

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

Press Release: Dated: 17th April, 2025

Subject: Current Weather Status and Extended range Forecast for the next two weeks (17th to 30th April 2025)

1. Salient Observed Features for the week ending 16th April 2025:

- ❖ **Heat wave status during the week:** Last week's heat wave spell over Northwest India and Gujarat was abated on 11th April and A fresh heat wave spell was started over West Rajasthan from 16th April. Heat wave to severe heat wave conditions continued to prevail over most parts of Rajasthan on 10 and 11 April; in some parts of Saurashtra & Kutch; on 10th Heat wave conditions prevailed over some parts of Gujarat Region ; in isolated pockets, Delhi and Madhya Pradesh on 10th and over South Haryana on 10th and 11th April and over Himachal Pradesh on 11th April. **It was abated from all of these areas on 12th April due to movement of an active WD which caused Rain and convective activities over these areas. A fresh spell of Heat wave to severe heat wave conditions developed and prevailed at isolated places over West Rajasthan from 16th April.**
- ❖ **Wet spell accompanied with thunderstorm activities observed over many parts of north and eastern India and south Peninsular India during most dates of the week with peak during 10-13 April 2025 over north and eastern India :** Under the influence of movement of two active Western Disturbances, jet core and lower level favourable wind and moisture incursions, north and adjoining parts of central and eastern India experienced light to moderate rainfall with **isolated heavy rainfall over Uttar Pradesh and Bihar and Odisha accompanied with moderate to severe thunderstorm, lighting and gusty/squally winds and hail storm during 10-12 April. It impacted severely parts of Uttar Pradesh, Bihar, Odisha and Gangetic West Bengal.**
- ❖ **Date-wise thunderstorms and its weather hazards across India in brief:** **Thunderstorm accompanied with Squally/Gusty winds recorded at isolated locations** over Jammu Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Uttarakhand, Himachal Pradesh, Haryana, Uttar Pradesh, Rajasthan, Bihar, Sub-Himalayan West Bengal & Sikkim, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Kerala & Mahe, Lakshadweep and Andaman & Nicobar Islands on 10th ; Jammu Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Punjab, Haryana, Uttar Pradesh Odisha on 11th April ; over

Haryana Chandigarh-Delhi, Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand, Uttar Pradesh, Jharkhand, Bihar, Gangetic West Bengal, Rajasthan, Madhya Pradesh, Vidarbha, Chhattisgarh Assam & Meghalaya, Coastal Andhra Pradesh & Yanam, Rayalaseema, Coastal Karnataka, North Interior Karnataka and Kerala & Mahe on 12th April; over Odisha and at isolated locations over Assam & Meghalaya, Tripura, Himachal Pradesh, Uttarakhand, Haryana, Uttar Pradesh, East Rajasthan, West Bengal & Sikkim, Jharkhand, Bihar, Madhya Pradesh, Vidarbha, Chhattisgarh on 13th April; over East Uttar Pradesh, Madhya Pradesh, Vidarbha, Chhattisgarh, Tami Nadu Puducherry & Karaikal, Kerala & Mahe, Coastal Andhra Pradesh & Yanam, Rayalaseema and Telangana on 14th April; over Tamilnadu Puducherry & Karaikal, Kerala & Mahe, Karnataka, Telangana, Rayalaseema, Vidarbha, Chhattisgarh, East Uttar Pradesh, Uttarakhand, Himachal Pradesh, Punjab, Bihar, Gangetic West Bengal, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura on 15th April; over Tamilnadu Puducherry & Karaikal, Interior Karnataka, Coastal Andhra Pradesh & Yanam, Rayalaseema, Telangana, Assam & Meghalaya, Odisha, Vidarbha, Chhattisgarh, Sub-Himalayan West Bengal & Sikkim, Jharkhand on 16th April.

- ❖ **Moderate to severe Dust storm** recorded at isolated places over East Uttar Pradesh on 11th April ; over Haryana, Delhi, Uttar Pradesh and Rajasthan on 12th April; over East Uttar Pradesh. on 13th April; over East Uttar Pradesh on 14th April; over East Uttar Pradesh on 15th April.
- ❖ **Hailstorm occurred** at isolated places over East Uttar Pradesh, South Haryana, Uttarakhand, Himachal Pradesh and Meghalaya on 10th and over Assam & Meghalaya, Jammu-Kashmir-Ladakh-Gilgit-Baltistan Muzaffarabad, Uttarakhand, Himachal Pradesh, Punjab, Haryana, West Uttar Pradesh, Madhya Pradesh, Nagaland, Manipur, Mizoram & Tripura, Marathawada, Jharkhand on 11th; Uttarakhand, Himachal Pradesh, Haryana, West Madhya Pradesh, Rayalaseema and Jharkhand 12th April; over Himachal Pradesh, West Uttar Pradesh, Madhya Pradesh, Vidarbha, Madhya Maharashtra and Odisha on 13th April; over West Madhya Pradesh, Madhya Maharashtra, Telangana, Coastal Andhra Pradesh & Yanam and Chhattisgarh on 14th April; over Telangana, Jharkhand 15th April; over Telangana, Vidarbha, Chhattisgarh, Assam & Meghalaya on 16th April.
- ❖ **Heavy to very heavy rainfall recorded** at isolated places over Bihar and heavy rainfall over Sub-Himalayan West Bengal & Sikkim on 10th April and over Sub-Himalayan West Bengal & Sikkim, Assam & Meghalaya, Uttarakhand, on 11th April; over Tamil Nadu and Kerala on 12th April; over Sub-Himalayan West Bengal & Sikkim on 13th April; over Odisha and Tamil Nadu on 14th April; over Kerala & Mahe on 15th April; over Odisha on 16th April.
- ❖ **Weekly Average Minimum temperature** was above normal by 3-5°C over parts of West and East Rajasthan, 2-3 °C over parts of Gujarat, West Madhya Pradesh, South Punjab, and South Haryana, and by 1-2°C over the remaining parts of north India and northeast India. It was nearly normal over the remaining parts of the country. **Weekly Average Maximum temperature** was above normal by 2-5°C over north India, parts of west and northeast India, and below normal by 2-5°C over parts of east India and south interior Karnataka.

- ❖ **Temperature Scenario:** The lowest minimum temperature of **14.5°C** had been recorded at **Karnal (Haryana)** on **12 April, 2025** and the highest maximum temperature of **46.5°C** had been recorded at **Nandurbar (Madhya Maharashtra)** on **10 April, 2025** over the plains of the country during the week.

- ❖ **Analysis of weekly overall rainfall distribution during the week-ending on 16th April and the Pre-Monsoon Season's Rainfall Scenario (01.03.2025 to 16.04.2025):** The country as a whole, the weekly cumulative All India Rainfall (for 09rd – 16th April 2025) in % departure from its long period average (LPA) is +21%. All India Seasonal cumulative rainfall % departure during this year's Pre-Monsoon Season Rainfall (01st March to 16th April 2025) is -23%. 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		
	09.04.2025 TO 16.04.2025			01.03.2025 TO 16.04.2025		
	Actual (mm)	Normal (mm)	Departure (%)	Actual (mm)	Normal (mm)	Departure (%)
EAST & NORTHEAST INDIA	26.3	24.9	+6%	70.3	116.9	-40%
NORTHWEST INDIA	6.5	7.7	-15%	35.7	65.5	-46%
CENTRAL INDIA	4.7	1.9	+145%	12.9	12.0	+7%
SOUTH PENINSULA	13.4	8.0	+67%	56.7	30.4	+86%
THE COUNTRY AS A WHOLE	10.4	8.6	+21%	37.6	48.8	-23%

2. Large scale features:

- ❖ Over the equatorial Pacific Ocean, sea surface temperatures (SSTs) are above average in the eastern and far western Pacific Ocean. Below-average SSTs were evident in the central Pacific Ocean. The El Niño-Southern Oscillation (ENSO) is transitioning from weak La Niña conditions to an ENSO-neutral state. The neutral ENSO conditions are expected to persist in the coming month, with a transition to ENSO-neutral likely occurring between March and May 2025.
- ❖ Below-average sea surface temperatures (SSTs) are currently seen in some parts of the western 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 continue for the next several months

- ❖ The Madden Julian Oscillation (MJO) index is currently in Phase 7 with an amplitude < 1. It is likely to remain in Phase 7 for the entire duration of Week 1, and Week 2 with amplitude becoming > 1.

3. Forecast for the next two weeks

Weather systems & associated Precipitation during Week 1 (17 to 23 April, 2025) and Week 2 (24 to 30 April, 2025)

Weather systems & associated Precipitation during Week 1 (17 to 23 April, 2025):

- ❖ An **upper air cyclonic circulation** lies over northwest Rajasthan, 2nd over Bihar in lower tropospheric levels and 3rd over east Assam in lower & middle tropospheric levels.
- ❖ A **trough** runs from northwest Rajasthan to Gulf of Mannar and 2nd trough from East Madhya Pradesh to south Assam in lower tropospheric levels.
- ❖ An **upper air cyclonic circulation** lies over south Rayalaseema in lower tropospheric levels.
- ❖ Under the influence of these systems:
 - ✓ **Scattered to fairly widespread** light/moderate rainfall accompanied with **thunderstorm, lightning & gusty winds (speed reaching 40-50 kmph gusting to 60 kmph)** likely over Northeast & East India during next 5 days.
 - ✓ Isolated rainfall accompanied with **thunderstorm, lightning & gusty winds (speed reaching 40-50 kmph gusting to 60 kmph)** likely over Vidarbha on 17th; Chhattisgarh on 17th & 18th April.
 - ✓ **Heavy rainfall** likely over Sub-Himalayan West Bengal & Sikkim, Bihar on 17th; Gangetic West Bengal on 18th; Arunachal Pradesh on 17th, 22nd & 23rd; Assam & Meghalaya during 17th, 18th & during 20th -23rd; Nagaland, Manipur, Mizoram & Tripura during 17th, 18th & during 20th -22nd April.
 - ✓ **Isolated Hailstorm** likely over Gangetic West Bengal on 17th April.
 - ✓ **Thundersquall (wind speed reaching 50-60 kmph gusting to 70 kmph)** very likely at isolated places over West Bengal & Sikkim & north Odisha on 17th; Bihar on 17th & 18th April.
 - ✓ **Scattered to fairly widespread** light/moderate rainfall accompanied with **thunderstorm, lightning & gusty winds (speed 40-50 kmph gusting to 60 kmph)** likely over Kerala & Mahe and **Isolated to Scattered** light/moderate rainfall accompanied with **thunderstorm, lightning & gusty winds (wind speed reaching 40-50 kmph gusting to 60 kmph)** likely over remaining parts of south peninsular India during next 7 days. **Thundersquall (wind speed reaching 50-60 kmph gusting to 70 kmph)** very likely at isolated places over North Interior Karnataka on 17th & 18th April.

- ❖ A **Western Disturbance** seen as a cyclonic circulation over West Iran & neighbourhood in middle & upper tropospheric levels. Under its influence:
 - ✓ **Thunderstorm, lightning & gusty winds (speed 40-50 kmph gusting to 60 kmph) with isolated hailstorm** likely over Western Himalayan Region on 18th & 19th April; with **gusty winds (speed 30-40 kmph gusting to 50 kmph)** over Himachal Pradesh on 20th; Uttarakhand on 20th & 21st April.
 - ✓ **Isolated heavy rainfall** likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad and Himachal Pradesh on 18th & 19th April.
 - ✓ Isolated rainfall along with **thunderstorm, lightning & gusty winds (speed 30-40 kmph gusting to 50 kmph)** is likely over adjoining plains of Northwest India during 18th to 20th April, 2025.
 - ✓ Isolated Duststorm/Thunderstorm **gusty winds (speed 40-50 kmph gusting to 60 kmph)** likely over East Rajasthan on 17th April and dust raising strong winds (**speed 30-40 kmph gusting to 50 kmph**) over west Rajasthan on 18th & 19th April.
- ❖ No significant weather likely over rest parts of the country during the week.

Precipitation for week 2 (24 to 30 April, 2025):

- ❖ Under the influence of western disturbances, isolated to scattered rainfall is likely over Western Himalayan Region during some days of the week.
- ❖ Due to trough/cyclonic circulations over East India, light/moderate scattered to fairly widespread rainfall alongwith thunderstorm & lightening are likely over east & northeast India during some/many days of the week. Isolated heavy rainfall is also likely over northeast India during some days of the week.
- ❖ Light/moderate rainfall alongwith thunderstorm & lightening also likely over south Peninsular India during some days of the week.
- ❖ Overall, normal to above normal rainfall alongwith thunderstorm & lightening are likely over many parts of East & northeast India and South Peninsular India; near normal over parts of central India and below normal over many parts of northwest India including Western Himalayan Region during the week.

Temperature forecast & heat wave warning for Week 1 (17 to 23 April, 2025) and Week 2 (24 to 30 April, 2025)

Temperature forecast & heat wave warning for Week 1 (17 to 23 April, 2025):

- ❖ **Yesterday, Maximum Temperatures** were in the range of **42-45°C** at a few places over West Rajasthan, Saurashtra & Kutch, interior Maharashtra; **38-42°C** over East Rajasthan, Madhya Pradesh, Telangana, North Rayalaseema, central parts of Chhattisgarh, south Haryana, south Delhi; **33-38°C** over north Punjab, north Haryana, Uttar Pradesh, Bihar, west Jharkhand, Gangetic West Bengal, Chhattisgarh, northeast & south Assam, Mizoram, Tripura, Karnataka, Konkan & Goa, Tamil Nadu, Coastal Andhra Pradesh & Yanam . Yesterday, the

highest maximum temperature of **46.0°C** was reported at **Jaisalmer (West Rajasthan)** over the country.

- ❖ Yesterday, Maximum Temperatures were above normal by 5-7°C at many places over Jammu & Kashmir, at a few places over West Rajasthan, at isolated pockets over Himachal Pradesh, central parts of Madhya Maharashtra; by 2-4°C at a few places over Gujarat, East Rajasthan, Punjab, Haryana, East Assam, Arunachal Pradesh, interior Maharashtra; below normal by 2-4°C at many places over Jharkhand, at a few places over Bihar, Western parts of Gangetic West Bengal, North Odisha Mizoram and 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 2 days; gradual fall by 2-4°C during subsequent 3 days and rise by 2-3°C during subsequent 2 days.
- ❖ Gradual rise in maximum temperatures by 2-3°C likely over Central India during next 5 days and no significant change during subsequent 2 days.
- ❖ No significant change in maximum temperatures likely over East India during next 3 days and gradual rise by 2-4°C during subsequent 4 days.
- ❖ No significant change in maximum temperatures likely over Gujarat State during next 24 hours; gradual fall by 2-3°C during subsequent 3 days and gradual rise by 2-4°C during subsequent 3 days.
- ❖ No significant change in maximum temperatures likely over rest parts of the country.

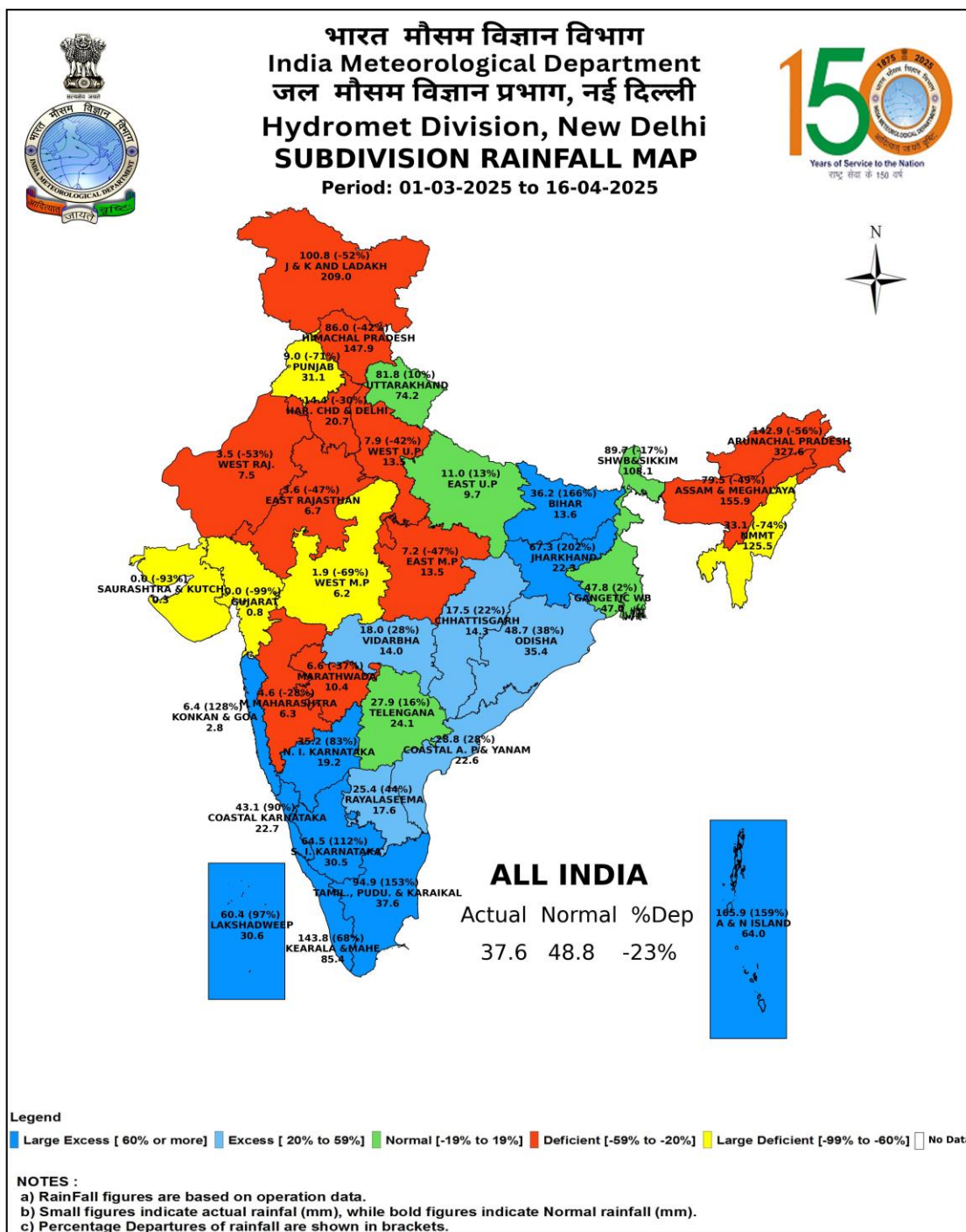
Heat wave and Hot & Humid weather warning:

- ❖ **Heat wave conditions** at most places with **severe heat wave conditions** at isolated/some parts likely over West Rajasthan on 17th April and heat wave conditions at isolated/some parts thereafter on 18th April.
- ❖ **Heat wave conditions** are very likely at isolated/some places over East Rajasthan on 17th & 18th; Saurashtra & Kutch on 17th April.
- ❖ **Hot & humid** weather is likely to prevail over Gujarat State on 17th; Marathwada & Madhya Maharashtra during 17th-21st April.
- ❖ **Warm Night conditions** are likely at isolated places over Rajasthan on 17th April.

Temperature forecast & heat wave warning for Week 2 (24 to 30 April, 2025):

- ❖ Maximum temperatures are likely to be above normal by 1-3°C over many parts of northwest, central & east India. It is likely near normal or below normal over rest parts of the country.
- ❖ There is a low to moderate probability of heat wave conditions over some/isolated pockets of Rajasthan, south Haryana & south Punjab, Gujarat and north Madhya Pradesh during some days of the week.



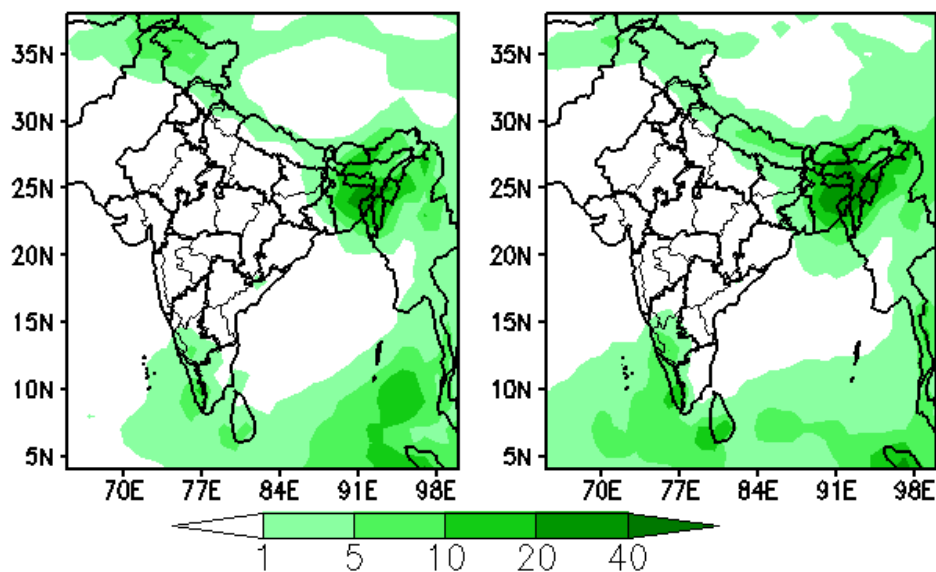


Forecast Rainfall (mm/day)

(00Z=0530 hrs IST)

(Week1:00Z17Apr–00Z24Apr)

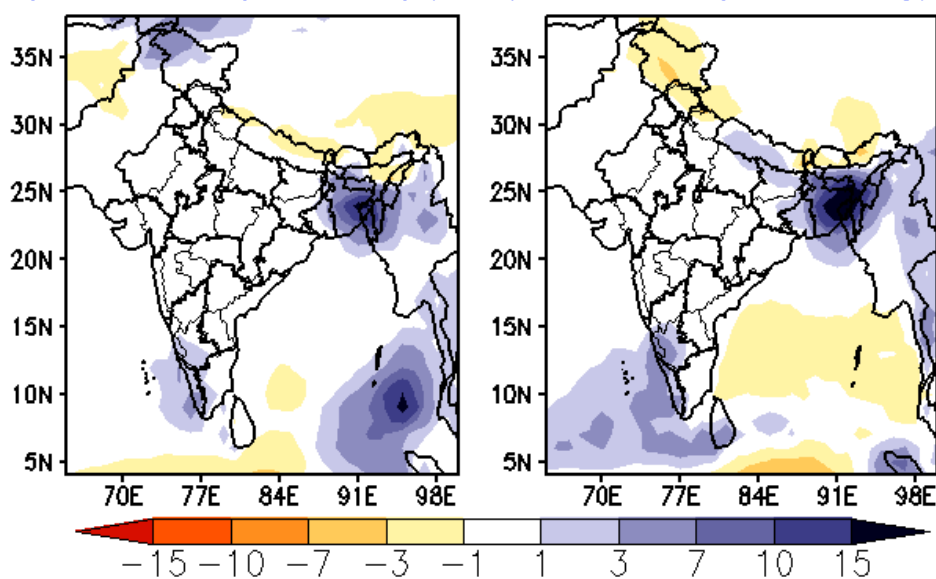
(Week2:00Z24Apr–00Z01May)

**Forecast Rainfall Anomaly (mm/day)**

(00Z=0530 hrs IST)

(Week1:00Z17Apr–00Z24Apr)

(Week2:00Z24Apr–00Z01May)

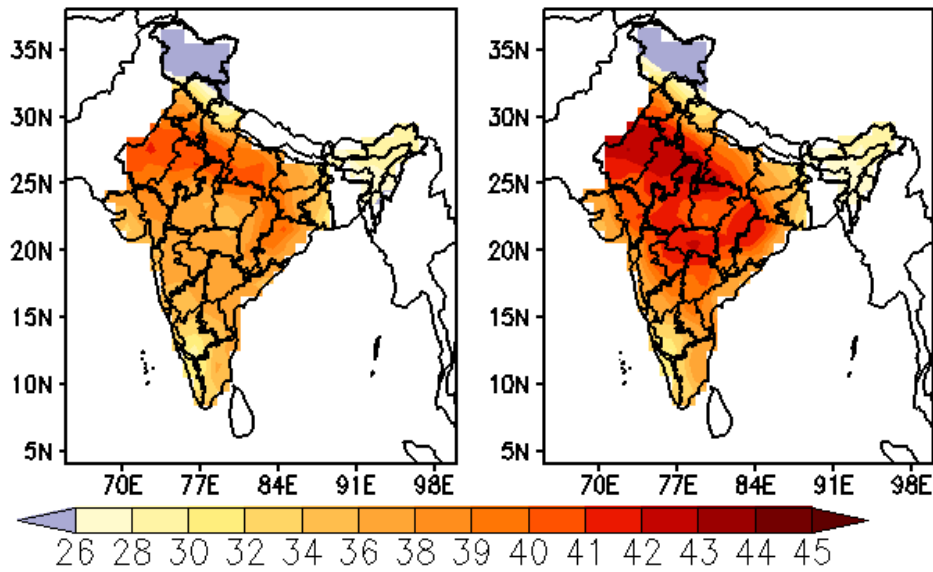


Extended range forecast of weekly distribution of rainfall in mm per day (top panel) and anomalies (lower panel) from IMD MME

MME Bias corrected forecast Tmax (Deg C)

(Week1: 18Apr–24Apr)

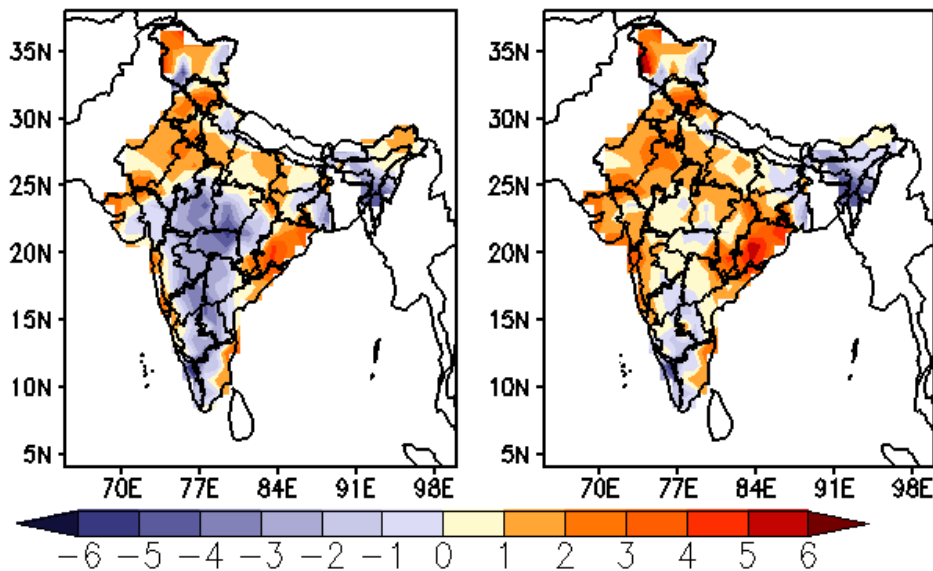
(Week2: 25Apr–01May)



MME forecast Tmax anomaly (Deg C)

(Week1: 18Apr–24Apr)

(Week2: 25Apr–01May)

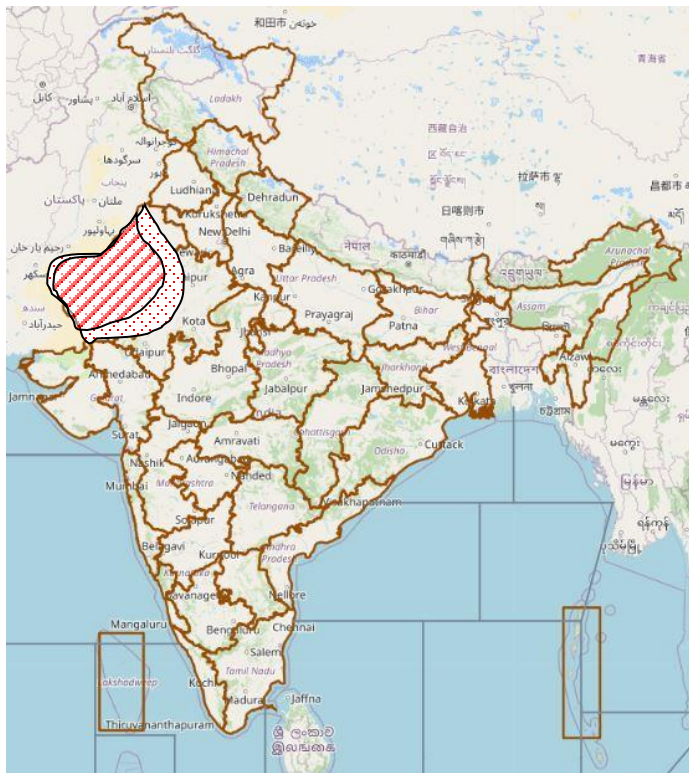


Extended range forecast of weekly distribution of Maximum Temperature in °C (top panel) and anomalies (lower panel) from IMD Bias Corrected Forecast

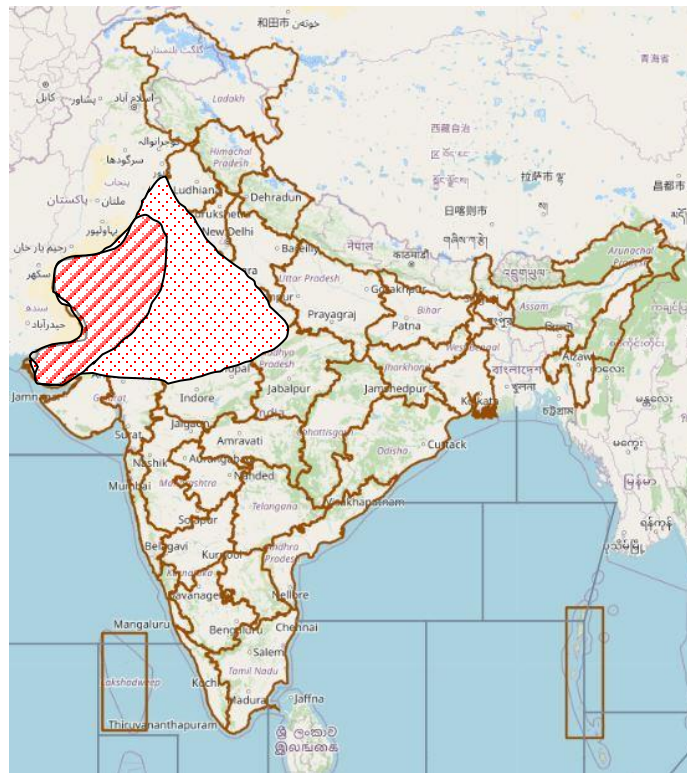
Heat Wave forecast during next 2 weeks

EXTENDED RANGE OUTLOOK FOR HEATWAVE

Week1: 18.04.2025- 24.04.2025



Week2: 25.04.2025- 01.05.2025



PROBABILITY OF HEATWAVE

CONFIDENCE

LOW (1-33% PROBABILITY)

MODERATE (34-67% PROBABILITY)

HIGH (68-100% PROBABILITY)

