



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

Press: Dated: 31 March, 2022

**Subject: Current Weather Status and Extended range Forecast for next two weeks
(31 March-13 April 2022)**

1. Salient Features for week ending on 30 March 2022

- No major weather system affected the main land of the country during the week and rainfall over most parts of India was continued to be sub-due during most days of the week except rain and thunderstorms reported over extreme southern parts of Peninsular India and over northeastern parts of the country during the week.
- Positioning of the Bay of Bengal anticyclone helped enhanced moisture incursion in the lower tropospheric levels over to the region, which had caused scattered to fairly widespread rainfall/thunderstorm activity over Northeast India and over adjoining areas of Sub Himalayan West Bengal & Sikkim on two to three days during the week; under its influence, isolated heavy/very heavy rainfall had been reported over parts of Northeast India on one or two days and isolated extremely heavy rainfall also had been reported over Meghalaya on one day during the week.
- Under the influence of north-south trough/wind discontinuities in the lower tropospheric levels extending from Central India to South Peninsula, isolated rainfall/thunderstorm activity had occurred over southern parts of Peninsular on most of the days of the week
- **Many Parts of northwest and central India experienced Season's 2nd spell of heat wave to severe heat wave during 26-30 March 2022 with** -Heat Wave conditions in a few pockets with Severe Heat Wave conditions in isolated pockets were observed over Saurashtra-Kutch during 26-28 March; Heat Wave to severe heat wave conditions in a few pockets over west Rajasthan 27-30 March; over east Rajasthan during 28-30 March; and Heat Wave to severe heat wave in some parts of Himachal Pradesh, East Uttar Pradesh and Madhya Pradesh and in isolated pockets of Jammu Division during 28-30 March; in some parts of Delhi and south Haryana, West Uttar Pradesh 29-30

March.

- The highest maximum temperature of **44.2°C** had been recorded at **Chandrapur (Vidarbha)** on **30th March 2022** and the lowest minimum temperature of **12.8°C** had been recorded at **Amritsar (Punjab)** on **26th March 2022** over the plains of the country during the week.
- **Weekly overall Rainfall distribution during the current week ending on 30 March 2022 Pre-monsoon Season's Rainfall Scenario (01 March to 30 March, 2022):** During the week ending on 30 March 2022, for the country as a whole, the weekly cumulative All India Rainfall departure from its long period average (LPA) was -42% with weekly cumulative over northwest India as -96%, while all India cumulative rainfall during this year's **Pre-monsoon Season's Rainfall Scenario (01 March to 30 March, 2022)** is below LPA by -72% and over northwest India, it is above LPA by -89%. 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		
	24.03.2022 TO 30.03.2022			01.03.2022 TO 30.03.2022		
	Actual	Normal	% Dep	Actual	Normal	% Dep
EAST & NORTH-EAST INDIA	20.5	19.2	7	24.6	59.9	-59
NORTH-WEST INDIA	0.4	9.7	-96	5.2	46.7	-89
CENTRAL INDIA	0.1	2.0	-95	1.1	8.2	-86
SOUTH PENINSULA	4.8	3.8	27	12.1	13.9	-13
country as a whole	4.4	7.5	-42	8.3	29.4	-72

2. Large scale features

- Currently, La Niña conditions are prevailing over the equatorial Pacific region. The latest Monsoon Mission Climate Forecasting System (MMCFS) forecast indicates that La Niña conditions are likely to continue throughout the Month. Other climate models are also indicating enhanced probability for La Niña conditions likely during summer season. At present, neutral Indian Ocean Dipole (IOD) conditions are present over the Indian Ocean and the latest MMCFS forecast indicates that the neutral IOD conditions are likely to continue during summer season. As the changes in the sea surface temperature (SST) conditions over the Pacific and the Indian Oceans are known to influence the Indian climate, IMD is carefully monitoring the evolution of sea surface conditions over these Ocean basins.
- The Madden Julian Oscillation (MJO) Index currently lies in Phase 6 with amplitude close to 1 and will move across phases 6 & 7 during entire forecast period with amplitude gradually increasing but remaining less than 1 till end of forecast period. Thus, MJO phase is not conducive for enhancement of convective activity over the North Indian Ocean (NIO) including the Bay of Bengal (BoB) and Arabian Sea (AS) during entire forecast period.

3. Forecast for next two week

[Weather systems & associated Precipitation during Week 1 \(31 March to 06 April, 2022\) and Week 2 \(07 to 13 April, 2022\)](#)

Forecast for week 1 (31 March to 06 April, 2022):

- Under the influence of a north-south trough from East India and strong southwesterly winds from Bay of Bengal to northeastern states at lower tropospheric levels; fairly widespread to widespread light/moderate rainfall with thunderstorm/lightning very likely over northeastern states (Arunachal Pradesh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura) during most days of the week.
- **Isolated heavy rainfall likely over Assam-Meghalaya & Arunachal Pradesh during 31st March, 01st, 03rd & 04th April and over Sub-Himalayan West Bengal & Sikkim on 03rd & 04th April; 2022.**
- Under the influence of trough/wind discontinuity over south Peninsular India,
 - ✓ Light to moderate isolated/scattered rainfall with very likely over Kerala-Mahe, Tamilnadu-Puducherry-Karaikal and South Interior Karnataka during most days of the week.

- ✓ Isolated thunderstorm/lightning activity also very likely over Tamilnadu-Puducherry-Karaikal, Lakshadweep, Rayalaseema & South Interior Karnataka on 31st March and over Kerala & Mahe during next 4-5 days.
- Dry weather very likely over remaining parts of the country during most days of the week.

Rainfall for week 2 (07 to 13 April, 2022):

- **Due to trough/wind discontinuity over south Peninsula India, light/moderate isolated to scattered rainfall along with thunderstorm is likely over south Peninsular India during most days of the week.**
- **Due to trough over northeast India and strong southwesterly winds from Bay of Bengal to northeastern states at lower tropospheric levels, light to moderate scattered to fairly widespread rainfall with thunderstorm activity is also likely over northeast India during many days of the week.**
- **Overall, rainfall activity is likely to be above normal over south Peninsular India including Andaman & Nicobar Islands; near normal over many parts of northeast India; below normal over rest parts of the country.**

Maximum Temperatures for week 1(31 March to 06 April, 2022) and week 2(07 to 13 April, 2022)

Maximum Temperatures for Week 1(31 March to 06 April, 2022):

- **Maximum Temperatures (as on 30/03/2022)** were 41-42°C in most parts over West Rajasthan, West Madhya Pradesh, Vidarbha; in isolated pockets over East Uttar Pradesh, Saurashtra-Kutch, Rayalaseema, Marathwada and 40-41°C in many parts over East Madhya Pradesh, Haryana; in isolated pockets over West Uttar Pradesh, East Rajasthan, Telangana, Gujarat Region, Madhya Maharashtra, Jharkhand and Interior Odisha.
- The maximum temperatures were above normal by 6-8°C at many parts over Jammu division, Himachal Pradesh, Uttarakhand, Punjab, Haryana-Delhi, West Rajasthan and by 4-6°C in some parts over West Uttar Pradesh, Madhya Pradesh, East Rajasthan, Jharkhand and at isolated places over East Uttar Pradesh, Saurashtra-Kutch, Vidarbha

and Gangetic West Bengal.

- No significant change in maximum temperatures very likely over most parts of Northwest India during next 24 hours and fall by about 1-2°C thereafter over the plains of Northwest India.
- Gradual rise in maximum temperatures by 2-3°C very likely over most parts of Gujarat & Maharashtra during 1st half of the week and no significant change thereafter.
- No significant change in maximum temperatures very likely over most parts of East India during 1st half of the week and fall by 2-3°C thereafter.
- No significant change in maximum temperatures very likely over rest parts of the country during most days of the week.
- **Heat wave to severe heat wave conditions in many parts very likely to continue over West Rajasthan on 31st March & in some parts on 01st April; in some parts over East Rajasthan & Madhya Pradesh and in isolated pockets over West Uttar Pradesh on 31st March. It is likely to reduce spatially and in terms of intensity over these areas during 01st - 04th April with Heat wave conditions in isolated pockets over these areas during the same period.**
- **Isolated Heat Wave conditions very likely over Himachal Pradesh on 31st March & 01st April; over south Haryana & Delhi & East Uttar Pradesh on 31st March; over Madhya Maharashtra, Marathwada and interior Odisha on 31st March & 01st April; over Telangana on 01st & 02nd April; over Vidarbha, Chhattisgarh, Saurashtra-Kutch, Jharkhand & during 31st March-03rd April and over Gujarat region on 01st - 04th April, 2022..**

Maximum Temperatures for week 2 (07 to 13 April, 2022):

- No significant change in maximum temperatures likely over most parts of the country as compared to week 1.
- These are likely to be above normal by 3-5°C over most parts of Western Himalayan Region; by 2- 3°C over many parts of plains of northwest, east & adjoining central India and over Gujarat state. It is likely to be near normal or below normal over rest parts of India.
- **Heat wave at isolated pockets likely over plains of northeast India and over East & adjoining Central India during some days of the week. (Refer Annex V)**

4. Cyclogenesis forecast for North Indian Ocean during next 2 weeks

Considering NWP model guidance, most of the models including IMD GFS, GEFS, NCUM, NEPS and ECMWF etc. are indicating likely development of cyclonic circulation/low pressure area over southeast BoB during later half of week 1. It is likely to move west-northwestwards during first half of week 2. Climatologically, during the period 1891-2020, there have been 44 cyclonic disturbances (CDs) (maximum sustained wind speed (MSW) ≥ 17 kt) over the NIO including 8 over AS and 36 over BoB (Fig.1a). Out of the 8 CDs over AS, 2 intensified into CS category (MSW ≥ 34 kt) and 4 into SCS category (MSW ≥ 48 kt) and over the BoB, out of 44 CDs, 13 intensified into CS category and 15 into SCS category. Hence, various environmental features and model guidance indicate that there is likelihood of formation of a cyclonic circulation/low pressure area over southeast Bay of Bengal during later half of week 1 with west-northwestwards movement during week 2. However, a continuous watch is being maintained over the region.

Refer

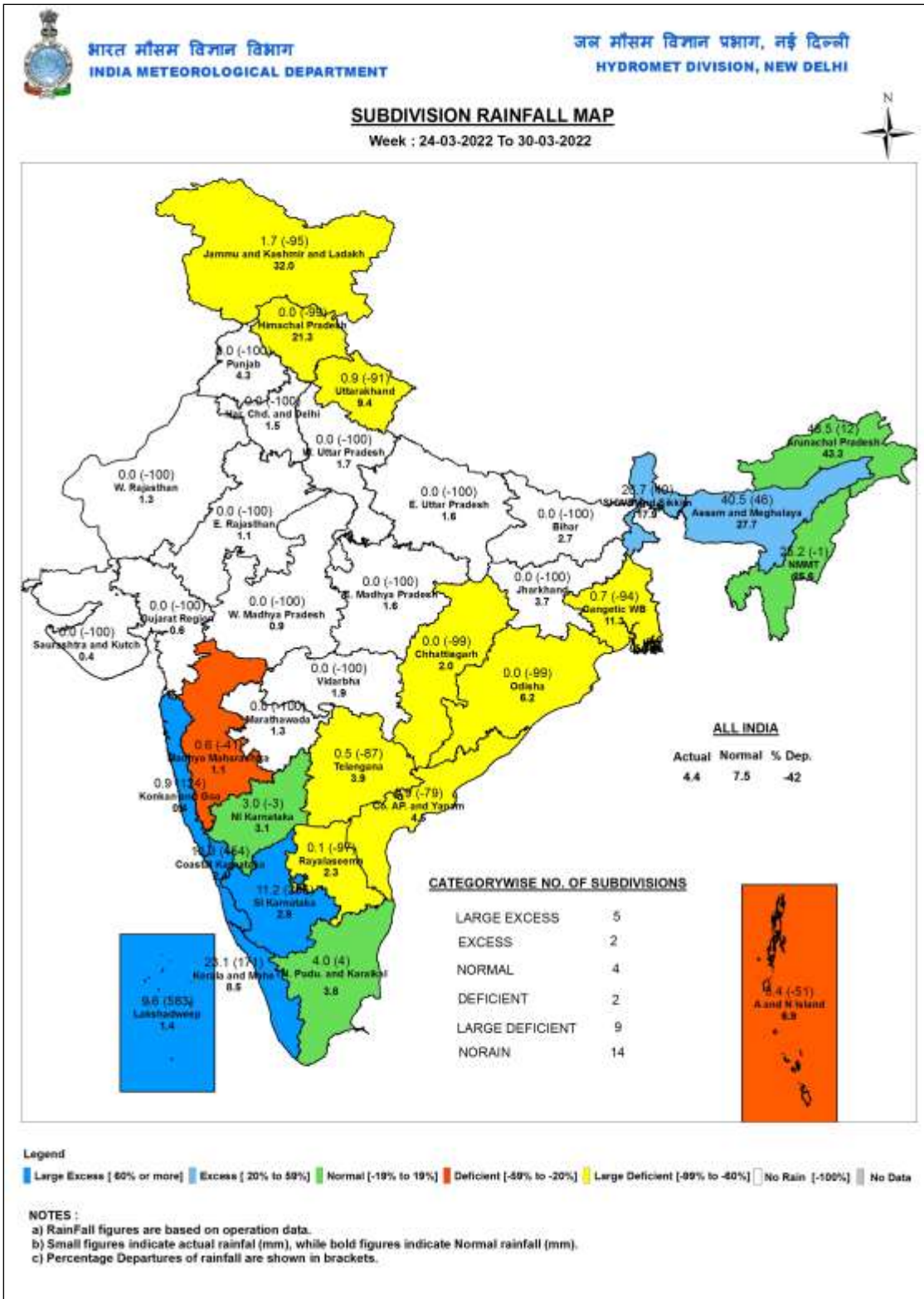
https://rsmcnewdelhi.imd.gov.in/uploads/archive/24/24_28730c_Extended%20Range%20Outlook_31032022.pdf

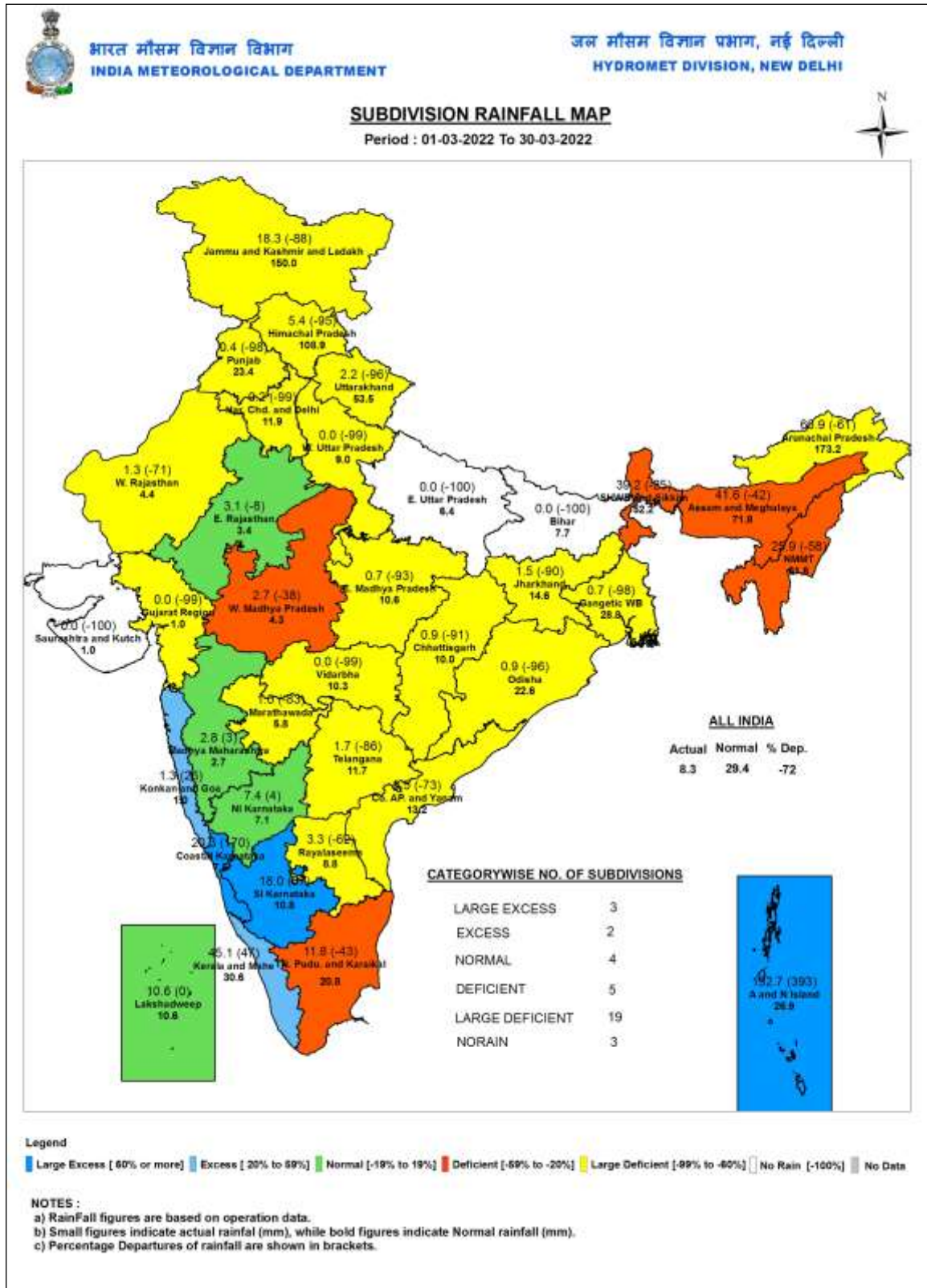
Next weekly update will be issued on next Thursday i.e. 6 March 2022

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

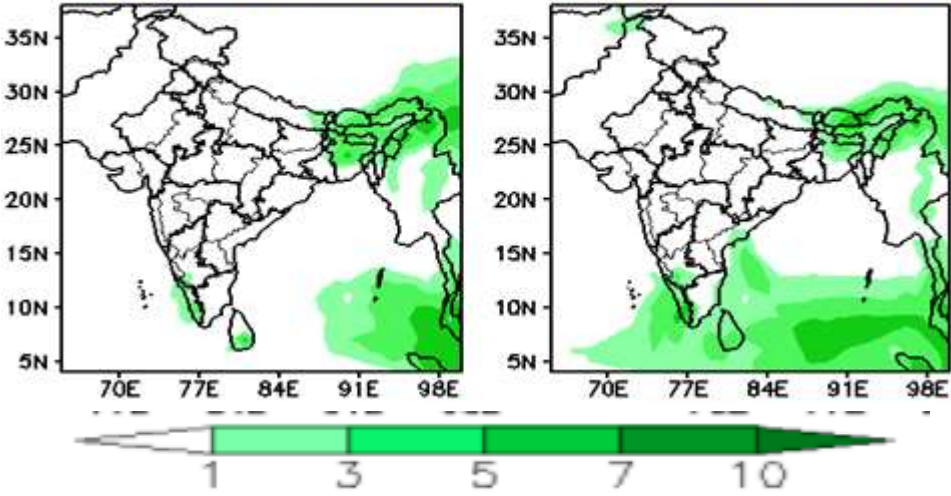




Forecast Rainfall (mm/day)

(Week1: 01Apr-07Apr)

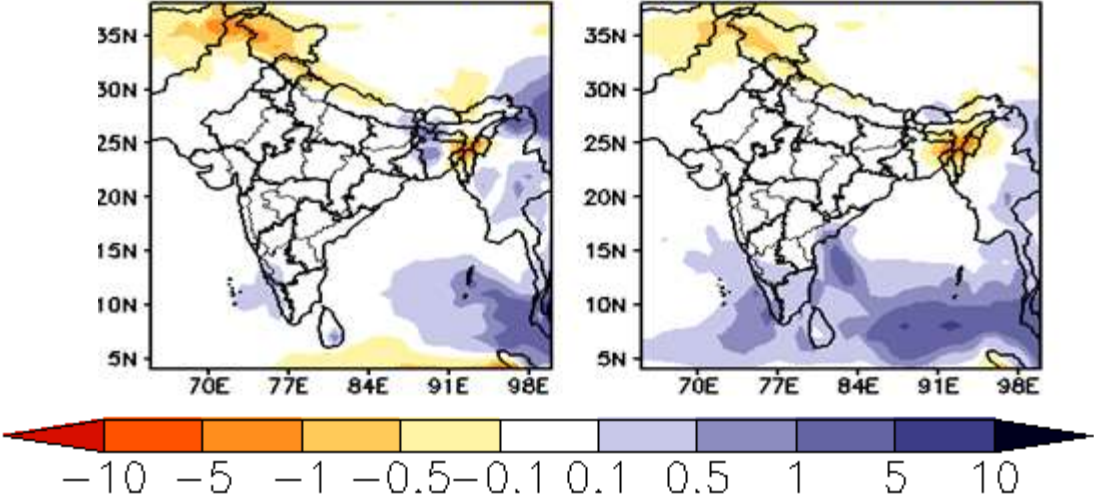
(Week2: 08Apr-14Apr)



Forecast Rainfall Anomaly (mm/day)

(Week1: 01Apr-07Apr)

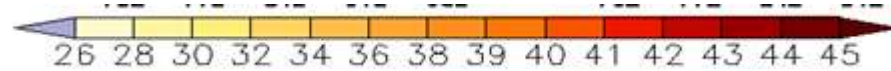
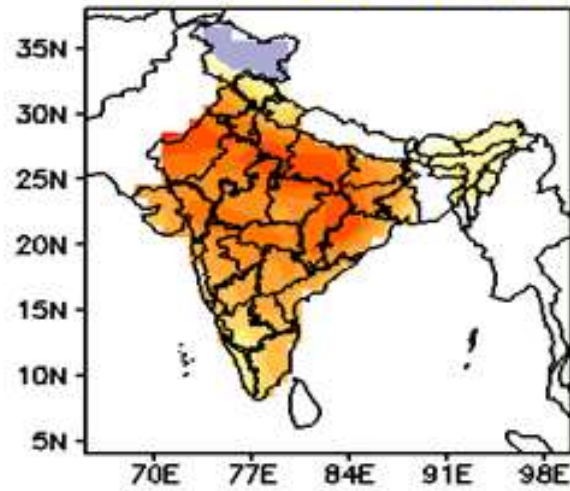
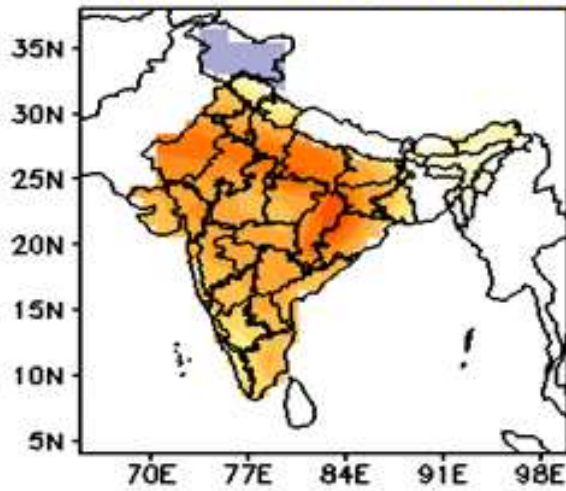
(Week2: 08Apr-14Apr)



MME Bias corrected forecast Tmax (Deg)

(Week1: 01Apr-07Apr)

(Week2: 08Apr-14Apr)



(Week1: 01Apr-07Apr)

(Week2: 08Apr-14Apr)

