



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

Dated: 22 November, 2018

Current Weather Status & Outlook for next two weeks (23 Nov. to 6 Dec., 2018)

Significant Features

- The Cyclonic Storm 'GAJA' attained the intensity of Severe Cyclonic Storm in the morning hours of 15th November 2018 and crossed Tamil Nadu & Puducherry coast between Nagapattinam and Vedaranniyam during 0030 and 0230 hrs IST of 16th November 2018. While moving nearly westwards across interior Tamil Nadu and Central Kerala, it has weakened rapidly and emerged into South East Arabian Sea as a Depression and reintensified into a Deep Depression in the early morning hours of 17th November 2018. Moving further westwards, it crossed Lakshadweep islands in the afternoon of the same day. Moving further westwards, it weakened into a Depression on 19th November 2018 morning and into a Well Marked Low Pressure area on 20th November 2018; early morning. This system has caused widespread rainfall with heavy to very heavy rainfall at a few places over Tamil Nadu & Puducherry, Kerala and Lakshadweep. It also caused scattered to fairly widespread rainfall activity over Coastal Andhra Pradesh, Rayalaseema and southern parts of Karnataka.
- Another Low pressure area formed over South East Bay of Bengal and adjoining Equatorial Indian Ocean on 18th November 2018. It moved westwards and lay as a well marked low pressure area over South-West Bay of Bengal and adjoining coastal Tamil Nadu and Puducherry on 21st and over interior Tamil Nadu on 22nd morning as a low pressure area. Under its influence, Tamil Nadu & Puducherry, south coastal Andhra Pradesh, Rayalaseema and Kerala experienced fairly widespread to widespread rainfall with isolated heavy to very heavy rainfall activity.
- Passage of two western disturbances across the northern parts of the country has caused scattered to fairly widespread precipitation over Western Himalayan Region during the week.
- Dense fog had been reported at isolated places over Assam & Meghalaya on one or two days during the week.

- **Temperature:** The lowest minimum temperature of 7.5⁰C had been recorded at Valparai (Tamilnadu) on 15th November 2018 and at Sikar (East Madhya Pradesh) on 17th November 2018, over the plains of the country during the week.

Weekly Rainfall Scenario (15 to 21 November, 2018)

During the week, rainfall was above Long Period Average (LPA) by 88 % over the country as a whole. Details are given below:

Regions	Actual Rainfall (mm)	Normal Rainfall (mm)	% Departure from LPA
Country as a whole	6.7	6.0	12%
Northwest India	3.3	2.7	23%
Central India	1.6	3.1	-48%
South Peninsula	20.7	18.0	15%
East & northeast India	6.8	3.6	88%

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

Post- monsoon Seasonal Rainfall Scenario (01 October to 21 November, 2018)

For the country as a whole, cumulative rainfall during post- monsoon season 2018 (01 October to 21 November, 2018) was below LPA by 58% over the country as a whole. 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	52.7	103.6	-49%
Northwest India	27.4	37.9	-28%
Central India	25.0	69.4	-64%
South Peninsula	130.6	224.6	-42%
East & northeast India	64.2	151.5	-58%

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

Chief synoptic conditions as on 15 November, 2018

- A low pressure area lies over interior Tamilnadu & Puducherry and neighbourhood. Associated cyclonic circulation extends upto 5.8 km above mean sea level.
- A trough extends from this system to Maldiva area across interior Tamilnadu and Kerala between 1.5 and 3.1 km above mean sea level.
- A cyclonic circulation lies over Malay Peninsula and neighbourhood and extends upto 1.5 km above mean sea level.
- A Western Disturbance as a trough in mid-tropospheric westerlies with its axis at 5.8 km above mean sea level runs roughly along long. 64°E to the north of Lat. 30° N.

- An induced cyclonic circulation lies over West Rajasthan & neighbourhood and extends upto 0.9 km above mean sea level.
- A fresh Western Disturbance likely to affect Western Himalayan region from 27th November onwards.

Large scale features as on 15 November, 2018

- Currently, moderate El Niño Southern Oscillation (ENSO) conditions are prevailing over equatorial Pacific Ocean. The current SST of Niño 3.4 is 0.7°C. El Niño is likely to develop in the next couple of months.
- At present, conditions over equatorial Indian Ocean have temporarily reached to positive IOD conditions and the latest MMCFS forecast indicates present positive IOD conditions are likely to turn into neutral IOD conditions during the next month and persist thereafter.
- Madden Julian Oscillation (MJO) index is in Phase 6 with amplitude less than 1, it is likely to move through phase 7, 8 and 1 with high amplitude (more than 1) during next 2 weeks.

Forecast for next two week

Weather systems & associated Precipitation during Week 1 (16 to 22 November, 2018) and Week 2 (23 to 29 November, 2018)

- The upper air cyclonic circulation over interior Tamilnadu likely to shift westwards and a low amplitude easterly wave likely to cause scattered rainfall activity over extreme south peninsular India between 23rd to 29th November; and isolated between 30th Nov to 6th December 2018.
- A fresh Western Disturbance is likely to affect western Himalayan region from 27th; under its influence isolated to scattered precipitation likely western Himalayan region between 23rd to 29th November.
- Rest of the country most likely to experience dry weather conditions till 6th December 2018 **Annexure III.**
- The weekly cumulative rainfall is likely to be above normal over extreme south Peninsular India between 23rd to 29th and below normal between 30th Nov. to 6th Dec. over extreme south peninsular India & along east coast. The above normal precipitation likely over Jammu & Kashmir between 23rd to 29th November. Rest of the country very likely to be experience near normal rainfall activity till 6 December 2018 **Annexure IV.**
- Minimum temperatures are likely to be slight above normal over parts northwest, adjoining central and west India and some pocket of northeastern states and south

Interior Karnataka till 6th December. They are very likely to be below normal over east and adjoining central and peninsular India during the same period (**Annexure V**).

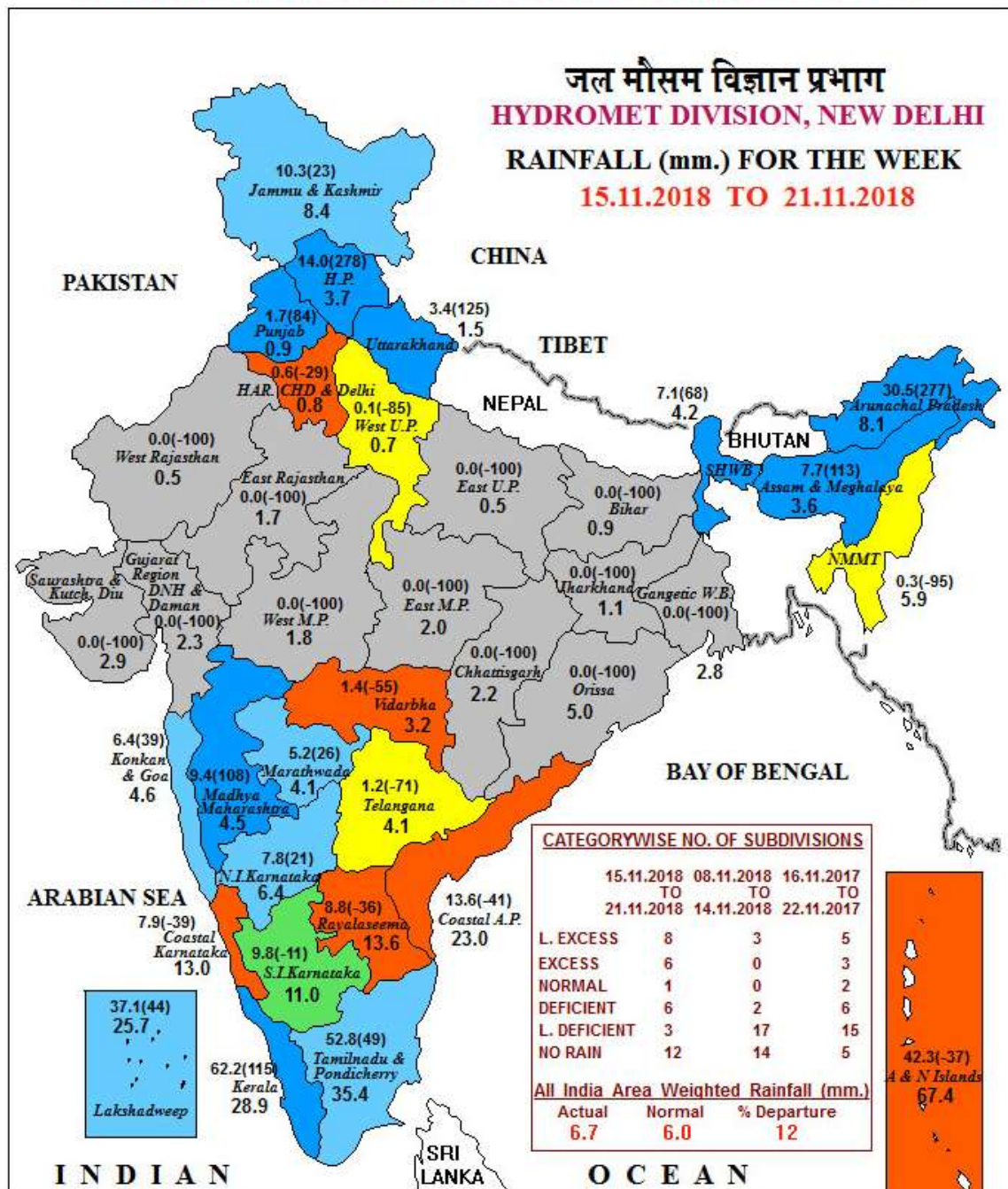
- Shallow to moderate fog likely at isolated pockets over northeastern states till 6th December and over parts of northern plains between 26th November to 6th December 2018.

Cyclogenesis:

- Cyclo-genesis is not likely over north Indian Ocean till 6th December.

Next weekly update will be issued on next Thursday i.e. 29 November, 2018

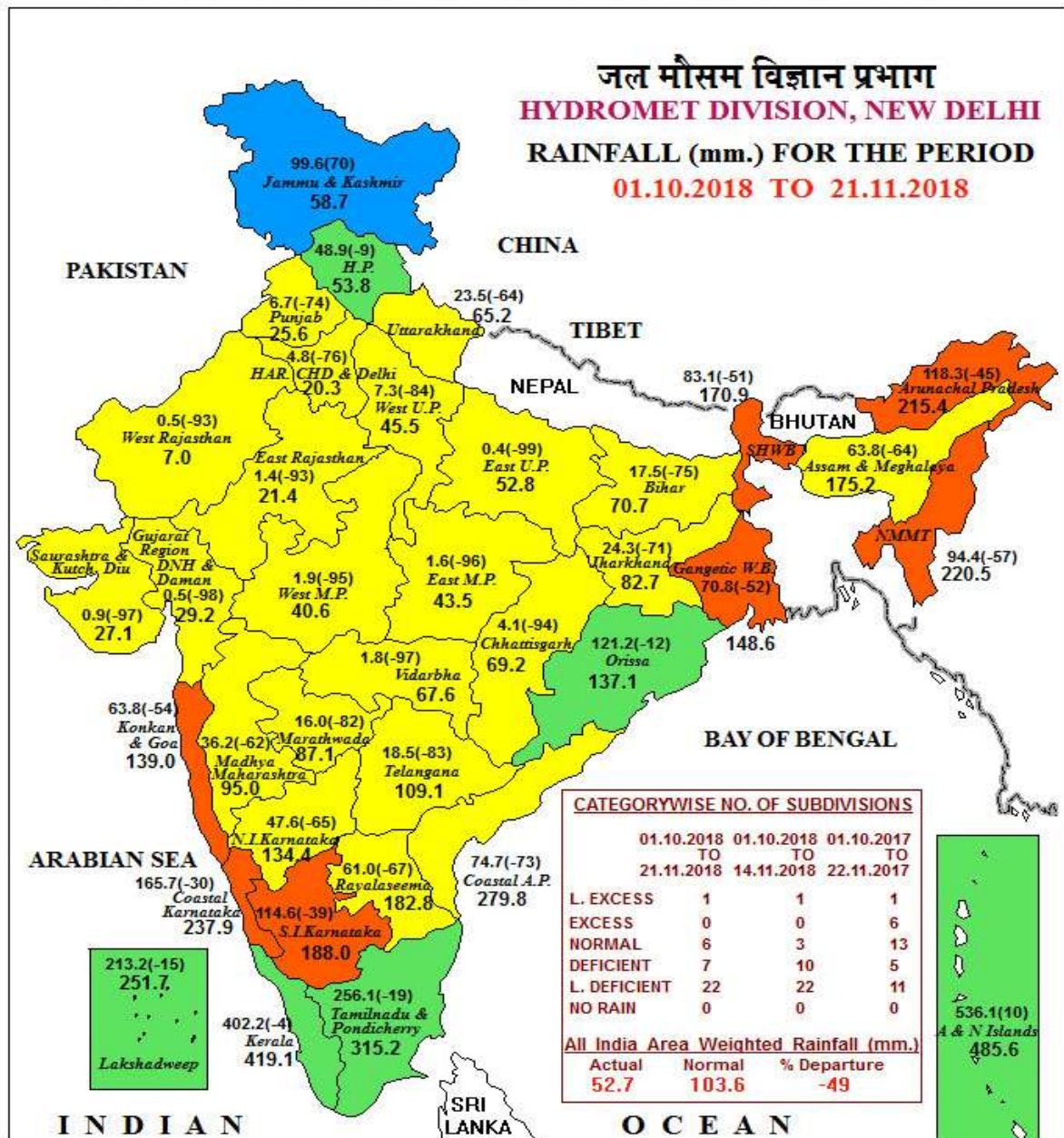
भारत मौसम विज्ञान विभाग INDIA METEOROLOGICAL DEPARTMENT



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

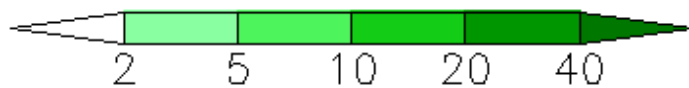
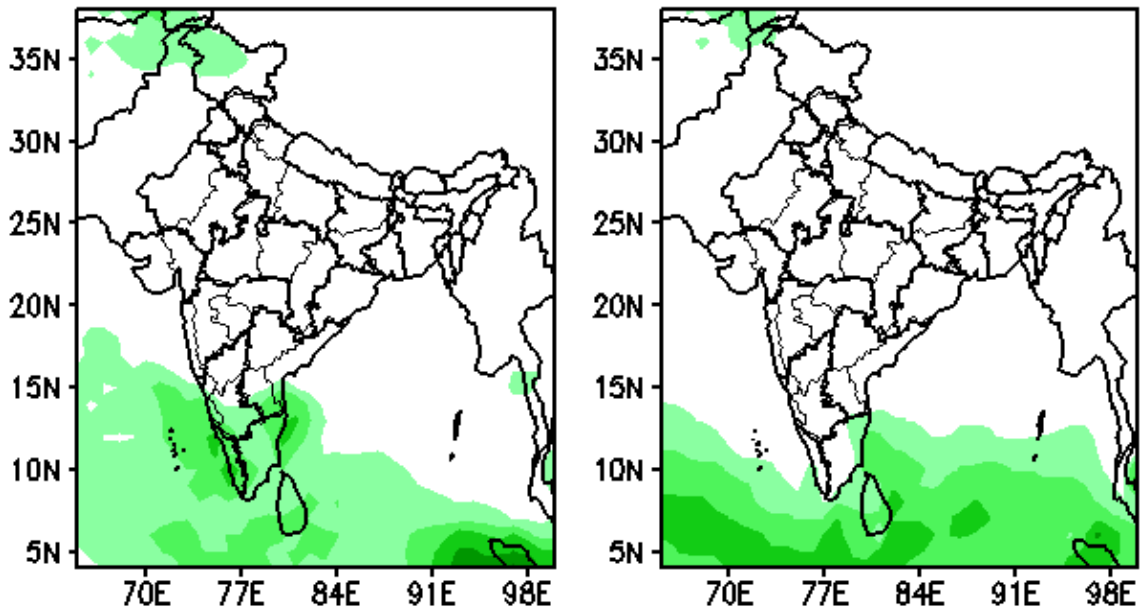
METEOROLOGICAL SUB-DIVISIONWISE WEEKLY RAINFALL FORECAST & Wx. WARNINGS-2018								
Sr. No	MET.SUB-DIVISIONS	22 NOV	23 NOV	24 NOV	25 NOV	26 NOV	27 NOV	28 NOV
1	ANDAMAN & NICO.ISLANDS	SCT	ISOL	ISOL	ISOL	ISOL	SCT	SCT
2	ARUNACHAL PRADESH	D	D	D	D	D	D	D
3	ASSAM & MEGHALAYA	D	D	D	D	D	D	D
4	NAGA.MANI.MIZO.& 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	ISOL	ISOL	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	ISOL	D	D	D	D	D
15	HIMACHAL PRADESH	ISOL	ISOL	D	D	D	D	ISOL
16	JAMMU & KASHMIR	SCT	ISOL	D	D	D	ISOL	ISOL
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	SCT [•]	ISOL	D	D	D	D	D
29	TELANGANA	D	D	D	D	D	D	D
30	RAYALASEEMA	FWS ^{••}	SCT	ISOL	ISOL	D	D	D
31	TAMILNADU & PUDUCHERRY	WS ^{•••}	SCT [•]	SCT	ISOL	ISOL	ISOL	ISOL
32	COASTAL KARNATAKA	SCT	SCT	ISOL	ISOL	ISOL	D	D
33	NORTH INT.KARNATAKA	ISOL	ISOL	D	D	D	D	D
34	SOUTH INT.KARNATAKA	SCT [•]	SCT	ISOL	ISOL	D	D	D
35	KERALA	FWS	FWS [•]	SCT	SCT	ISOL	ISOL	ISOL
36	LAKSHADWEEP	SCT	FWS	SCT	SCT	ISOL	ISOL	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			↑ 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)	

Forecast rainfall (mm per day)

Actual Rainfall (mm/day)

(Week1: 23Nov–29Nov)

(Week2: 30Nov–06Dec)

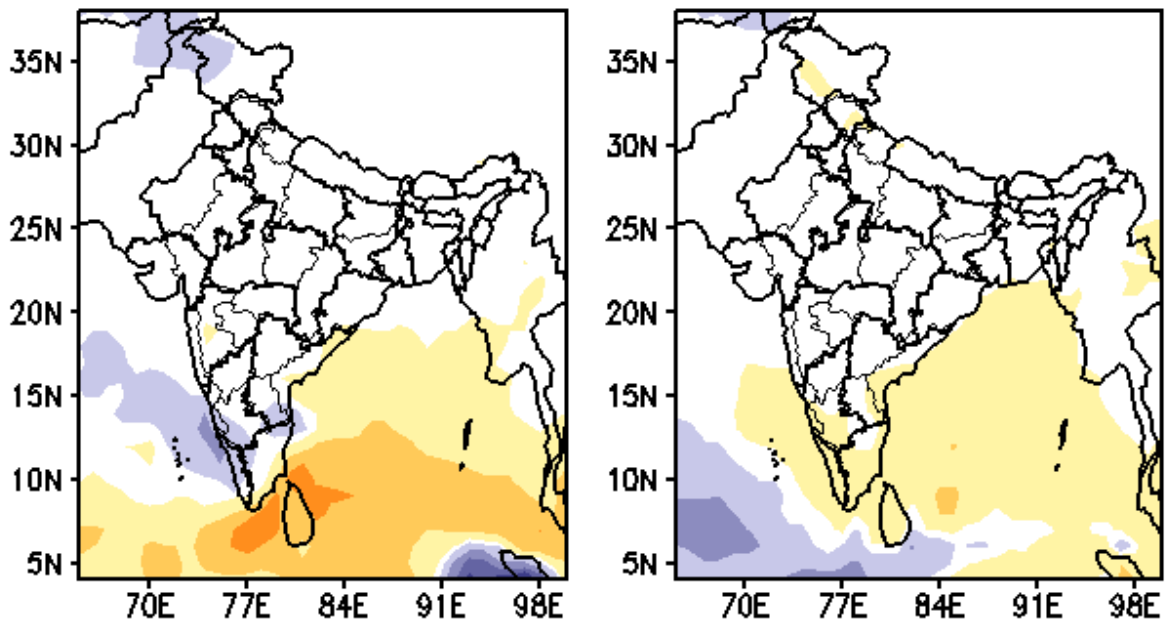


Forecast rainfall anomaly (mm per day)

Rainfall Anomaly (mm/day)

(Week1: 23Nov–29Nov)

(Week2: 30Nov–06Dec)



(Annexure V).

MME Bias Corrected Tmin Anomaly (Deg)

(Week1: 23Nov–29Nov)

(Week2: 30Nov–06Dec)

