



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

**Dated: 23<sup>rd</sup> 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/snowfall over Western Himalayan Region with isolated heavy precipitation over Uttarakhand and Uttar Pradesh during the first half of the week.
- Remnants of past Western Disturbances caused scattered to fairly widespread rainfall/thunderstorm activity over parts of East & Northeast India with heavy rainfall at isolated places over Arunachal Pradesh during the week.

#### **Temperatures:**

- **Severe Cold Day** conditions occurred at isolated places over East Uttar Pradesh on three days, over West Uttar Pradesh, Haryana, Chandigarh & Delhi and West Madhya Pradesh on two days each and over West Rajasthan and East Madhya Pradesh on one day each.
- **Cold Day** conditions occurred in some parts of Uttar Pradesh on one day each; at isolated places over Haryana, Chandigarh & Delhi on three days, over West Uttar Pradesh on two days and over Gujarat State on one day.
- **Cold Wave** conditions occurred at isolated pockets over Saurashtra & Kutch on two days and over Rajasthan on one day each.
- The **lowest minimum temperature of (minus) 0.6°C** had been recorded at **Kota (east Rajasthan) on 20<sup>th</sup> January 2020** over the plains of the country during the week.

#### **Fog:**

- **Dense to very dense fog** occurred at many places over Uttar Pradesh and Haryana, Chandigarh & Delhi on one day each; at some parts over Punjab on two days and over East Uttar Pradesh on one day; at isolated pockets over West

Rajasthan on six days, over Punjab on four days, over Haryana, Chandigarh & Delhi, West Uttar Pradesh, East Rajasthan, East Madhya Pradesh, East Uttar Pradesh and Odisha on three days each, over Uttarakhand on two days during the week.

- **Dense fog** occurred at some parts of Uttar Pradesh on two days each and over Haryana, Chandigarh & Delhi and Punjab on one day each; at isolated pockets over Bihar, Haryana, Chandigarh & Delhi and West Madhya Pradesh on three days, over Uttarakhand, Sub-Himalayan West Bengal & Sikkim and East Uttar Pradesh on two days each, over Jammu & Kashmir, Himachal Pradesh, Punjab, East Madhya Pradesh, Assam & Meghalaya and Chhattisgarh on one day each during the week.

### Weekly Rainfall Scenario (16<sup>th</sup> to 22<sup>nd</sup> January 2020)

During the week, rainfall was above the Long Period Average (LPA) by 26% over the country as a whole. Details are given below:

Regions	Actual Rainfall (mm)	Normal Rainfall (mm)	% Departure from LPA
Country as a whole	4.9	3.9	+26
Northwest India	11.2	8.2	+36
Central India	1.5	1.3	+15
South Peninsula	0.8	1.3	-40
East & northeast India	5.1	4.6	+11

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

### Seasonal Rainfall Scenario (01<sup>st</sup> to 22<sup>nd</sup> January 2020)

For the country as a whole, cumulative rainfall during the winter season, so far, has been above LPA by 116%. 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	24.4	11.3	+116
Northwest India	49.0	21.1	+132
Central India	13.0	5.1	+155
South Peninsula	6.4	7.0	-09
East & northeast India	23.4	11.1	+110

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

## Chief synoptic conditions as on 23<sup>rd</sup> January 2020

- A Western Disturbance (WD) as a cyclonic circulation lies over eastern parts of Jammu & Kashmir and neighbourhood and is moving away east-northeastwards.
- A fresh WD is very likely to affect Western Himalayan region from tomorrow, the 24<sup>th</sup> January night.
- Another fresh and active WD is very likely to affect Western Himalayan region from night of 27<sup>th</sup> January onwards.
- A cyclonic circulation extending upto 1.5 km above mean sea level lies over southeast Assam & neighbourhood.

## Large scale features as on 23<sup>rd</sup> 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-7 with amplitude more than 1. It is likely to enter into Phase -6 with reduced amplitude during later part of week -1. Thereafter it is likely to remain in Phase – 6 with gradual increase in amplitude during week -2.

## Forecast for next two weeks

### **Weather systems and associated Precipitation & temperature pattern during week 1 (24<sup>th</sup> – 30<sup>th</sup> January 2020) and week 2 (31<sup>st</sup> January - 6<sup>th</sup> February 2020)**

#### **Week 1 (24<sup>th</sup> – 30<sup>th</sup> January 2020)**

- Under the influence of a fresh WD which is likely from tomorrow (24<sup>th</sup> January) night isolated to scattered rain/ thunderstorms are likely over Western Himalayan region, for two days. This may not cause any significant rainfall activity over northwest India and northern plains. However, strong surface winds (20-30 kmph) are likely over these regions occasionally upto 26<sup>th</sup> January. Apart from the likely WD from the night of 27<sup>th</sup> January, low level cyclonic circulations combined with moisture incursion from the Bay of Bengal is likely to cause isolated to scattered rain / thunderstorms over Haryana, Chandigarh & Delhi, Uttar Pradesh, Uttarakhand, north Madhya Pradesh,

Chhattisgarh, Jharkhand, Odisha, Gangetic west Bengal & Bihar during 28<sup>th</sup> – 30<sup>th</sup> January. **(Annexure III & IV).**

- Cumulative precipitation is likely to be above normal over Gangetic west Bengal and north coastal Odisha and normal rainfall over the rest of the States and union territories outside Jammu & Kashmir and Nicobar Islands where it is likely to be below normal. **(Annexure IV).**

### **Week 2 (31<sup>st</sup> January - 6<sup>th</sup> February 2020)**

- Yet another WD is likely to affect western Himalayan region on 30<sup>th</sup> & 31<sup>st</sup> January. This system is also likely to cause weather in the form of rain / thundershowers over parts of eastern India (Jharkhand, Odisha & Gangetic west Bengal) during 3<sup>rd</sup> – 5<sup>th</sup> February, due to confluence of low level moist easterlies.
- Higher reaches of Arunachal Pradesh is likely to receive snowfall due to the movement of systems in westerlies during the week.
- Cumulatively, above normal precipitation is likely over Telangana, coastal Andhra Pradesh, some parts of Vidarbha, south Chhattisgarh, Odisha, Jharkhand, Gangetic west Bengal, Nagaland, Manipur, Mizoram, Tripura, and below normal over Jammu & Kashmir and Ladakh, Himachal Pradesh, Uttarakhand and Nicobar Islands. Near normal rainfall likely over the rest of the country.

### **Minimum Temperatures for week 1: (24<sup>th</sup> – 30<sup>th</sup> January 2020)**

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

### **Minimum Temperatures for week 2: (31<sup>st</sup> January - 6<sup>th</sup> February 2020)**

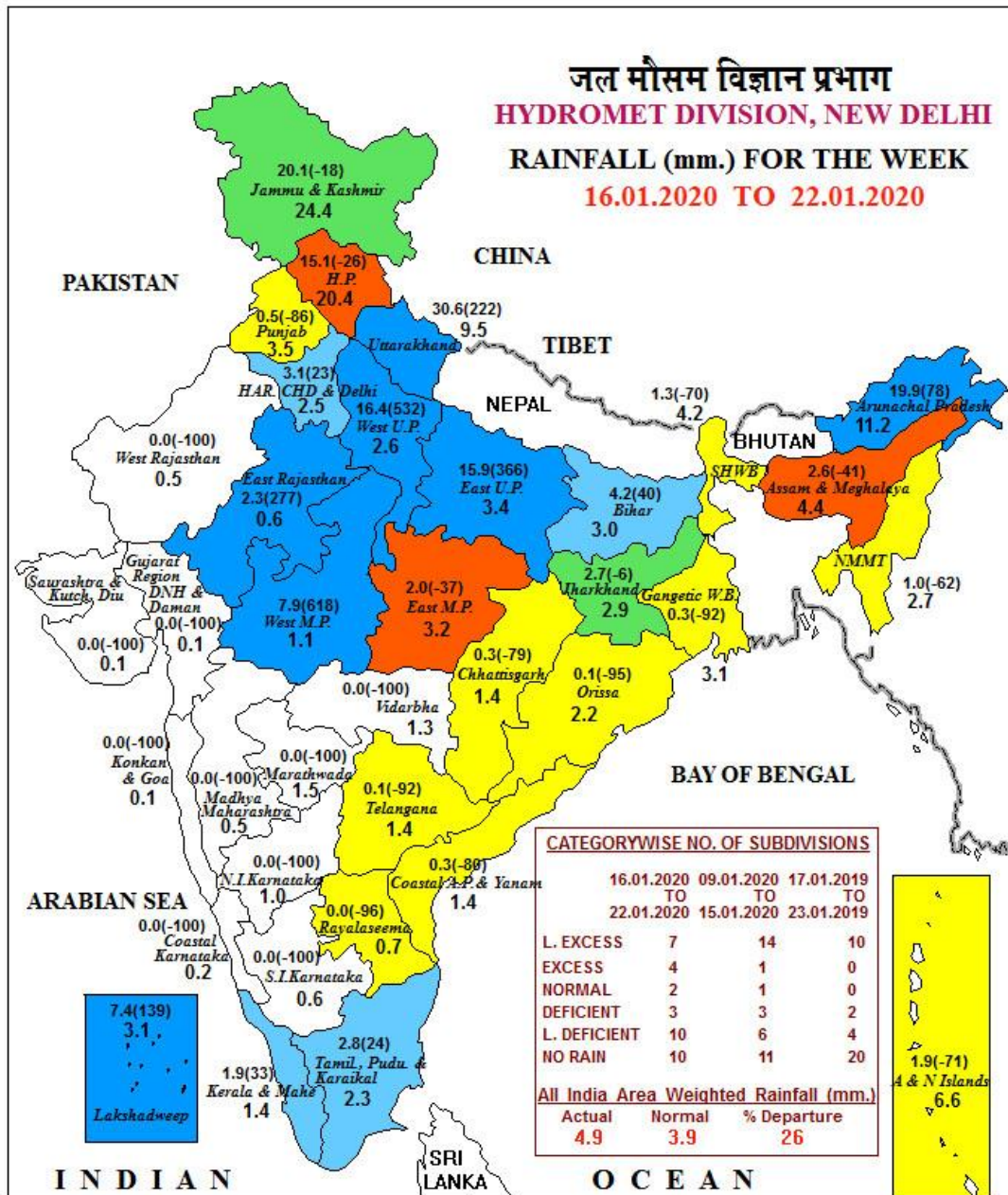
- Night minimum temperatures are likely to continue to remain below normal to near normal over major parts of India, outside coastal & south interior Karnataka, Rayalaseema, south coastal Andhra Pradesh and Tamil Nadu, where they are likely to be markedly above normal during some of the days. **(Annexure 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 30<sup>th</sup> January 2020.**

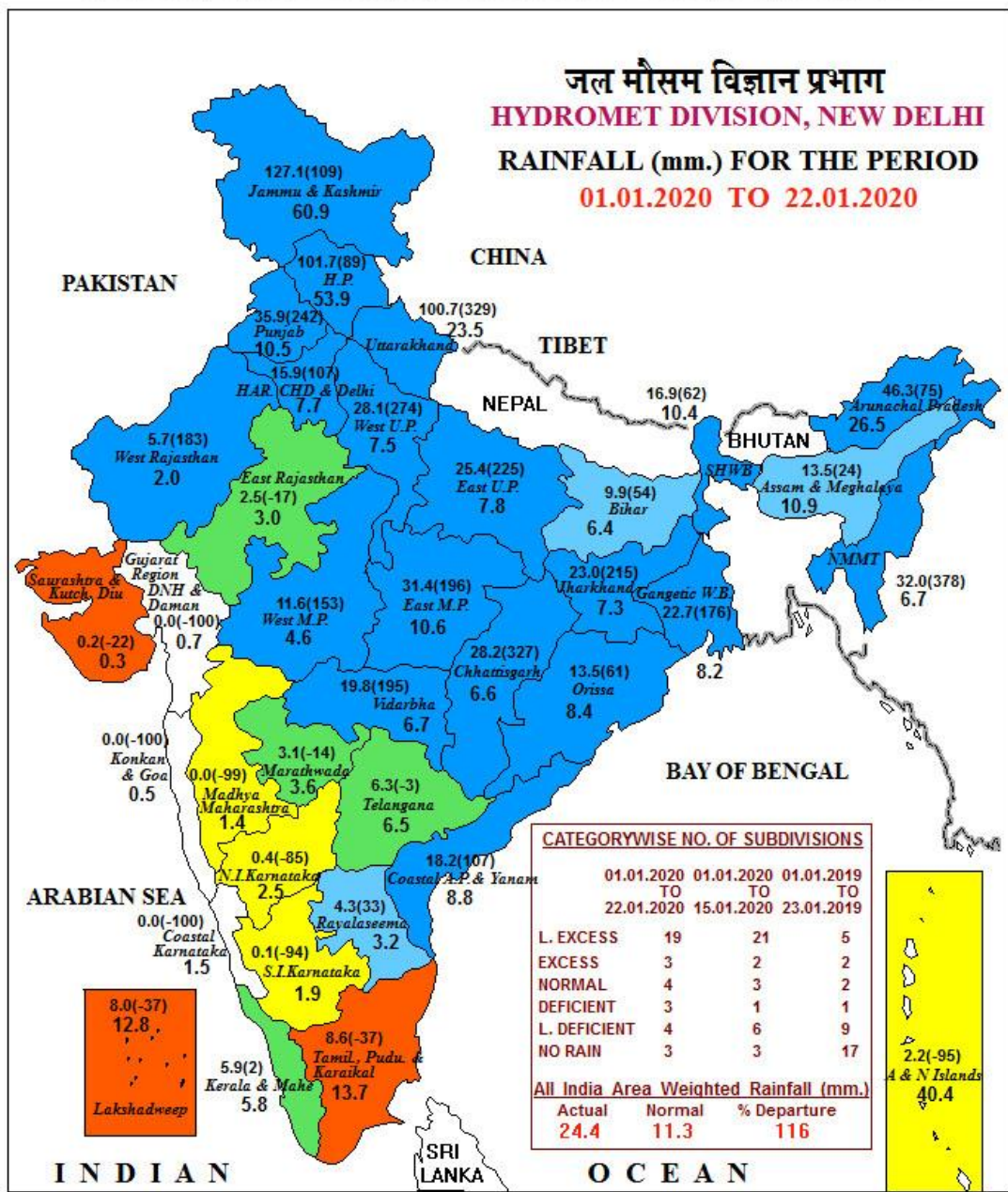
# भारत मौसम विज्ञान विभाग INDIA METEOROLOGICAL DEPARTMENT



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.

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## Annexure-III

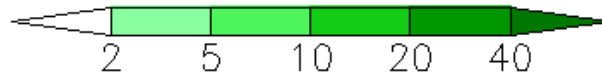
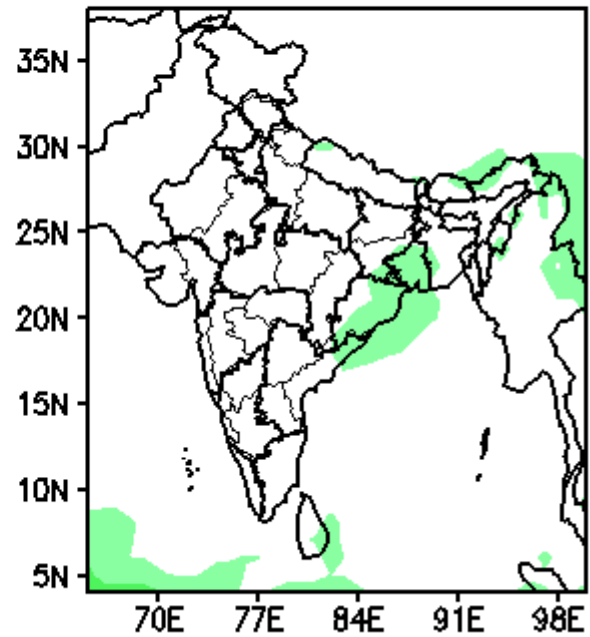
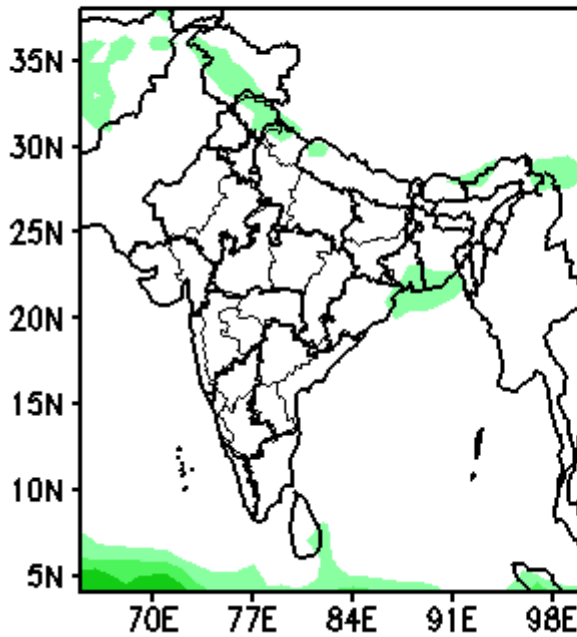
## METEOROLOGICAL SUB-DIVISIONWISE WEEKLY RAINFALL FORECAST &amp; Wx. WARNINGS-2020

Sr. No	MET.SUB-DIVISIONS	23 JAN	24 JAN	25 JAN	26 JAN	27 JAN	28 JAN	29 JAN
1	ANDAMAN & NICO.ISLANDS	ISOL	D	D	D	D	D	D
2	ARUNACHAL PRADESH	FWS	SCT	ISOL	ISOL	D	D	ISOL
3	ASSAM & MEGHALAYA	ISOL	ISOL	D	D	D	D	D
4	NAGA.MANI.MIZO.& TRIPURA	ISOL	ISOL	D	D	D	D	D
5	SUB-HIM.W. BENG. & SIKKIM	ISOL <sup>◦</sup>	ISOL	D	ISOL	ISOL	ISOL	ISOL
6	GANGETIC WEST BENGAL	ISOL	D	D	D	D	ISOL	SCT <sup>TS</sup>
7	ODISHA	ISOL <sup>◦</sup>	D <sup>◦</sup>	D	D	D	ISOL <sup>TS</sup>	SCT <sup>TS</sup>
8	JHARKHAND	ISOL	D	D	D	D	ISOL	ISOL
9	BIHAR	D	D	D	D	D	ISOL	ISOL
10	EAST UTTAR PRADESH	D	D	D	D	D	ISOL	SCT
11	WEST UTTAR PRADESH	D	D	D	D	D	SCT <sup>TS</sup>	FWS <sup>TS</sup>
12	UTTARAKHAND	D	D	ISOL	D <sup>◦</sup>	D	SCT	FWS <sup>TS#</sup>
13	HARYANA CHD. & DELHI	D	D	D	D <sup>◦</sup>	D	SCT <sup>TS</sup>	ISOL
14	PUNJAB	D	D	D	D <sup>◦</sup>	ISOL	ISOL	D
15	HIMACHAL PRADESH	D	D	ISOL	D	D	ISOL	SCT <sup>TS</sup>
16	JAMMU & KASHMIR	D	ISOL	SCT	ISOL	SCT	SCT	ISOL
17	WEST RAJASTSAN	D	D	D	D	ISOL	ISOL	D
18	EAST RAJASTSAN	D	D	D	D	D	ISOL <sup>TS</sup>	ISOL
19	WEST MADHYA PRADESH	D	D	D	D	D	ISOL	ISOL
20	EAST MADHYA PRADESH	D	D	D	D	D	ISOL	ISOL
21	GUJARAT REGION D.D. & N.H.	D	D	D	D	D	ISOL	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	D	D	D	ISOL	D
27	CHHATTISGARH	D	D	D	D	D	ISOL	ISOL
28	COASTAL A. PR. & YANAM	D	D	D	D	D	ISOL	ISOL
29	TELANGANA	D	D	D	D	D	D	D
30	RAYALASEEMA	D	D	D	D	D	D	D
31	TAMIL. PUDU. & KARAIKAL	ISOL	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 <sup>*/</sup>	D	D	D	D	D	ISOL	D
36	LAKSHADWEEP	D	D	D	D	D	D	D
<b>LEGENDS:</b>								
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: 24Jan-30Jan)

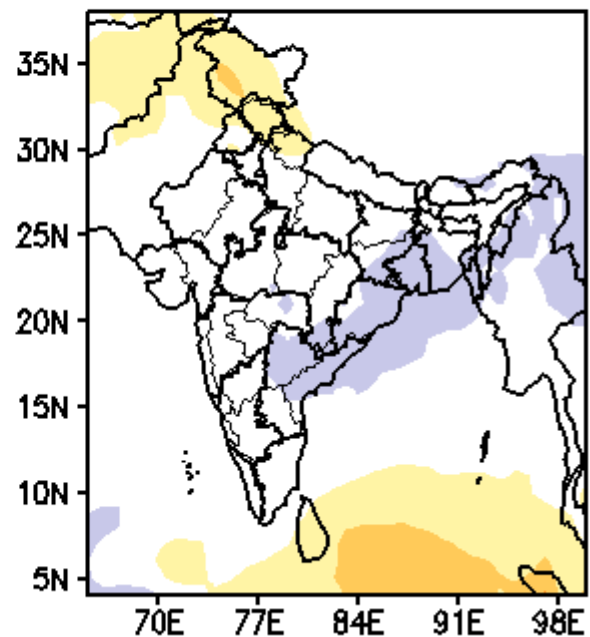
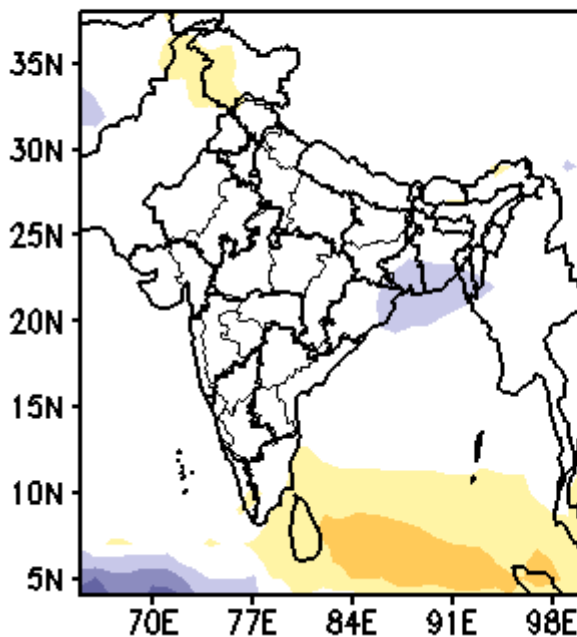
(Week2: 31Jan-06Feb)



### Forecast Rainfall Anomaly (mm/day)

(Week1: 24Jan-30Jan)

(Week2: 31Jan-06Feb)

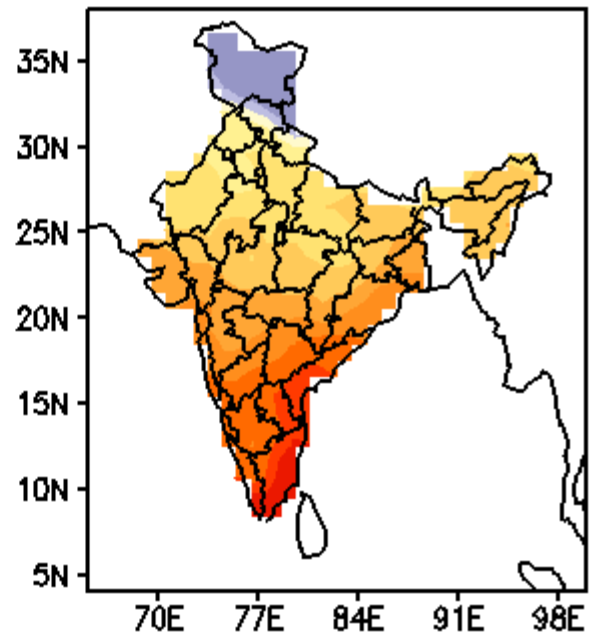
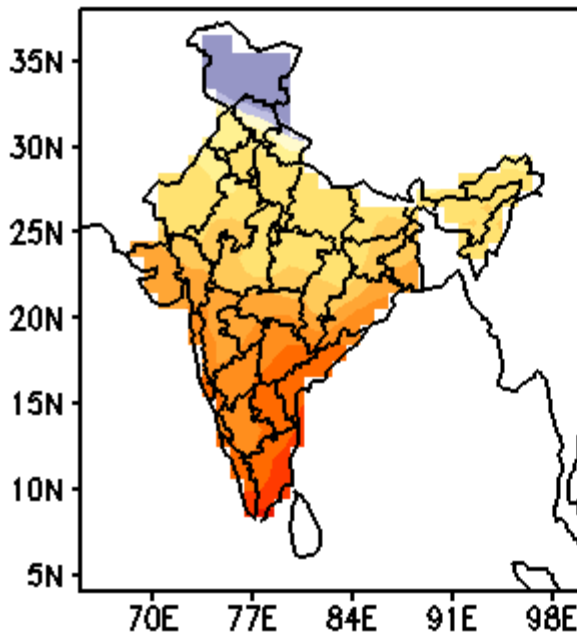




### MME Bias corrected forecast Tmin (Deg)

(Week1: 24Jan-30Jan)

(Week2: 31Jan-06Feb)



### MME forecast Tmin anomaly (Deg C)

(Week1: 24Jan-30Jan)

(Week2: 31Jan-06Feb)

