



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

Press: Dated: 6 July, 2023

**Subject: Current Weather Status and Extended range Forecast for next two weeks
(6-19 July 2023)**

1. Salient Observed Features for week ending 5 July 2023

- **Monsoon covered the entire country (Annexure I):** The Southwest Monsoon has further advanced into remaining parts of Rajasthan, Haryana and Punjab on 2nd July 2023 and thus has **covered the entire country on 2nd July 2023**, against the normal date of 8th July (6 days ahead of the normal date for entire country coverage).
- The remnant of the last week's low pressure area moved slowly west-northwestward as cyclonic circulation from northeast Madhya to northwest Uttar Pradesh & neighbourhood during 29 June-5 July and this system along with the influence of the east-west trough across Indo-Gangetic plains in the lower tropospheric levels, had caused fairly widespread to widespread rainfall/thunderstorm activity over parts of Madhya Pradesh and Uttar Pradesh on many days of the week. Convergence of strong moist easterlies over to the region due to the presence of above two systems throughout the week had caused fairly widespread to widespread rainfall/thunderstorm activity over Uttarakhand on most of the days. Isolated heavy / very heavy rainfall had been reported over East Uttar Pradesh throughout the week and over West Uttar Pradesh and West Madhya Pradesh for about five days and over East Madhya Pradesh for about three days; extremely heavy rainfall also had been reported over East Uttar Pradesh and East Madhya Pradesh on one day each; heavy rainfall had been reported over Uttarakhand on four to five days along with very heavy rainfall over the same areas on a single day.
- Convergence of strong southwesterlies/southerlies over to the region had caused heavy/ very heavy rainfall over Assam & Meghalaya and Sub Himalayan West Bengal & Sikkim throughout the week and isolated extremely heavy rainfall also had been reported over Assam & Meghalaya on three days and over Sub Himalayan West Bengal & Sikkim on one day during the week.

- Under the influence of the active off shore trough along west coast, formation and movement of a cyclonic circulation from central parts of Southwest Bay of Bengal on 2nd to North & adjoining Central Bay of Bengal on 5th July and presence of an east-west shear zone across Lat. 15°N in the middle tropospheric levels, heavy to very heavy rainfall with isolated extremely heavy rainfall activity had occurred over Saurashtra & Kutch and Konkan & Goa, Madhya Maharashtra, Coastal Karnataka and Kerala & Mahe during 2-5 July 2023
- **Analysis of Weekly overall Rainfall distribution during the week ending on 5 July 2023 and monsoon Season's Rainfall Scenario (1 June-5 July 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 5 July 2023 was 16%, over south Peninsula as 17%, central India as 20% while over northwest India had 28 %. All India Seasonal cumulative rainfall % departure during this year's **monsoon Season's Rainfall** during **1 June to 5 July 2023** is -7% and over northwest India, it is +37%. 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		
	29.06.2023 TO 05.07.2023			01.06.2023 TO 05.07.2023		
	Actual	Normal	% Dep	Actual	Normal	% Dep
EAST & NORTH-EAST INDIA	96.2	96.3	0%	332.9	399	-17%
NORTH-WEST INDIA	44	34.3	+28%	139.3	102	+37%
CENTRAL INDIA	75.7	63.1	+20%	202.9	216.1	-6%
SOUTH PENINSULA	47.4	40.5	+17%	129.6	189.5	-32%
Country as a whole	63.6	55.1	+16%	189.6	204.9	-7%

2. Large scale features

- Currently, warm ENSO neutral conditions are prevailing over the equatorial Pacific. The sea surface temperatures (SSTs) across most of the equatorial Pacific Ocean are warmer than normal and near El Niño threshold value. The latest forecasts from MMCFS and other global models indicate high probabilities for the El Niño conditions to develop during the middle of the monsoon season and continue till the first quarter of 2024.
- The Madden Julian Oscillation (MJO) Index is currently in Phase 2 with amplitude near 1. It is likely to move to phase 3 with amplitude less than 1 during 2nd half of the week 1 and likely to remain in Phase 3 till end of the week 1 with amplitude < 1. It is likely to move to Phase 5 across phase 4 during week 2 with amplitude increasing to 1. Hence, MJO is likely to support strongly further the enhancement of current convective activity over both the Bay of Bengal (BoB) and Arabian Sea (AS) both during week 1 and also in week 2.

3. Forecast for next two week

Forecast for next two week

Weather systems & associated Precipitation during Week 1 (06 to 12 July, 2023) and Week 2 (13 to 19 July, 2023)

Weather systems & associated Precipitation during Week 1 (06 to 12 July, 2023)

Significant Weather features

- ❖ The Monsoon trough at mean sea level lies south of its normal position.
- ❖ The east-west shear zone runs roughly along Lat. 17°N in middle tropospheric levels.
- ❖ The off-shore trough at mean sea level runs from south Gujarat coast to north Kerala coast.
- ❖ A cyclonic circulation lies over Gangetic West Bengal & adjoining north Odisha in lower tropospheric levels.
- ❖ A cyclonic circulation lies over Northeast Arabian Sea adjoining Gujarat coast in lower tropospheric levels.
- ❖ A Western Disturbance in mid-tropospheric westerlies runs roughly along Long. 70°E to the north of Lat. 28°N

Weather Forecast and Warning:

South India:

- Light/moderate fairly widespread to widespread rainfall with **isolated heavy rainfall** very likely to continue over the region during 1st half of the week & decrease thereafter.

- Isolated **extremely heavy rainfall** also likely over Kerala and Coastal Karnataka on 06th July, 2023.

West India:

- Light/moderate fairly widespread to widespread rainfall with **isolated heavy to very heavy rainfall** very likely to continue over Gujarat state during the week; and over Konkan & Goa and ghat areas of Madhya Maharashtra during 1st half of the week and isolated heavy thereafter.
- Isolated **extremely heavy falls** also likely over Konkan & Goa on 06th and Saurashtra & Kutch on 08th July.
- Light/moderate scattered to fairly widespread rainfall is likely over rest parts of the region.

Northwest India:

- Light/moderate fairly widespread to widespread rainfall with **isolated heavy rainfall** is very likely over the region during most days of the week.
- Isolated **very heavy rainfall** is also very likely over Uttarakhand during the week and over East Rajasthan during most days of the week and over West Uttar Pradesh on 06th July.

Central India:

- Light/moderate fairly widespread to widespread rainfall with **isolated heavy rainfall** is very likely over the region during 1st half of the week and reduction thereafter.
- Isolated **very heavy rainfall** is also very likely over Chhattisgarh on 06th July.

East & adjoining Northeast India:

- Fairly widespread to widespread light/moderate rainfall with isolated **Heavy to very heavy rainfall** very likely over Sub-Himalayan West Bengal & Sikkim, Assam & Meghalaya, Arunachal Pradesh, Nagaland, Manipur during the week.
- Isolated **heavy rainfall** likely over Odisha and Bihar during the week; Gangetic West Bengal on 06th and Jharkhand on 06th & 07th July.
- Light/moderate scattered to fairly widespread rainfall is likely over rest parts of the region.

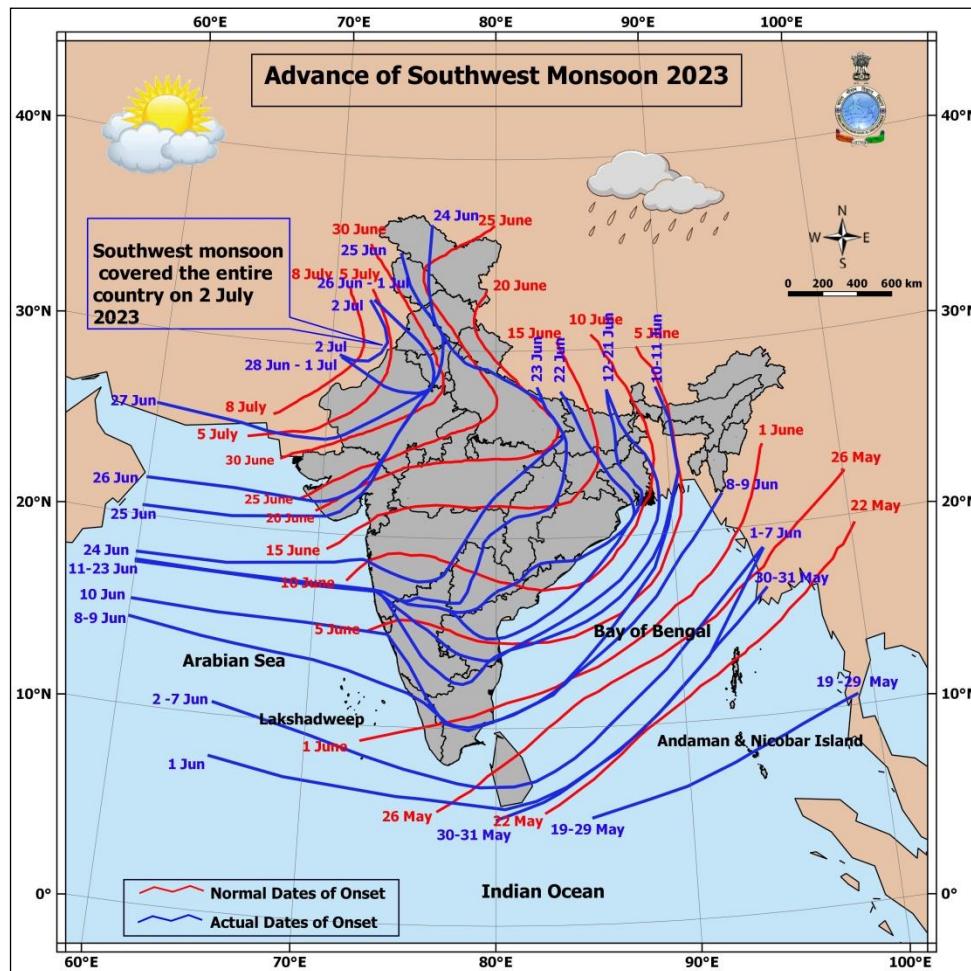
Rainfall for week 2 (13 to 19 July, 2023):

- ✓ Monsoon trough is likely to be active and south of its normal position during most days of the week.
- ✓ Off shore trough likely from Gujarat coast to north Kerala coast during many days of the week.
- ✓ Strong westerly/southwesterly winds are likely along west coast during many days of the week.
- ✓ Under above scenario
 - Light to moderate fairly widespread to widespread rainfall activity with isolated heavy falls are likely over central parts of the country and along the west coast.

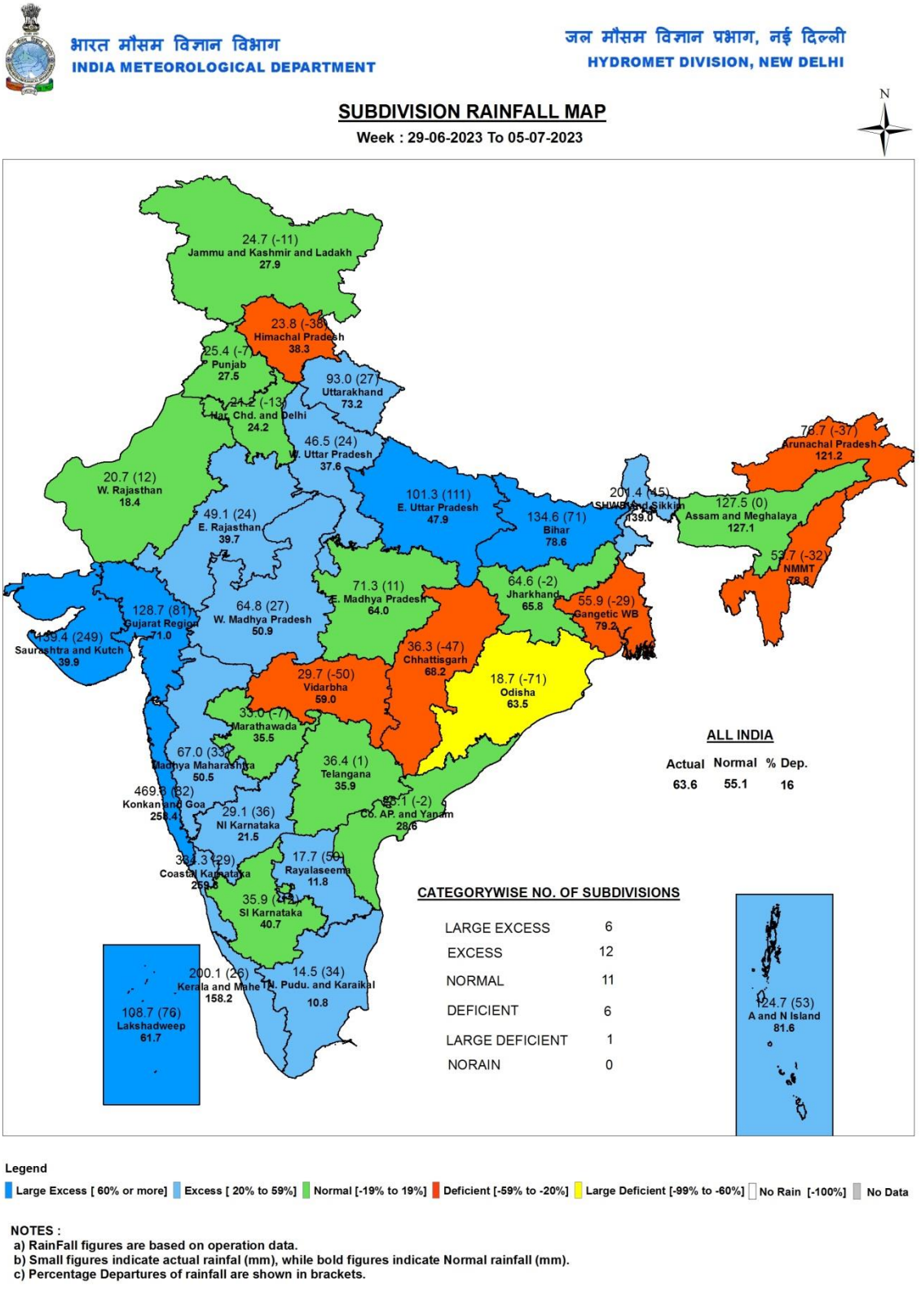
- Light to moderate fairly widespread to widespread rainfall activity is also likely over rest parts of South Peninsular India during most days of the week.
- Light to moderate scattered/fairly widespread rainfall/thunderstorm is likely over northwest, east & northeast India during the week. Isolated heavy rainfall is also likely over northeast & adjoining east India during many days of the week.
- **Overall, rainfall activity is likely to be above normal over central India; normal to above normal over south Peninsular India and northwest India (except Western Himalayan Region and Punjab, where it is likely to be below normal) and near normal over east & northeast India 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

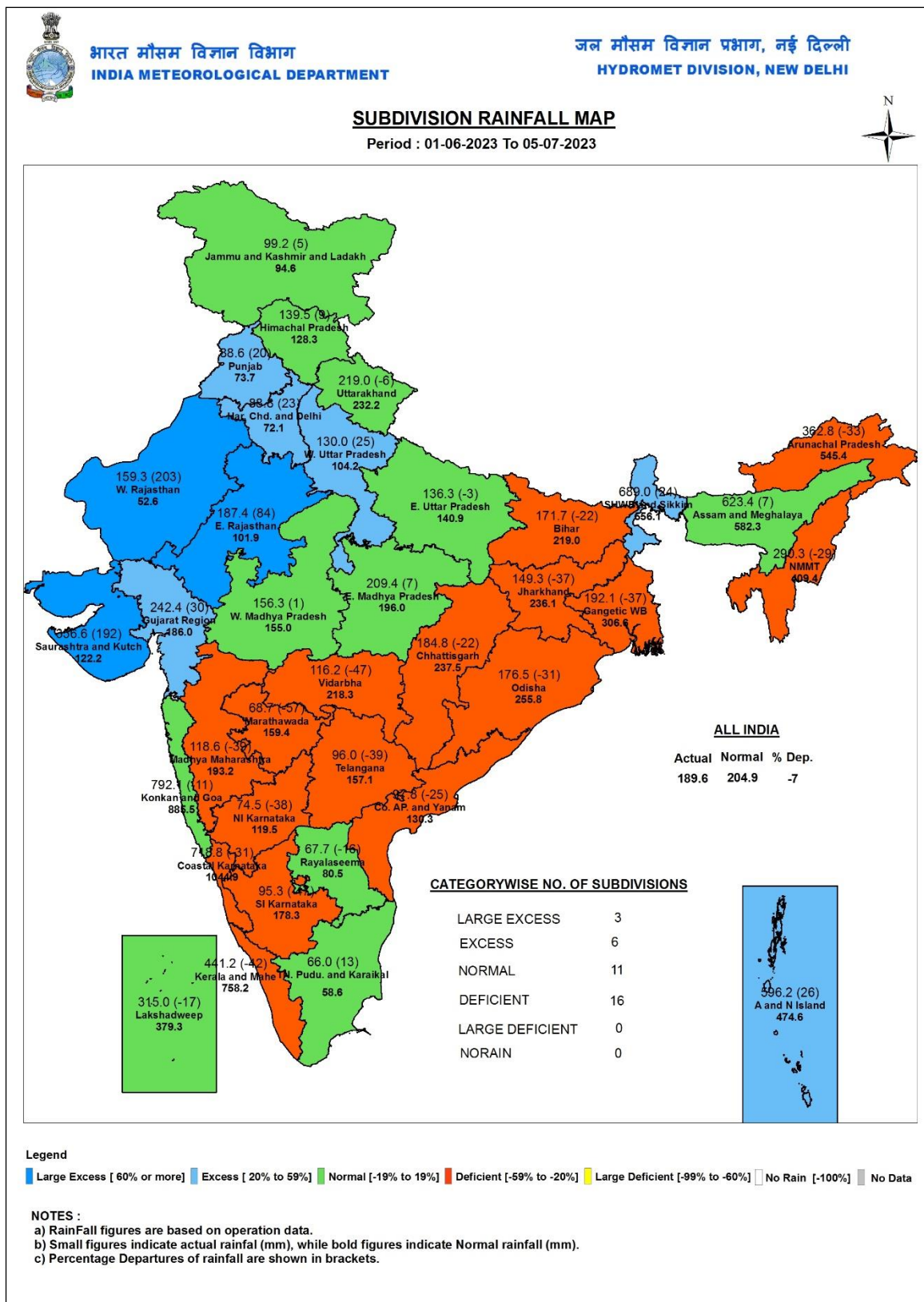
Annex: I



Annex II



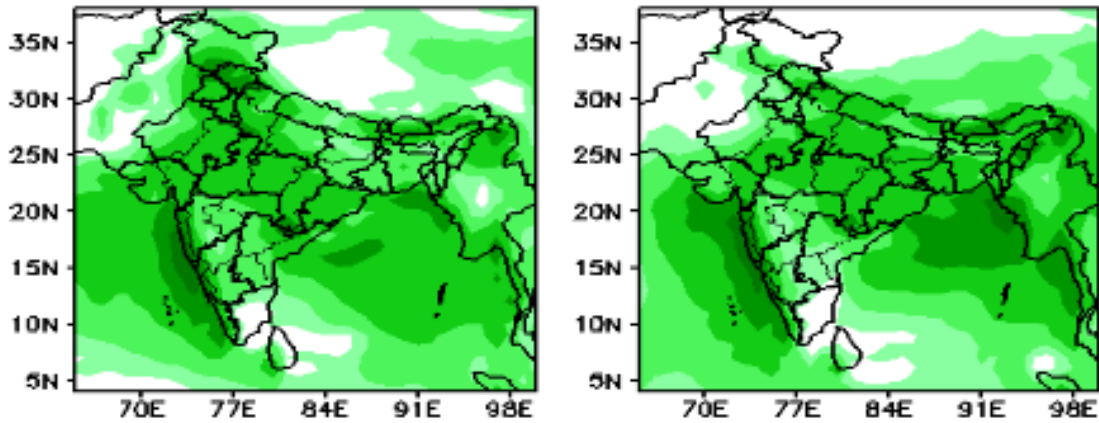
Annex III



Forecast Rainfall (mm/day)

(Week1: 07Jul-13Jul)

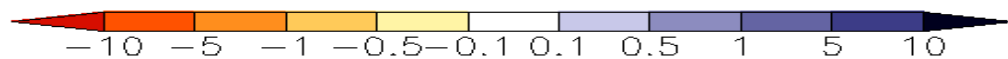
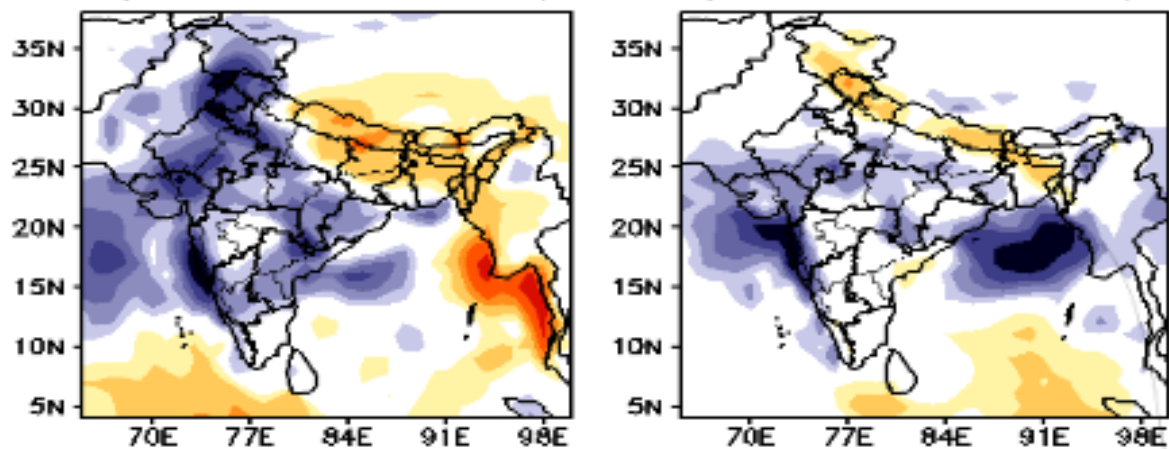
(Week2: 14Jul-20Jul)

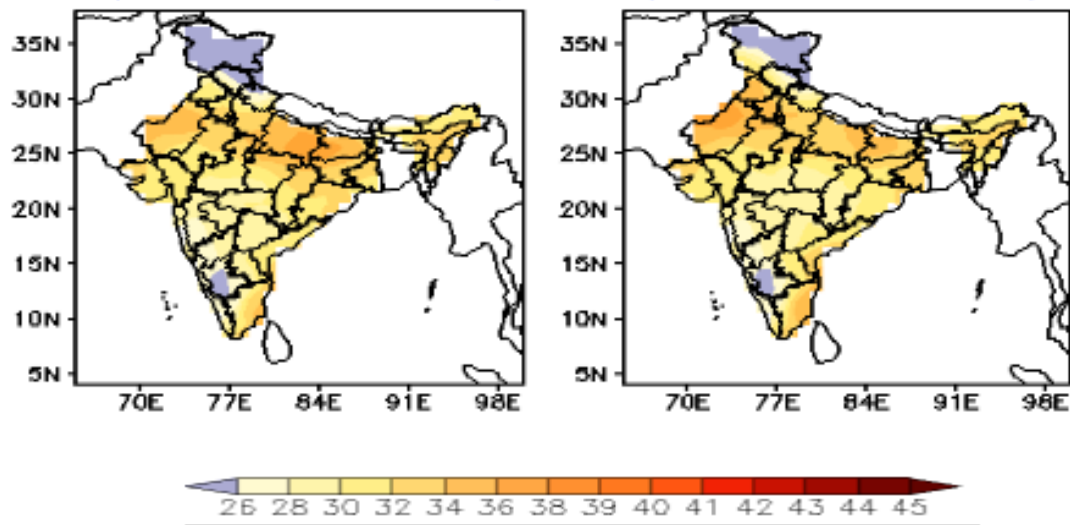


Forecast Rainfall Anomaly (mm/day)

(Week1: 07Jul-13Jul)

(Week2: 14Jul-20Jul)



MME Bias corrected forecast Tmax (Deg)**(Week1: 07Jul–13Jul)****(Week2: 14Jul–20Jul)****MME forecast Tmax anomaly (Deg C)****(Week1: 07Jul–13Jul)****(Week2: 14Jul–20Jul)**