



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

Dated: 04 January, 2018

Current Weather Status and Outlook for next two weeks

Highlights of the past week

Fog: Dense to very dense fog observed at many places over East Uttar Pradesh and at a few places over Punjab, Haryana, West Uttar Pradesh and Bihar on most of the days and at isolated places over north Rajasthan, north Madhya Pradesh, northwest Jharkhand, Sub-Himalayan West Bengal, Assam & Meghalaya, Nagaland, Manipur, Mizoram and Tripura one or two days during the week.

Cold Day: Cold day to Severe Cold day conditions prevailed at a few places over East Uttar Pradesh and Bihar and at isolated places over Punjab, Haryana & Delhi and West Uttar Pradesh on a few days during the week. The maximum temperature of 11.8° C recorded at Aligarh (West Uttar Pradesh) on 02nd January 2018 was the lowest maximum recorded in the plains of northwest India during the week.

Cold Wave: Severe cold wave conditions prevailed at isolated places over Jammu & Kashmir, Himachal Pradesh, Punjab, Haryana, north Rajasthan and Bihar on one or two days during the week. The minimum temperature of 0.0° C recorded at Sikar (East Rajasthan) on 03rd January was the lowest minimum recorded in the plains of northwest India during the week.

Weekly Rainfall Scenario (28 December 2017 to 03 January, 2018)

During the week, rainfall was below Long Period Average (LPA) by 89% over the country as a whole. Details are given below:

Regions	Actual Rainfall (mm)	Normal Rainfall (mm)	% Departure from LPA
Country as a whole	0.4	3.8	-89%
Northwest India	0.0	7.0	-99%
Central India	0.0	1.3	-99%
South Peninsula	1.0	3.1	-69%
East & northeast India	1.3	3.2	-58%

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

Seasonal Rainfall Scenario (1 October to 31 December, 2017)

For the country as a whole, cumulative rainfall during this year's post-monsoon season 2017 is below LPA by 11%. 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	112.7	127.2	-11%
Northwest India	27.5	62.7	-56%
Central India	72.3	79.6	-9%
South Peninsula	243.6	273.3	-11%
East & northeast India	200.9	171.4	17%

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

Chief synoptic conditions as on 04 January, 2018

- A western disturbance is seen as an upper air cyclonic circulation over East Afghanistan and adjoining Pakistan between 3.1 & 3.6 km above mean sea level.
- A trough of low at mean sea level lies over southeast Bay of Bengal and adjoining equatorial Indian Ocean. It extends upto 1.5 km above mean sea level.
- A trough of low at mean sea level lies over Maldives-Lakshadweep area.
- A low pressure area is likely to form over southeast Bay of Bengal and neighbourhood around 6th January.

Large scale features as on 04 January, 2018

- La Niña conditions are prevailing currently and similar condition is likely to continue during next two weeks.

- Madden Julian Oscillation (MJO) is in phase 2 with amplitude more than 1 and is likely to be in same phase with amplitude more than 1 during the week.
- Indian Ocean Dipole (IOD) is in its negative phase (-0.4°C).

Forecast for next two week

Weather systems & associated Precipitation during Week 1(04 to 10 January 2018) and Week 2 (11 to 17 January 2018)

- Under the influence of western disturbance associated divergence of order 5 to $10 \times 10^{-5} \text{ sec}^{-1}$ over Pakistan and adjoining Jammu & Kashmir. Light precipitation would occur over higher reaches of Western Himalayan region (WHR) on 4th & 5th. However, no intense spell is expected over WHR and no rainfall over plains of northwest India during next one week.
- Light to moderate rainfall activity is very likely over Andaman & Nicobar Islands from during 1st week.
- Light/moderate isolated to scattered rainfall activity is likely over Tamilnadu during second half of 1st week and isolated rainfall over Lakshadweep during many days of the 1st week (**Annexure III**).
- Overall normal rainfall activity is likely to be below normal over Western Himalayan region & above normal rainfall activity over Andaman & Nicobar Islands and no rain likely over any other part of the country during week 1 (**Annexure IV**).
- During week 2, below normal rainfall activity is likely over Western Himalayan region & over Andaman & Nicobar Islands and no rain likely over any other part of the country (**Annexure IV**).

Minimum temperature for week 1 & Week 2

- Minimum temperatures are very likely to be less than 5°C over most parts of northwest India & adjoining Bihar during week 1. Considering the prevailing temperature and its trend during the week, **Cold wave conditions very likely at a few places with severe cold wave at isolated places over Punjab, Haryana, north Rajasthan and southwest Uttar Pradesh during many days of week 1.**
- **Overall, minimum temperatures are very likely to be below normal over the most parts of the country during 1st week (Annexure V).**
- **During 2nd week, there would be gradual rise in minimum temperatures over the country, however these are very likely to be near normal along Indo-Gangetic plains and rest parts of east India. (Annexure V).**

Fog:

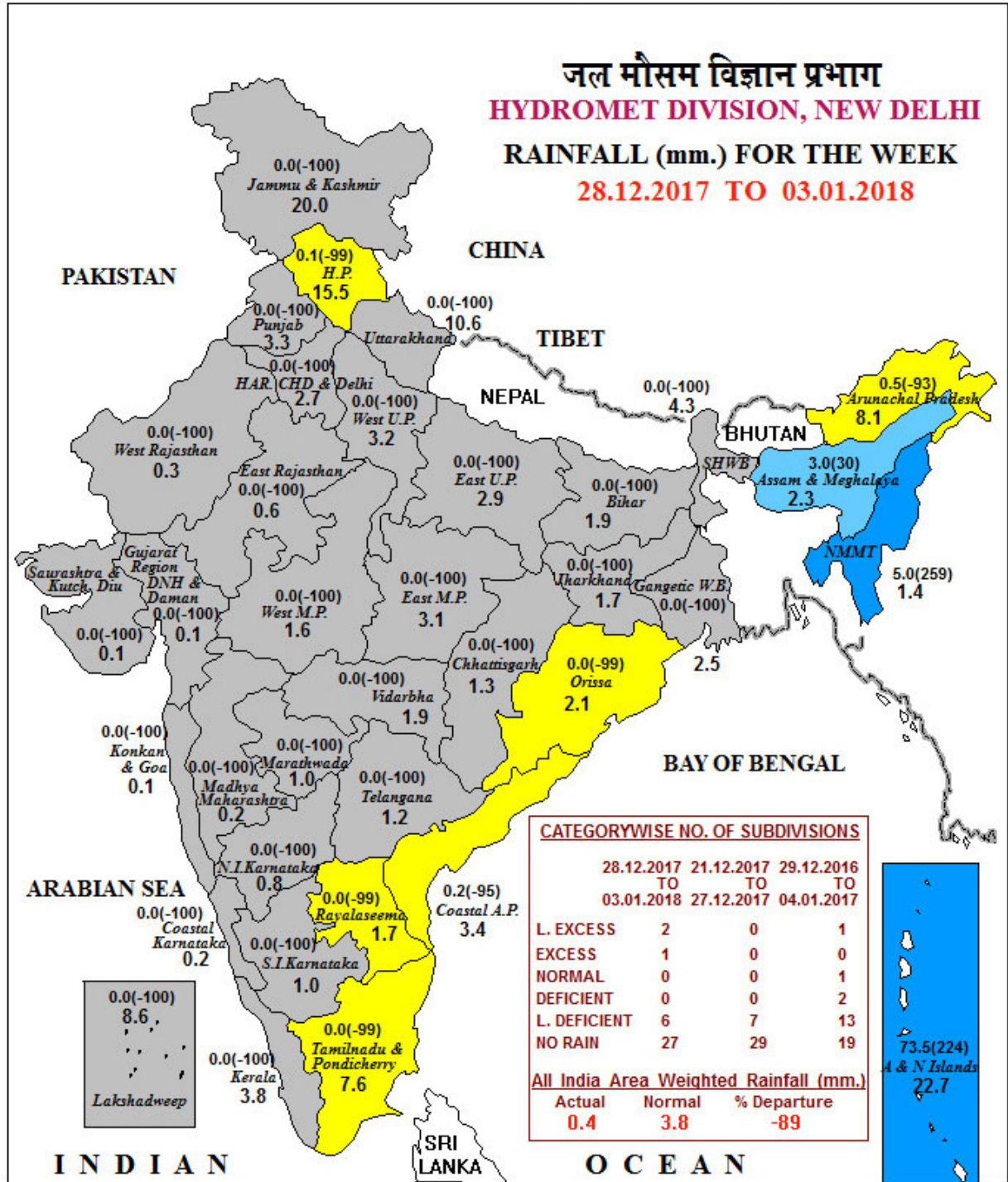
- The light northwesterly/westerly winds near surface are very likely continue to prevail over Punjab, Haryana, northern parts of Uttar Pradesh & Bihar and northeastern states till 5th morning and wind speed may get strengthen from 6th onwards over Punjab & Haryana. Relative humidity (RH) is also very likely to be more than 80% over above regions during first half of the 1st week and decrease thereafter.
- So considering all above mentioned parameters, **dense to very dense fog at many places over Punjab and Haryana, Chandigarh & Delhi; at a few places over Uttar Pradesh, north Rajasthan on 4th night & 5th morning, there after its intensity and spread will decrease over above regions for subsequent two days and would be dense to very dense at isolated places. It may further decrease to dense fog at isolated places during second half of the 1st week.**
- Moderate to dense fog at isolated places very likely over Sub-Himalayan West Bengal, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura during many days of the 1st week.

Cyclogenesis:

- A low pressure area is likely to form over southeast Bay of Bengal and neighbourhood around 6th January.

Next weekly update will be issued on next Thursday i.e. 11 January, 2018

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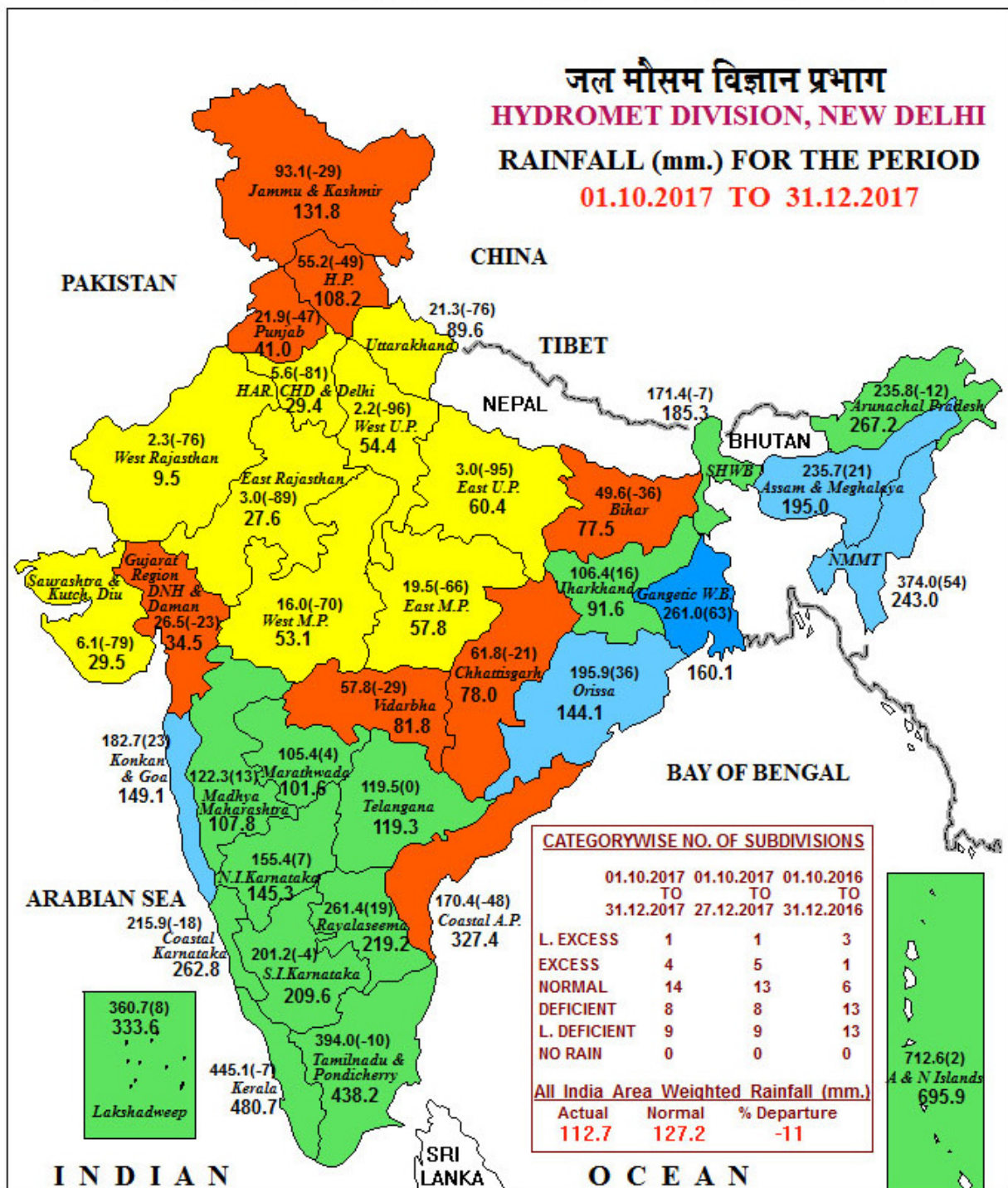


LEGEND: ■ L. EXCESS (+60% OR MORE) ■ EXCESS (+20% TO +59%) ■ NORMAL (+19% TO -19%)
■ DEFICIENT [-20% TO -59%] ■ L. DEFICIENT [-60% TO -99%] ■ NO RAIN [-100%] NO DATA

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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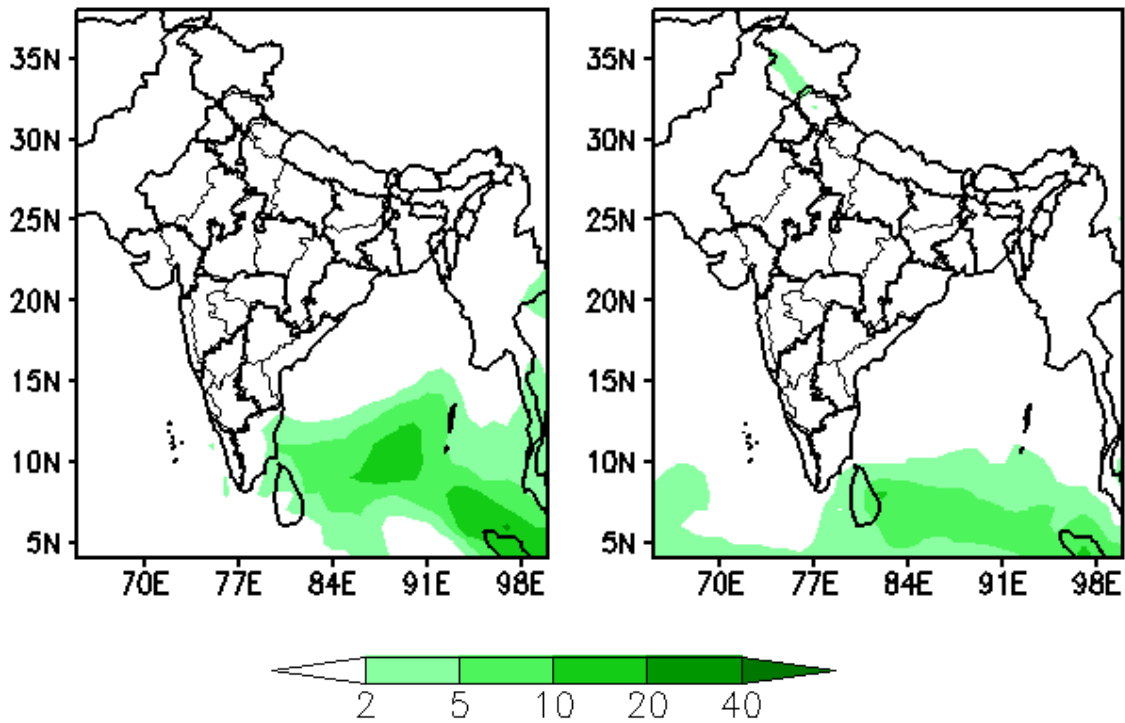
Annexure III

METEOROLOGICAL SUB-DIVISIONWISE WEEKLY RAINFALL FORECAST & Wx. WARNINGS-2017								
Sr. No	MET.SUB-DIVISIONS	04 JAN	05 JAN	06 JAN	07 JAN	08 JAN	09 JAN	10 JAN
1	ANDAMAN & NICO.ISLANDS	FWS	FWS	SCT	SCT	ISOL	ISOL	SCT
2	ARUNACHAL PRADESH	ISOL	ISOL	ISOL	D	D	D	D
3	ASSAM & MEGHALAYA	ISOL [•]	D [•]	D	D	D	D	D
4	NAGA.MANI.MIZO.& TRIPURA	D [•]	D [•]	D	D	D	D	D
5	SUB-HIM.W. BENG. & SIKKIM	D [•]	D [•]	D [•]	D	D	D	D
6	GANGETIC WEST BENGAL	D [•]	D	D	D	D	D	D
7	ODISHA	D	D	D	D	D	D	D
8	JHARKHAND	D [•] ↓	D [•] ↓	D [•] ↓	D	D	D	D
9	BIHAR	D [•]	D [•]	D [•]	D	D	D	D
10	EAST UTTAR PRADESH	D [•] ↓	D [•]	D [•]	D	D	D	D
11	WEST UTTAR PRADESH	D [•] ↓	D [•]	D [•]	D	D	D	D
12	UTTARAKHAND	ISOL ↓	ISOL [•]	D [•]	D	D	D	D
13	HARYANA CHD. & DELHI	D [•] ↓	D [•] ↓	D [•] ↓	D	D	D	D
14	PUNJAB	D [•] ↓	D [•] ↓	D [•] ↓	D	D	D	D
15	HIMACHAL PRADESH	ISOL ↓	ISOL [•] ↓	D [•]	D	D	D	D
16	JAMMU & KASHMIR	SCT ↓	ISOL	D	D	D	D	D
17	WEST RAJASTHAN	D [•] ↓	D [•] ↓	D [•] ↓	D	D	D	D
18	EAST RAJASTHAN	D [•] ↓	D [•] ↓	D [•] ↓	D	D	D	D
19	WEST MADHYA PRADESH	D ↓	D ↓	D ↓	D	D	D	D
20	EAST MADHYA PRADESH	D ↓	D ↓	D ↓	D	D	D	D
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 ↓	D ↓	D	D	D	D
27	CHHATTISGARH	D	D	D	D	D	D	D
28	COASTAL ANDHRA PRADESH	D	D	D	D	D	D	D
29	TELANGANA	D ↓	D ↓	D ↓	D	D	D	D
30	RAYALASEEMA	D	D	D	D	D	D	D
31	TAMILNADU & PUDUCHERRY	D	D	D	D	ISOL	SCT	SCT
32	COASTAL KARNATAKA	D	D	D	D	D	D	D
33	NORTH INT.KARNATAKA	D	D	D	D	D	D	D
34	SOUTH INT.KARNATAKA	D	D	D	D	D	D	D
35	KERALA	D	D	D	D	D	D	ISOL
36	LAKSHADWEEP	D	ISOL	ISOL	ISOL	ISOL	D	ISOL
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		↓ SEVERE HEAT WAVE	
⁵ THUNDER SQUALL		^{DS/TS} DUST/THUNDERSTORM			↓ COLD WAVE		↓ SEVERE COLD WAVE	

Actual Rainfall (mm/day)

(Week1: 05Jan-11Jan)

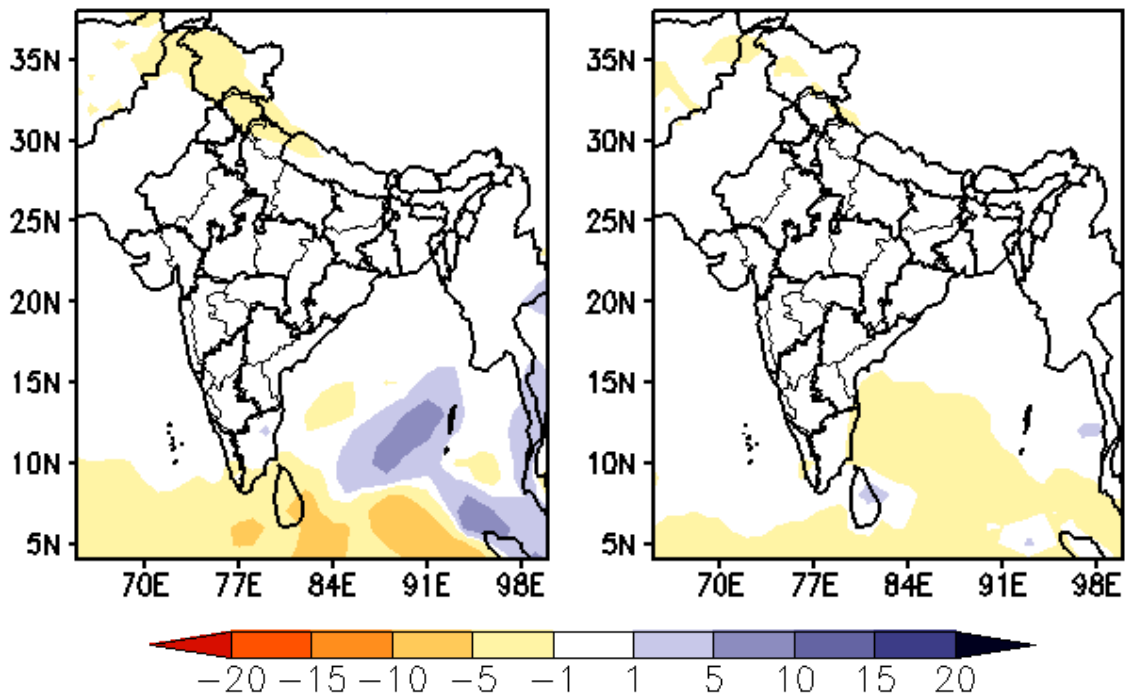
(Week2: 12Jan-18Jan)



Rainfall Anomaly (mm/day)

(Week1: 05Jan-11Jan)

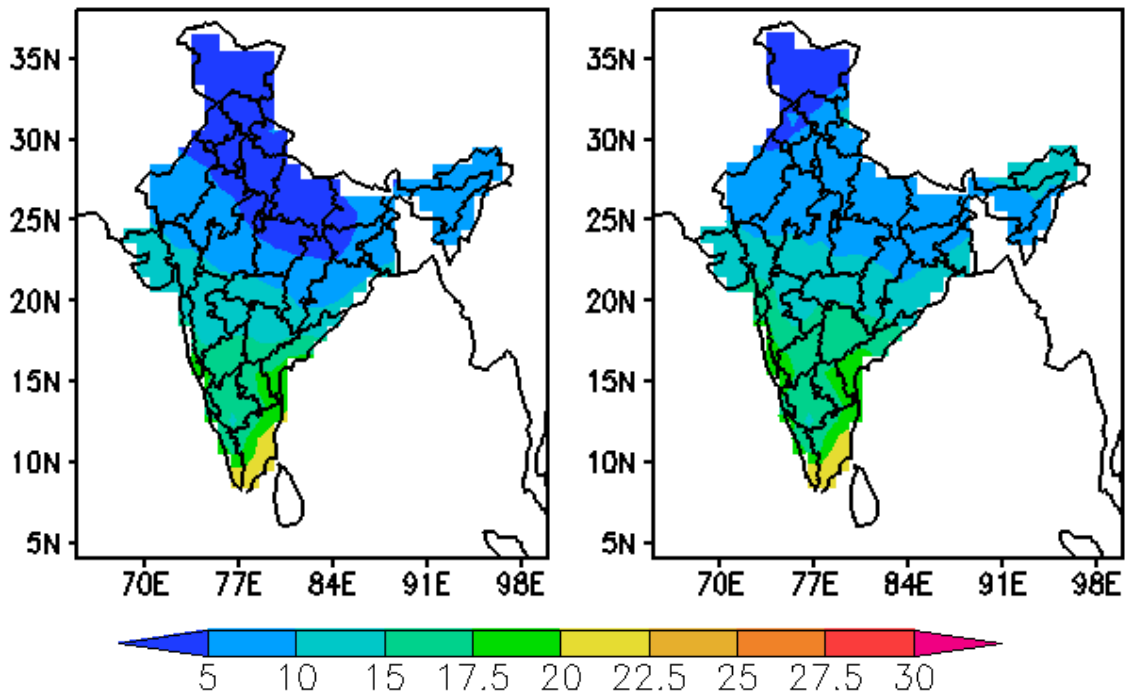
(Week2: 12Jan-18Jan)



MME Bias Corrected Actual Tmin (Deg C)

(Week1: 05Jan-11Jan)

(Week2: 12Jan-18Jan)



MME Bias Corrected Tmin Anomaly (Deg)

(Week1: 05Jan-11Jan)

(Week2: 12Jan-18Jan)

