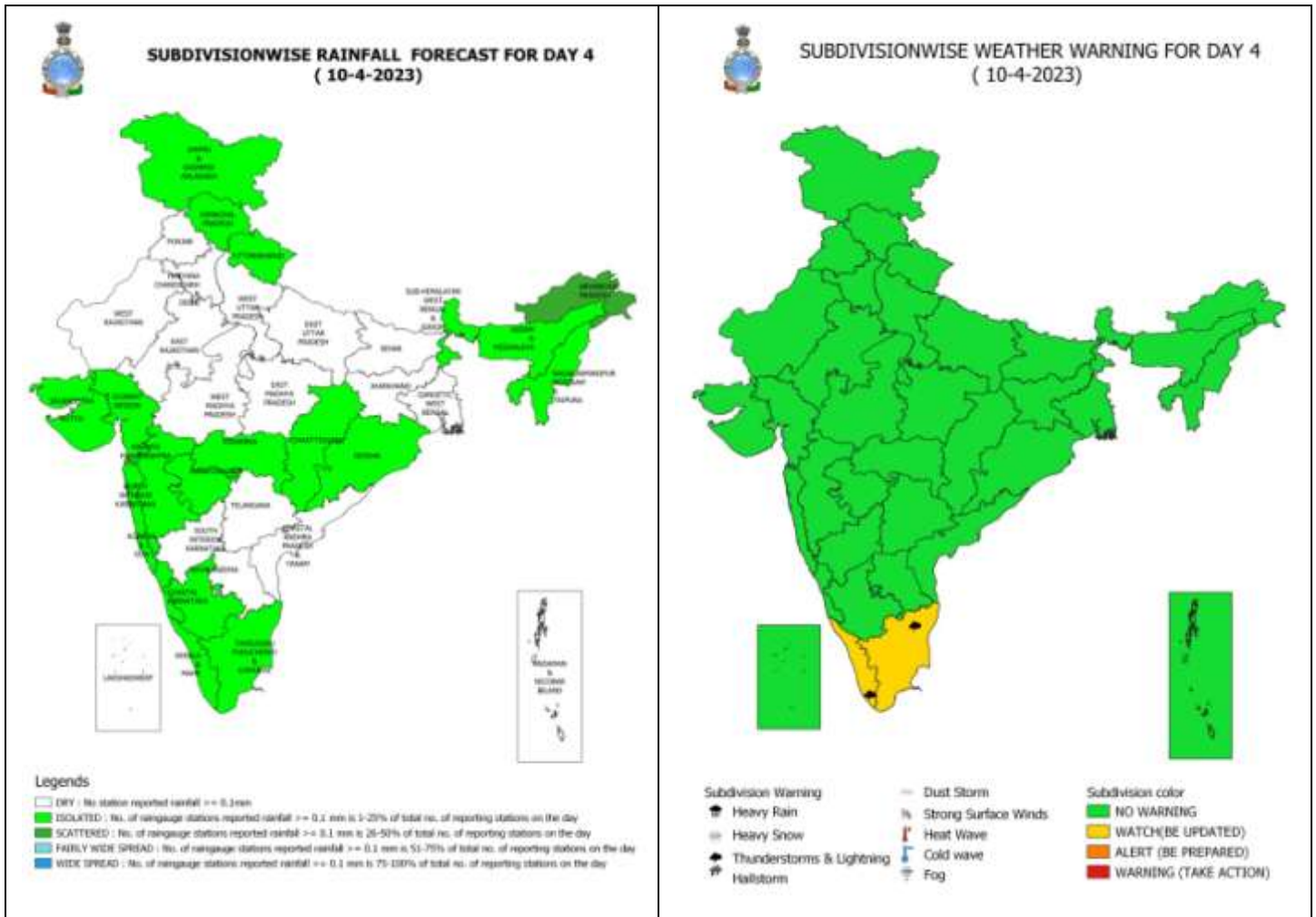
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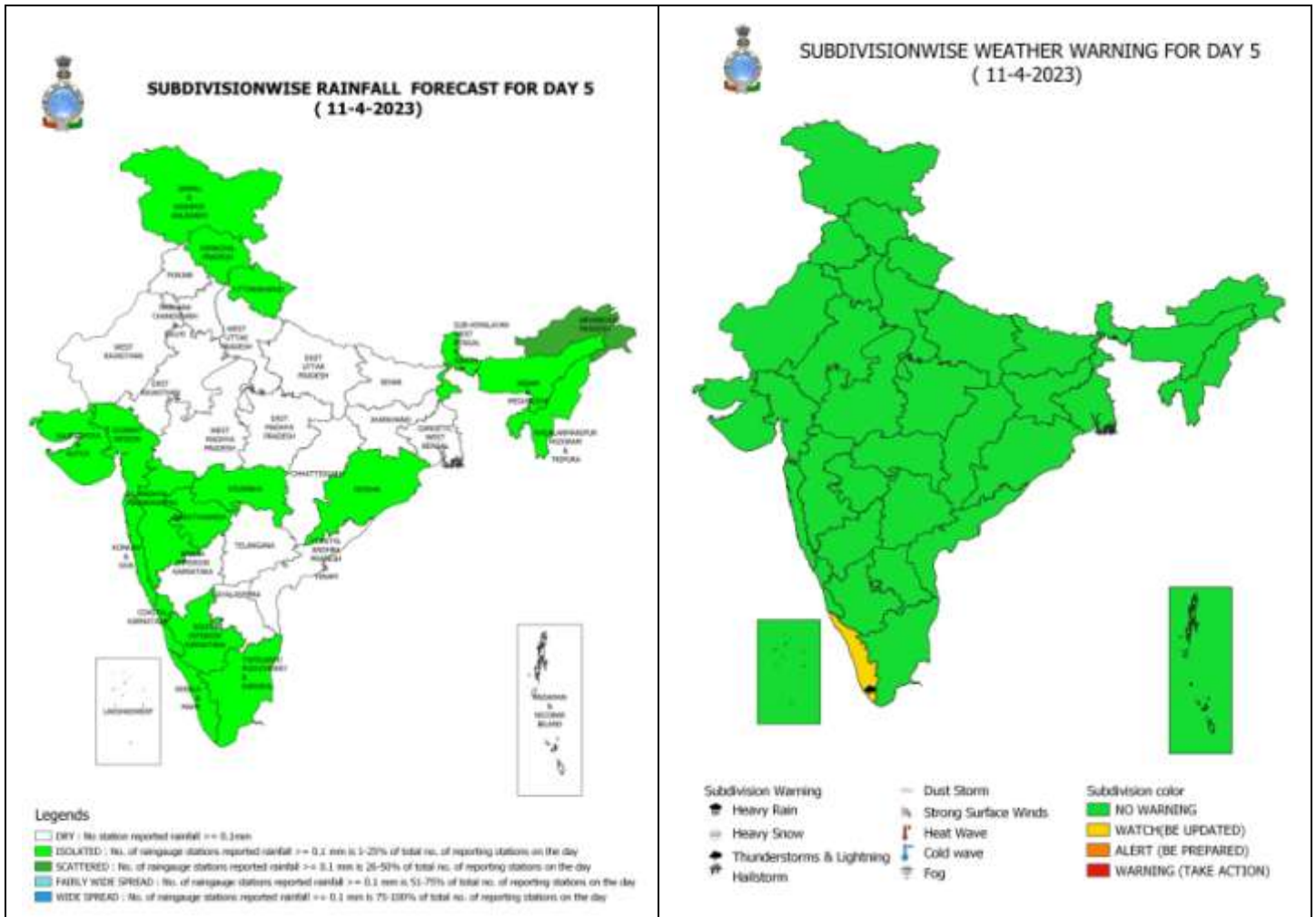
**08 April (Day 2): ♦ Thunderstorm accompanied with lightning & gusty wind (40-50 kmph)** very likely at isolated places over Vidarbha and Odisha; **with lightning & gusty wind (40-50 kmph)** very likely at isolated places over Madhya Pradesh, Chhattisgarh, Telangana and Kerala & Mahe and **with lightning** over East Rajasthan, Madhya Maharashtra, Marathwada Konkan & Goa and Karnataka.



**09 April (Day 3): ♦ Thunderstorm accompanied with lightning & gusty wind (30-40 kmph) very likely at isolated places over Kerala & Mahe and with lightning over Madhya Pradesh, Vidarbha, Odisha, Madhya Maharashtra, Marathawada and Tamil Nadu, Puducherry & Karaikal.**



**10 April (Day 4): ♦ Thunderstorm accompanied with lightning & gusty wind (30-40 kmph) likely at isolated places over Kerala & Mahe and with lightning over Tamil Nadu, Puducherry & Karaikal.**



**11 April (Day 5): ♦ Thunderstorm accompanied with lightning & gusty wind (30-40 kmph) likely at isolated places over Kerala & Mahe.**

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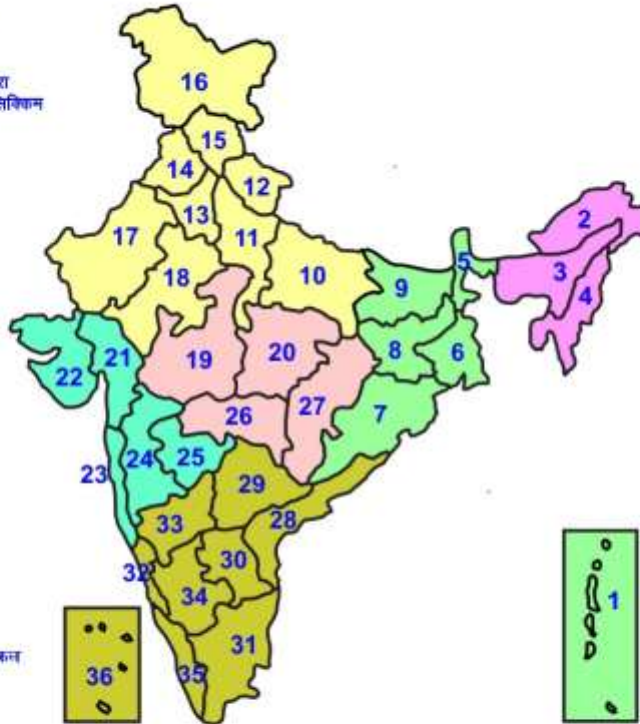
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## LEGENDS

- 1 अंडमान और निकोबार द्वीप समूह
- 2 अरुणाचल प्रदेश
- 3 असम और मेघालय
- 4 नागालैंड मनीपुर मीज़ोरम 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 एवंम ज्वालामुखी
- 17 पश्चिम राजस्थान
- 18 पूर्वी राजस्थान
- 19 पश्चिम मध्य प्रदेश
- 20 पूर्वी मध्य प्रदेश
- 21 गुजरात क्षेत्र
- 22 सौराष्ट्र एवं कच्छ
- 23 कोकण एवं गोवा
- 24 मध्य महाराष्ट्र
- 25 मराठवाड़ा
- 26 विदर्भ
- 27 छत्तीसगढ़
- 28 तटीय आंध्र प्रदेश एवं बंगल
- 29 तेलंगाना
- 30 रायलसेमा
- 31 तमिलनाडु, पुदुचेरी एवंम कराईकल
- 32 तटिय कर्नाटक
- 33 आंतरिक उत्तरी कर्नाटक
- 34 आंतरिक दक्षिणी कर्नाटक
- 35 केरल एवंम 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. Marathwada
26. Vidharbha
27. Chhattisgarh
28. Coastal Andhra Pradesh & Yanam
29. Telangana
30. Rayalaseema
31. Tamilnadu, Puducherry & Karalkal
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



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

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 color warning does not mean "Red Alert" Red color 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 [www.imd.gov.in](http://www.imd.gov.in) or contact : +91 11 24631913, 24643965, 24629798