



**Government of India
Ministry of Earth Sciences
India Meteorological Department**

Dated: 30th January, 2020

Current Weather Status and Outlook for next two weeks

Highlights of the past week

Significant weather systems & associated weather

- An active Western Disturbance caused fairly widespread to widespread rainfall/snow fall over Western Himalayan Region during the second half of the week. This system along with its induced cyclonic circulation also caused scattered to fairly widespread rainfall/thunderstorm activity over the plains of northwest India and isolated rainfall over Central India during the period. Isolated hailstorms also occurred over some parts of northwest India in association with the passage of this system.
- Remnants of past Western Disturbances caused scattered to fairly widespread rainfall/thunderstorm activity over parts of Northeast India during the week.

Temperatures:

- **Cold Wave** conditions occurred at isolated pockets over West Uttar Pradesh on two days during the week.
- The **lowest minimum temperature of 2.5°C** had been recorded at **Karnal (Haryana) & Sikar (east Rajasthan) on 25th January 2020** over the plains of the country.

Fog:

- **Dense to very dense fog** occurred in some parts of East Uttar Pradesh on one day; at isolated pockets over East Uttar Pradesh on four days, over Punjab on three days, over Uttarakhand, Haryana, Chandigarh & Delhi, West Uttar Pradesh, Bihar and Sub-Himalayan West Bengal on one day each during the week.
- **Dense fog** occurred at isolated places over: Bihar on three days, over Assam & Meghalaya on two days, over West Uttar Pradesh and Sub-Himalayan West Bengal on one day each during the week.

Weekly Rainfall Scenario (23rd to 29th January 2020)

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	3.3	4.7	-29
Northwest India	8.8	10.1	-13
Central India	0.5	1.8	-74
South Peninsula	0.0	0.8	-97
East & northeast India	2.8	5.3	-48

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

Seasonal Rainfall Scenario (01st to 29th January 2020)

For the country as a whole, cumulative rainfall during the winter season, so far, has been above LPA by 71%. Details of the rainfall distribution over the four broad geographical regions of India are given below:

Regions	Actual Rainfall (mm)	Normal Rainfall (mm)	% Departure from LPA
Country as a whole	27.4	16.0	+71
Northwest India	56.7	31.2	+82
Central India	13.4	6.9	+95
South Peninsula	6.4	7.8	-18
East & northeast India	26.3	16.4	+61

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

Chief synoptic conditions as on 30th January 2020

- A fresh feeble Western Disturbance (WD) as a trough in mid & upper tropospheric westerlies runs with its axis at 5.8 km above mean sea level roughly along Long. 55°E to the north of Lat. 30°N.
- A north-south trough extending upto 0.9 km above mean sea level runs from Sub-Himalayan West Bengal to Coastal Andhra Pradesh across interior Odisha.

Large scale features as on 30th January 2020

- Currently, warm ENSO-neutral conditions are prevailing over equatorial Pacific Ocean and the latest Monsoon Mission Coupled Forecast System (MMCFS) output indicates cooling of SSTs in coming season and ENSO-neutral conditions are likely to continue for the entire forecast period.
- The positive IOD conditions observed over Indian Ocean have further weakened and the latest MMCFS forecast indicates that the strength of positive IOD conditions is likely to weaken and turn into neutral IOD conditions during JFM season.
- The convectively active phase of the Madden–Julian Oscillation (MJO) is currently in Phase-6 with amplitude close to 1. Majority of the models suggest that it is likely to further weaken in amplitude, with possible strengthening and eastward propagation during later part of week -2.

Forecast for next two weeks

Weather systems and associated Precipitation & temperature pattern during week 1 (31st January – 06th February 2020) and week 2 (07th – 13th February 2020)

Week 1 (31st January – 06th February 2020)

- The present WD which is approaching the Indian sub-continent as a trough is very likely to cause isolated rain / snow over Jammu & Kashmir and Ladakh and over the higher reaches of Himachal Pradesh tomorrow (31st January). Subsequent WD is likely during 4th – 6th February. This might cause isolated to scattered rain / snow over western Himalayan region and isolated rain / thundershowers over the northern plains (mainly over northeast Rajasthan, south Haryana, south Uttar Pradesh) on 4th & 5th February.
- Likely formation of a cyclonic circulation over interior parts of south Peninsula and confluence of moist winds from an anti-cyclone in the lower levels over the Bay of Bengal could result in isolated to scattered rain / thundershowers and isolated Hailstorms over parts of central & eastern India (especially over east Madhya Pradesh, Chhattisgarh, Vidarbha, Odisha and Jharkhand) towards the later part of week-1.
- The westerly wind regime could also cause scattered to fairly widespread rain / thundershowers and snowfall over the higher reaches of Sikkim and Arunachal Pradesh on most of the days and isolated to scattered rain / thundershowers over Assam & Meghalaya and Nagaland during the initial couple of days of week-1.
- Cumulative precipitation is likely to be above normal over Arunachal Pradesh, Assam and Nagaland. Near normal rainfall likely over the rest of the States and

union territories outside Jammu & Kashmir, Ladakh, Himachal Pradesh and Uttarakhand where the rain / snow is likely to be below normal. **(Annexure III & IV)**.

Week 2 (07th – 13th February 2020)

- Another WD is likely to affect western Himalayan region during 7th & 8th February and yet another WD during 10th – 12th February.
- Eastward movement of the second WD and allied wind confluence from the likely favourable positioning of the anti-cyclone over the Bay of Bengal could cause isolated rain / thunderstorms over parts of central and eastern India towards the later part of week-2.
- Cumulatively, near normal precipitation is likely over major parts of India, outside Jammu & Kashmir, Ladakh, Himachal Pradesh, Uttarakhand, Arunachal Pradesh and southern most parts of Tamil Nadu and Kerala where the rainfall is likely to be below normal.

Minimum Temperatures for week 1: (31st January – 06th February 2020)

- Night minimum temperatures are likely to remain below normal during a few days over major parts of India outside coastal & south interior Karnataka, south Andhra Pradesh and interior Tamil Nadu, where normal to above normal night temperatures are likely to prevail on some of the days during the week. **(Annexure V)**.

Minimum Temperatures for week 2: (07th – 13th February 2020)

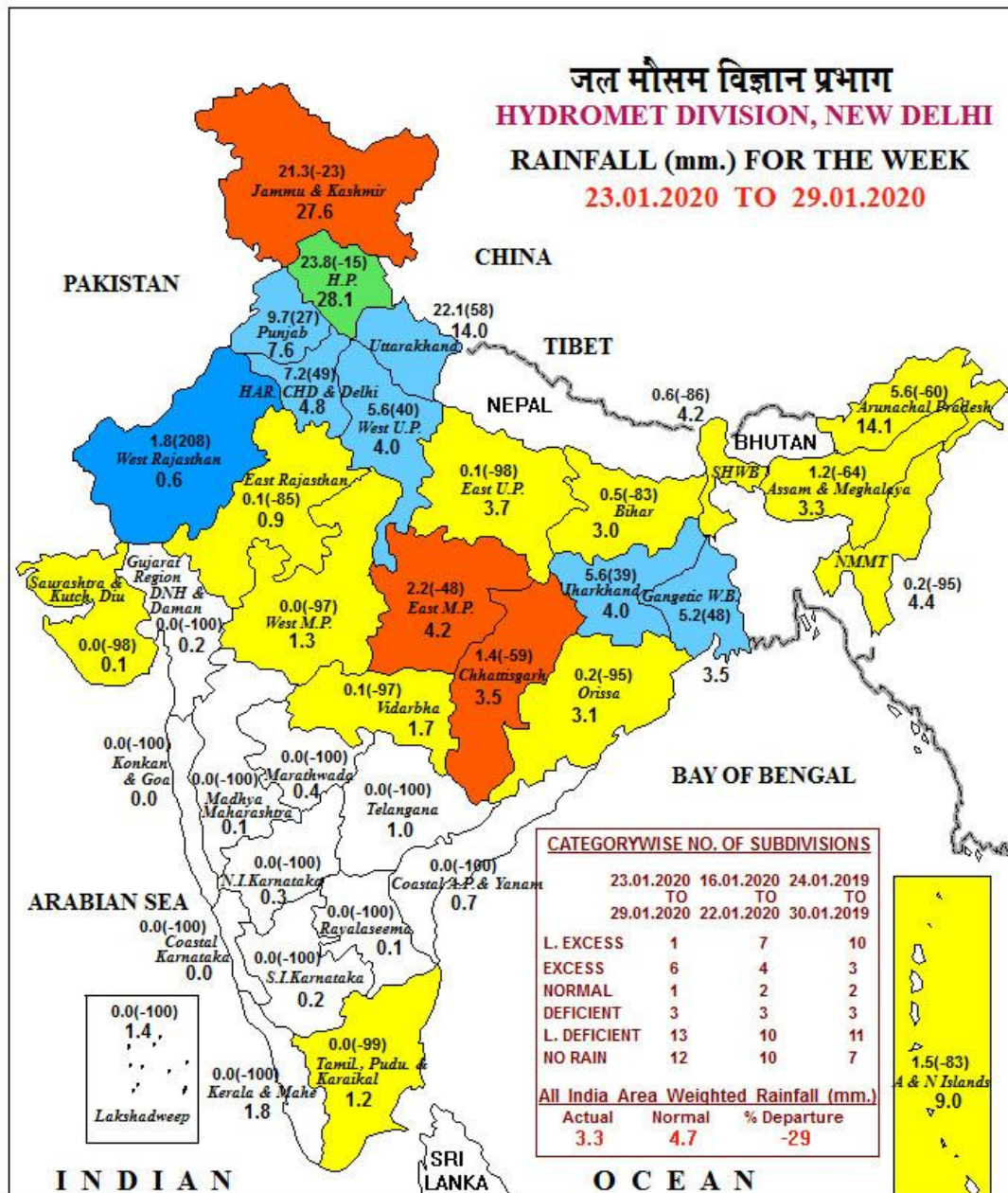
- Week 2 in general is likely to be warmer than week 1. However, near normal to 2-3°C below normal night minimum temperatures are likely to prevail over major parts of India, at least for a few days, outside coastal & south interior Karnataka, Rayalaseema and north Madhya Maharashtra where above normal minimum temperatures are likely to occur during some of the days. **(Annexure V)**.

Cyclogenesis probability:

- No cyclogenesis likely as per the numerical model guidance during the forecast period.

Next weekly update will be issued on Thursday, the 06th February 2020.

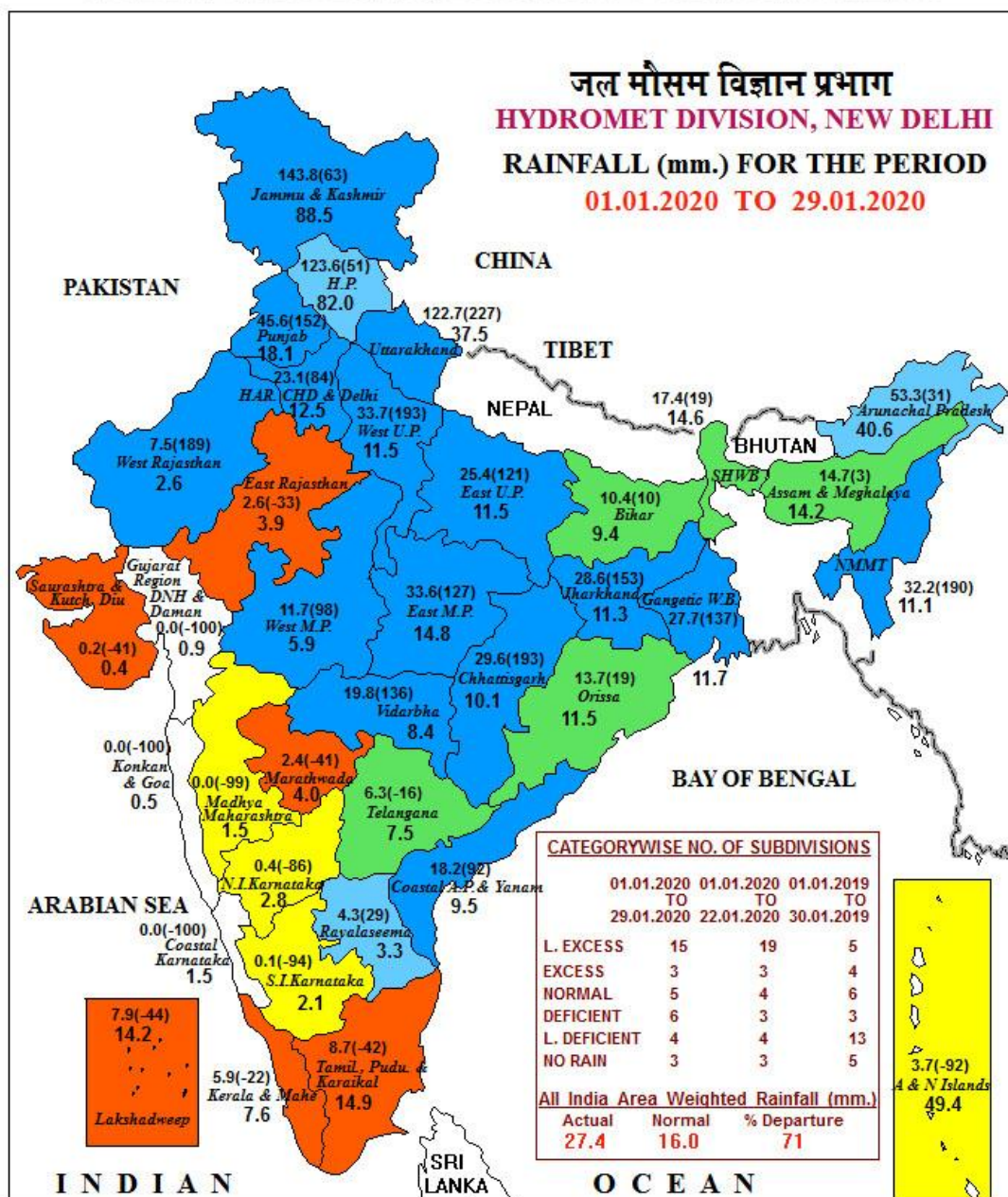
भारत मौसम विज्ञान विभाग INDIA METEOROLOGICAL DEPARTMENT



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.

भारत मौसम विज्ञान विभाग INDIA METEOROLOGICAL DEPARTMENT



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.

Annexure-III

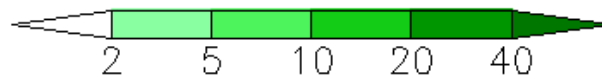
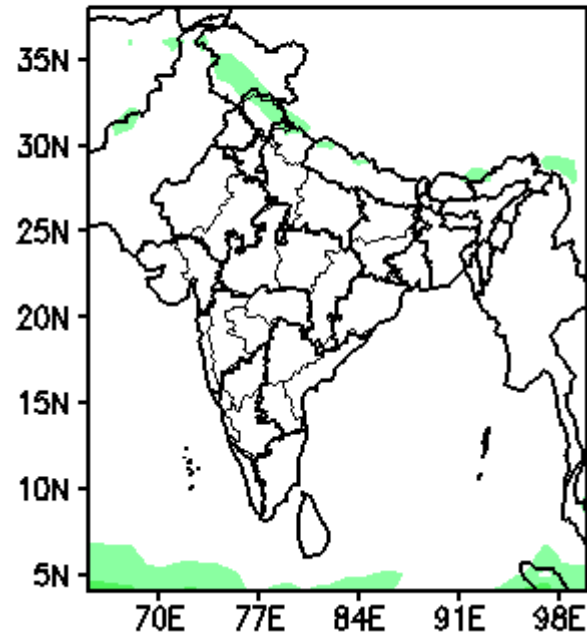
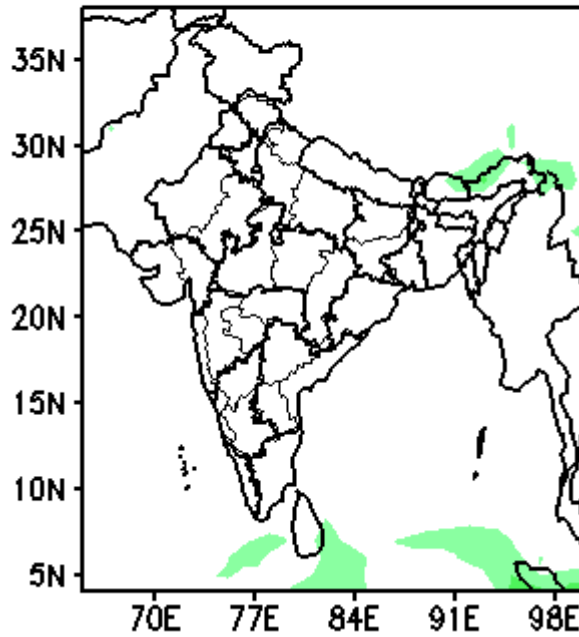
METEOROLOGICAL SUB-DIVISIONWISE WEEKLY RAINFALL FORECAST & Wx. WARNINGS-2020

Sr. No	MET.SUB-DIVISIONS	30 JAN	31 JAN	01 FEB	02 FEB	03 FEB	04 FEB	05 FEB
1	ANDAMAN & NICO.ISLANDS	D	ISOL	ISOL	ISOL	ISOL	D	D
2	ARUNACHAL PRADESH	FWS ^{TS}	SCT	SCT	ISOL	ISOL	ISOL	SCT
3	ASSAM & MEGHALAYA	FWS ^{TS}	ISOL ^{TS}	ISOL	D	D	D	D
4	NAGA.MANI.MIZO.& TRIPURA	SCT ^{TS}	ISOL ^{TS}	D	D	D	D	D
5	SUB-HIM.W. BENG. & SIKKIM	FWS ^{TS}	ISOL	ISOL ^{TS}	ISOL	D	ISOL	ISOL
6	GANGETIC WEST BENGAL	SCT [°]	D [°]	D	D	D	ISOL	ISOL
7	ODISHA	ISOL	D	ISOL	ISOL	D	ISOL	ISOL ^{TS}
8	JHARKHAND	ISOL	D	D	D	D	SCT ^{TS}	SCT
9	BIHAR	ISOL [°]	D	D	D	D	D	D
10	EAST UTTAR PRADESH	D [°]	D [°]	D [°]	D	D	ISOL	ISOL ^{TS}
11	WEST UTTAR PRADESH	D [°]	D [°]	D [°]	D	D	ISOL	ISOL
12	UTTARAKHAND	D	D	D	D	D	ISOL	ISOL
13	HARYANA CHD. & DELHI	D [°]	D [°]	D ^{TS}	D	ISOL	D	D
14	PUNJAB	D [°]	D [°]	D	D	D	D	D
15	HIMACHAL PRADESH	D	ISOL	D	D	D	ISOL	ISOL
16	JAMMU & KASHMIR	D	ISOL	D	D	ISOL	SCT	ISOL
17	WEST RAJASTSAN	D	D	D	D	D	D	D
18	EAST RAJASTSAN	D	D	D	D	D	ISOL	D
19	WEST MADHYA PRADESH	D [°]	D	D	D	ISOL	ISOL	D
20	EAST MADHYA PRADESH	D [°]	D	D	D	ISOL	SCT ^{TS#}	ISOL
21	GUJARAT REGION D.D. & N.H.	D	D	D	D	D	D	D
22	SAURASTRA KUTCH & DIU	D↓	D↓	D	D	D	D	D
23	KONKAN & GOA	D	D	D	D	D	D	D
24	MADHYA MAHARASHTRA	D	D	D	D	D	D	D
25	MARATHAWADA	D	D	D	D	D	D	D
26	VIDARBHA	D	D	ISOL	D	ISOL	ISOL ^{TS}	ISOL
27	CHHATTISGARH	D	D	ISOL	ISOL	D	ISOL ^{TS#}	ISOL
28	COASTAL A. PR. & YANAM	ISOL	D	ISOL	ISOL	D	D	D
29	TELANGANA	D	D	D	D	D	D	D
30	RAYALASEEMA	D	D	D	D	D	D	D
31	TAMIL. PUDU. & KARAIKAL	D	D	D	D	D	D	D
32	COASTAL KARNATAKA	D	D	D	D	D	D	D
33	NORTS INT.KARNATAKA	D	D	D	D	D	D	D
34	SOUTS INT.KARNATAKA	D	D	D	D	D	D	D
35	KERALA & MAHE ^{°*}	D	D	D	D	D	D	D
36	LAKSHADWEEP	D	D	D	D	D	D	D
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		↓ COLD WAVE (-4.5 °C to -6.4 °C)		↓ SEVERE COLD WAVE (< -6.4)
° TSUNDERSTORM WITS SQUALL/GUSTY WIND		DS/TS DUST/TSUNDERSTORM		↑ HEAT WAVE (+4.5 °C to +6.4 °C)		↑ SEVERE HEAT WAVE (> +6.4)		

Forecast Rainfall (mm/day)

(Week1: 31Jan-06Feb)

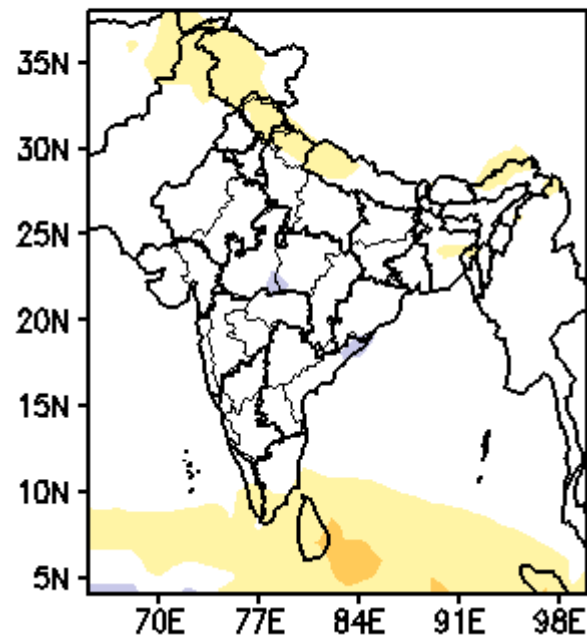
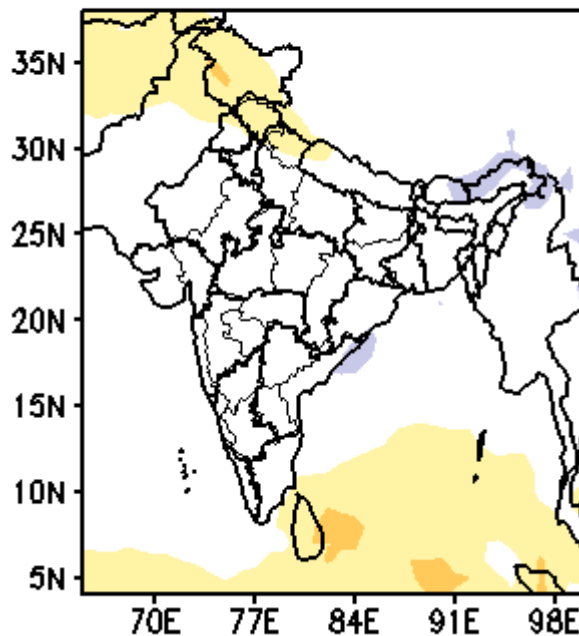
(Week2: 07Feb-13Feb)



Forecast Rainfall Anomaly (mm/day)

(Week1: 31Jan-06Feb)

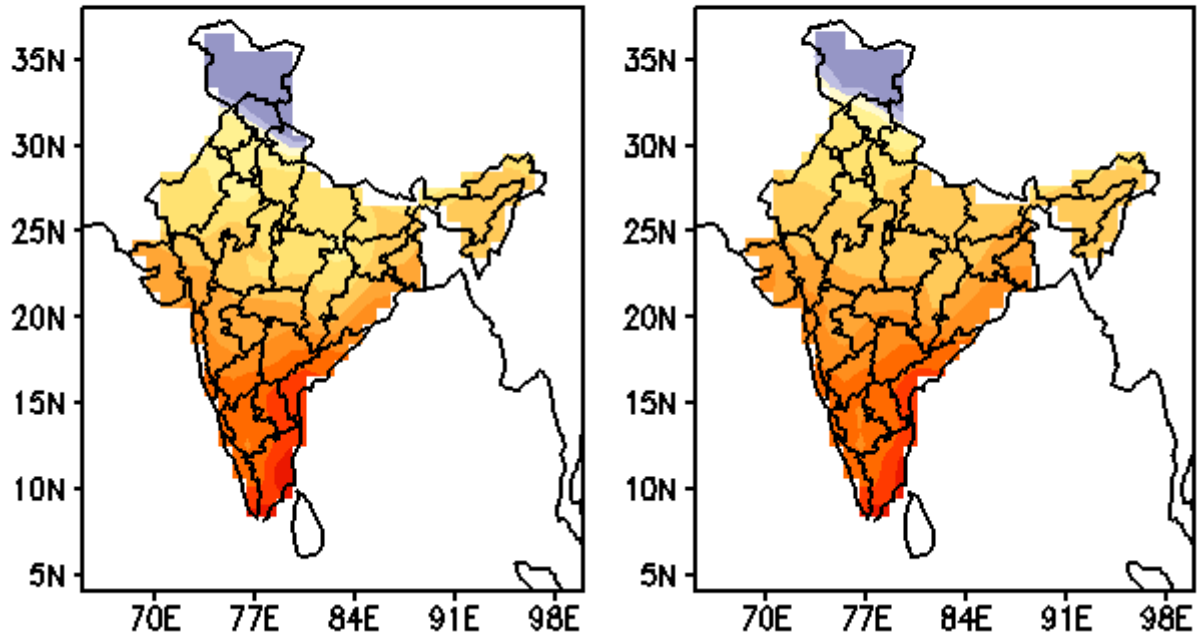
(Week2: 07Feb-13Feb)



MME Bias corrected forecast Tmin (Deg)

(Week1: 31Jan-06Feb)

(Week2: 07Feb-13Feb)



MME forecast Tmin anomaly (Deg C)

(Week1: 31Jan-06Feb)

(Week2: 07Feb-13Feb)

