



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

Press: Dated: 4th May, 2023

**Subject: Current Weather Status and Extended range Forecast for next two weeks
(4-17 May 2023)**

1. Salient Observed Features for week of 27th April-3 May 2023

- Extensive thunderstorm activities accompanied with lightening and gusty winds and rains reported over most parts of India during the week (Refer Annex 1 for stations over India which reported rainfall during the week). Isolated hails storm activities also reported over many areas in the country during the same period. Such extended wet spell accompanied with large-scale convective activity over extensive areas of the country were due to combination of various weather systems a) Consecutively, three very active back to back WDs moved eastwards during 27 April-3 May 2023(in the week), from Iran towards eastern parts of India, across north and adjoining Central plains of India, as intense cyclonic circulation/ long amplitude trough in mid and upper tropospheric westerly, with their corresponding induced cyclonic circulation formed over Rajasthan b) Persistence of trough/wind discontinuity was also seen more prominently in the lower levels and extended from extreme southern parts of the Peninsular India to Vidarbha/east central India across central parts of the Peninsula India with embedded cyclonic circulation over southern Peninsular India.
- Heavy to very heavy rain occurred at isolated places over Tamilnadu & Puducherry on two days and over Coastal Andhra Pradesh & Yanam, Telangana and Kerala on one day and heavy over Tamilnadu & Puducherry on five days; over Telangana, North Interior Karnataka and Kerala & Mahe on four days; over Sub-Himalayan West Bengal & Sikkim, Odisha, East Madhya Pradesh, Coastal Andhra Pradesh & Yanam on three days; over West Uttar Pradesh, West Madhya Pradesh and South Interior Karnataka on

two days and over Arunachal Pradesh, Himachal Pradesh, East Rajasthan, Madhya Maharashtra, Marathwada and Vidarbha during the week.

- As a result of such day-to-day rainfall/thunderstorm activities over large parts of the country during almost all dates in the week, most parts of India had experienced significantly lower than normal day max temperature in almost all dates during the week 27 April to 3 May 2023. It was of 35-38degC with 4-7degC below normal during 27-28 April over most parts of India. On 29 April, due to increase of clouding periods in the day and extensive thunderstorm activities, daily maximum temperatures further fallen and it was of significantly below normal by 5-10degC mainly over Central India and Rajasthan where actual maximum temperature was of 28-33 degC and it was of 34-38DegC over rest parts of India with 1-4degC below normal. With further enhancement of rainfall and Thunderstorm activities over the country during 30 April to 3 May (when more stations/areas reported Hailstorm), it was further fallen and it was of 7-14 degC below normal over northwest India and central India Andhra Pradesh and Telengana when day actual maximum temperature was at range if 25-34degC over the same areas.
- No heat wave was observed during the week and in fact the country has not reported any heat wave conditions from any location/area since 21 April 2023.
- **Analysis of Weekly overall Rainfall distribution during the week ending on 3 May 2023 and Pre-monsoon Season's Rainfall Scenario (1 March-3 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 3 May 2023 was +150%, over south Peninsula as +338%, central India as +864% and northwest India had +249% while all India Seasonal cumulative rainfall %departure during this year's **Pre-monsoon Season's Rainfall** during **1 March-3 May 2023** is +28% and over northwest India, it is +18%. 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 II and III respectively.

Table 1: Rainfall status (Week and season)

Region	WEEK			SEASON		
	27.04.2023 TO 03.05.2023			01.03.2023 TO 03.05.2023		
	Actual	Normal	% Dep	Actual	Normal	% Dep
EAST & NORTH-EAST INDIA	18.8	37.8	-50%	141.5	199.9	-29%
NORTH-WEST INDIA	25.8	7.4	+249%	98.3	83.4	+18%
CENTRAL INDIA	25.1	2.6	+864%	67	18.2	+268%
SOUTH PENINSULA	43.8	10	+338%	102	54.2	+88%
Country as a whole	28	11.2	+150%	95.4	74.3	+28%

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 (04 to 10 May, 2023) and Week 2 (11 to 17 May, 2023)

Forecast for week 1 (04 to 10 May, 2023):

Significant Meteorological features:

- ❖ A **Western Disturbance** seen as a cyclonic circulation over west Iran in middle tropospheric levels.
- ❖ A cyclonic Circulation lies over coastal Tamil Nadu in lower tropospheric levels.
- ❖ A cyclonic circulation is likely to develop over Southeast Bay of Bengal around 06th May, 2023. **Under its influence a low pressure area is likely to form over the same region around 07th May.** It is likely to concentrate into a depression over Southeast Bay of Bengal on 08th May. Thereafter, it is likely to intensify into a cyclonic storm while moving nearly northwards towards central Bay of Bengal. The details of its path and intensification will be provided after the formation of low pressure area. The system is under constant watch and being monitored regularly.

Forecast and warning for next one week:

In association with cyclogenesis over Bay of Bengal:

- ❖ Light/moderate rainfall at most places with isolated heavy to very heavy rainfall very likely over Andaman & Nicobar Islands on 07th & 08th May.
- ✓ Squally weather with wind speed reaching 40-50 kmph gusting to 60 kmph is likely to prevail over southeast Bay of Bengal and adjoining areas of Andaman & Nicobar Islands and Andaman Sea on 07th May.
- ✓ Wind speed would gradually increase becoming 50-60 kmph gusting to 70 kmph over southeast Bay of Bengal and adjoining areas of Andaman & Nicobar Islands and Andaman Sea from 08th night onwards.
- ✓ Wind speed would gradually increase becoming 60-70 kmph gusting to 80 kmph over southeast and adjoining central Bay of Bengal and 45-55 kmph gusting to 65 kmph over Andaman & Nicobar Islands and Andaman Sea from 10th onwards.
- ❖ **Sea condition** is likely to be rough on 07th and very rough from 08th onwards over southeast Bay of Bengal. It is likely to be very rough to high over southeast and adjoining central Bay of Bengal from 08th onwards and high to very high from 09th onwards.
- ❖ It is likely to be rough to very rough over Andaman Sea during 08th-11th May.

Advisory:

- a) Fishermen, small ships, boats and trawlers are advised not to venture into southeast Bay of Bengal and adjoining areas from 07th May onwards and into adjoining central Bay of Bengal from 09th onwards.
- b) Those who are over southeast Bay of Bengal are advised to return to safer places before 07th May and those over central Bay of Bengal are advised to return before 09th May.

- c) Regulation of tourism and offshore activities and shipping over Andaman and Nicobar Islands during 08th-11th May and
- d) Regulation of shipping activity over the sea areas of southeast and central Bay of Bengal during 08th-11th May.

Weather over rest parts of the country:

Northwest India:

- ❖ **A fresh spell of rainfall** likely to commence over the region from 05th May with scattered to fairly widespread rainfall/snowfall over Western Himalayan region and isolated to scattered rainfall with thunderstorm/lightning/gusty winds over plains of northwest India on 06th & 07th May, 2023.
- ❖ **Hailstorm** very likely at isolated places over Punjab and Haryana on 07th May.

South India:

- ❖ Scattered/fairly widespread rainfall with thunderstorm/lightning/gusty winds very likely over the region during the week.
- ❖ **Heavy rainfall** very likely at isolated places over Tamil Nadu, Puducherry & Karaikal on 04th May, over South Interior Karnataka 07th & 08th May.

Northeast India:

- ❖ Light/moderate fairly widespread to widespread rainfall with thunderstorm/lightning/gusty winds very likely over the region during 1st half of the week and decrease thereafter.
- ❖ **Heavy rainfall** very likely at isolated places over Arunachal Pradesh on 04th & 05th May and over Assam & Meghalaya 04th May.

No significant weather likely over rest parts of the country.

Rainfall for week 2 (11 to 17 May, 2023):

- ✓ **In association with likely formation of cyclogenesis over Bay of Bengal and its movement, east & northeast and adjoining central India is likely to experience fairly widespread to widespread rainfall with isolated heavy falls mainly during 1st half of the week.**
- ✓ No significant weather likely over rest parts of the country.
- ✓ **Overall, rainfall activity is likely to be above normal over east & northeast and adjoining central India and below normal over rest parts of the country.**

Maximum Temperatures and its forecast during Week 1 (04 to 10 May, 2023) and Week 2 (11 to 17 May, 2023):

Maximum Temperature Forecast for week 1 (04 to 10 May, 2023):

- Maximum temperatures are very likely to increase and become near normal over the country around 07th May except coastal Odisha and coastal West Bengal, where these are likely to be above normal by 2-4°C by 08th May.
- **No significant heat wave conditions likely over any part of India during next one**

week.

Maximum Temperature for week 2 (11 to 17 May, 2023):

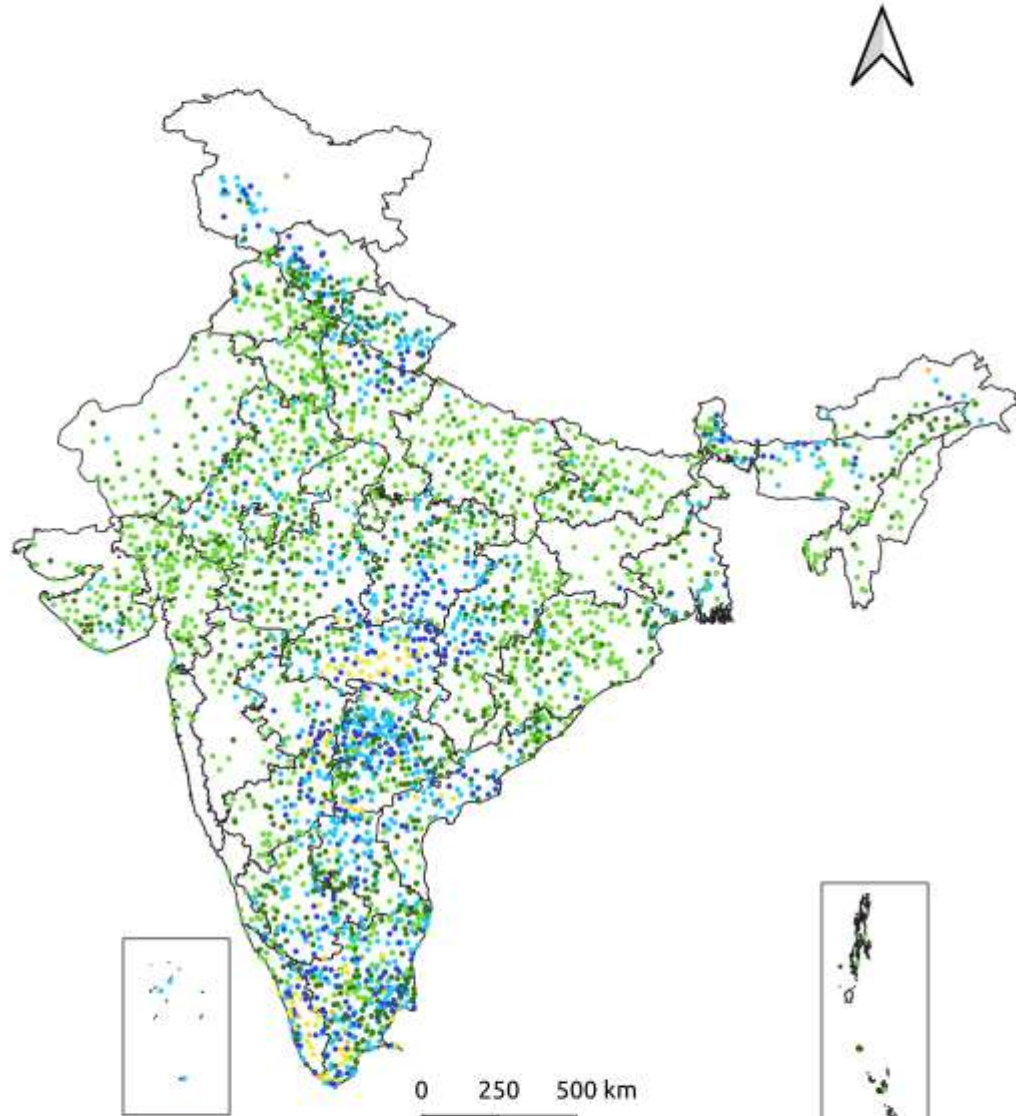
- Maximum temperatures likely to be near normal or slightly below normal over below normal over most parts of India outside Chhattisgarh & along east coast, where it is likely to be above normal by 2-3°C.
- **Heat wave conditions likely to occur over isolated pockets of Chhattisgarh, West Bengal and Coastal Andhra Pradesh 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

WEEKLY CUMULATIVE RAINFALL MAP



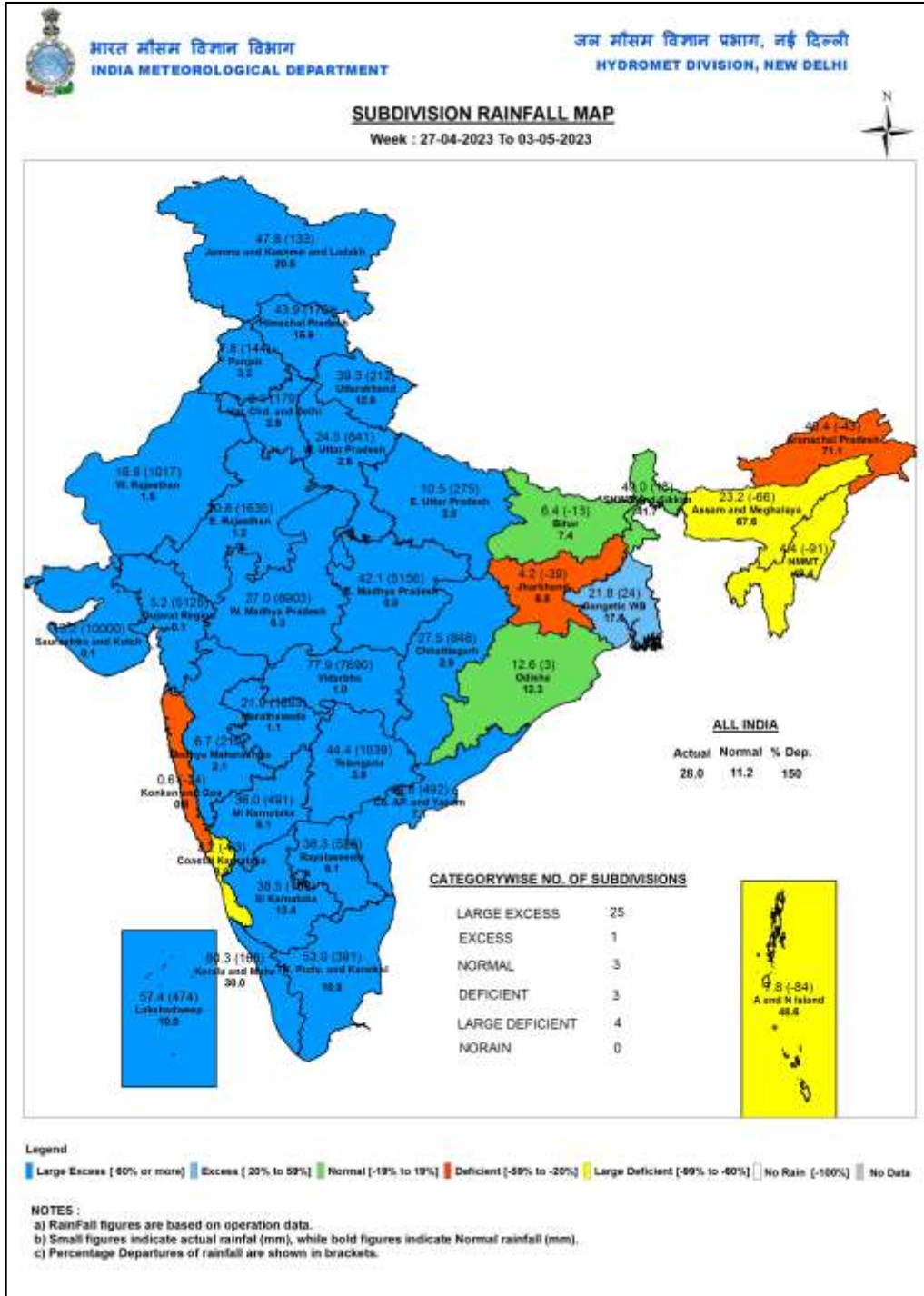
7 days cumulative rainfall recorded over different stations during 0830 IST of 26-4-2023 to 0830 IST of 3-5-2023



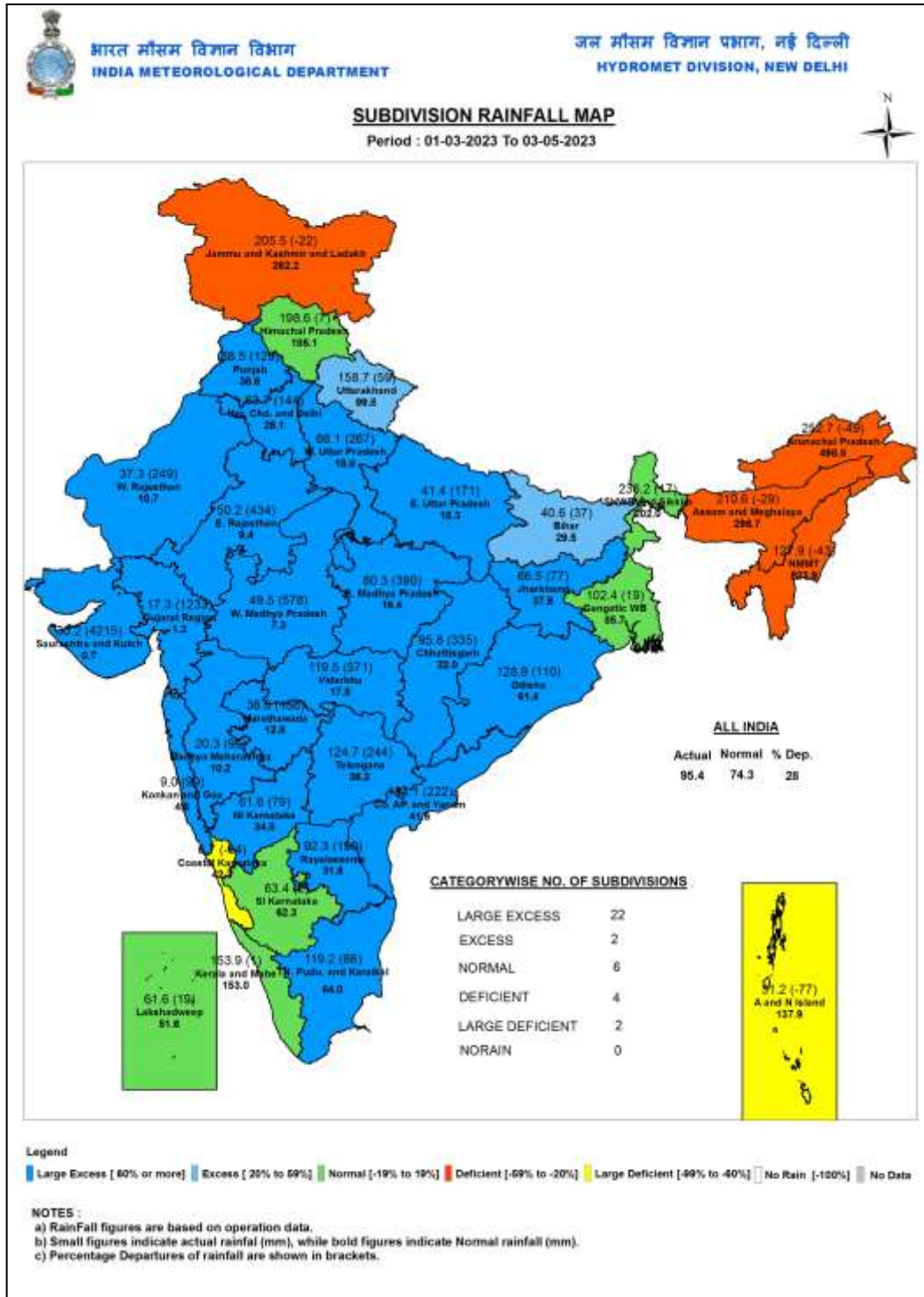
Legends

- | | | |
|----------------|------------------|------------------|
| ● 0.1 - 15 mm | ● 65.1 - 115 mm | ● 300.1 - 400 mm |
| ● 15.1 - 35 mm | ● 115.1 - 200 mm | ● 400.1 - 500 mm |
| ● 35.1 - 65 mm | ● 200.1 - 300 mm | ● > 500 mm |

Annex: II



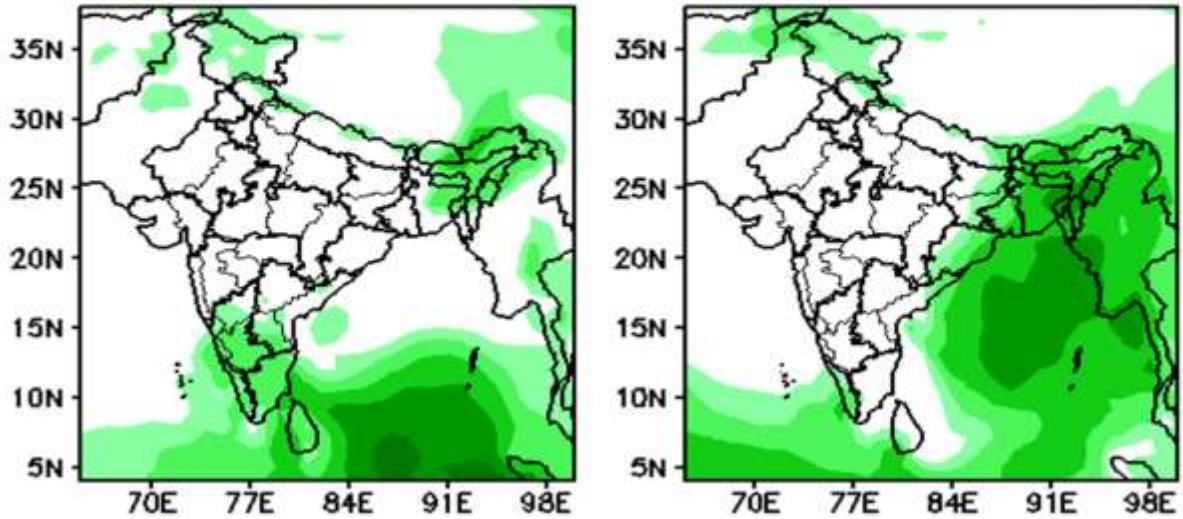
Annex III



Forecast Rainfall (mm/day)

(Week1: 05May-11May)

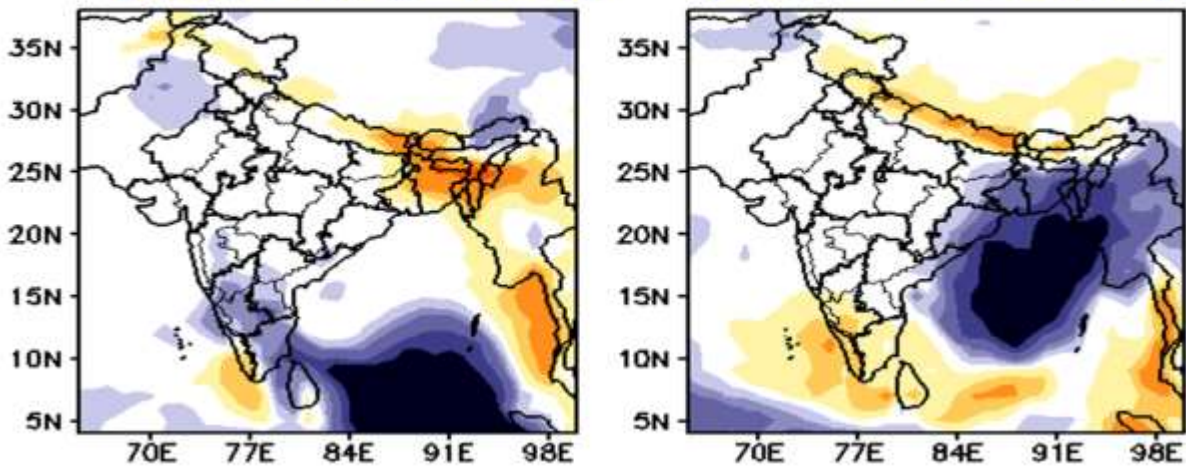
(Week2: 12May-18May)



Forecast Rainfall Anomaly (mm/day)

(Week1: 05May-11May)

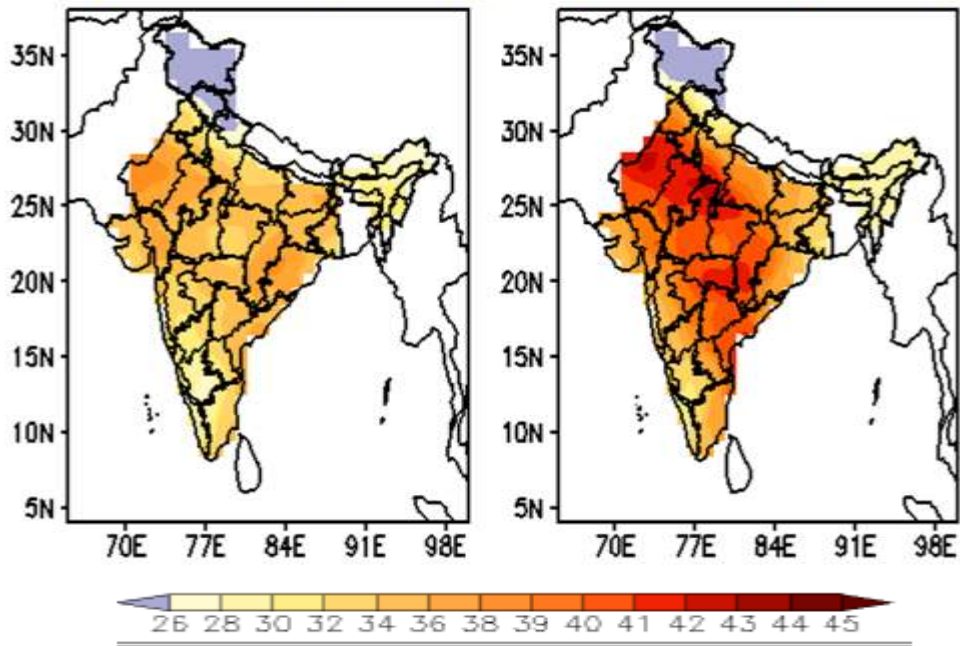
(Week2: 12May-18May)



MME Bias corrected forecast Tmax (Deg)

(Week1: 05May-11May)

(Week2: 12May-18May)



MME forecast Tmax anomaly (Deg C)

(Week1: 05May-11May)

(Week2: 12May-18May)

