



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

**Press: Dated: 11<sup>th</sup> May, 2023**

**Subject: Current Weather Status and Extended range Forecast for next two weeks  
(11-24 May 2023)**

**1. Salient Observed Features for week of 4-10 May 2023**

- **Season's 1<sup>st</sup> Cyclone formed over Bay of Bengal:** Under the influence of a cyclonic circulation extending upto mid-tropospheric levels over Southeast Bay of Bengal & adjoining South Andaman Sea , a Low pressure area has formed over the same region on 8<sup>th</sup> May 2023; it has become a Well Marked Low pressure Area over the same region in the early morning hours of 9<sup>th</sup> May 2023; it has concentrated into a Depression in the evening of the same day and lay centered over Southeast Bay of Bengal at a distance of about 510 km southwest of Port Blair; moving west-northwestwards it intensified into a Deep Depression in the early morning hours of 10<sup>th</sup> May 2023 over Southeast Bay of Bengal and lay centered at a distance of about 540 km west-southwest of Port Blair; maintaining the same intensity, it moved north-northwestwards and lay over the same region, at a distance of about 510 km west-southwest of Port Blair, in the evening of 10<sup>th</sup> May 2023; moving west-northwestwards, **it further intensified into a cyclonic storm “Mocha” pronounced as “Mokha” in the early morning hours of 11<sup>th</sup> May 2023** over Southeast Bay of Bengal and lay centered at a distance of about 510 km west-southwest of Port Blair, 1210 km south-southwest of Cox's Bazar (Bangladesh) and 1120 km south-southwest of Sittwe (Myanmar).; under its influence, fairly widespread to widespread rainfall/thunderstorm activity had occurred over Andaman & Nicobar islands on two days during 9-11 May with isolated heavy rainfall on 10<sup>th</sup> May 2023.
- **As a result of Cessation of rain and thunderstorm activities over most parts of India except south Peninsular India and northeast India towards 2<sup>nd</sup> half of the week, there was establishment of a Heat wave spell over eastern India (this is 2<sup>nd</sup> Spell of Heat wave of this Season) covering mainly isolated pockets of west Bengal and Bihar from 9<sup>th</sup> May and over Gujarat from 10<sup>th</sup> May.**

- **Analysis of Weekly overall Rainfall distribution during the week ending on 10 May 2023 and Pre-monsoon Season’s Rainfall Scenario (1 March-10 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 10 May 2023 was +27%, over south Peninsula as +103%, central India as +101% and northwest India had +75% while all India Seasonal cumulative rainfall % departure during this year’s **Pre-monsoon Season’s Rainfall** during **1 March-10 May 2023** is +28% and over northwest India, it 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 both for week and season are given in Annex I and II respectively.

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

Region	WEEK			SEASON		
	04.05.2023 TO 10.05.2023			01.03.2023 TO 10.05.2023		
	Actual	Normal	% Dep	Actual	Normal	% Dep
<b>EAST &amp; NORTH-EAST INDIA</b>	<b>20.9</b>	<b>36.9</b>	<b>-43%</b>	<b>162.5</b>	<b>236.8</b>	<b>-31%</b>
<b>NORTH-WEST INDIA</b>	<b>12.2</b>	<b>7</b>	<b>+75%</b>	<b>109.3</b>	<b>90.4</b>	<b>+21%</b>
<b>CENTRAL INDIA</b>	<b>6.8</b>	<b>3.4</b>	<b>+101%</b>	<b>74.1</b>	<b>21.6</b>	<b>+243%</b>
<b>SOUTH PENINSULA</b>	<b>30.6</b>	<b>15.1</b>	<b>+103%</b>	<b>132.5</b>	<b>69.3</b>	<b>+91%</b>
<b>Country as a whole</b>	<b>15.4</b>	<b>12.1</b>	<b>+27%</b>	<b>110.5</b>	<b>86.4</b>	<b>+28%</b>

## 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 5 with amplitude around 2. It would continue in same phase with increased amplitude during most part of week 1

### 3. Forecast for next two week

#### Weather systems & associated Precipitation during Week 1 (11 to 17 May, 2023) and Week 2 (18 to 24 May, 2023)

##### Forecast for week 1 (11 to 17 May, 2023):

##### Significant Meteorological features:

- ❖ A **cyclonic storm** “Mocha” pronounced as “Mokha” lay centered at 1130 hours IST of 11th May 2023 over the southeast Bay of Bengal near latitude 11.6°N and longitude 88.0°E, about 510 km west of Port Blair, 1160 km south- southwest of Cox’s Bazar (Bangladesh) and 1080 km south-southwest of Sittwe (Myanmar). It is very likely to move nearly northwards and gradually intensify into a **severe cyclonic storm** around evening of today, the 11th May and further into a very severe cyclonic storm by 12th May morning over central Bay of Bengal.
- ❖ Thereafter, it is likely to recurve gradually and move north-northeastwards with further intensification. It is likely to cross southeast Bangladesh and north Myanmar coasts between Cox’s Bazar (Bangladesh) and Kyaukpyu (Myanmar), close to Sittwe (Myanmar) around noon of 14th May, 2023 as a very severe cyclonic storm with maximum sustained wind speed of 150-160 kmph gusting to 175 kmph.
- ❖ A trough runs from cyclonic circulation associated with the **cyclonic storm** “Mocha” over Southeast Bay of Bengal to south Andhra Pradesh coast in lower & middle tropospheric levels.

#### **Forecast and warning in association with Cyclonic Storm “Mocha” over Southeast Bay of Bengal:**

##### Warnings:

##### **(i) Rainfall (warning graphics enclosed)**

- ❖ **Andaman & Nicobar Islands:** Rainfall at most places with Heavy rainfall at isolated places is likely on 11<sup>th</sup> May  
Heavy to very heavy at isolated places is likely on 12<sup>th</sup> May and heavy rainfall at isolated places during 13<sup>th</sup> and 14<sup>th</sup> May.
- ❖ **Tripura & Mizoram:** Rainfall at most places with Heavy rainfall at isolated places is likely on 13<sup>th</sup> May and heavy to very heavy rainfall at isolated places on 14<sup>th</sup> May.
- ❖ **Nagaland, Manipur & south Assam:** Rainfall at many places with Heavy rainfall at isolated places is on 14<sup>th</sup> May.

##### **(ii) Wind warning:**

- **Andaman & Nicobar Islands:**  
Squally wind speed reaching 50-60 kmph gusting to 70 kmph is likely to prevail on 11<sup>th</sup> May.
- **Tripura, Mizoram & south Manipur:**  
Squally wind speed reaching 50-60 kmph gusting to 70 kmph is very likely to prevail on 14<sup>th</sup> May.

##### **Andaman Sea:**

Squally wind speed reaching 50-60 kmph gusting to 70 kmph is likely to prevail over North Andaman

Sea till 12<sup>th</sup> May.

- **Southeast Bay of Bengal:**

Gale wind speed reaching 65-75 kmph gusting to 85 kmph is prevailing and likely to become 80-90 kmph gusting to 100 kmph from 11<sup>th</sup> May night.

Gale wind speed reaching 100-110 kmph gusting to 120 kmph is likely by 12<sup>th</sup> May morning to evening and decrease thereafter becoming squally wind speed reaching 55-65 kmph gusting to 75 kmph on 13<sup>th</sup> May.

- **Adjoining areas of southwest Bay of Bengal:**

Squally wind speed reaching 45-55 kmph gusting to 65 kmph is likely on 11<sup>th</sup> May.

- **Eastcentral Bay of Bengal:**

Squally weather with wind speed reaching 45-55 kmph gusting to 65 kmph is prevailing and likely to become gale wind speed reaching 80-90 kmph gusting to 100 kmph by 11<sup>th</sup> May evening;

Gale wind speed reaching 110-120 kmph gusting to 135 kmph is likely on 12<sup>th</sup> May early morning, 130-140 kmph gusting to 155 kmph from 13<sup>th</sup> May morning and 140-150 kmph gusting to 165 kmph from 13<sup>th</sup> May evening till 14<sup>th</sup> May morning and gradually decrease thereafter.

- **Westcentral Bay of Bengal:**

Squally weather with wind speed reaching 50-60 kmph gusting to 70 kmph is prevailing and gradually increase becoming gale wind speed reaching 60-70 kmph gusting to 80 kmph from 11<sup>th</sup> May afternoon;

Gale wind speed reaching 110-120 kmph gusting to 130 kmph is likely on 12<sup>th</sup> May morning and 120-130 gusting to 145 kmph on 12<sup>th</sup> May evening and decrease thereafter from 13<sup>th</sup> May morning.

Gale wind speed reaching 100-110 kmph gusting to 120 kmph is likely on 13<sup>th</sup> May evening and significantly decrease thereafter.

- **Northeast Bay of Bengal:**

Squally wind speed reaching 50-60 kmph gusting to 70 kmph is likely on 12<sup>th</sup> May.

Gale wind speed reaching 80-90 kmph gusting to 100 kmph is likely to commence from 13<sup>th</sup> May morning and gradually increase and becoming 140-150 kmph gusting 165 kmph from 13<sup>th</sup> evening. Subsequently, it is likely to decrease gradually from 14<sup>th</sup> May noon after the land fall.

- **Adjoining areas of Northwest Bay of Bengal:**

Squally wind speed reaching 55-65 kmph gusting to 75 kmph is likely on 13<sup>th</sup> May and 14<sup>th</sup> May forenoon and decrease gradually thereafter.

### **(iii) Sea condition**

- ❖ **Andaman Sea:**

Very rough over Andaman Sea on 11<sup>th</sup> May.

Very rough to rough over north Andaman Sea during 12<sup>th</sup> & 13<sup>th</sup> May.

- ❖ **Southeast Bay of Bengal:**

Very rough to high is likely to prevail till 11<sup>th</sup> May.

High to very high on 12<sup>th</sup> May.

Very rough to rough on 13<sup>th</sup> May.

- ❖ **Eastcentral Bay of Bengal:**

High sea condition is prevailing and likely to become very high from 11<sup>th</sup> midnight and phenomenal from 12<sup>th</sup> May to 14<sup>th</sup> May morning. It will improve thereafter.

❖ **Adjoining areas of Westcentral Bay of Bengal:**

Very rough to high sea condition is prevailing and likely to become very high from 11<sup>th</sup> midnight and phenomenal from 12<sup>th</sup> May morning to 13<sup>th</sup> May morning. It will gradually improve thereafter.

● **Northeast Bay of Bengal:**

Rough to very rough on 12<sup>th</sup> May.

Phenomenal during 13<sup>th</sup> & 14<sup>th</sup> May.

● **Adjoining areas of Northwest Bay of Bengal:**

Rough to very rough during 13<sup>th</sup> & 14<sup>th</sup> May.

**(iv) Fishermen Warning**

- ❖ Fishermen, ships, boats and trawlers are advised not to venture into southeast Bay of Bengal and adjoining Andaman Sea till 11<sup>th</sup> May, central Bay of Bengal and north Andaman Sea till 14<sup>th</sup> May, and into northeast Bay of Bengal during 12<sup>th</sup>-14<sup>th</sup> May.
- ❖ Those over central Bay of Bengal and north Andaman Sea are advised to return to coast.

**(v) Damage expected & Action suggested: Mizoram, Tripura, and South Manipur**

- ❖ Minor Damage to loose/unsecured structures
  - ❖ Some breaches in kutchra road due to heavy rain with the possibility of landslide, in vulnerable areas
  - ❖ Uprooting of small trees and breaking of tree branches.
  - ❖ Damage to small trees like Banana, Drum stick and Papaya etc.
  - ❖ Damage to standing crops
- Action Suggested**
- ❖ Immediately harvest mature fruits and crops.
  - ❖ Provide staking and cover to vegetables nurseries, fruit orchards.
  - ❖ Avoid application of fertilizers and pesticides.
  - ❖ Keep livestock inside sheds

**(vi) Damage expected & Action suggested: Marine community (shipping, offshore industries, Tourism etc. over Bay of Bengal, Andaman Sea & Andaman & Nicobar Islands)**

- ❖ Very rough to phenomenal sea could effect marine operation and offshore activities.
- ❖ Regulation of tourism and offshore activities and shipping near Andaman & Nicobar Islands till 13<sup>th</sup> May.
- ❖ Regulation of shipping activity over the sea areas of southeast Bay of Bengal and Andaman Sea till 12<sup>th</sup> May, eastcentral Bay of Bengal till 14<sup>th</sup> May, and westcentral Bay of Bengal till 13<sup>th</sup> May.
- ❖ Regulation of shipping activity over the sea areas of northeast Bay of Bengal during 12<sup>th</sup>-14<sup>th</sup> May.

**Forecast and warning over rest parts of the country during the week:**

### **South India:**

- ❖ Thunderstorm/lightning/gusty winds with light/moderate scattered to fairly widespread rainfall very likely over Kerala & Mahe during the week; over South Interior Karnataka and Tamil Nadu, Puducherry & Karaikal on 11<sup>th</sup> & 12<sup>th</sup> May and with light isolated to scattered rainfall over rest parts of the region on 11<sup>th</sup> May.
- ❖ **Heavy rainfall** very likely at isolated places over Tamil Nadu and Kerala on 11<sup>th</sup> May.

### **Northwest India:**

- ❖ In association with Western Disturbance, light isolated to scattered rainfall with thunderstorm/lightning very likely over Western Himalayan Region during 12<sup>th</sup> to 14<sup>th</sup> May.

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

### **Rainfall for week 2 (18 to 24 May, 2023):**

- ✓ In association with Western Disturbance, light to moderate rainfall/thunderstorm is likely over Western Himalayan Region mainly during 1<sup>st</sup> 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, central and northeast India and below normal over south Peninsular and East India.**

### **Maximum Temperatures and its forecast during Week 1 (11 to 17 May, 2023) and Week 2 (18 to 24 May, 2023):**

#### **Maximum Temperature Forecast for week 1 (11 to 17 May, 2023):**

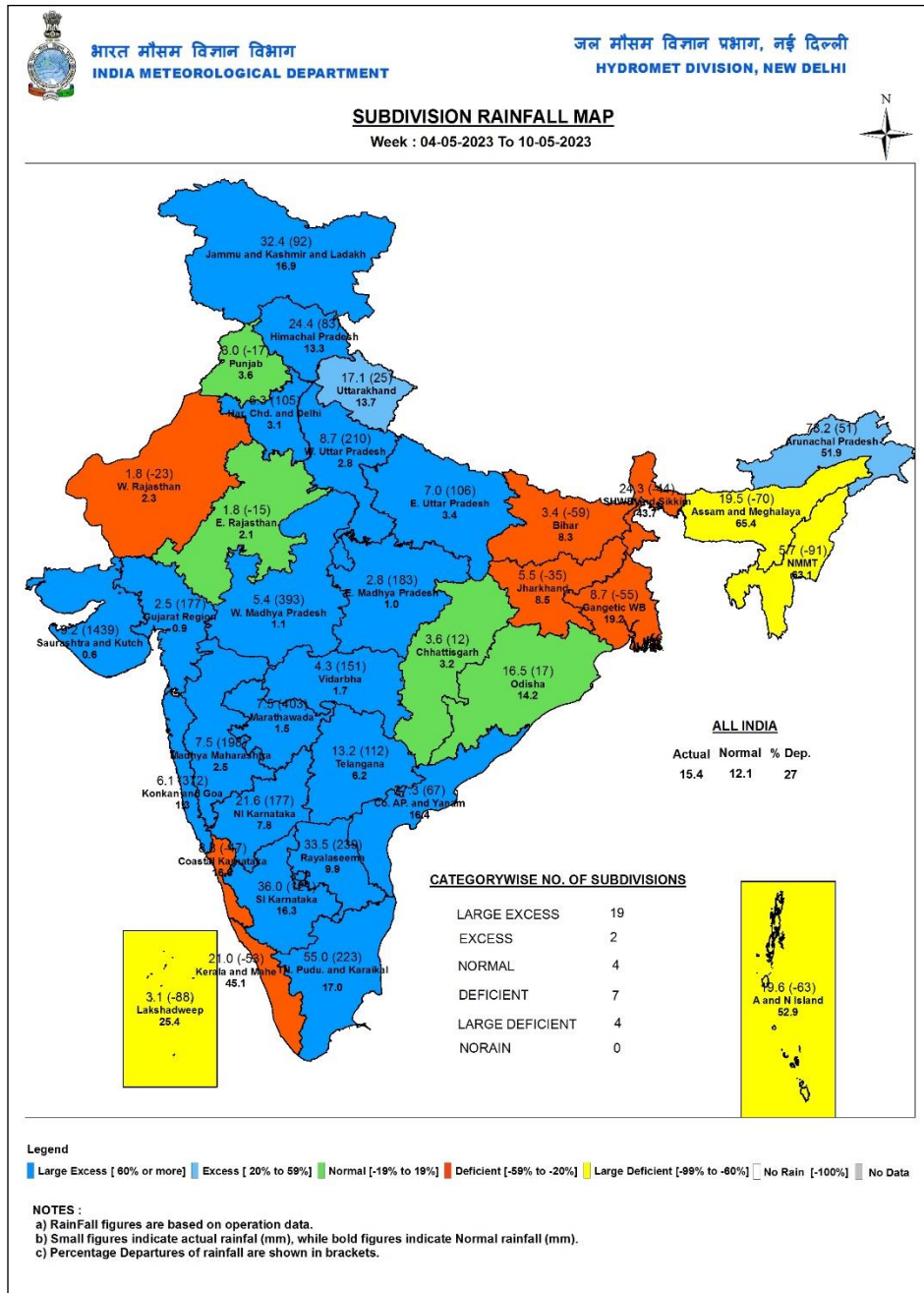
- Yesterday, **Maximum Temperatures** were below 40°C over many parts of the country except over parts of East India, Rajasthan, East Uttar Pradesh, Madhya Pradesh, interior Maharashtra & Gujarat; where these were between 41-44°C. Maximum Temperatures were above normal by 4-6°C over parts of Saurashtra & Kutch, Bihar, West Bengal and northeast India.
- Maximum temperatures are very likely to rise by 3-5°C over most parts of the country during 1<sup>st</sup> half of the week except over East India, where no significant change in maximum temperatures is likely.
- Due to humid air and high temperature, **Hot and Discomfort weather** is very likely over Konkan during next 3 days; over Odisha during next 5 days; Kerala and Tamil Nadu on 13<sup>th</sup> & 14<sup>th</sup> May.
- **Heat wave conditions** very likely in isolated pockets over Gujarat state, Madhya Maharashtra, Bihar and West Bengal on 10<sup>th</sup> & 11<sup>th</sup> May; over Konkan on 11<sup>th</sup>; over during 10<sup>th</sup>-12<sup>th</sup> May; over Rajasthan on 12<sup>th</sup> & 13<sup>th</sup> and over Coastal Andhra Pradesh & Yanam during 13<sup>th</sup>-15<sup>th</sup> May.

#### **Maximum Temperature for week 2 (18 to 24 May, 2023):**

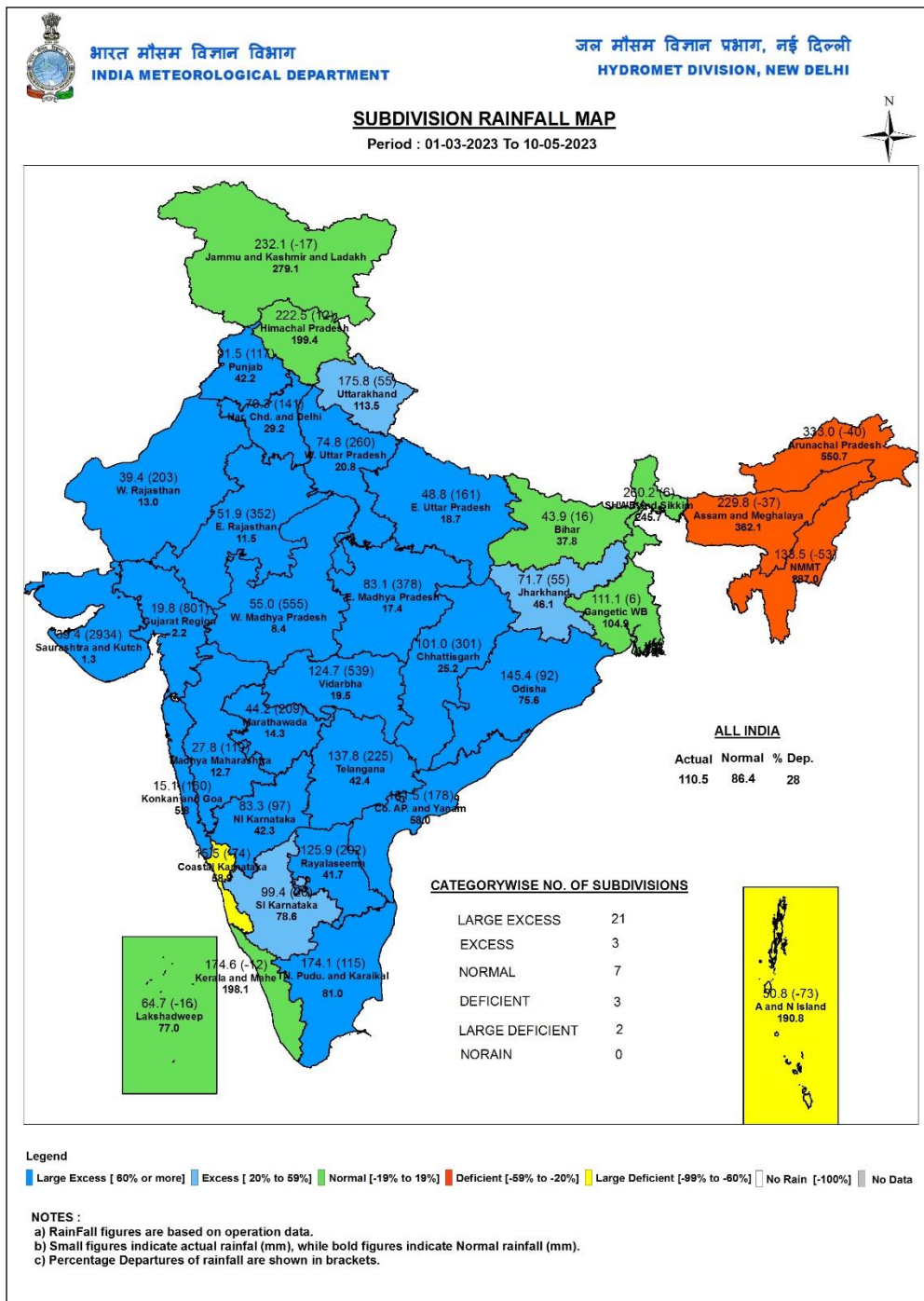
- Maximum temperatures likely to be near normal or below normal over most parts of India outside East India and parts of south Peninsular India, where it is likely to be above normal by 2-3°C.
- **Heat wave conditions likely to occur over isolated pockets over East India during some days of the week.**

**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

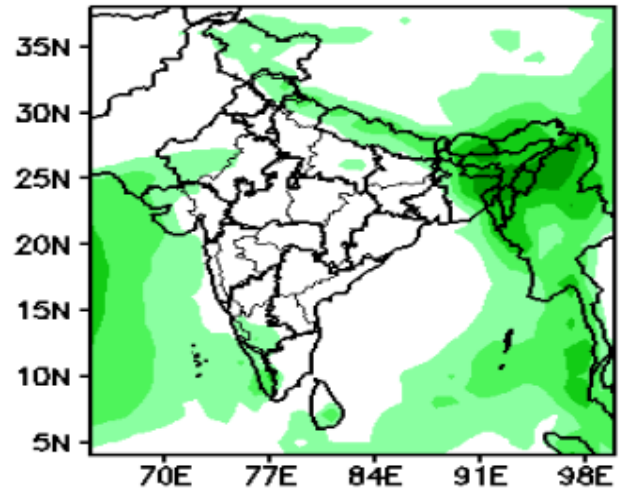
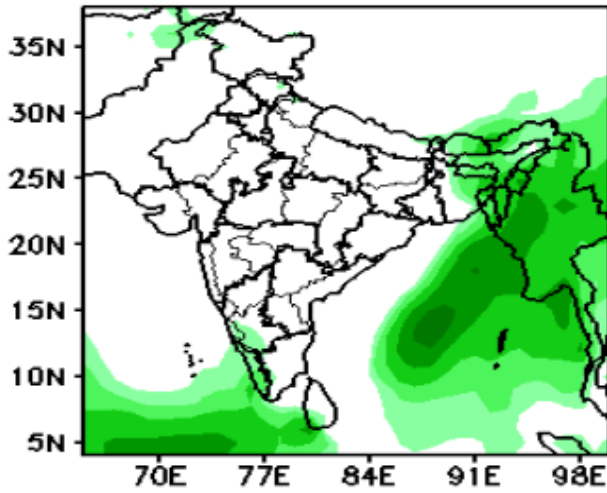




**Forecast Rainfall (mm/day)**

(Week1: 12May-18May)

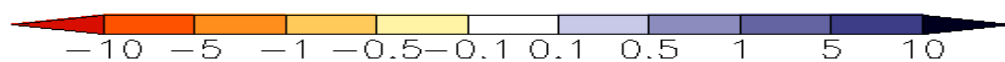
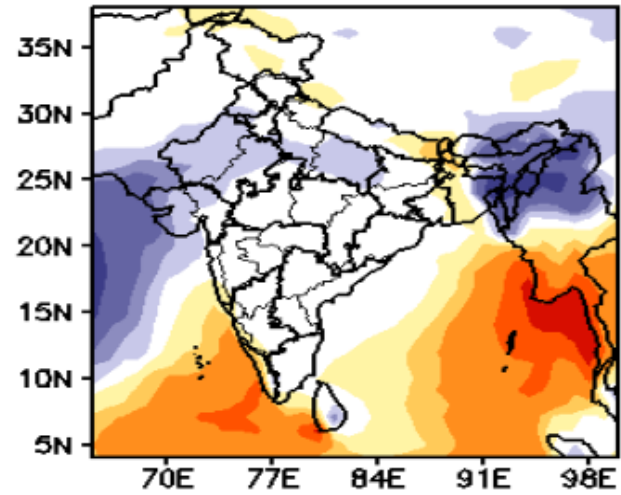
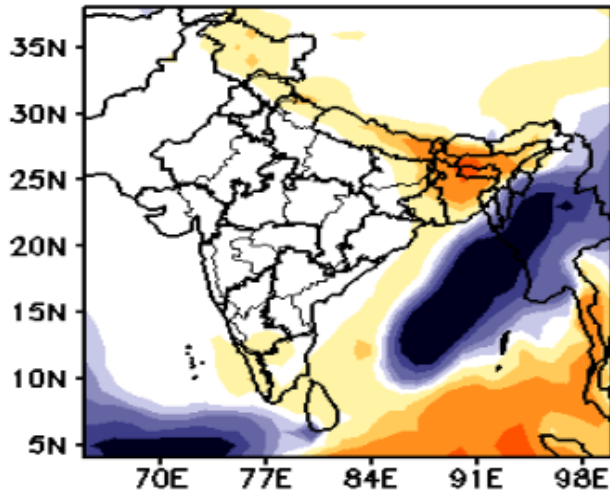
(Week2: 19May-25May)



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

(Week1: 12May-18May)

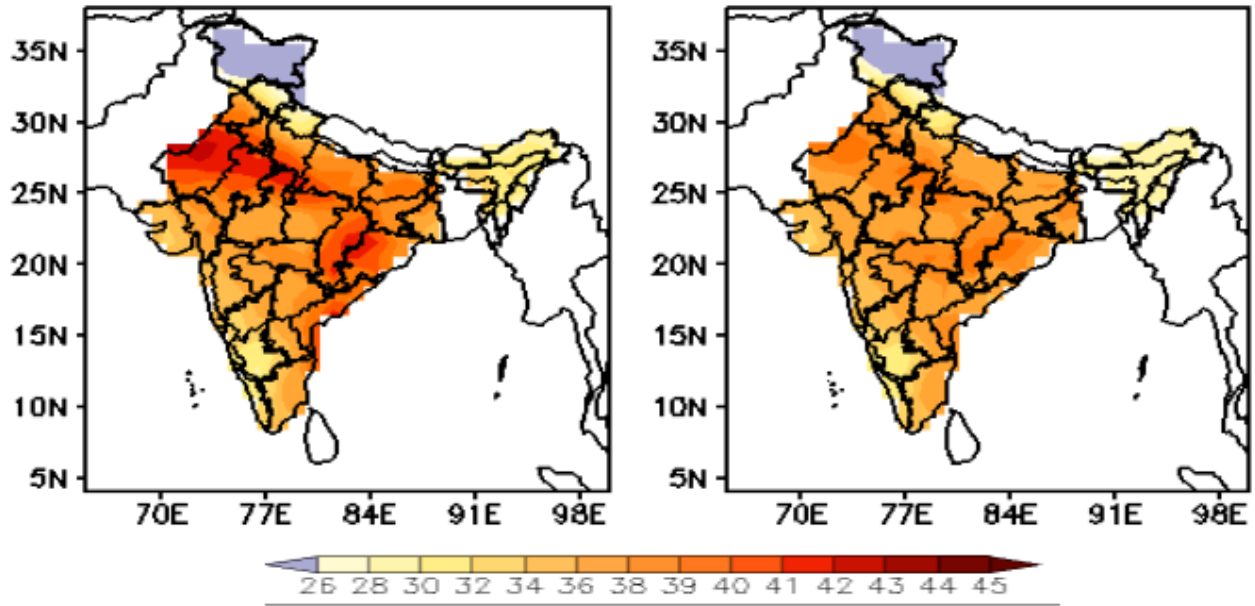
(Week2: 19May-25May)



### MME Bias corrected forecast Tmax (Deg)

(Week1: 12May-18May)

(Week2: 19May-25May)



### MME forecast Tmax anomaly (Deg C)

(Week1: 12May-18May)

(Week2: 19May-25May)

