



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

Press: Dated: 18th May, 2023

**Subject: Current Weather Status and Extended range Forecast for next two weeks
(18-31 May 2023)**

1. Salient Observed Features for week of 11-17 May 2023

- **Extremely Severe Cyclonic Storm “Mocha” pronounced as “Mokha”** crossed north Myanmar-southeast Bangladesh coasts during 1230 to 1430 hours IST of 14th May 2023, between Kyaukpyu (Myanmar) and Cox’s Bazar (Bangladesh) close to north of Sittwe (Myanmar), near Latitude 20.25°N and Longitude 92.75°E as an Extremely Severe Cyclonic Storm with wind speed of the order of 180-190 kmph gusting to 210 kmph; moving north-northeastwards further, it weakened into a Very Severe Cyclonic Storm in the evening of 14th May over Myanmar and further into a Severe Cyclonic Storm over the same areas around 2030 hrs IST of 14th May; continuing to move north-northeastwards, it weakened into a Cyclonic Storm and lay centred at 0230 hours IST of 15th May over Myanmar; then moving east-northeastwards, it rapidly weakened into a Depression by early morning hours of 15th May over Myanmar and further into a Well Marked Low pressure area in the morning of 15th May, 2023 over northeast Myanmar; it weakened further into a Low pressure area in the afternoon of the same day over northeast Myanmar and has become unimportant for Indian region.
- Movement of Western Disturbances had caused isolated rainfall/thunderstorm activity over Western Himalayan Region and over plains of Northwest India during 15-17 May 2023 where it was reported on one or three days) along with fairly widespread rainfall/thunderstorm activity reported over Jammu Kashmir & Ladakh on a single day; passage of the systems along with cyclonic circulations in the lower tropospheric levels over the plains had also caused isolated rainfall/thunderstorm activity over Madhya Pradesh on two to three days and over Saurashtra & Kutch on one or two days; under its influence, isolated hailstorm activity had been reported over Rajasthan and West Madhya Pradesh on two day each whereas isolated dust storm activity had been reported over Rajasthan on two to three days and over parts of West Uttar Pradesh and Haryana, Chandigarh & Delhi on one or two days along with.

- **Temperature Scenario: Heatwave:** Heatwave to severe heatwave conditions had occurred at isolated places over Coastal Andhra Pradesh & Yanam on two days and over Gujarat Region and Saurashtra & Kutch on one day each during the week. Heatwave conditions had occurred at a few places over West Rajasthan on one day; at isolated places over Vidarbha on two days and over Coastal Andhra Pradesh, Gangetic West Bengal, Sub Himalayan West Bengal & Sikkim, Bihar, West Madhya Pradesh, Madhya Maharashtra, Saurashtra & Kutch and West Rajasthan on one day each during the week.
- The highest maximum temperature of **46.0°C** had been recorded at **Jaisalmer (West Rajasthan)** and **Khargone (West Madhya Pradesh)** on **13th May 2023** and the lowest minimum temperature of **15.4°C** had been recorded at **Malanjkhanda (East Madhya Pradesh)** on **12th May 2023** over the plains of the country during the week.
- **Analysis of Weekly overall Rainfall distribution during the week ending on 17 May 2023 and Pre-monsoon Season's Rainfall Scenario (1 March-17 May 2023):** It shows for the country as a whole, the weekly cumulative All India Rainfall in % departure from its long period average (LPA) till week ending on 17 May 2023 was -63%, over south Peninsula as -62%, central India as -85% and northwest India had -75% while all India Seasonal cumulative rainfall % departure during this year's **Pre-monsoon Season's Rainfall** during **1 March-17 May 2023** is +16% and over northwest India, it is +13%. Details of the rainfall distribution over the four broad geographical regions of India are given in Table 1 and Meteorological sub-division-wise rainfall both for week and season are given in Annex I and II respectively.

Table 1: Rainfall status (Week and season)

Region	WEEK			SEASON		
	11.05.2023 TO 17.05.2023			01.03.2023 TO 17.05.2023		
	Actual	Normal	% Dep	Actual	Normal	% Dep
EAST & NORTH-EAST INDIA	18.8	39.8	-53%	181.9	276.6	-34%
NORTH-WEST INDIA	2	8.2	-75%	111.1	98.6	+13%
CENTRAL INDIA	0.7	4.5	-85%	74.8	26.1	+186%
SOUTH PENINSULA	6	16.1	-62%	138.5	85.4	+62%

Country as a whole	5	13.6	-63%	115.5	100	+16%
--------------------	---	------	------	-------	-----	------

2. Large scale features

- Currently, ENSO-neutral conditions prevailing over the equatorial Pacific region. Also, neutral IOD conditions are present over the Indian Ocean and the latest MMCFS forecast indicates that the neutral IOD conditions are likely to continue during the remaining period of the pre-monsoon season.
- The Madden Julian Oscillation (MJO) Index is currently in Phase 6 with amplitude >1. It would continue in same phase with increased amplitude during most part of week 1. Then it will move to Phase 7 with amplitude >1. It would continue in same phase with increased amplitude during most part of week 2.

3. Forecast for next two week

Weather systems & associated Precipitation during Week 1 (18 to 24 May, 2023) and Week 2 (25 to 31 May, 2023)

Forecast for week 1 (18 to 24 May, 2023):

- ❖ **About forecast of monsoon advance 2023:** Southwest Monsoon is very likely to advance into some parts of South Bay of Bengal, South Andaman Sea and Nicobar islands during next 48 hours.

Significant Meteorological features of 18 May:

- ❖ A **Western Disturbance** as a trough in middle & upper tropospheric westerlies with its axis at 5.8 km above mean sea level runs roughly along Long. 68°E to the north of Lat. 28°N.
- ❖ A **cyclonic circulation** lies over Punjab & adjoining central Pakistan, other over south Pakistan & adjoining southwest Rajasthan and another over East Uttar Pradesh in lower tropospheric levels.
- ❖ A **trough** runs from above cyclonic circulation over East Uttar Pradesh to Telangana in lower tropospheric levels.
- ❖ A trough in westerlies runs roughly along Long. 90°E to the north of Lat. 22°N at 1.5 km above mean sea level.
- ❖ A fresh **Western Disturbance** is very likely to affect northwest India from 23rd night.

Forecast and warning over the country during next one week:

Northeast India:

- ❖ Light/moderate widespread rainfall with thunderstorm/lightning/gusty winds very likely to continue over Northeast India during the week with **heavy rainfall** at isolated places over Assam & Meghalaya during 18th to 24th and Nagaland, Manipur, Mizoram & Tripura on 18th & 19th. Isolated **very heavy falls** also likely over Assam & Meghalaya on 18th May, 2023.

East India:

- ❖ Light/moderate isolated to scattered rainfall with thunderstorm/lightning/gusty winds very likely over the region during the week.
- ❖ **Heavy rainfall** very likely at isolated places over Sub-Himalayan West Bengal & Sikkim on 18th May.

Northwest India:

- ❖ Light/moderate scattered to fairly widespread rainfall with thunderstorm/lightning/gusty winds very likely over Western Himalayan Region and isolated light rainfall with thunderstorm/gusty winds over adjoining plains today, the 18th. Isolated hailstorm also very likely over Uttarakhand today, the 18th May, 2023.
- ❖ **Duststorm/dust raising winds** very likely in isolated pockets over Uttar Pradesh on 18th and over Rajasthan on 22nd May, 2023.
- ❖ Under the influence of a Western Disturbance, a fresh spell of rainfall/thunderstorm is likely over northwest India from 23rd night.

Central India:

- ❖ Light/moderate isolated light rainfall with thunderstorm/lightning/gusty winds very likely over Madhya Pradesh, Vidarbha & Chhattisgarh on 18th & 22nd May, 2023.

South India:

- ❖ Light/moderate isolated light rainfall with thunderstorm/lightning/gusty winds very likely over most parts of the region during the week.

Rainfall for week 2 (25 to 31 May, 2023):

- ✓ In association with Western Disturbance, light to moderate isolated to fairly widespread rainfall/thunderstorm is likely over northwest & adjoining central India mainly during 1st half of the week.
- ✓ Light to moderate scattered/fairly widespread rainfall/thunderstorm is likely over northeast India during many days of the week.
- ✓ Light to moderate isolated/scattered rainfall/thunderstorm is also likely over south Peninsular India during the week.
- ✓ No significant weather likely over rest parts of the country.
- ✓ **Overall, rainfall activity is likely to be above normal over northwest & Madhya Pradesh and below normal over rest parts of the country.**

Maximum Temperatures and its forecast during Week 1 (18 to 24 May, 2023) and Week 2 (25 to 31 May, 2023):

Maximum Temperature Forecast for week 1 (18 to 24 May, 2023):

- Yesterday, **Maximum Temperatures** were in the range of 40-44°C over many parts of Northwest, Central, East & north Peninsular India.
- **Maximum Temperatures** were above normal by 2-4°C over some/many parts of East & Peninsular India and near normal or below normal over rest parts of the country.
- Yesterday, **Heat wave conditions** prevailed in isolated pockets over Jharkhand, Gangetic West

Bengal & Coastal Andhra Pradesh.

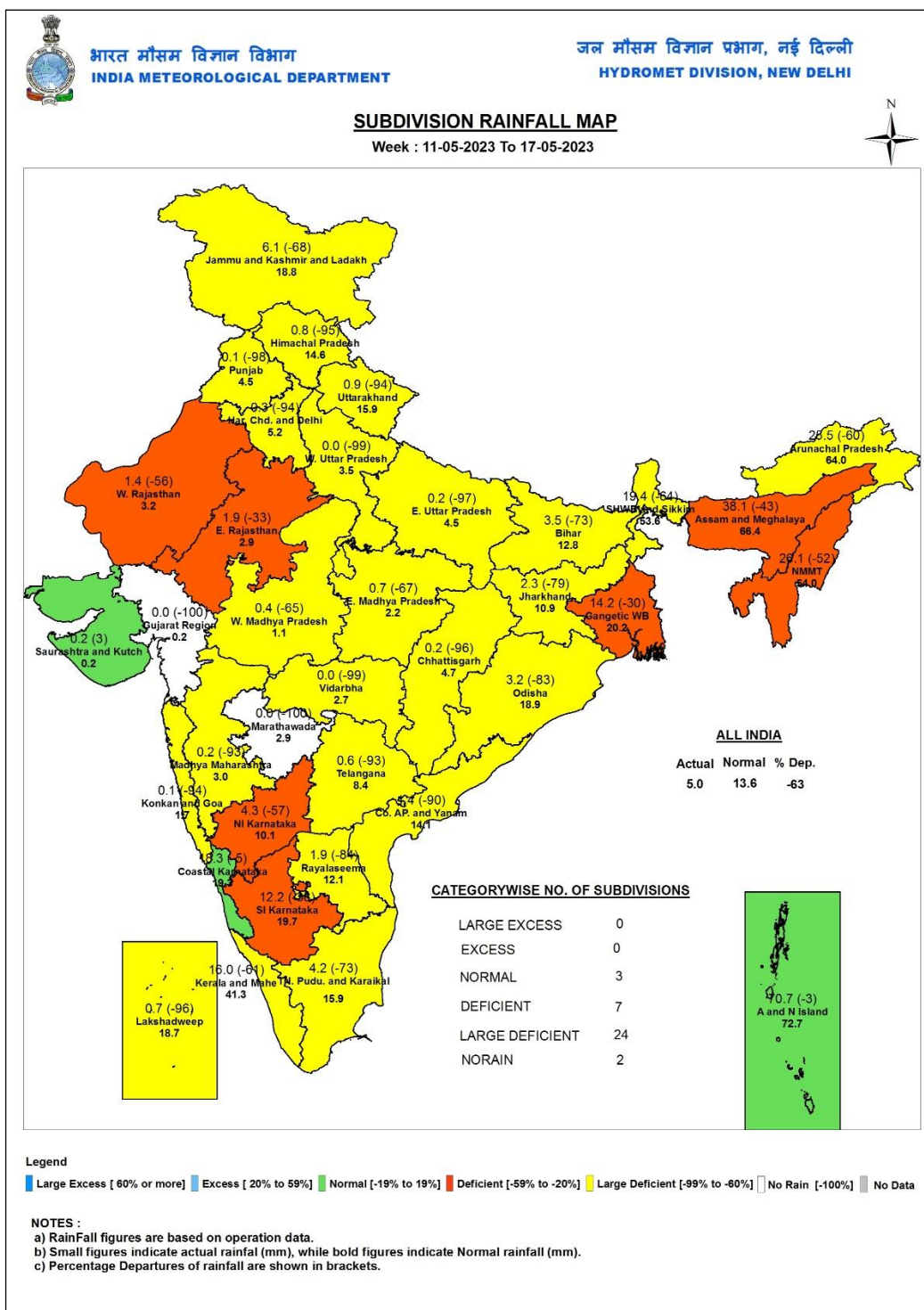
- **Maximum temperatures** are very likely to rise by 2-3°C over Maharashtra during 1st half of the week and no significant change thereafter. No significant change in Maximum temperatures are very likely over many parts of Northwest & Central India during next 48 hours and rise by 2-4°C thereafter. No significant change in maximum temperature very likely over rest parts of the country during the week.
- Heat wave conditions in isolated pockets very likely over **south Uttar Pradesh, West Rajasthan and north Madhya Pradesh** during 20th to 23rd May, 2023.
- Due to humid air & high temperature, **Hot and Discomfort weather** is very likely over Bihar, Jharkhand, Odisha and Konkan & Goa during the week and over Coastal Andhra Pradesh, Rayalaseema, Kerala and Tamilnadu during 1st half of the week.

Maximum Temperature for week 2 (25 to 31 May, 2023):

- Maximum temperatures likely to be near normal or below normal over most parts of India outside East India, Coastal Andhra Pradesh, Tamilnadu, Coastal Karnataka and Konkan & Goa, where it is likely to be above normal by 2-3°C.
- **Heat wave conditions likely to occur over isolated pockets over East India during some days of the week.**

Legends: Heavy Rain: 64.5 to 115.5 mm Very Heavy Rain: 115.6 to 204.4 mm, Extremely Heavy Rain> 204.4 mm

Annex: I

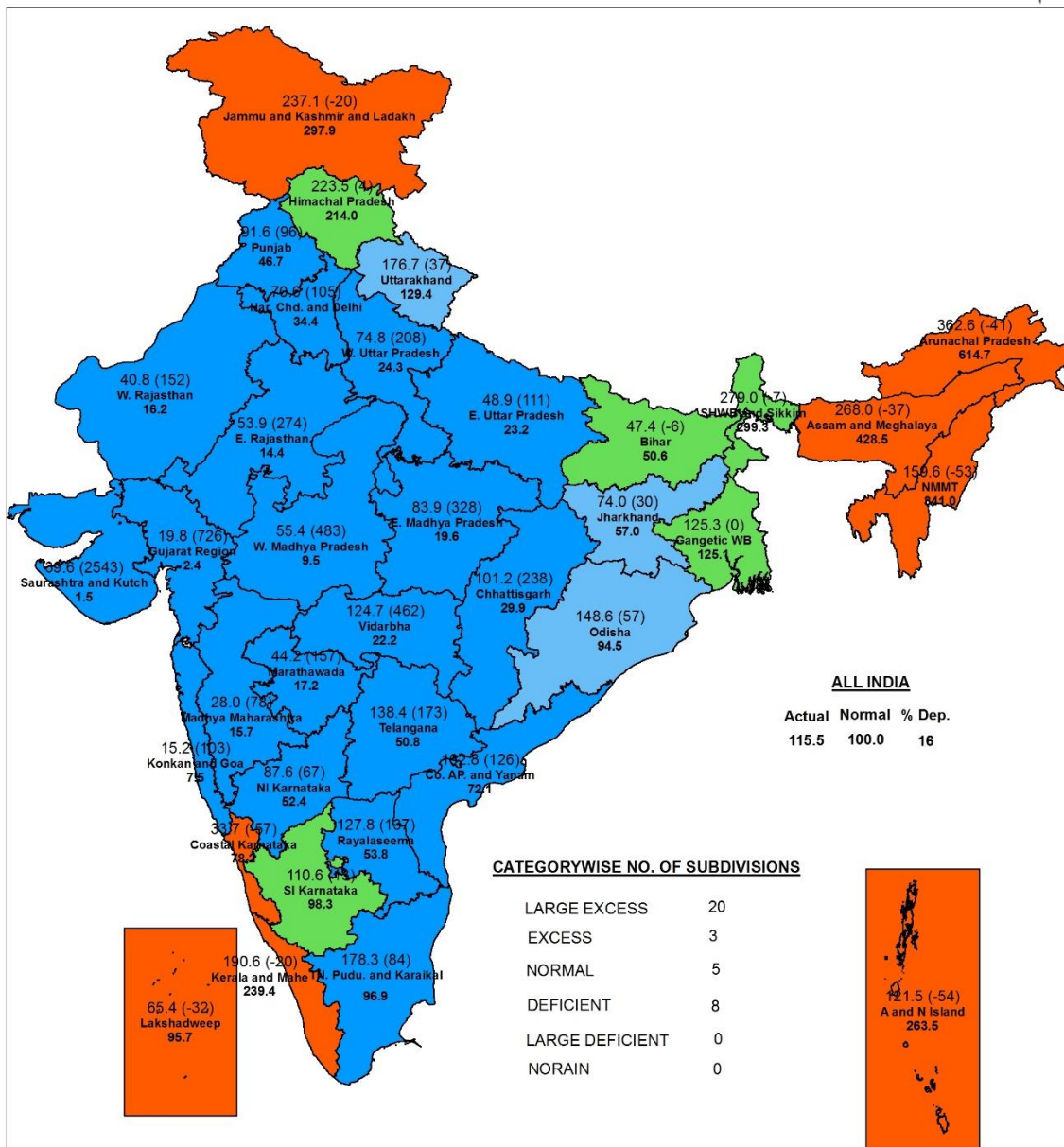


Annex II



SUBDIVISION RAINFALL MAP

Period : 01-03-2023 To 17-05-2023



Legend

Large Excess [60% or more] Excess [20% to 59%] Normal [-19% to 19%] Deficient [-59% to -20%] Large Deficient [-99% to -60%] No Rain [-100%] No Data

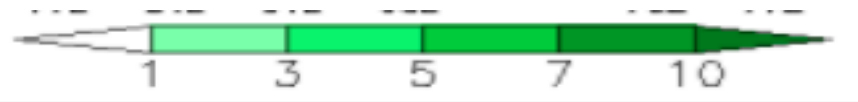
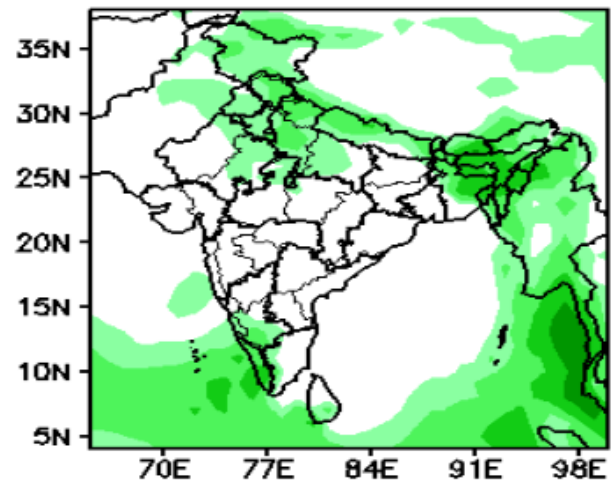
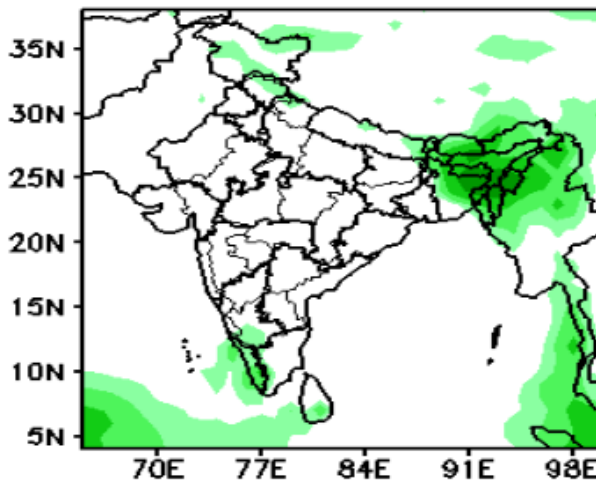
NOTES :

- Rainfall figures are based on operation data.
- Small figures indicate actual rainfall (mm), while bold figures indicate Normal rainfall (mm).
- Percentage Departures of rainfall are shown in brackets.

Forecast Rainfall (mm/day)

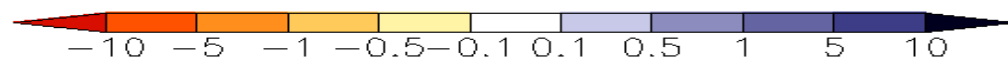
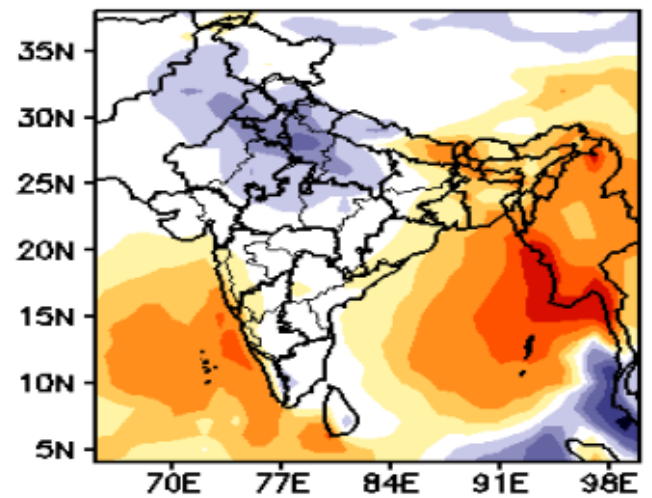
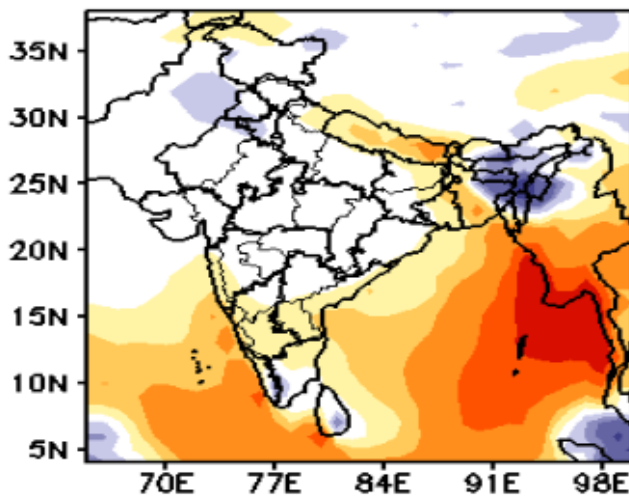
(Week1: 19May–25May)

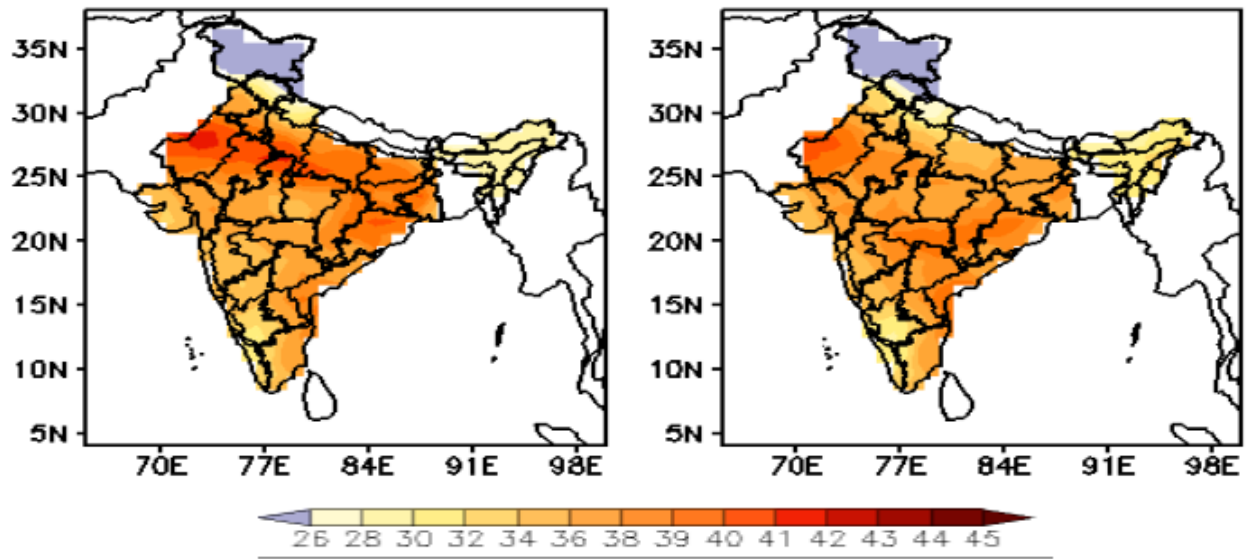
(Week2: 26May–01Jun)

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

(Week1: 19May–25May)

(Week2: 26May–01Jun)



MME Bias corrected forecast Tmax (Deg**(Week1: 19May–25May)****(Week2: 26May–01Jun)****MME forecast Tmax anomaly (Deg C)****(Week1: 19May–25May)****(Week2: 26May–01Jun)**