



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

Press: Dated:9th March, 2023

**Subject: Current Weather Status and Extended range Forecast for next two weeks
(9-22 March 2023)**

1. Salient Observed Features during 2-8 March 2023

- Movement of a Western Disturbance as deep trough in westerly at middle and upper tropospheric westerlies and induced cyclonic circulation at lower levels, across south Rajasthan and Gujarat, during 5-8 March, had caused light to moderate rainfall/thundershowers observed over Gujarat State, Rajasthan, Madhya Pradesh and Maharashtra during 6-8 March with peak activity on 6th March. Light rainfall/snowfall observed at isolated places over Kashmiri and Himachal Pradesh during the same period. Hailstorm with gusty winds of 30-40 kmph also observed at isolated places over Rajasthan, Madhya Pradesh, Gujarat State and interior parts of Maharashtra during the same period.
- In the 1st half of the week (3-5 March), maximum Temperatures are in the range of 27-34°C (which is around 3-5°C above normal) over the plains of north India, north-eastern states and northwest Madhya Pradesh, while it was of 35-39 °C over rest parts of the plains of India with 3-5 degC above normal during the same period except Coastal Karnataka where, it was at the range of 39-41 degC with 5-7degC above normal.
- However during the 2nd half the week, as a result of clouds and rain/thunderstorm activities, **maximum Temperatures** was seen fallen mainly on 6th and 7th March. It had fallen upto 6-10degC mainly over central India covering most parts of Madhya Pradesh, Telangana and interior parts of Maharashtra on 7th March, when maximum temperature was observed at the

range of 23-29 °C with 4-10 degC below normal.

- During the 2nd half of the week(6-8 March), it was at the range of 29-33°C(which is around 2-4°C above normal) over the plains of north India, north-eastern states and northwest Madhya Pradesh and it was of 34-38 °C over rest parts of the plains of India with near normal temperatures during the same period except west coast of India where it was 4-6 degC above normal.
- Absence of the heat wave conditions was seen during the week over India except over some parts of Coastal Karnataka, which had heat wave conditions observed during 3-5 March and Goa on 8th March.
- Mumbai-Santacruz recorded had the highest maximum temperature of 39.3°C reported on 6th March.

Highest Observed Temperature Scenario over the country during the week: The highest maximum temperature of **40.2°C** had been recorded at **Karwar (Coastal Karnataka)** on **4th March 2023** and the lowest minimum temperature of **9.7°C** had been recorded at **Aurangabad (Marathawada)** on **8th March 2023** over the plains of the country during the week

- **Analysis of Weekly overall Rainfall distribution during the week ending on 8 March 2023 and Pre-monsoon Season’s Rainfall Scenario (1 March-8 March 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 22 Feb 2023 was -64 % with northwest India had -68% while all India Seasonal cumulative rainfall %departure during this year’s **Pre-monsoon Season’s Rainfall** during **1 March-8 March 2023** is -65% and over northwest India , it is -70%. 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		
	02.03.2023 TO 08.03.2023			01.03.2023 TO 08.03.2023		
	Actual	Normal	% Dep	Actual	Normal	% Dep
EAST & NORTH-EAST INDIA	2	10.1	-80%	2	11.5	-82%

NORTH-WEST INDIA	3.8	10.6	-64%	4.2	12.3	-65%
CENTRAL INDIA	1.3	1.9	-33%	1.3	2.3	-44%
SOUTH PENINSULA	0.1	3.2	-97%	0.3	3.5	-92%
Country as a whole	2	6.2	-68%	2.1	7.1	-70%

2. Large scale features

- Currently, La Niña conditions are prevailing over the equatorial Pacific region. The La Niña is likely to weaken and turn to El Nino Southern Oscillation (ENSO) neutral conditions during the pre-monsoon season. In addition to ENSO conditions over the Pacific, other factors such as the Indian Ocean SST also influence the Indian week to week weather. At present, 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 pre-monsoon season.
- The Madden Julian Oscillation (MJO) Index is currently in Phase 7 with amplitude more than 1. It will move across phases 7 and 8 with increased amplitude during entire forecast period. Hence, MJO would not support any convective activity over the region.

3. Forecast for next two week

Forecast for next two week

Weather systems & associated Precipitation during Week 1 (09 to 15 March, 2023) and Week 2 (16 to 22 March, 2023)

Forecast for week 1 (09 to 15 March, 2023):

- A Western Disturbance as a trough in middle tropospheric westerlies runs roughly along Long. 77°E to the north of Lat. 23°N and a cyclonic circulation lies over northwest Madhya Pradesh & neighbourhood in lower levels.
- Under their influence:
 - ✓ Isolated light rainfall activity with thunderstorm & lightning very likely over Uttarakhand, south Uttar Pradesh, northeast Rajasthan and north Madhya Pradesh on 09th; over Chhattisgarh,

Jharkhand, Gangetic West Bengal & Odisha during 09th-11th; over Sub-Himalayan West Bengal & Sikkim and Arunachal Pradesh during 09th-15th March, 2023.

- ✓ Thunderstorm with hail very likely at isolated places over Uttarakhand on 09th; with gusty winds (speed 30-40 kmph) at isolated places over north Madhya Pradesh on 09th and Jharkhand on 10th March, 2023.
- A fresh Western Disturbance likely to affect Western Himalayan Region from the night of 12th March, 2023. Under its influence; isolated to scattered rainfall with thunderstorm activity likely over Western Himalayan Region during 12th-15th March and over adjoining plains of northwest India on 14th & 15th March, 2023.
- Light isolated to scattered rainfall very likely over Andaman & Nicobar Islands during 2nd half of the week.
- No significant weather very likely over rest parts of the country during the week.

Rainfall for week 2 (16 to 22 March, 2023):

- **Under the influence of Western Disturbance and associated induced cyclonic circulation, isolated to scattered rainfall with thunderstorm likely over northwest & central India during some days of the week.**
- **Due to trough over East India and cyclonic circulation over south Peninsula, isolated to scattered rainfall with thunderstorm likely over northwest & central India during some days of the week over east & northeast India and over south Peninsular India during some days of the week.**
- **Overall, rainfall activity is likely to be above normal over all the regions of the country.**

Maximum Temperatures and its forecast during Week 1 (09 to 15 March, 2023) and Week 2 (16 to 22 March, 2023):

Maximum Temperature Forecast for week 1 (09 to 15 March, 2023):

- **Maximum Temperatures** are in the range of 37-39°C over many parts of Goa and Coastal Karnataka; at isolated places over Saurashtra & Kutch and Vidarbha; 35-37°C over many parts of Vidarbha and Gujarat Region; some parts of Tamil Nadu, Kerala, Konkan, Saurashtra & Kutch, Coastal Andhra Pradesh, Telangana & Odisha; at isolated places over Rayalaseema and

West Madhya Pradesh and 30-35°C over rest parts of the country except Western Himalayan Region and parts of Haryana, East Rajasthan, Bihar and Northeast India.

- **Maximum Temperatures** are above normal by 4-6°C over many parts of Jammu Division & Coastal Karnataka and some parts of Goa; above normal by 2-4°C over many parts of Punjab and some parts of Kerala, Konkan, Gujarat State, Delhi, Uttar Pradesh, Himachal Pradesh, Gangetic West Bengal and Northeast India. These are below normal by 2-4°C over many parts of Bihar and some parts of Telangana and Rayalaseema and near normal over rest parts of the country.
- **Northwest India:** Gradual rise change in Maximum Temperatures by 2-3°C very likely during 1st half of the week and fall by 2-3°C thereafter.
- **West India:** No significant change in Maximum Temperatures very likely during next 2 days and gradual rise by 2-4°C thereafter.
- **Central India:** Gradual rise change in Maximum Temperatures by 2-4°C very likely during most days of the week.
- Rest parts of the Country: No significant change in Maximum Temperatures very likely most days of the week.
- **Heat wave conditions very likely to occur at isolated places over south Konkan, Goa and Coastal Karnataka on 09th & 10th March, 2023 and no significantly heat wave conditions likely over rest part of the country during the week.**

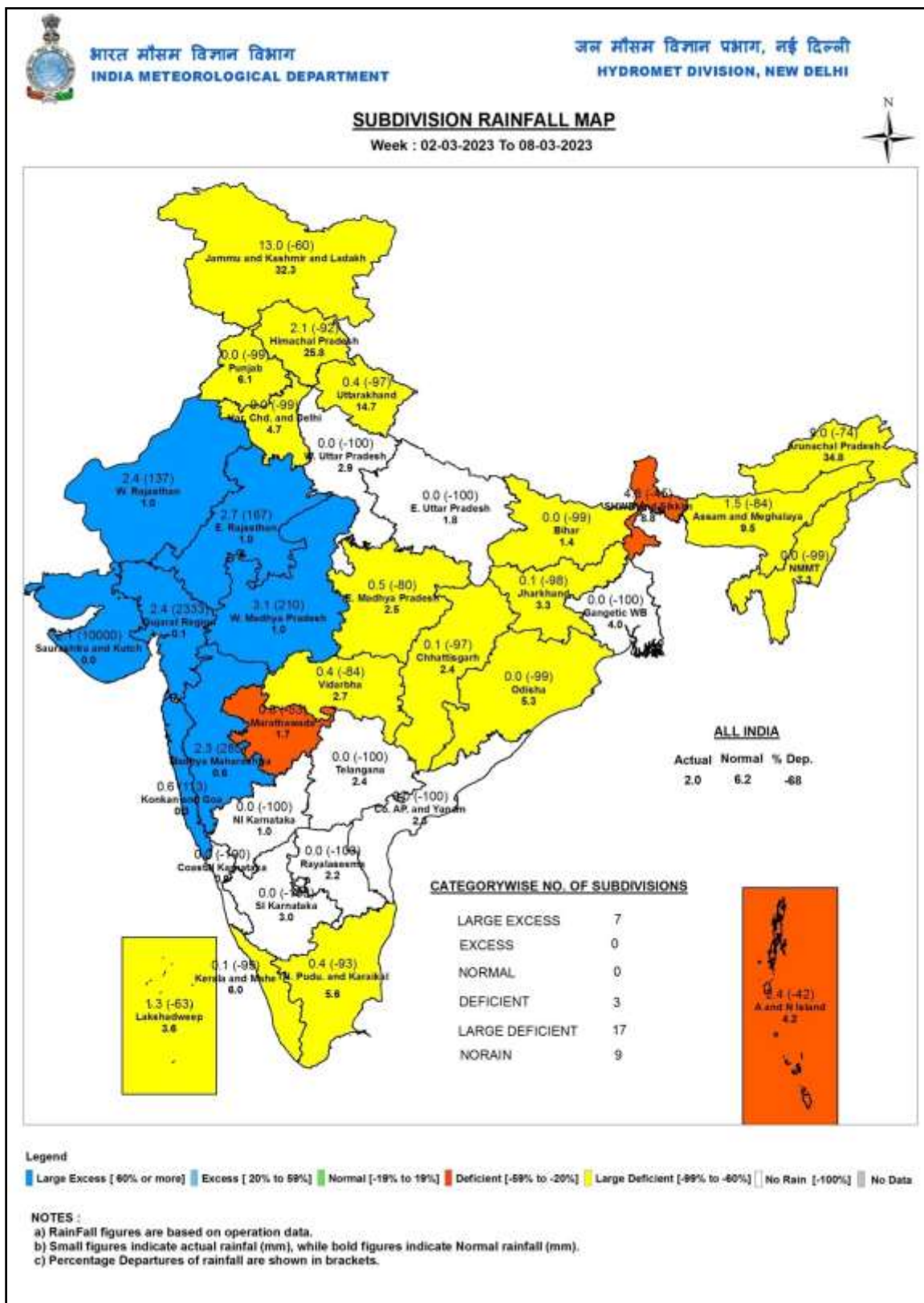
Maximum Temperature for week 2 (16 to 22 March, 2023):

- Maximum temperatures very likely to below normal by 1-3° C over most parts of the country except parts of Western Himalayan Region, where it is likely to be near normal to above normal.
- **No significantly heat wave conditions likely over any part of the country during the week.**

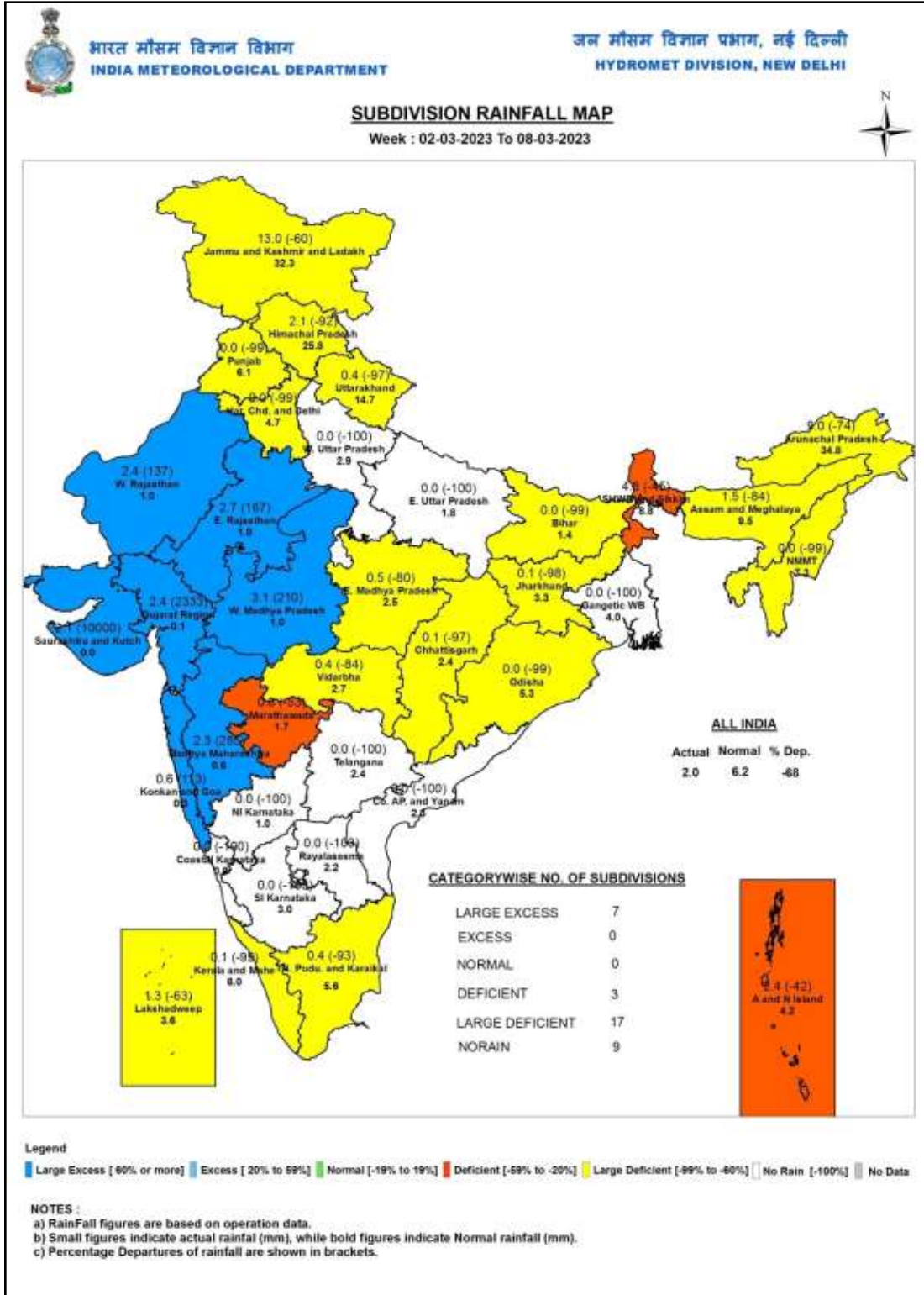
Legends: Heavy Rain: 64.5 to 115.5 mm **Very Heavy Rain:** 115.6 to 204.4 mm, **Extremely Heavy Rain**> 204.4 mm

SPATIAL DISTRIBUTION (% of Stations reporting)			
% Stations	Category	% Stations	Category
76-100	Widespread (WS/ Most Places)	26-50	Scattered (SCT/ A Few Places)
51-75	Fairly Widespread (FWS/ Many Places)	1-25	Isolated (ISOL)

Probabilistic Forecast	
Terms	Probability of Occurrence (%)
Unlikely	< 25
Likely	25 - 50
Very Likely	50 - 75
Most Likely	> 75



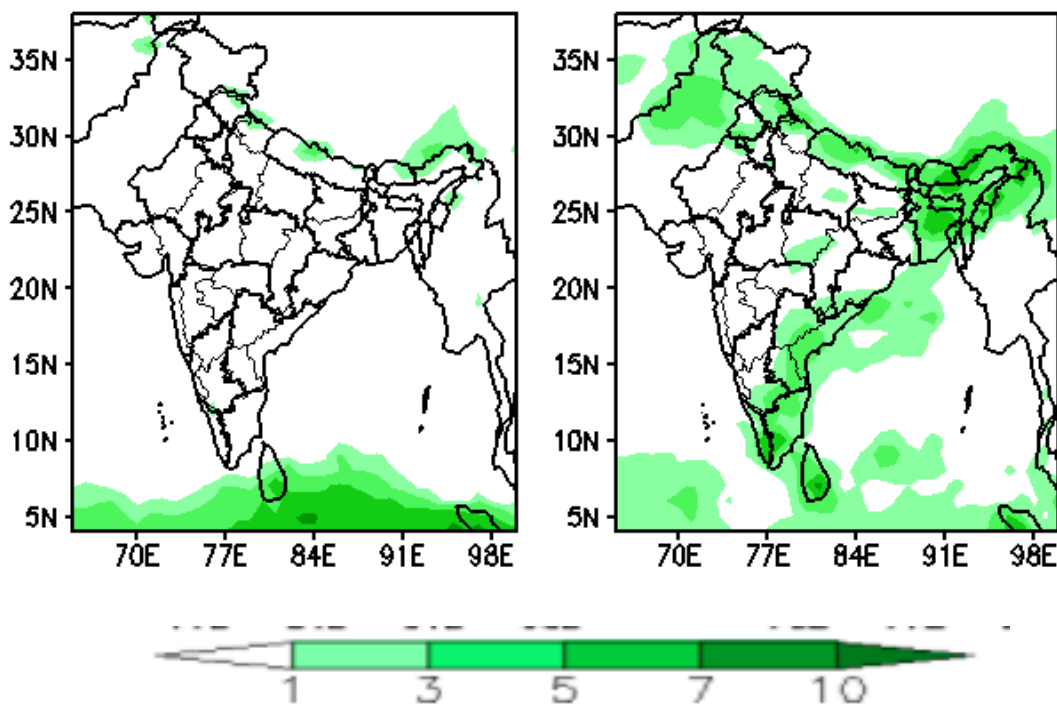
Annex: II



Forecast Rainfall (mm/day)

(Week1: 10Mar-16Mar)

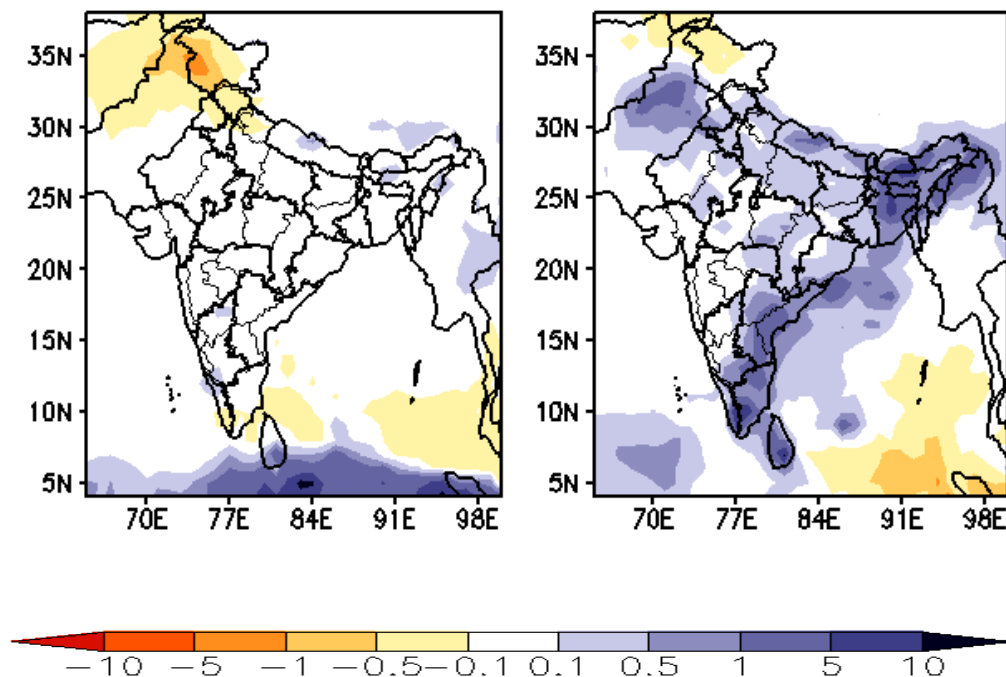
(Week2: 17Mar-23Mar)



Forecast Rainfall Anomaly (mm/day)

(Week1: 10Mar-16Mar)

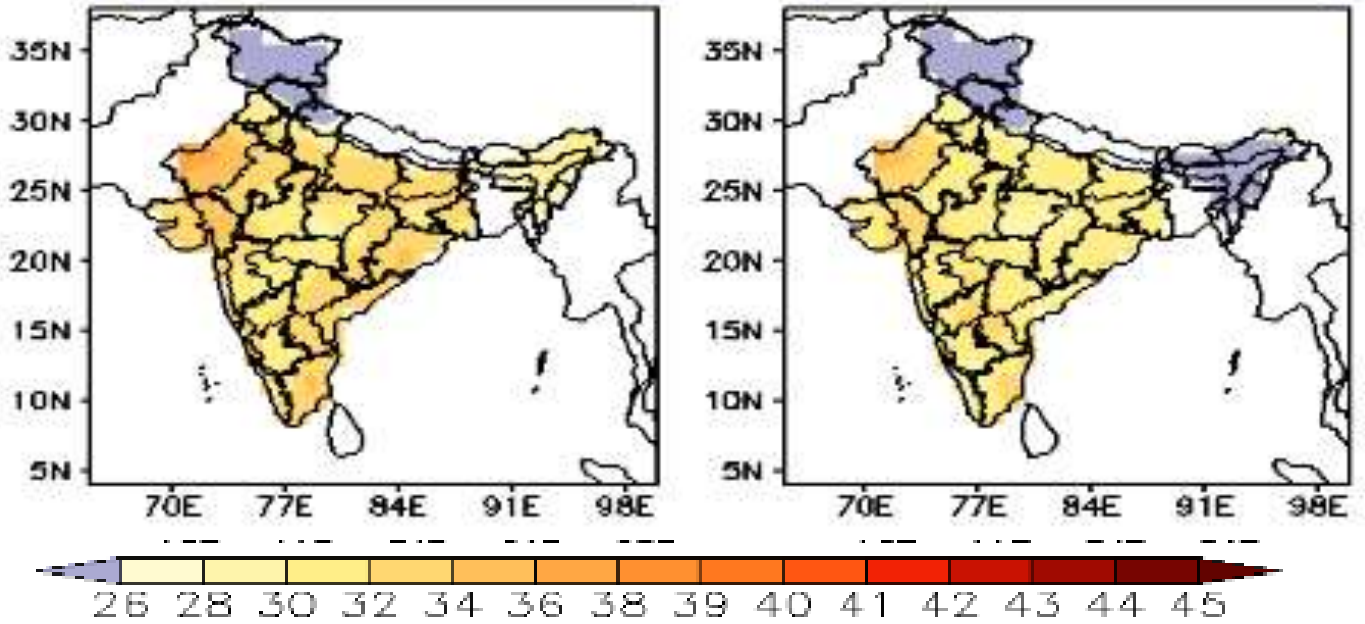
(Week2: 17Mar-23Mar)



MME Bias corrected forecast Tmax (Deg)

(Week1: 10Mar-16Mar)

(Week2: 17Mar-23Mar)



MME forecast Tmax anomaly (Deg C)

(Week1: 10Mar-16Mar)

(Week2: 17Mar-23Mar)

