



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

Dated: 24th May, 2018

Current Weather Status and Outlook for next two weeks

Highlights of the past week

Cyclonic storms over the Arabian Sea:

- The Cyclonic Storm 'Sagar' formed over Gulf of Aden from a depression on 16th May. It moves initially west-northwestwards and then west-southwestwards and crossed Somalia coast on 19th May and dissipated over Ethiopia on 20th May 2018
- In close succession, a Very Severe Cyclonic Storm 'Mekunu' formed over southwest Arabian Sea from a depression on 21st May. It initially moved west-northwestwards and intensified gradually. As on 1200 UTC of 24th May, it is centred over west central Arabian sea near lat. 14.3⁰ N and long. 55.2⁰ E is very likely to move north-northwestwards and cross South Oman- southeast Yemen coast close to Salalah around 26th May early morning.

Thunderstorm activity:

- Thunderstorm accompanied with squall had been reported at a few places over Gangetic West Bengal, Jammu & Kashmir, Marathwada, and North Interior Karnataka on one day each.
- Thunderstorm accompanied with gusty winds had been reported at isolated places over Tamilnadu and Kerala on most of the days; over Nagaland, Manipur, Mizoram & Tripura, Jharkhand, Chhattisgarh on many days; over Assam & Meghalaya, Odisha and North Interior Karnataka on few days; over Bihar, Gangetic West Bengal, Jammu & Kashmir, East Rajasthan, Coastal & South Interior Karnataka and Lakshadweep, Andaman & Nicobar Islands, Arunachal Pradesh, Sub-Himalayan West Bengal & Sikkim, West Uttar Pradesh, Uttarakhand, Himachal Pradesh, Haryana & Delhi, Madhya Pradesh, Konkan & Goa, Coastal Andhra Pradesh, Telangana and Rayalaseema on one or two days during the week.

Temperatures:

- Heat wave to severe heat wave conditions occurred at one/two pockets over Vidarbha on a day; Heat wave conditions occurred at one/two pockets over Vidarbha on most of the days and over West Madhya Pradesh on a few days and over Madhya Maharashtra on one or two days during the week.

- Maximum temperature more than 45°C were reported at many places over Rajasthan, Haryana & Delhi and Madhya Pradesh on one day each at a few places over Vidarbha on many days during the week.
- The highest maximum temperature of 47.6°C was recorded at Chandrapur (Vidarbha) on 17th May 2018 in the plains of the country during the week.

Weekly Rainfall Scenario (17th to 23rd May 2018)

During the week, rainfall was below the Long Period Average (LPA) by 29% over the country as a whole. Details are given below:

Regions	Actual Rainfall (mm)	Normal Rainfall (mm)	% Departure from LPA
Country as a whole	10.0	14.2	-29
Northwest India	2.7	7.3	-63
Central India	5.2	4.1	+27
South Peninsula	18.4	19.7	-7
East & northeast India	24.2	42.6	-43

The Meteorological sub-division-wise rainfall for the week is given in **Annexure I**.

Seasonal Rainfall Scenario (1st March to 23rd May 2018)

For the country as a whole, cumulative rainfall during this year's pre-monsoon season 2018 upto 23rd May is below LPA by 13%. Details of the rainfall distribution over the four broad homogeneous regions of India are given below:

Regions	Actual Rainfall (mm)	Normal Rainfall (mm)	% Departure from LPA
Country as a whole	97.8	113.0	-13
Northwest India	77.9	103.9	-25
Central India	32.5	32.9	-1
South Peninsula	127.0	100.7	+26
East & northeast India	237.9	314.7	-24

Cumulative seasonal rainfall is given in **Annexure II**.

Chief synoptic conditions as on 24th May 2018

- A Very Severe Cyclonic Storm 'Mekunu' lies over west central and adjoining southwest Arabian Sea near Lat.13.9°N & Long.55.3°E, about 200 km north-northeast of Socotra Islands and 370 km south-southeast of Salalah (Oman). It is very likely to cross south Oman – southeast Yemen coasts in the early morning of 26th May.

- A Western Disturbance as a trough runs roughly along Long. 74°E to the north of lat. 34°N.
- A trough extending upto 0.9 km above mean sea level runs from north Interior Karnataka to south Tamil Nadu.
- Another trough at 0.9 km above mean sea level runs from east Rajasthan to Jharkhand with an embedded cyclonic circulation over northwest Madhya Pradesh and neighbourhood.
- A cyclonic circulation extending upto 2.1 km. above mean sea level lies over Bihar and neighbourhood.
- A north-south trough at 3.1 km. above mean sea level runs roughly along long.88°E to the north of Lat. 20°N.
- A cyclonic circulation between 1.5 & .1 km. above mean sea level lies over southwest Bay of Bengal off south Tamil Nadu coast.
- Another cyclonic circulation between 5.8 & 7.6 km. above mean sea level lies over Maldives- Comorin areas.

Large scale features as on 24th May 2018

- Currently ENSO neutral conditions are present over the equatorial Pacific Ocean and the same is likely to continue during the forecast period.
- Madden Julian Oscillation (MJO) is in phase 2 (western Indian Ocean) with amplitude slightly more than 1 and is likely to progress eastwards with weakening of amplitude in the coming week.
- Indian Ocean Dipole (IOD) is currently neutral. Numerical model guidance indicate that negative IOD conditions are likely to develop during the southwest monsoon season.

Forecast for next two weeks

Prospects of Advance of southwest monsoon over Andaman Sea

- Southwesterly to southerly winds are prevailing over southeast Bay of Bengal, south Andaman Sea and Nicobar Islands as per the latest observations.
- Andaman & Nicobar Islands recorded fairly widespread rainfall during the 24 hours ending at 0830 hrs.IST of today.
- The rainfall is likely to increase further over Andaman & Nicobar Islands from today in view of the likely strengthening and deepening of southwesterly winds over the area.
- Thus it is most likely that the southwest monsoon current would advance over parts of southeast Bay of Bengal, south Andaman Sea and Nicobar Islands during next 48 hours and to cover the Andaman Islands and some more parts of the Bay of Bengal during the subsequent 3-4 days period.

Probable onset of southwest monsoon over the mainland

- The southwesterly winds over southeast Arabian Sea are likely to strengthen from 27th night.

- However, as per the model guidance, deepening of the moist layer as well as westerly winds over Lakshadweep area and south Kerala are likely to take place only from 28th May.
- Thus onset of southwest monsoon over Kerala is likely to take place around 29th May.
- There is also likelihood of advance of southwest monsoon into parts of northeastern states around 30th May in association with possible formation of a low pressure system over eastcentral Bay of Bengal and its subsequent northward movement during 29-31 May 2018.

Rainfall for week 1: (24th – 30th May 2018)

- Above normal rainfall is likely over Kerala, Lakshadweep, Andaman & Nicobar Islands, Tamil Nadu, coastal & south interior Karnataka, and also over northeastern states. It is likely to be normal over the remaining states outside Jammu & Kashmir and Himachal Pradesh, where the precipitation is likely to be below normal. **(Annexure IV).**

Rainfall for week 2: (31st May – 06th June 2018)

- Above normal rainfall is likely over Lakshadweep, Andaman & Nicobar Islands, Kerala, Karnataka, Telangana, Andhra Pradesh, Maharashtra & Goa, Odisha, west Bengal & Sikkim, Chhattisgarh, Jharkhand and Bihar. Below normal rainfall is likely over northeastern states, Jammu & Kashmir and Himachal Pradesh and normal rainfall over the rest of India. **(Annexure IV).**

Maximum Temperatures & Heat wave for week 1: (24th – 30th May 2018)

- Maximum temperatures are likely to remain above normal by 2-5°C over parts of Rajasthan, Gujarat, Maharashtra, Madhya Pradesh, Haryana, Uttar Pradesh, Himachal Pradesh and Uttarakhand. They are likely to remain below normal over the rest of the states. **(Annexure V).**
- Heat wave conditions are likely to prevail over Rajasthan, Madhya Pradesh, Gujarat and Vidarbha.

Maximum Temperatures & Heat wave for week 2: (31st May – 06th June 2018)

- Maximum temperatures are likely to remain 5-7°C above normal over Jammu & Kashmir and Himachal Pradesh, 3-5°C over Rajasthan and 1-3°C over Gujarat and western parts of Madhya Pradesh. They are likely to remain below normal over the remaining states. **(Annexure V).**
- Heat wave conditions are likely to continue over Rajasthan and western parts of Gujarat and Madhya Pradesh. They are likely to abate from Vidarbha.

Cyclogenesis probability:

- In view of the active monsoon conditions expected during 29th May – 20th June, a steep north-south pressure gradient is likely over the Indian sub-continent. Under this likely

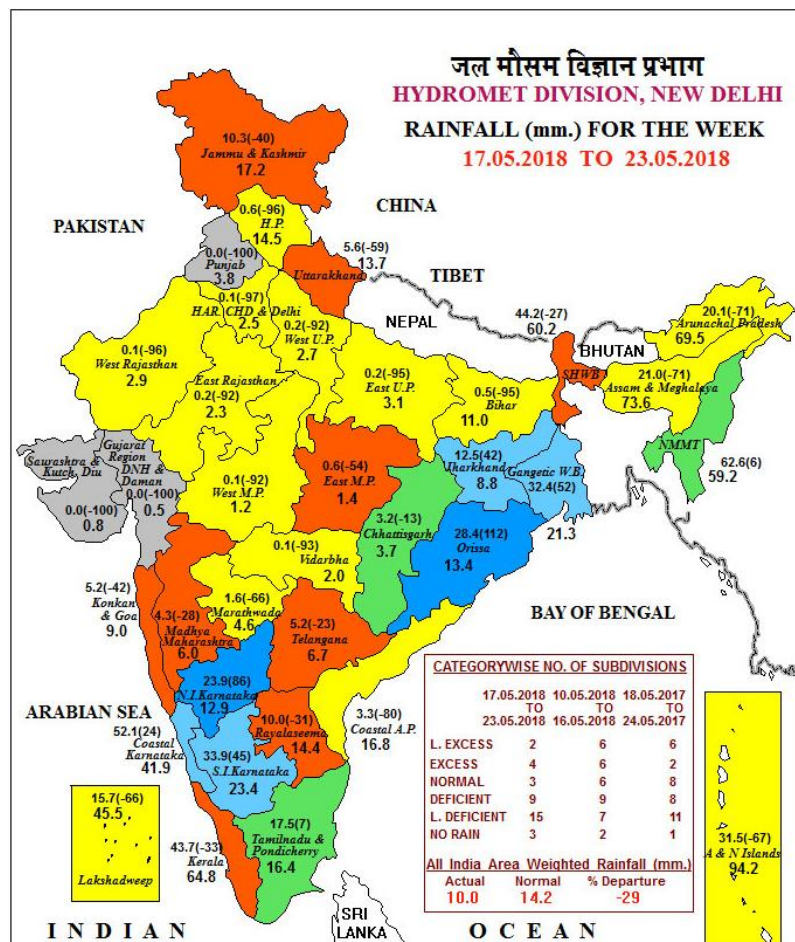
scenario, development of an off-shore vortex and its northward movement along the west coast is probable during 28th May – 2nd June.

- There is possibility of formation of a low pressure system over eastcentral Bay of Bengal and its subsequent northward movement during 29-31 May 2018.
- Subsequently, a monsoon low pressure system is also likely to form over northwest Bay of Bengal during the second week of June.

Next weekly update will be issued on next Thursday i.e. 31st May 2018

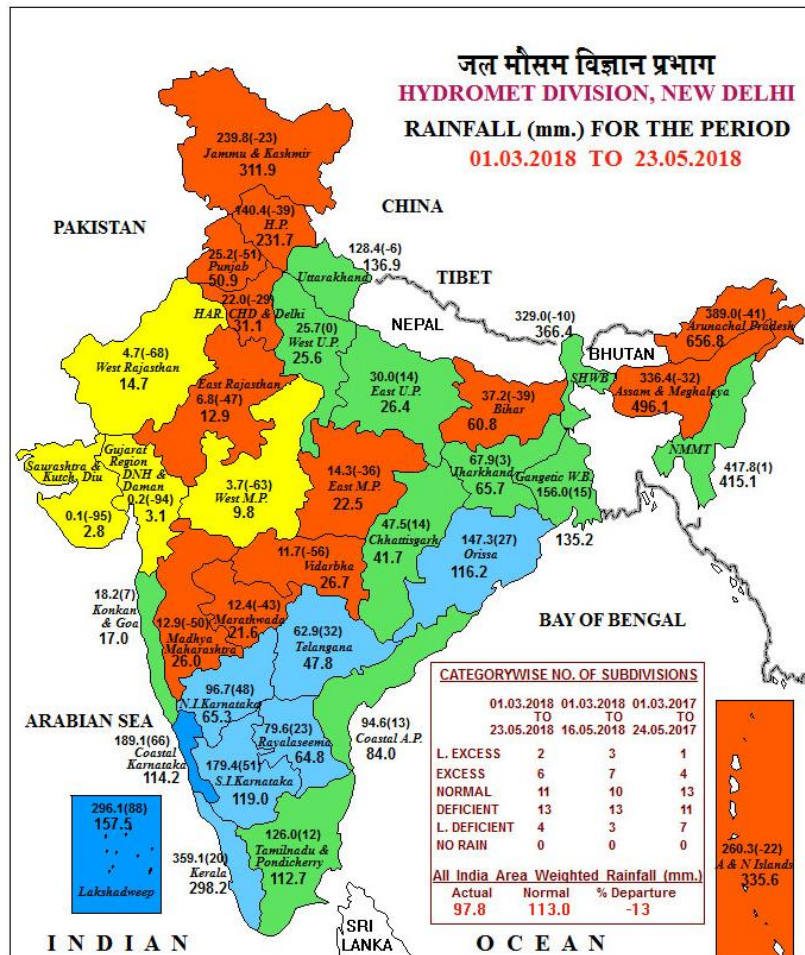
Annexure I

Weekly Meteorological sub-divisional percentage departure of rainfall



LEGEND: ■ L. EXCESS (+60% OR MORE) ■ EXCESS (+20% TO +59%) ■ NORMAL (+19% TO -19%)
 ■ DEFICIENT (-20% TO -59%) ■ L. DEFICIENT (-60% TO -99%) ■ NO RAIN (-100%) ■ NO DATA

NOTES:
 [a] Rainfall figures are based on operational data.
 [b] Small figures indicate actual rainfall (mm.), while bold figures indicate Normal rainfall (mm.)
 Percentage Departures of Rainfall are shown in Brackets.



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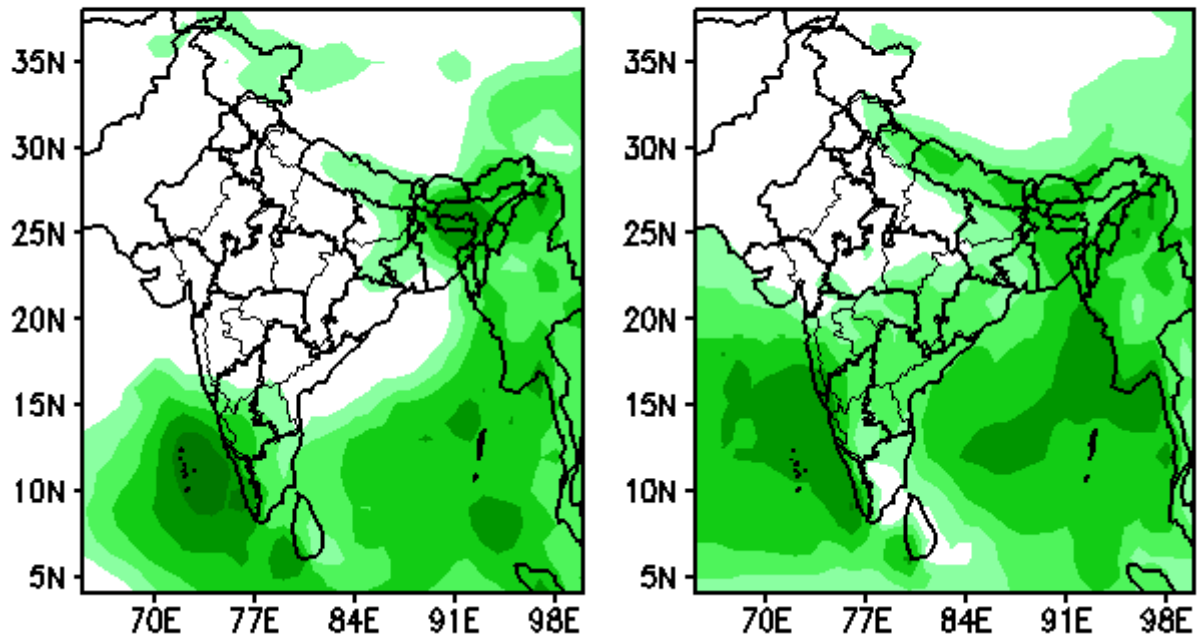
Annexure III

METEOROLOGICAL SUB-DIVISIONWISE WEEKLY RAINFALL FORECAST & Wx. WARNINGS-2018								
Sr. No	MET.SUB-DIVISIONS	24 MAY	25 MAY	26 MAY	27 MAY	28 MAY	29 MAY	30 MAY
1	ANDAMAN & NICO.ISLANDS	FWS	WS [•]	WS ^{••}	WS [•]	FWS	SCT	SCT
2	ARUNACHAL PRADESH	WS [•]	WS [•]	WS [•]	WS [•]	WS [•]	FWS	FWS
3	ASSAM & MEGHALAYA	FWS [•]	WS ^{••}	WS ^{••}	FWS [•]	FWS [•]	FWS	WS [•]
4	NAGA.MANI.MIZO.& TRIPURA	FWS	FWS	FWS	FWS [•]	FWS [•]	WS [•]	WS [•]
5	SUB-HIM.W. BENG. & SIKKIM	WS ^{••}	WS [•]	WS ^{••}	WS	FWS	FWS	WS
6	GANGETIC WEST BENGAL	SCT [§]	ISOL	ISOL	SCT	SCT	SCT ^{TS}	FWS [•]
7	ODISHA	SCT [§]	SCT	ISOL	ISOL	ISOL	ISOL ^{TS}	ISOL
8	JHARKHAND	ISOL	ISOL	ISOL	SCT	SCT	ISOL ^{TS}	ISOL
9	BIHAR	SCT	ISOL	ISOL	SCT	SCT	SCT ^{TS}	ISOL
10	EAST UTTAR PRADESH	ISOL [†]	ISOL [†]	D [†]	ISOL [†]	ISOL [†]	ISOL	ISOL
11	WEST UTTAR PRADESH	ISOL ^{†§}	D [†]	D [†]	D [†]	ISOL [†]	ISOL	ISOL
12	UTTARAKHAND	ISOL ^{†§}	D [†]	D [†]	ISOL	SCT	SCT	SCT
13	HARYANA CHD. & DELHI	ISOL ^{†DS/TS}	D [†]	D [†]	D [†]	D [†]	D	ISOL
14	PUNJAB	D [†]	D [†]	D [†]	D [†]	D [†]	D	ISOL
15	HIMACHAL PRADESH	D [†]	D [†]	D [†]	ISOL	ISOL	SCT	SCT
16	JAMMU & KASHMIR	D	D	ISOL [†]	ISOL	ISOL	SCT	ISOL
17	WEST RAJASTHAN	D [†]	D [†]	D [†]	D [†]	D [†]	D	D
18	EAST RAJASTHAN	ISOL [†]	D [†]	D [†]	D [†]	D [†]	D	D
19	WEST MADHYA PRADESH	D [†]	D [†]	D	D [†]	D	D	D
20	EAST MADHYA PRADESH	ISOL [†]	D [†]	D	D [†]	D	D	ISOL
21	GUJARAT REGION D.D. & N.H.	D [†]	D	D	D [†]	D [†]	D	ISOL
22	SAURASTRA KUTCH & DIU	D [†]	D	D	D [†]	D [†]	D	ISOL
23	KONKAN & GOA	ISOL	D	D	ISOL	ISOL	ISOL	ISOL
24	MADHYA MAHARASHTRA	ISOL	D	D	D	ISOL	ISOL	ISOL
25	MARATHAWADA	ISOL	D	D	D	D	ISOL	ISOL
26	VIDARBHA	ISOL	D [†]	D	D [†]	D [†]	ISOL	ISOL
27	CHHATTISGARH	ISOL [§]	ISOL	ISOL	D	D	ISOL	ISOL
28	COASTAL ANDHRA PRADESH	ISOL [§]	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
29	TELANGANA	ISOL [§]	ISOL	D	D	D	ISOL	ISOL
30	RAYALASEEMA	ISOL [§]	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
31	TAMILNADU & PUDUCHERRY	SCT ^{•§}	SCT ^{•§}	FWS [•]	SCT	ISOL	ISOL	ISOL
32	COASTAL KARNATAKA	FWS [§]	SCT [§]	SCT	FWS [•]	WS ^{••}	WS [•]	WS [•]
33	NORTH INT.KARNATAKA	SCT [§]	ISOL	ISOL	ISOL	ISOL	SCT	ISOL
34	SOUTH INT.KARNATAKA	WS ^{•§}	FWS [§]	FWS	FWS [•]	FWS [•]	FWS [•]	FWS
35	KERALA	FWS [§]	FWS ^{•§}	WS ^{••}	WS ^{••}	WS ^{•••}	WS ^{••}	WS [•]
36	LAKSHADWEEP	FWS	FWS [§]	WS [•]	WS ^{••}	WS ^{••}	WS [•]	WS
LEGENDS:								
WS	WIDE SPREAD / MOST PLACES (76-100%)			FWS	FAIRLY WIDE SPREAD / MANY PLACES (51% to 75%)			
SCT	SCATTERED / FEW PLACES (26% to 50%)			ISOL	ISOLATED (up to 25%)		D/DRY	NIL RAINFALL
• Heavy Rainfall (64.5-115.5 mm)			•• Heavy to Very Heavy Rainfall (115.6-204.4 mm)			••• Extremely Heavy Rainfall (204.5 mm or more)		
• FOG	* SNOWFALL	# HAILSTORM			† HEAT WAVE (+4.5°C to +6.4°C)		†† SEVERE HEAT WAVE (> +6.4)	
§ THUNDERSTORM WITH SQUALL/GUSTY WIND			DS/TS DUST/THUNDERSTORM		‡ COLD WAVE (-4.5°C to -6.4°C)		‡‡ SEVERE COLD WAVE (< -6.4)	

Actual Rainfall (mm/day)

(Week1: 25May-31May)

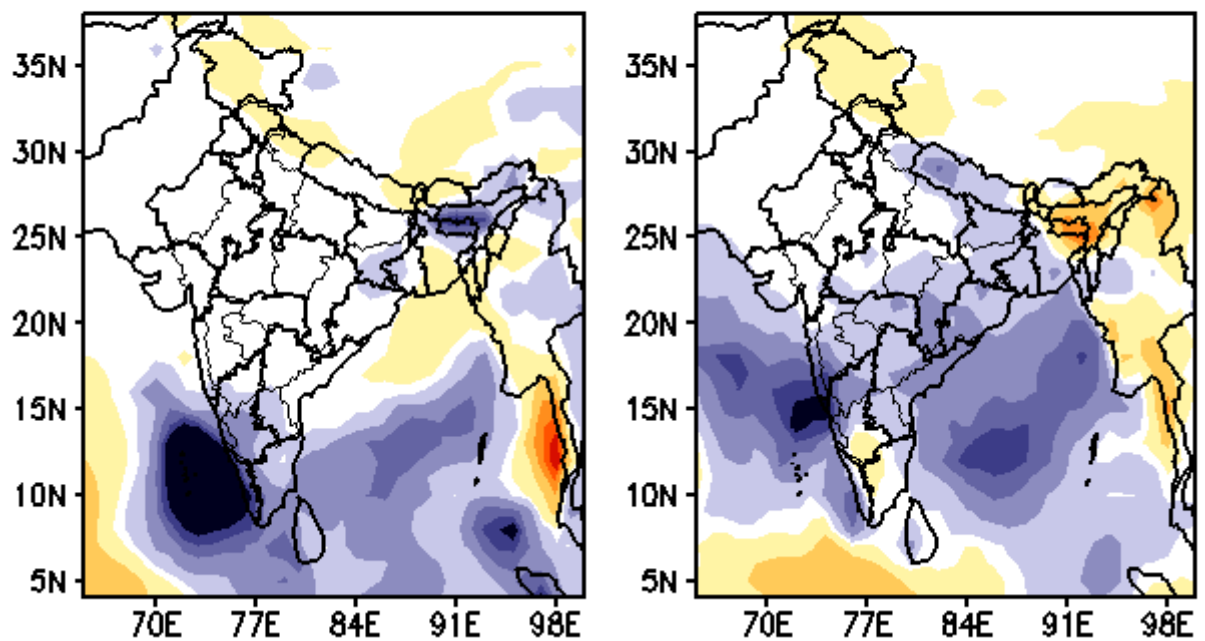
(Week2: 01Jun-07Jun)

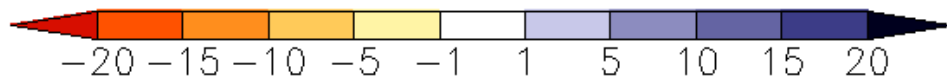


Rainfall Anomaly (mm/day)

(Week1: 25May-31May)

(Week2: 01Jun-07Jun)



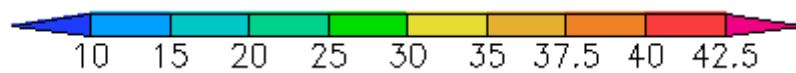
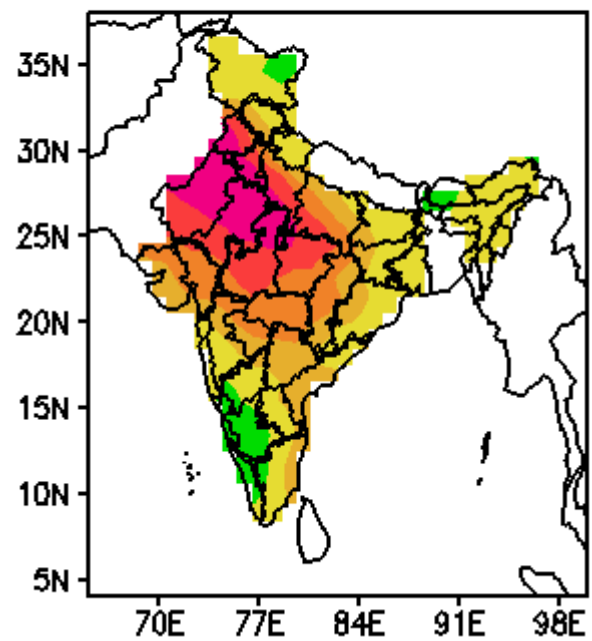
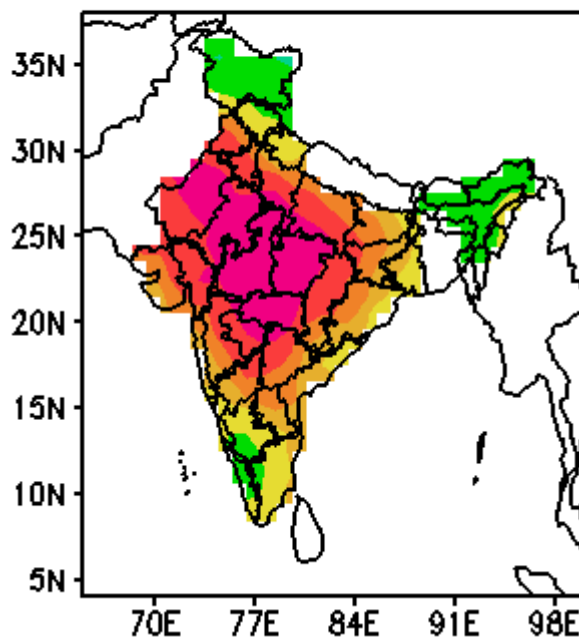


Annexure V

MME Bias Corrected Actual Tmax (Deg C)

(Week1: 25May–31May)

(Week2: 01Jun–07Jun)



MME Bias Corrected Tmax Anomaly (Deg)

(Week1: 25May-31May)

(Week2: 01Jun-07Jun)

