



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

Press: Dated: 2 Dec, 2021

**Subject: Current Weather Status and Extended range Forecast for next two weeks
(2-15 Dec 2021)**

1. Salient Features for week ending on 1 Dec 2021

- Fairly widespread to widespread rainfall with Isolated Heavy to Very heavy rainfall reported over south coastal Andhra Pradesh and Tamil Nadu and Puducherry, Kerala and Coastal and southern parts of Interior Karnataka during the 1st half of the week of 25-28 Nov 2021 with isolated extremely heavy rainfall on 25th-26th Nov over Tamil Nadu. Reduction in rainfall was reported during 2nd half of the week over Peninsular India. In the 1st half of the week, it was due to the stronger northeasterly monsoonal winds over extreme southeastern parts of peninsular India and movement of a cyclonic circulation in the lower tropospheric levels which lay over Southwest Bay of Bengal off south Sri Lanka coast on 25th and slowly moved over to Comorin area & adjoining Sri Lanka coast on 29th Nov.
- Under the influence of a trough in the lower tropospheric levels which lay extending from the cyclonic circulation over Arabian sea to north Maharashtra coast on 30th November 2021 and to Kutch on 1st December 2021, widespread rainfall/thunderstorm activity with isolated heavy to very heavy rainfall had occurred over coastal regions of Maharashtra and isolated rainfall/thunderstorm activity had occurred over Gujarat State and Madhya Maharashtra towards the end of the week

2. Rainfall distribution during the current week of 25 Nov-1 Dec 2021 and Post-monsoon Rainfall Scenario (01 Oct to 1 Dec, 2021)

During the week ending on 1 Dec 2021, for the country as a whole, the weekly cumulative All India Rainfall departure from its long period average (LPA) during the week was **+68%** with weekly cumulative over south Peninsular India reported above normal of **+247%**, while all India cumulative rainfall during this year's post-monsoon season till 1 Dec, 2021 is

above LPA by **+48%** and over south Peninsular India, it is above LPA by **+72%**. Details of the rainfall distribution over the four broad geographical regions of India are given in **Table 1** and Meteorological sub-division-wise rainfall both for week and season are given in Annex I and II respectively.

Table 1: Rainfall status (Week and season)

Region	WEEK			SEASON		
	18.11.2021 TO 24.11.2021			01.10.2021 TO 24.11.2021		
	Actual	Normal	% Dep	Actual	Normal	% Dep
EAST & NORTH-EAST INDIA	0.3	4.4	-94%	160.0	154.2	+4%
NORTH-WEST INDIA	0.0	3.1	-99%	72.2	35.2	+105%
CENTRAL INDIA	0.4	2.7	-86%	81.6	69.7	+17%
SOUTH PENINSULA	41.0	11.8	+247%	421.3	244.8	+72%
country as a whole	8.2	4.9	+68%	158.0	107.0	+48%

3. Large scale features

➤ Currently La Niña conditions are prevailing over the Equatorial Pacific Ocean and neutral Indian Ocean Dipole (IOD) conditions are prevailing over the Indian Ocean. The latest global model forecasts indicate that the La Niña conditions are likely to prevail until March 2022 and neutral IOD conditions are likely to continue during the upcoming seasons.

➤ The Madden Julian Oscillation (MJO) index currently lies in Phase 6 with amplitude more than 1 during entire forecast period. Thus, MJO phase is not conducive for enhancement of convective activity and hence cyclogenesis over the Bay of Bengal (BoB) and the Arabian Sea (AS) during next 2 weeks.

4. Forecast for next two week

Weather systems & associated Precipitation during Week 1 (02 to 08 December, 2021) and Week 2 (09 to 15 December, 2021)

Rainfall for week 1 (02 to 08 December, 2021):

- **A Well Marked Low Pressure Area** lies over Southeast Bay of Bengal with the associated cyclonic circulation extending upto mid-tropospheric levels. It is likely to move west-northwestwards and concentrate into a **Depression** over southeast & adjoining eastcentral Bay of Bengal during next 12 hours. Then it is likely to move northwestwards and intensify into a **Cyclonic Storm** over central parts of Bay of Bengal during subsequent 24 hours. It is likely to reach westcentral Bay of Bengal off north Andhra Pradesh–south Odisha coasts around 04th December morning. Thereafter it is likely to move north-northeastwards. Under its influence, light to moderate rainfall at most places with **heavy rainfall** at isolated places likely over Andaman & Nicobar Islands on 2nd December. Light to moderate rainfall at many places with **heavy to very heavy rainfall** at isolated places over south coastal Odisha and north coastal Andhra Pradesh on 3rd ; light to moderate rainfall at most places with **heavy to very heavy rainfall & extremely heavy falls** at isolated places very likely over south Odisha & north coastal Andhra Pradesh and **heavy to very heavy rainfall** at isolated places over north coastal Andhra Pradesh, north & interior districts of Odisha and Gangetic west Bengal 4th; light to moderate rainfall at many places with **heavy to very heavy rainfall** at isolated places likely over West Bengal & Odisha and **heavy rainfall** at isolated places over Assam & Meghalaya and Tripura on 5th; light to moderate rainfall at many places with **heavy to very heavy rainfall** at isolated places likely over Assam & Meghalaya, Mizoram and Tripura on 6th December, 2021.
- Fishermen are advised not to venture into Andaman Sea on 2nd December 2021, into southeast & adjoining east-central Bay of Bengal on 2nd & 3rd December, over westcentral & northwest Bay of Bengal and along & off north Andhra Pradesh - Odisha- West Bengal coasts during 3rd to 5th December 2021.

- A trough in lower levels runs from Southeast Arabian Sea to the cyclonic circulation over Northeast Arabian Sea off south Gujarat-north Konkan coasts. Under its influence scattered to fairly widespread light to moderate rain/thunderstorm likely over north Madhya Maharashtra and with **isolated heavy falls** over south Gujarat Region and Konkan on today, the 2nd December and dry weather over the region thereafter.
- A Western Disturbance seen as a cyclonic circulation over north Pakistan & neighbourhood at 3.1 km above mean sea level with a trough aloft in mid & upper tropospheric westerlies with its axis at 5.8 km above mean sea level roughly along Long. 66°E to the north of Lat. 12°N. Under its influence, light/moderate isolated to scattered rainfall/snowfall very likely over Himachal Pradesh and Uttarakhand and isolated to scattered rainfall Punjab, Haryana, Chandigarh, Delhi, Uttar Pradesh and Rajasthan on 02nd & 03rd December, 2021.
- Thereafter, another Western Disturbance likely to affect Northwest India from the night of 04th December. Under its influence scattered to fairly widespread rainfall/snowfall very likely over Jammu, Kashmir, Ladakh, Gilgit, Baltistan, Muzaffarabad, Himachal Pradesh and Uttarakhand during 04th to 06th December and Isolated light rainfall very likely over Punjab, Haryana, Chandigarh, Delhi and West Uttar Pradesh on 05th December. Isolated thunderstorm/lightning also likely over Punjab, Haryana, Chandigarh & Delhi on 06th December.
- Light to moderate scattered/fairly widespread rainfall is very likely over Tamilnadu, Puducherry & Karaikal, Kerala & Mahe, Karnataka, Lakshadweep and Andaman & Nicobar Islands during most days of the week. **Isolated heavy rainfall** also very likely over Tamilnadu, Puducherry & Karaikal and Kerala & Mahe on 05th & 06th December, 2021.
- No significant weather is likely over any other part of the country.
- Overall, rainfall activity is likely to be above normal over east & northeast India; over most parts of south Peninsular & adjoining central India; below normal over northwest India including Western Himalayan Region and near normal or no rain over rest parts of the country.

Rainfall for week 2 (09 to 15 December, 2021):

- **There is likely significant reduction in rainfall over the country as compared to week 1.**

- No active Western Disturbance is likely to affect northwest India during next one week.
- Rainfall activity is likely to be below normal over the country except north-eastern states and southeast Peninsular , where it is likely to be near normal to above normal.

Minimum Temperatures for week 1(02 to 08 December, 2021) and week 2(09 to 15 December, 2021)

Minimum Temperatures for Week 1(02 to 08 December, 2021):

- Minimum temperatures are appreciably above normal (3.1°C to 5.0°C) at most places over East Rajasthan, Marathwada, North Interior Karnataka, Rayalaseema; at many places over Madhya Pradesh, Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh, Saurashtra & Kutch; at a few places over Himachal Pradesh, Uttarakhand, West Rajasthan and at isolated places over Madhya Maharashtra, Telangana; above normal (1.6°C to 3.0°C) at most places over Gangetic West Bengal, South Interior Karnataka, Kerala & Mahe, Tamilnadu, Puducherry & Karaikal; at many places over Vidharbha, at a few places over Coastal Andhra Pradesh & Yanam, Coastal Karnataka and near normal over rest parts of the country.
- Fall in minimum temperatures by 2-3°C very likely over Northwest India during next 2 days and then rise gradually by 2- 4°C thereafter.
- Fall in minimum temperatures by 2-4°C likely over many parts of Central India during 1st half of the week and significant change thereafter.
- No significant change in minimum temperatures over rest parts of the country during the week.
- **Overall, these are likely to be above normal by 2-4°C over northeast & adjoining east India, Uttar Pradesh and East Madhya Pradesh; and likely to be near normal or slightly below normal over most parts of rest India.**
- **No significant Cold wave is likely over any part of the country.**

Minimum Temperatures for week 2 (09 to 15 December, 2021):

- There is likely gradual fall in minimum temperatures over the most parts of the country as compared to week 1. These are likely to be slightly below normal by 1 to 2° C or near normal over the country except northeastern states, where these are likely to be above normal by 2-3°C.

- o No significant Cold wave is likely over any part of the country (Refer Annex IV)

5. Cyclogenesis forecast for North Indian Ocean during next 2 weeks

Model consensus shows:

(a) the current well marked low pressure area is likely to intensify into a depression by today evening (1200 UTC) and further into a cyclonic storm on 3rd December. The system is likely to reach west-central Bay of Bengal off north Andhra Pradesh – south Odisha coasts around 4th December morning. Thereafter it is likely to re-curve north-northeastwards gradually.

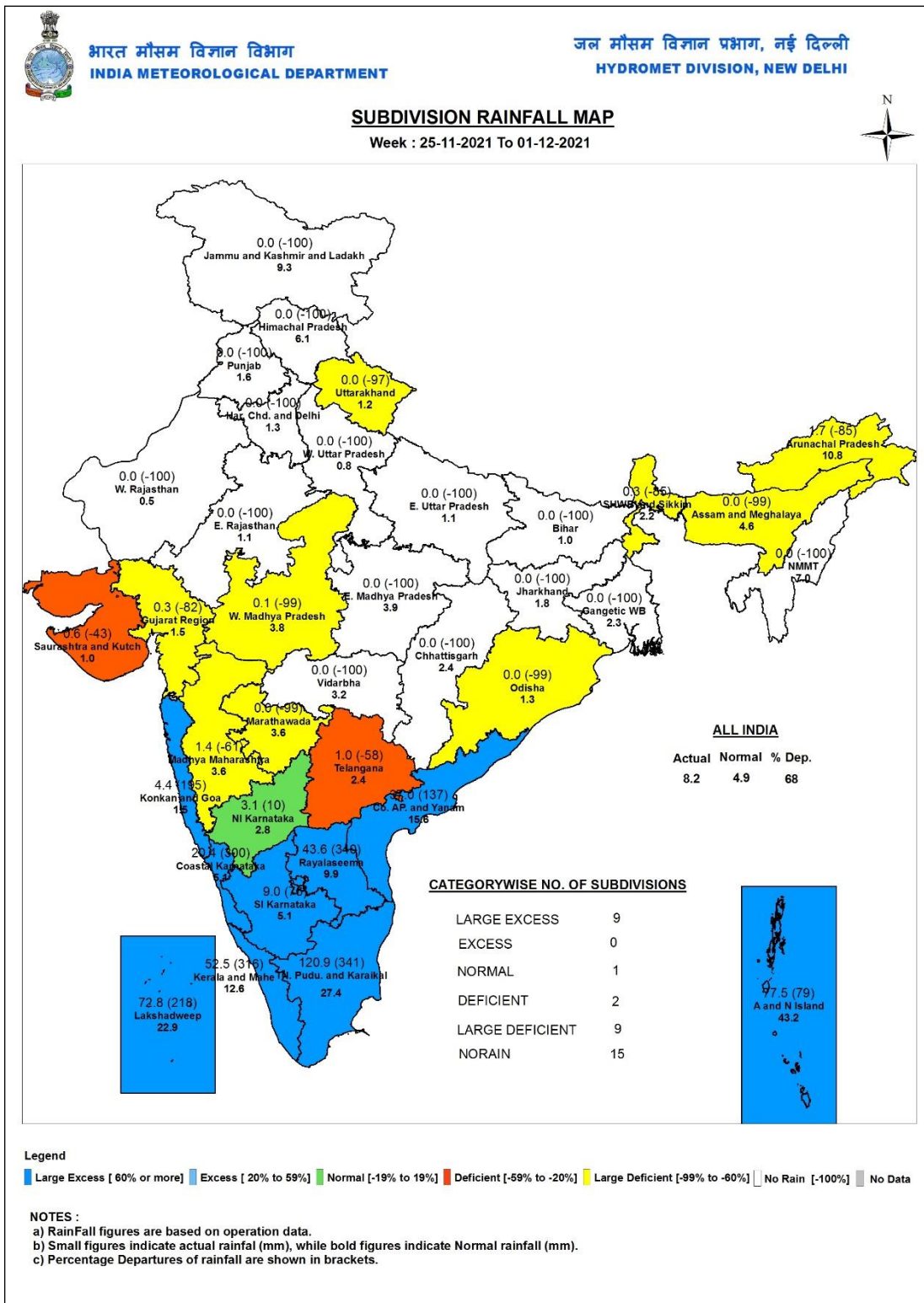
(b) A fresh low pressure area is likely to emerge into Andaman Sea during later part of week 2. It is likely to move westwards towards south Tamil Nadu coast with no significant intensification.

Next weekly update will be issued on next Thursday i.e. 9 Dec 2021

Legends: Heavy Rain: 64.5 to 115.5 mm Very Heavy Rain: 115.6 to 204.4 mm, Extremely Heavy Rain > 204.4 mm

SPATIAL DISTRIBUTION (% of Stations reporting)			
% Stations	Category	% Stations	Category
76-100	Widespread (WS/Most Places)	26-50	Scattered (SCT/ A Few Places)
51-75	Fairly Widespread (FWS/ Many Places)	1-25	Isolated (ISOL)

Probabilistic Forecast	
Terms	Probability of Occurrence (%)
Unlikely	< 25
Likely	25 - 50
Very Likely	50 - 75
Most Likely	> 75



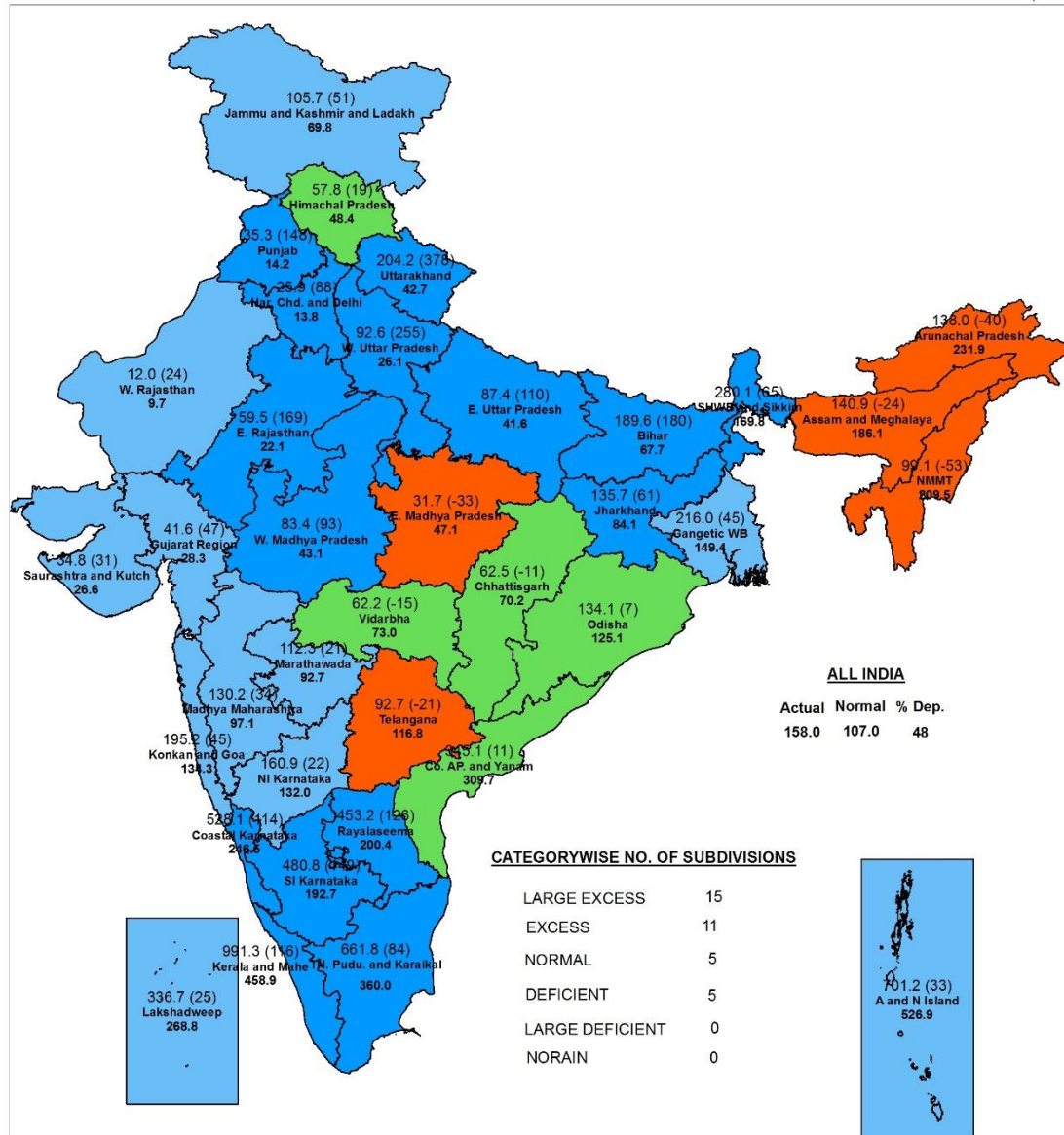


भारत मौसम विज्ञान विभाग
INDIA METEOROLOGICAL DEPARTMENT

जल मौसम विज्ञान प्रभाग, नई दिल्ली
HYDROMET DIVISION, NEW DELHI

SUBDIVISION RAINFALL MAP

Period : 01-10-2021 To 01-12-2021



Legend

Large Excess [60% or more] Excess [20% to 59%] Normal [-19% to 19%] Deficient [-59% to -20%] Large Deficient [-99% to -60%] No Rain [-100%] No Data

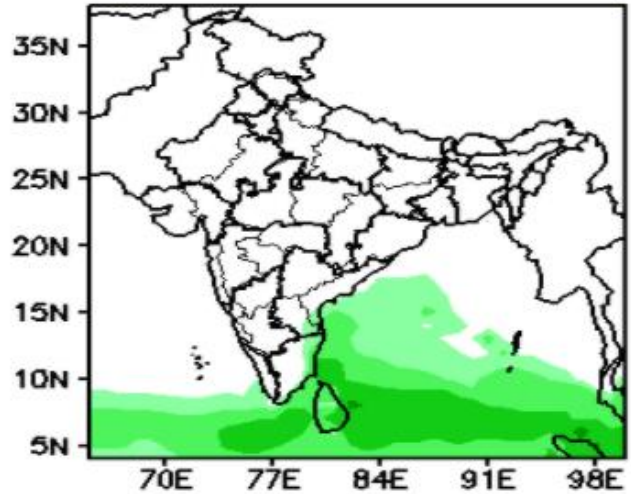
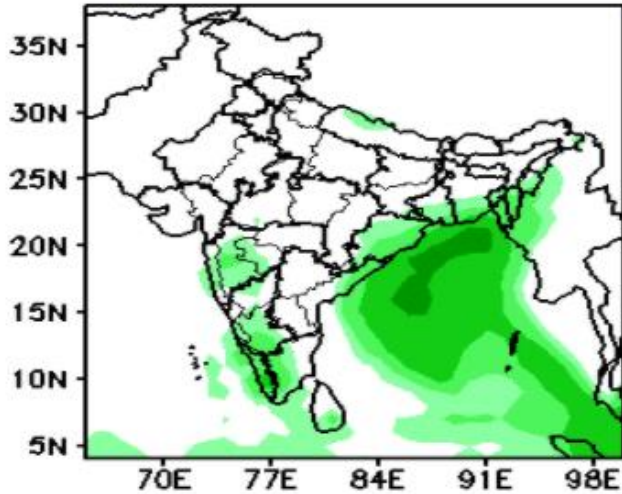
NOTES :

- a) Rainfall figures are based on operation data.
- b) Small figures indicate actual rainfall (mm), while bold figures indicate Normal rainfall (mm).
- c) Percentage Departures of rainfall are shown in brackets.

Forecast Rainfall (mm/day)

(Week1: 03Dec-09Dec)

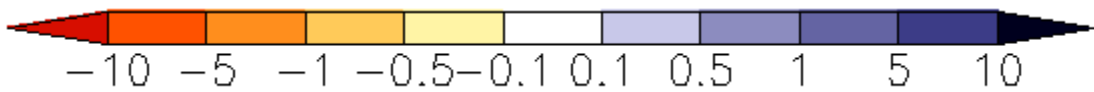
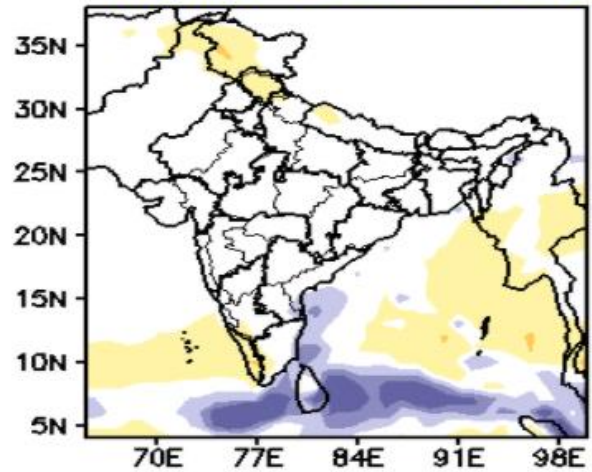
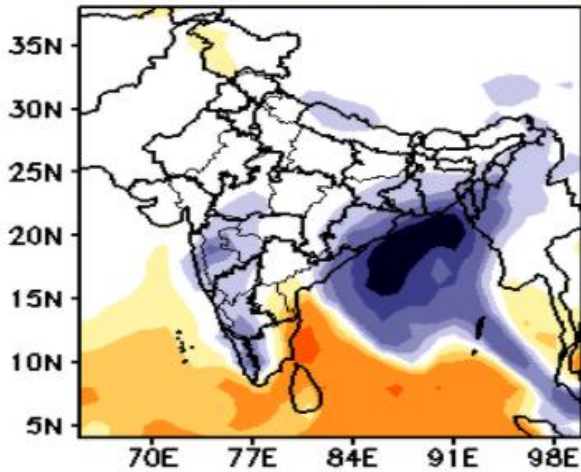
(Week2: 10Dec-16Dec)



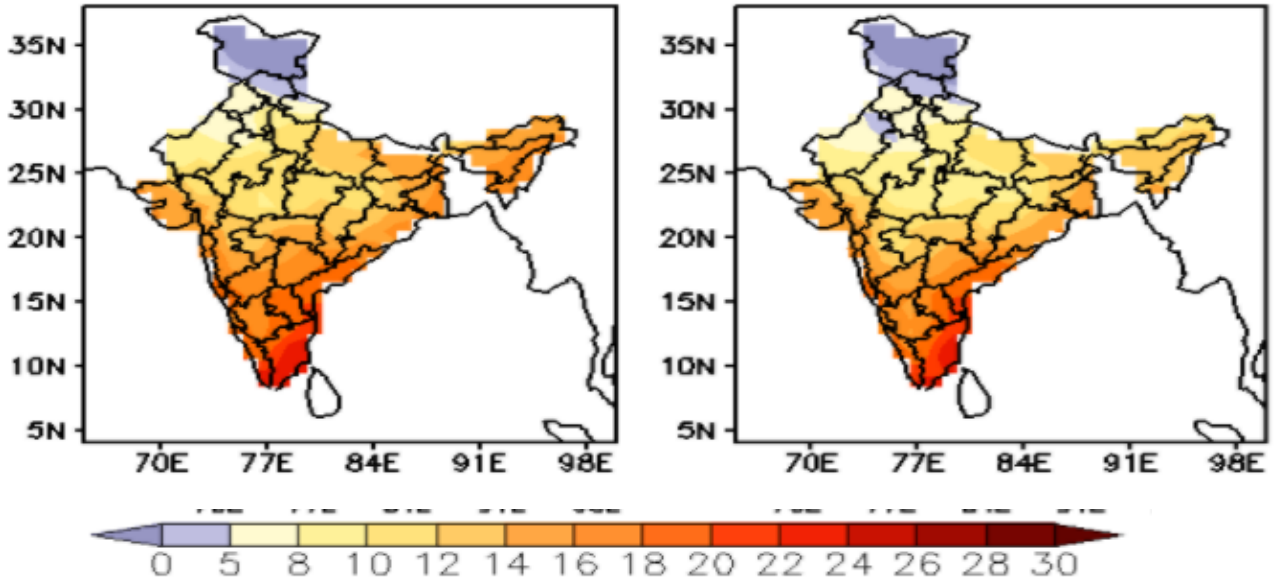
Forecast Rainfall Anomaly (mm/day)

(Week1: 03Dec-09Dec)

(Week2: 10Dec-16Dec)



MME Bias corrected forecast Tmin (Deg)
(Week1: 03Dec-09Dec) (Week2: 10Dec-16Dec)



MME forecast Tmin anomaly (Deg C)
(Week1: 03Dec-09Dec) (Week2: 10Dec-16Dec)

