

**Government of India**  
**Earth System Science Organization**  
**Ministry of Earth Sciences**  
**India Meteorological Department**

**Press Release: Dated: 20<sup>th</sup> March, 2025**

**Subject: Current Weather Status and Extended range Forecast for the next two weeks (20<sup>th</sup> March to 02<sup>nd</sup> April 2025)**

**1. Salient Observed Features for the week ending 19<sup>th</sup> March 2025:**

- ❖ **Rain and Thunderstorm activities with Hailstorm and lightning during 14-17 March across north India: A Western Disturbance (WD; 13-17 March)** moved across northern parts of India during the 1<sup>st</sup> half of the week. It caused light to moderate rainfall/snowfall over Jammu & Kashmir from 13<sup>th</sup> to 16<sup>th</sup> March, Himachal Pradesh from 14<sup>th</sup> to 17<sup>th</sup> March, and Uttarakhand from 15<sup>th</sup> to 17<sup>th</sup> March. It also caused light to moderate rainfall over Haryana, Chandigarh & Delhi on 14<sup>th</sup> & 15<sup>th</sup> March, Punjab on 15<sup>th</sup> March, Rajasthan on 14<sup>th</sup> & 15<sup>th</sup> March, Uttar Pradesh on 14<sup>th</sup> & 15<sup>th</sup> March. Under the influence of this WD, **heavy to very heavy rainfall/snowfall** was recorded over Himachal Pradesh on 16<sup>th</sup> March.
- ❖ **Thunderstorm with lightning** recorded at isolated places over Jammu-Kashmir from 13<sup>th</sup> to 17<sup>th</sup> March, Punjab from 13<sup>th</sup> to 15<sup>th</sup> March, Assam & Meghalaya from 13<sup>th</sup> to 18<sup>th</sup> March, Sub-Himalayan West Bengal & Sikkim on 13<sup>th</sup> to 16<sup>th</sup> March, Nagaland, Manipur, Mizoram & Tripura on 13<sup>th</sup> to 15<sup>th</sup> March, Himachal Pradesh and Uttarakhand from 14<sup>th</sup> to 18<sup>th</sup> March, Uttar Pradesh on 14<sup>th</sup> & 16<sup>th</sup> to 18<sup>th</sup> & 17<sup>th</sup> March, Arunachal Pradesh on 14<sup>th</sup>, 17<sup>th</sup> & 18<sup>th</sup> March, Haryana on 15<sup>th</sup> March, west Rajasthan, Madhya Pradesh, West Bengal, Bihar, Jharkhand, Odisha on 17<sup>th</sup> March, Lakshadweep on 17<sup>th</sup> & 18<sup>th</sup> March, Tamilnadu Puducherry & Karaikal from 17<sup>th</sup> to 19<sup>th</sup> March, Kerala & Mahe from 17<sup>th</sup> to 19<sup>th</sup> March.
- ❖ **Hailstorms** reported at isolated locations over coastal Karnataka on 13<sup>th</sup> March; Himachal Pradesh on 14<sup>th</sup> & 15<sup>th</sup> March, Haryana on 14<sup>th</sup> & 15<sup>th</sup> March, Sikkim on 14<sup>th</sup> & 17<sup>th</sup> March, Uttar Pradesh on 14<sup>th</sup> & 17<sup>th</sup> March, East Rajasthan on 14<sup>th</sup> March; Manipur, Nagaland, Arunachal Pradesh on 15<sup>th</sup> March, Assam on 15<sup>th</sup> & 18<sup>th</sup> March, Uttarakhand from 16<sup>th</sup> to 18<sup>th</sup> March, Gangetic West Bengal on 17<sup>th</sup> March, Jharkhand on 18<sup>th</sup> March.
- ❖ **Heavy to very heavy rainfall/snowfall** was recorded at isolated places over Arunachal Pradesh and Assam on 16<sup>th</sup> March. **Heavy rainfall** was observed at

isolated places over Tamil Nadu Puducherry & Karaikal on 13<sup>th</sup> March, Kerala & Mahe on 13<sup>th</sup>, 17<sup>th</sup> & 19<sup>th</sup> March, Arunachal Pradesh on 14<sup>th</sup> March, Assam & Meghalaya on 14<sup>th</sup>, 15<sup>th</sup> & 17<sup>th</sup> March, Himachal Pradesh on 16<sup>th</sup> March.

- ❖ **Heat wave spell over Western India and east Central India during 13-15 and 15-18 March respectively:** Heat wave to Severe Heat Wave conditions recorded at isolated place over Saurashtra & Kutch from 13<sup>th</sup> to 15<sup>th</sup> March, Odisha from 15<sup>th</sup> to 18<sup>th</sup> March. **Heat Wave** conditions observed at isolated places over Southwest Rajasthan and Konkan on 13<sup>th</sup> March, Gujarat region on 13<sup>th</sup> & 14<sup>th</sup> March, Vidarbha from 14<sup>th</sup> to 17<sup>th</sup> March; Jharkhand on 16<sup>th</sup> & 17<sup>th</sup> March, Chhattisgarh on 16<sup>th</sup> March, Gangetic West Bengal and north Telangana on 17<sup>th</sup> March.
- ❖ **Weekly Average Minimum temperature** was above normal by 1-3°C over parts of north, west, central and eastern India, and nearly normal over remaining parts of the country during the first half of the week. It was above normal by 1-3°C over west coast of India and parts of east and northeast India, and nearly normal over remaining parts of the country during the second half of the week. **Weekly Average Maximum temperature** was above normal by 2-4°C over west, central and east India and below normal by 1-3°C over north and northeast India during first half of the week. It was nearly normal over the country during the second half of the week.
- ❖ **Temperature Scenario:** The lowest minimum temperature of **9.8°C** had been recorded at **Adampur (Punjab)** on **17 March, 2025** and the highest maximum temperature of **43.6°C** had been recorded at **Boudh (Odisha)** on **18 March, 2025** over the plains of the country during the week.
- ❖ **Analysis of weekly overall rainfall distribution during the week-ending on 19<sup>th</sup> March and Pre-Monsoon Season's Rainfall Scenario (01.03.2025 to 19.03.2025):** The country as a whole, the weekly cumulative All India Rainfall (for 06<sup>th</sup> to 19<sup>th</sup> March 2025) in % departure from its long period average (LPA) is +03%. All India Seasonal cumulative rainfall % departure during this year's Pre-Monsoon Season Rainfall (01<sup>st</sup> to 19<sup>th</sup> March 2025) is -21%. Details of the rainfall distribution over the four broad geographical regions of India are given in Table 1, and Meteorological sub-division-wise rainfall for week and season are given in Annexure I & II, respectively.

**Table 1: Rainfall status (Week and season)**

Region	Week			Season		
	06.03.2025 TO 12.03.2025			01.03.2025 TO 12.03.2025		
	Actual (mm)	Normal (mm)	Departure (%)	Actual (mm)	Normal (mm)	Departure (%)
<b>EAST &amp; NORTHEAST INDIA</b>	<b>16.3</b>	<b>12.2</b>	<b>+34%</b>	<b>23.2</b>	<b>29.5</b>	<b>-21%</b>
<b>NORTHWEST INDIA</b>	<b>10.5</b>	<b>11.0</b>	<b>-5%</b>	<b>26.4</b>	<b>30.7</b>	<b>-14%</b>
<b>CENTRAL INDIA</b>	<b>0.0</b>	<b>1.7</b>	<b>-99%</b>	<b>0.0</b>	<b>5.7</b>	<b>-99%</b>
<b>SOUTH PENINSULA</b>	<b>4.9</b>	<b>3.2</b>	<b>+54%</b>	<b>12.1</b>	<b>9.2</b>	<b>+32%</b>
<b>THE COUNTRY AS A WHOLE</b>	<b>6.8</b>	<b>6.6</b>	<b>+3%</b>	<b>14.2</b>	<b>17.9</b>	<b>-21%</b>

## 2. Large scale features:

- ❖ Over the equatorial Pacific Ocean, sea surface temperatures (SSTs) are below average in most of the central and east-central Pacific Ocean. The weak La Niña conditions are present over Pacific and are expected to persist through the February to March (FMA) season. After that, a transition to ENSO-neutral conditions is likely.
- ❖ Near-average sea surface temperatures (SSTs) are currently seen across most of the Indian Ocean. Currently, neutral Indian Ocean Dipole (IOD) conditions are observed over the Indian Ocean. The latest MMCFS forecast indicates that the neutral IOD conditions are likely to turn to negative IOD conditions for a short period of time.
- ❖ The Madden Julian Oscillation (MJO) index is currently in Phase 6 with an amplitude < 1. It is likely to remain in Phase 6 for the entire Week 1 with amplitude nearing 1. By the start of Week 2, it is likely to move to Phase 7, with amplitude becoming > 1. It will remain in Phase 7 for the remaining days of Week 2.

## 3. Forecast for the next two weeks

**Weather systems & associated Precipitation during Week 1 (20 to 26 March, 2025) and Week 2 (27 March to 02 April, 2025)**

**Weather systems & associated Precipitation during Week 1 (20 to 26 March, 2025):**

- ❖ An upper air **cyclonic circulation** lies over southwest Madhya Pradesh & neighbourhood and a **trough** runs from this **cyclonic circulation** and there is wind

confluence over east & adjoining central India due to the above trough and anticyclonic circulation over Bay of Bengal at lower tropospheric levels. Under the influence of these systems:

- ✓ **Scattered to Fairly widespread** light/moderate rainfall accompanied with **thunderstorm, lightning & gusty winds (speed 50-60 kmph)** likely over Gangetic West Bengal, Jharkhand, Odisha during 20<sup>th</sup>-22<sup>nd</sup> March.
  - ✓ **Isolated to Scattered** light/moderate rainfall accompanied with **thunderstorm, lightning & gusty winds (speed 40-50 kmph)** likely over West Madhya Pradesh on 20<sup>th</sup> & 21<sup>st</sup>; East Madhya Pradesh, Vidarbha, Chhattisgarh during 20<sup>th</sup>-22<sup>nd</sup> March and abate thereafter.
  - ✓ **Isolated to Scattered** light/moderate rainfall accompanied with **thunderstorm, lightning & gusty winds (speed 30-40 kmph)** likely over likely over Sub-Himalayan West Bengal & Sikkim, Bihar during 20<sup>th</sup>-22<sup>nd</sup> March and abate thereafter.
  - ✓ **Isolated hailstorms also likely over East Madhya Pradesh, Vidarbha, Chhattisgarh, Jharkhand, Odisha during 20<sup>th</sup>-22<sup>nd</sup>; Sub-Himalayan West Bengal & Sikkim on 22<sup>nd</sup>; Gangetic West Bengal on 20<sup>th</sup> & 21<sup>st</sup>; Bihar on 21<sup>st</sup> & 22<sup>nd</sup> March.**
- ❖ A **Cyclonic Circulation** lies over northeast Assam and neighbourhood in lower tropospheric levels. Under its influence;
- ✓ **Scattered to Fairly widespread light/moderate rainfall/snowfall** accompanied with **thunderstorm, lightning** over Arunachal Pradesh during 20<sup>th</sup>-23<sup>rd</sup> March with Isolated **heavy rainfall/snowfall** on 21<sup>st</sup> & 22<sup>nd</sup> March.
  - ✓ **Scattered to Fairly widespread** light/moderate rainfall accompanied with **thunderstorm, lightning & gusty winds (speed 30-50 kmph)** likely over Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura during next 5 days.
  - ✓ **Isolated hailstorms also likely over south Assam on 20<sup>th</sup> & 21<sup>st</sup> March.**
- ❖ The trough/wind discontinuity runs from the cyclonic circulation over southwest Madhya Pradesh & neighbourhood to North Interior Karnataka in lower tropospheric levels. Under its influence;
- ✓ **Isolated to Scattered** light/moderate rainfall accompanied with **thunderstorm, lightning & gusty winds (speed 30-50 kmph)** likely over Tamilnadu Puducherry & Karaikal, Coastal Karnataka, North Interior Karnataka, Coastal Andhra Pradesh & Yanam, Rayalaseema during 22<sup>nd</sup>-24<sup>th</sup>; Kerala & Mahe, South Interior Karnataka, Telangana during next 5 days.
  - ✓ **Isolated hailstorms also likely over Telangana on 21<sup>st</sup> & 22<sup>nd</sup> March.**

- ❖ The **Western Disturbance** as a trough in lower & middle tropospheric levels runs roughly along Longitude 72° E and north of latitude 30° N and a upper air cyclonic circulation lies over southwest Rajasthan in lower tropospheric levels, Under the influence of these systems;
  - ✓ **Isolated** light/moderate rainfall accompanied with **thunderstorm, lightning & gusty winds (speed 30-40 kmph)** likely over Uttarakhand, Punjab, Haryana Chandigarh, Rajasthan on 20<sup>th</sup>; Uttar Pradesh during 20<sup>th</sup>-22<sup>nd</sup> March.
- ❖ No significant weather likely over rest parts of the country during the week.

#### **Precipitation for week 2 (27 March to 02 April, 2025):**

- ❖ Under the influence of western disturbances, scattered to fairly widespread rainfall/snowfall is likely over Western Himalayan Region during some days of the week.
- ❖ Light/moderate isolated to scattered rainfall is likely over northeast India and south Peninsular & adjoining central India during some to many days of the week.
- ❖ Overall, rainfall is likely to be above normal over south Peninsular India and below normal over rest parts of the country during the week.

#### **Temperature forecast & heat wave warning for Week 1 (20 to 26 March, 2025) and Week 2 (20 to 26 March, 2025)**

#### **Temperature forecast & heat wave warning for Week 1 (20 to 26 March, 2025):**

- ❖ **Maximum Temperature Departures (as on 20-03-2025): Maximum temperatures** were **appreciably above normal (3.1°C to 5.0°C)** at isolated places over Jammu-Kashmir-Ladakh Gilgit-Baltistan-Muzaffarabad, West Madhya Pradesh, Arunachal Pradesh and Odisha; **above normal (1.6°C to 3.0°C)** at many places over Punjab, Marathwada and Jharkhand; at a few places over Haryana-Chandigarh-Delhi, West Rajasthan, Madhya Maharashtra, Telangana, Rayalaseema and Coastal Karnataka; at isolated places over Uttarakhand, Uttar Pradesh, Konkan & Goa, Vidarbha, Chhattisgarh, Assam & Meghalaya, Tamil Nadu, Puducherry & Karaikal and North Interior Karnataka. These were **below normal or** near normal over rest parts of the country.

## **Forecast of temperature:**

### **Maximum temperature:**

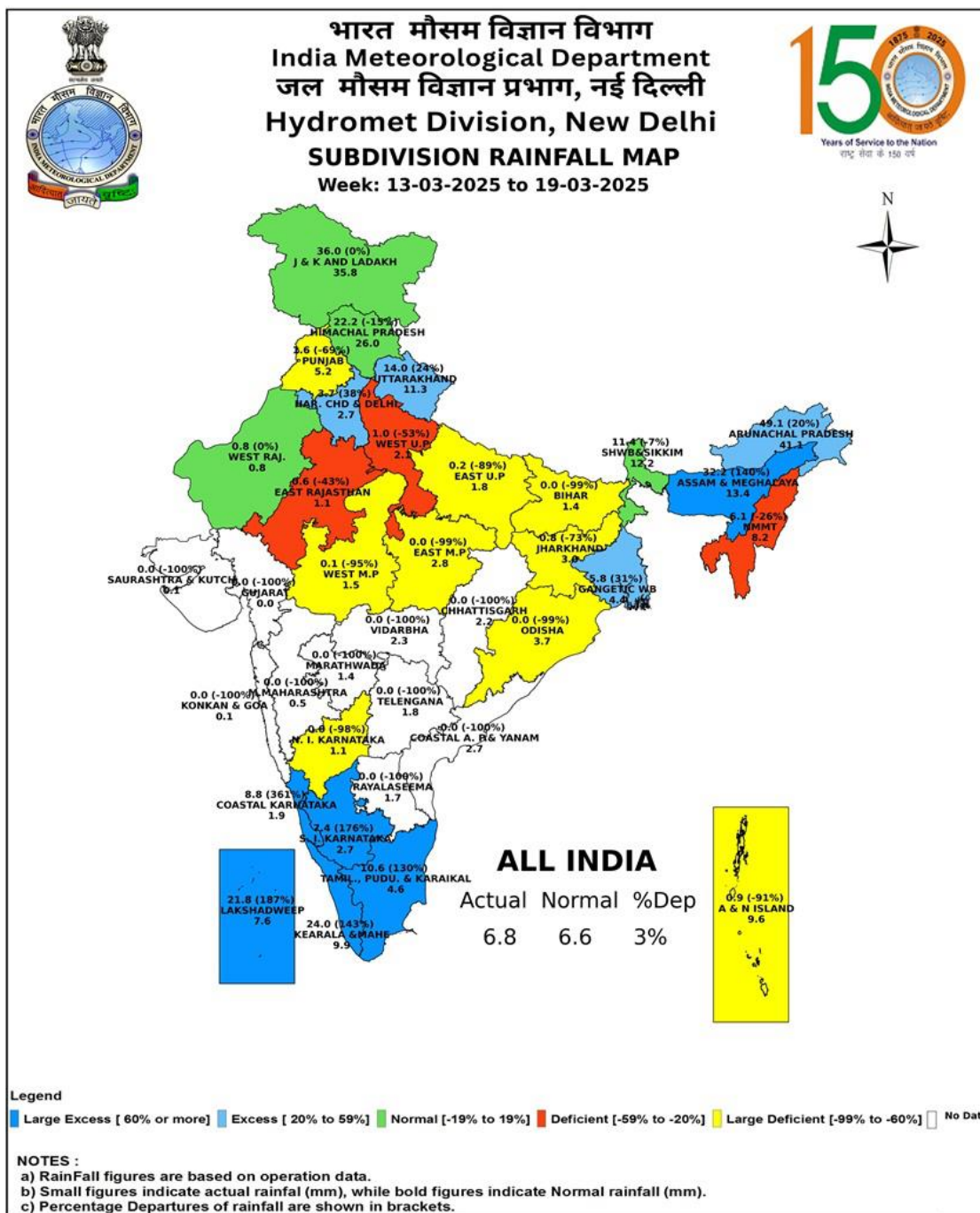
- ❖ No significant change in maximum temperatures likely over Northwest India during next 3 days and rise by 2-3°C during subsequent 2 days.
- ❖ Gradual fall in maximum temperatures by 2-3°C likely over Central India during next 2-3 days and no significant change thereafter.
- ❖ No significant change in maximum temperatures likely over East India during next 24 hours and gradual fall by about 4-6°C for subsequent 3-4 days.
- ❖ No significant change in maximum temperatures likely over West India during next 2 days and rise by 2-3°C during subsequent 3 days.

### **Heat Wave and Hot & Humid weather warnings:**

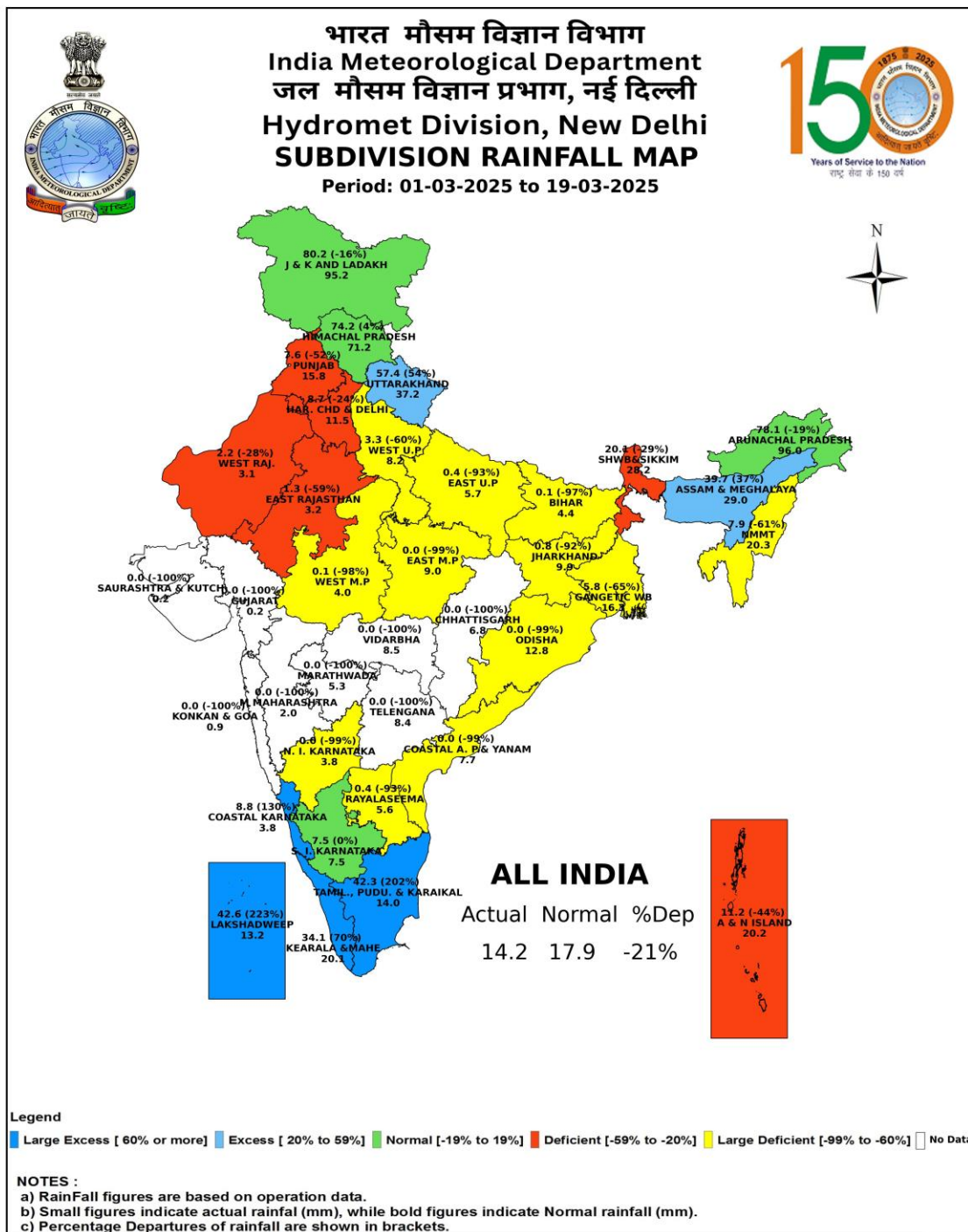
- ❖ No heat wave likely over any parts of country during next 4-5 days.
- ❖ **Hot & humid conditions** very likely to prevail in isolated pockets over coastal areas of Gujarat State during 22<sup>nd</sup>-24<sup>th</sup>; Tamilnadu Puducherry & Karaikal on 20<sup>th</sup> & 21<sup>st</sup> March.

## **Temperature forecast & heat wave warning for Week 2 (27 March to 02 April, 2025):**

- ❖ Maximum temperatures are likely to be above normal by 2-3°C over most parts of northwest India (except Rajasthan) and northeast India; and by 2-4°C over most parts of East & adjoining southeast Peninsular India; near normal over rest parts of the country.
- ❖ There is low to moderate probability of heat wave conditions over north Coastal Andhra Pradesh, Odisha, Chhatisgarh, Jharkhand and West Bengal during some to many days of the week.
- ❖ Minimum temperatures are likely to be below normal or near normal over most parts of the country.

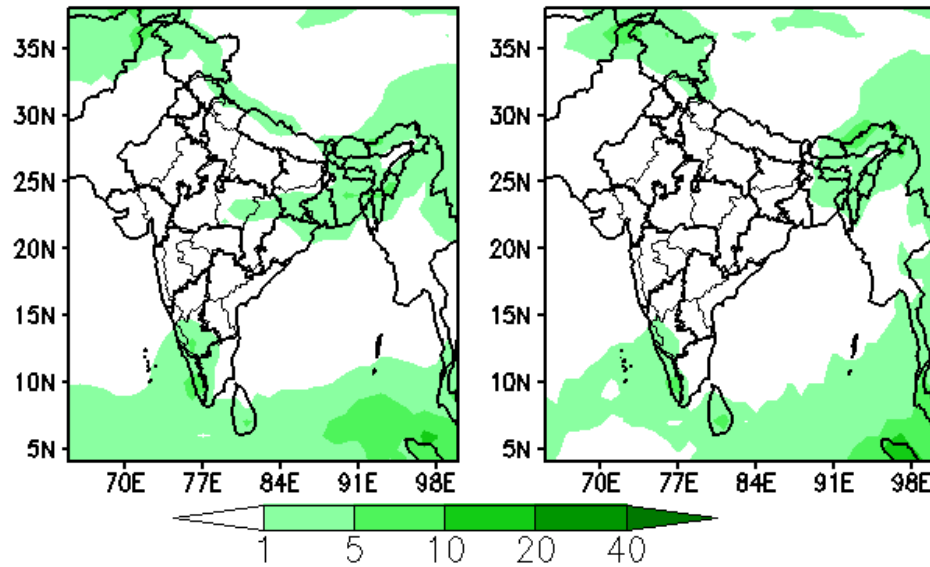




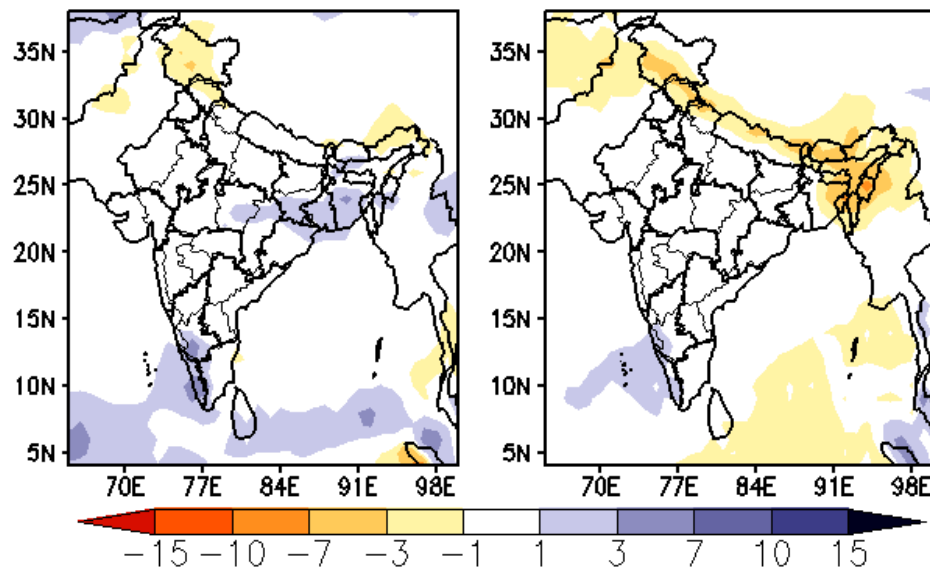




**Forecast Rainfall (mm/day)** (00Z=0530 hrs IST)  
(Week1:00Z20Mar–00Z27Mar) (Week2:00Z27Mar–00Z03Apr)



**Forecast Rainfall Anomaly (mm/day)** (00Z=0530 hrs IST)  
(Week1:00Z20Mar–00Z27Mar) (Week2:00Z27Mar–00Z03Apr)

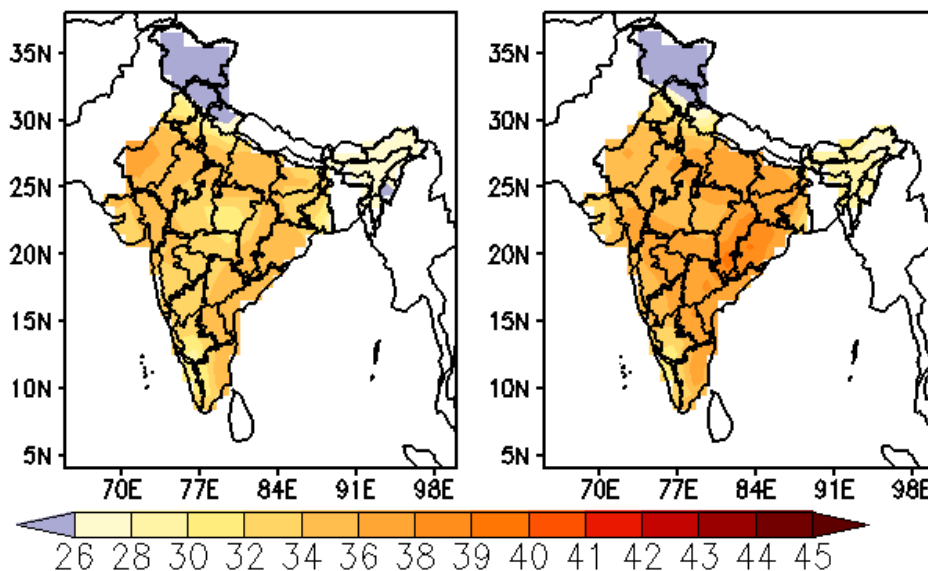


Extended range forecast of weekly distribution of rainfall in mm per day (top panel) and anomalies (lower panel) from IMD MME

**MME Bias corrected forecast Tmax (Deg C)**

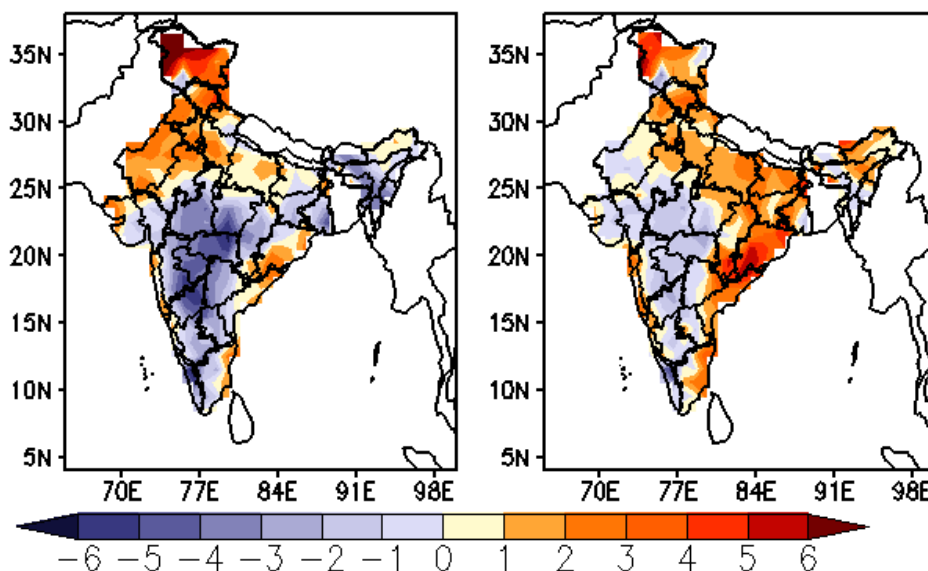
(Week1: 21Mar–27Mar)

(Week2: 28Mar–03Apr)

**MME forecast Tmax anomaly (Deg C)**

(Week1: 21Mar–27Mar)

(Week2: 28Mar–03Apr)



Extended range forecast of weekly distribution of Maximum Temperature in °C (top panel) and anomalies (lower panel) from IMD Bias Corrected Forecast

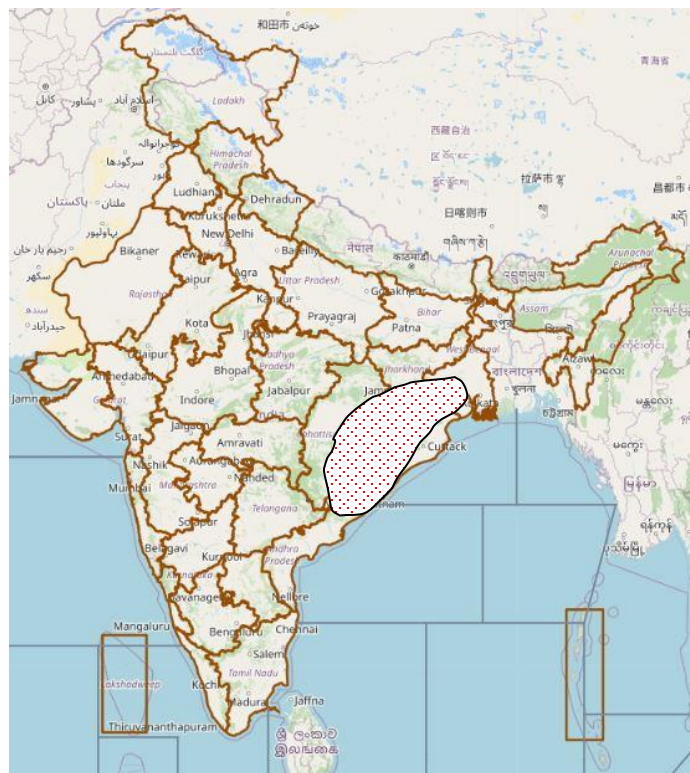
## Heat Wave forecast during next 2 weeks

### EXTENDED RANGE OUTLOOK FOR HEATWAVE

**Week1: 21.03.2025- 27.03.2025**



**Week2: 28.03.2025- 03.04.2025**



**PROBABILITY OF HEATWAVE**

**CONFIDENCE**

**LOW (1-33% PROBABILITY)**

**MODERATE (34-67% PROBABILITY)**

**HIGH (68-100% PROBABILITY)**

