



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

**Press: Dated: 08 December, 2022**

**Subject: Current Weather Status and Extended range Forecast for next two weeks (08 to 21 December, 2022)**

**1. Salient Observed Features for week ending on 07 December, 2022**

- A Low Pressure Area has formed over South Andaman Sea & neighbourhood in the early morning hours of 5<sup>th</sup> December 2022; it lay as a Well Marked Low Pressure Area over Southeast Bay of Bengal in the early morning hours of 6<sup>th</sup>; concentrated into a Depression in the evening of the same day and lay centred at 1730 hours IST of 6<sup>th</sup> December 2022 over Southeast Bay of Bengal moved west-northwestwards and intensified into a Deep Depression in the early morning hours of 7<sup>th</sup> and lay centred at 0530 hours IST of 7<sup>th</sup> December, 2022 over Southeast & adjoining Southwest Bay of Bengal; further moving nearly west-northwestwards, it intensified into a Cyclonic Storm “**MANDOUS**” (pronounced as “Man-Dous” ) and lay centered at 2330 hours IST of 7<sup>th</sup> December, 2022 over Southwest Bay of Bengal. The system in its earlier stages caused fairly widespread to widespread rainfall/thunderstorm activity over Andaman & Nicobar Islands along with isolated heavy / very heavy rainfall activity over the same areas on one or two days towards the end of the week; thunder squall also had been reported over Andaman & Nicobar islands on 5<sup>th</sup> December 2022.

➤ **Analysis of Weekly overall Rainfall distribution during the current week (01 to 07.12.2022) and Post-monsoon Season’s Rainfall Scenario till 07.12.2022:**

The country as a whole, the weekly cumulative All India Rainfall till week ending on 07.12.2022 was 96% below from its long period average (LPA) and all India Seasonal cumulative rainfall during this year’s **post- monsoon Season Rainfall till 07.12.2022** is 12% above LPA.

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 **Annexure I and II** respectively.

**Table 1: Rainfall status (Weekly and seasonal)**

Region	WEEK			SEASON		
	01 to 07.12.2022			01.10.2022 to 07.12.2022		
	Actual	Normal	% Departure	Actual	Normal	% Departure
East & Northeast India	0.1	1.7	-96	165	147.5	12
Northwest India	0	1.3	-100	79.5	35	127
Central India	0	1.3	-99	93.6	72.3	29
South Peninsula	7.2	11.1	-35	247.9	253.2	-02
Country as a Whole	1.4	3.3	-57	131	108.4	21

## 2. Large scale features

- The La Niña conditions are prevailing over the equatorial Pacific region. The latest Monsoon Mission Climate Forecasting System (MMCFS) forecast indicates that the La Niña conditions are likely to continue up to the first quarter of next year and turn to neutral ENSO conditions thereafter.
- The neutral Indian Ocean Dipole (IOD) conditions are prevailing over the Indian Ocean. The latest MMCFS forecast indicates that the neutral IOD conditions are likely to continue during the upcoming season.
- The Madden Julian Oscillation (MJO) Index is currently in Phase 4 with amplitude more than 1. It will move across Phase 4 and 5 during first half of week 1 with amplitude remaining more than 1. Thereafter, it would move across phases 6 and 7 during remaining part of the forecast period with amplitude becoming less than 1. Thus, MJO will be favourable for enhancement of convective activity over the Bay of Bengal (BoB) during first half of week 1.

## 3. Forecast for next two week

### Forecast for next two week

### Weather systems & associated Precipitation during Week 1 (08 to 14 December, 2022) and Week 2 (15 to 21 December, 2022)

#### Forecast for week 1 (08 to 14 December, 2022):

#### Cyclonic Storm “Mandous” Forecast & Warnings:

Yesterday’s Deep Depression over Southwest & adjoining Southeast Bay of Bengal moved west-northwestwards and intensified into cyclonic storm “Mandous”(pronounced as “Man-Dous”) over Southwest Bay of Bengal at 1130 PM of yesterday. It lay centered at 0830 hours IST of today, the 08<sup>th</sup> December, 2022 over Southwest Bay of Bengal, near latitude 9.5°N and longitude 83.8°E, about 300 km east-northeast of

Trincomalee (Sri Lanka), 420 km east-southeast of Jaffna (Sri Lanka), 460 km east-southeast of Karaikal and about 550 km southeast of Chennai.

It is very likely to move west-northwestwards and cross north Tamil Nadu, Puducherry and adjoining south Andhra Pradesh coasts between Puducherry and Sriharikota with a maximum sustained wind speed of 65-75 kmph gusting to 85 kmph around mid night of 09th December.

### **Warnings:**

#### **(i) Rainfall**

- ❖ **08<sup>th</sup> December:-** Light to moderate rainfall at most places with **heavy to very heavy falls** at isolated places very likely over coastal Tamil Nadu, Puducherry & Karaikal and isolated **heavy rainfall** over adjoining areas of south coastal Andhra Pradesh and Rayalaseema.
- ❖ **09<sup>th</sup> December:-** Light to moderate rainfall at most places with **heavy to very heavy rainfall** at a few places and **extremely heavy rainfall at isolated places** very likely over north coastal Tamil Nadu, Puducherry and isolated **heavy to very heavy rainfall** over adjoining south Coastal Andhra Pradesh, north interior Tamilnadu and Rayalaseema; **heavy rainfall** at isolated places over South Interior Karnataka and Kerala & Mahe.
- ❖ **10<sup>th</sup> December:-** It is likely to reduce to Light to moderate rainfall at most places with **heavy to very heavy rainfall** at isolated places likely over north Tamil Nadu and Rayalaseema and **heavy rainfall** at isolated places over South Interior Karnataka, Kerala & Mahe and South Coastal Andhra Pradesh.
- ❖ **11<sup>th</sup> December:-** Light to moderate rainfall at most places with **heavy rainfall** at isolated places very likely over South Interior Karnataka.

#### **(ii) Wind warning:**

- ❖ **Southwest Bay of Bengal:-** Gale wind, speed reaching 75-85 kmph gusting to 95 kmph prevailing over southwest Bay of Bengal. It would further increase becoming 80-90 kmph gusting to 100 kmph, over the same region during 08<sup>th</sup> noon to 08<sup>th</sup> night. It would decrease thereafter gradually becoming 75-85 kmph gusting to 95 kmph, over the same region from 9<sup>th</sup> morning and 70-80 kmph gusting to 90 kmph from 9th December evening.
- ❖ **Along & off Tamil Nadu, Puducherry, south Andhra Pradesh and north Sri Lanka coasts:-** Squally wind, speed reaching 40-50 kmph gusting to 60 kmph, likely to commence along & off Tamil Nadu, Puducherry, south Andhra Pradesh and north Sri Lanka coasts from 08th December afternoon, becoming 50-60 kmph gusting to 70 kmph from 9th December morning and 65-75 kmph gusting to 85 kmph from 09<sup>th</sup> December evening to early hours of 10<sup>th</sup> December.. It is likely to reduce gradually

thereafter becoming 55-65 kmph gusting to 75 kmph by morning of 10th December and then to 30-40 kmph gusting to 50 kmph by 10th December night.

- ❖ **Gulf of Mannar** :- Squally wind, speed reaching 40-50 kmph gusting to 60 kmph, likely over Gulf of Mannar from 08th December evening becoming 50-60 kmph gusting to 70 kmph from 09th December evening to early hours of 10<sup>th</sup> December and 40-50 kmph gusting to 60 kmph by 10<sup>th</sup> December morning.
- ❖ **Southeast Bay of Bengal**:- Squally wind, speed reaching 40-45 kmph gusting to 55 kmph, is likely to prevail over Southeast Bay of Bengal on 8<sup>th</sup> Dec.

### (iii) Sea condition

- ❖ **Sea condition likely to be high** over Southwest bay of Bengal and rough to very rough over adjoining areas of Westcentral and Southeast Bay of Bengal till early hours of 10<sup>th</sup> December and improve gradually thereafter.
- ❖ **Sea condition likely to be rough to very rough** along & off South Andhra Pradesh, Tamil Nadu, Puducherry and Sri Lanka coasts on 08<sup>th</sup> and 10<sup>th</sup> and **high** on 9<sup>th</sup> December.

### (iv) Storm Surge Warning

**The storm surge of about 0.5 m height above the astronomical tide likely to inundate low lying areas of north coastal Tamilnadu and Puducherry during the time of landfall.**

### (v) Fishermen Warning

Fishermen are advised not to venture into:

- ❖ Southeast Bay of Bengal on 08th December.
- ❖ Southwest Bay of Bengal during 08<sup>th</sup>-10<sup>th</sup> December
- ❖ Along & off Sri Lanka coast during 08<sup>th</sup>-09<sup>th</sup> December.
- ❖ Along & off Tamilnadu, Puducherry and South Andhra Pradesh coasts and Gulf of Mannar during 08<sup>th</sup>-10<sup>th</sup> December.
- ❖ Fishermen out at sea should return to the coast or move to the safe area.

### (vi) Adverse Weather Warning for onshore and off-shore operations

Regulate on-shore and off-shore operations over Southwest Bay of Bengal; along & off Tamil Nadu-Puducherry-South Andhra Pradesh coasts and Gulf of Mannar during 08<sup>th</sup>-10<sup>th</sup> December.

## Other Weather systems and its associated rainfall/thunderstorm Forecast

- **No active Western Disturbance likely to affect northwest India during the week.** However, under the influence of current Western Disturbance as trough in middle

tropospheric levels along Long.65°E to the North of Lat.30°N, light to moderate isolated to scattered rainfall/snowfall is very likely over Jammu & Kashmir and Himachal Pradesh during 1<sup>st</sup> half of the week.

- No significant weather likely over any parts of the country during most days of the week.
- **A fresh low pressure area is likely to develop over southeast Bay of Bengal during end of week.**

#### **Rainfall for week 2 (15 to 21 December, 2022):**

- Light/moderate scattered to fairly widespread rainfall with **isolated heavy falls** is likely over south Peninsular India during 1<sup>st</sup> half of the week.
- **No significant Western Disturbance is likely to affect northwest India during the week.**
- Overall, rainfall activity is likely to be above normal over south Peninsular and central India. It is likely to be below normal over most parts of northwest, east & northeast India (**Annexure III**).

#### **Minimum Temperatures and its forecast during Week 1 (08 to 14 December, 2022) and Week 2 (15 to 21 December, 2022):**

##### **Minimum Temperatures and Fog forecast for week 1 (08 to 14 December, 2022):**

- Minimum temperatures are in the range of 7-10°C over many parts of plains of Northwest and adjoining centre India. These are near normal over northern parts of the country.
- No significant change in minimum temperatures very likely over East India till tomorrow morning and rise by 2-4°C for subsequent days of the week. Minimum temperatures are likely to rise gradually by 2-4°C over Central India & Maharashtra during 1<sup>st</sup> half of the week and no significant change thereafter. No significant change in minimum temperatures likely over Gujarat state during 1<sup>st</sup> half of the week and rise by 2-3°C thereafter.
- **No significant cold wave likely over any part of the country during the week.**
- **Dense fog** very likely in isolated pockets over Punjab during morning hours of 09<sup>th</sup>–13<sup>th</sup> and over Haryana of 10<sup>th</sup> – 13<sup>th</sup> December. Shallow to moderate fog likely at isolated pockets over parts of Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura during next 2 days.

##### **Minimum Temperatures forecast for week 2 (15 to 21 December, 2022):**

- Minimum temperatures are likely to be in the range of 5-10°C over plains of Northwest & adjoining central India.
- Minimum temperatures are likely to be near normal or slightly above normal by 1-2° C

- over most parts of the country (**Annexure IV**).
- **No significant cold wave likely over any part of the country during the week.**

**Legends:**

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

<b>SPATIAL DISTRIBUTION</b> (% 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)

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

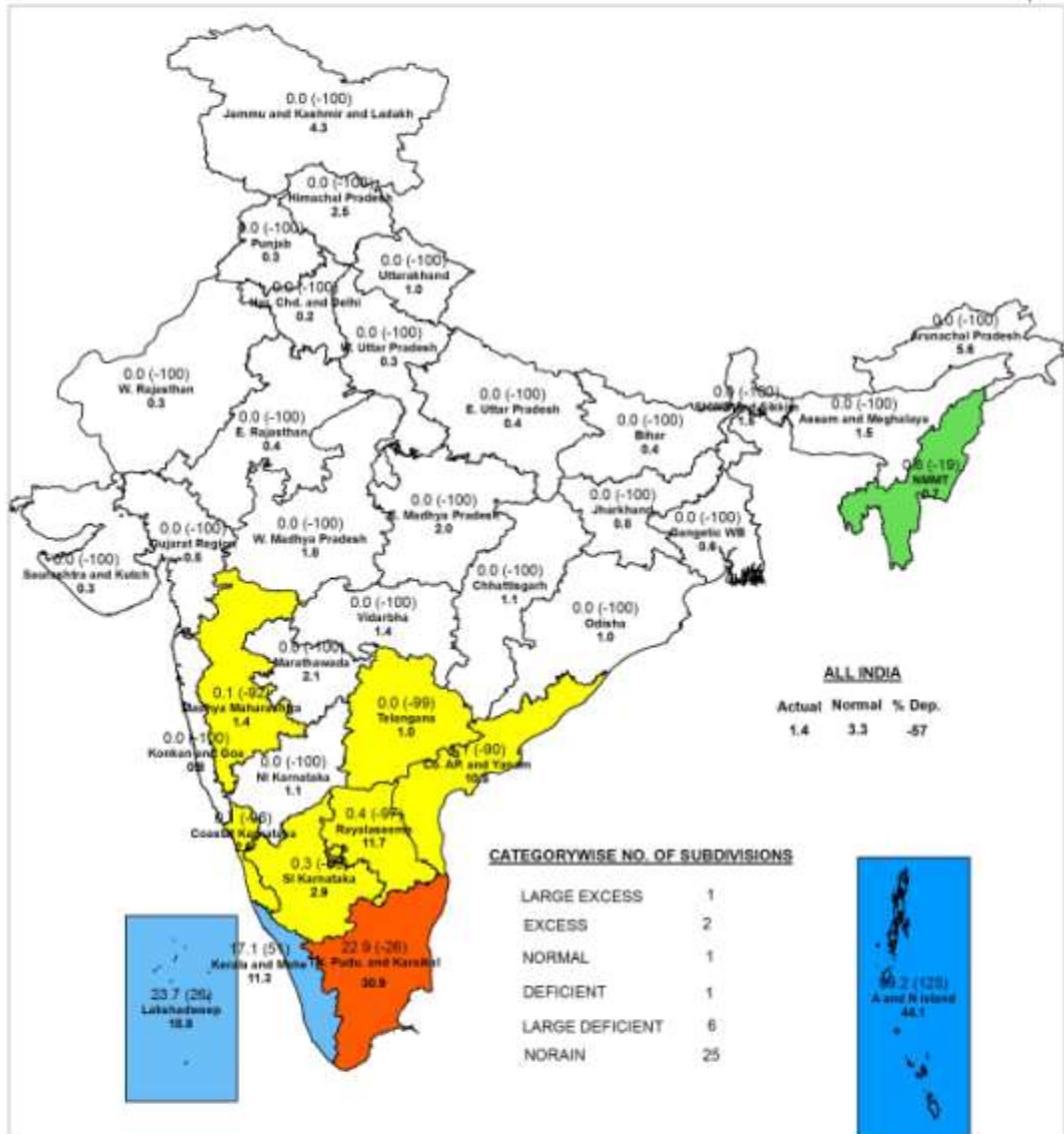


भारत मौसम विज्ञान विभाग  
INDIA METEOROLOGICAL DEPARTMENT

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HYDROMET DIVISION, NEW DELHI

**SUBDIVISION RAINFALL MAP**

Week : 01-12-2022 To 07-12-2022



**Legend**

Large Excess [ 80% or more] Excess [ 20% to 80%] Normal [-19% to 19%] Deficient [-49% 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.

# Annexure II

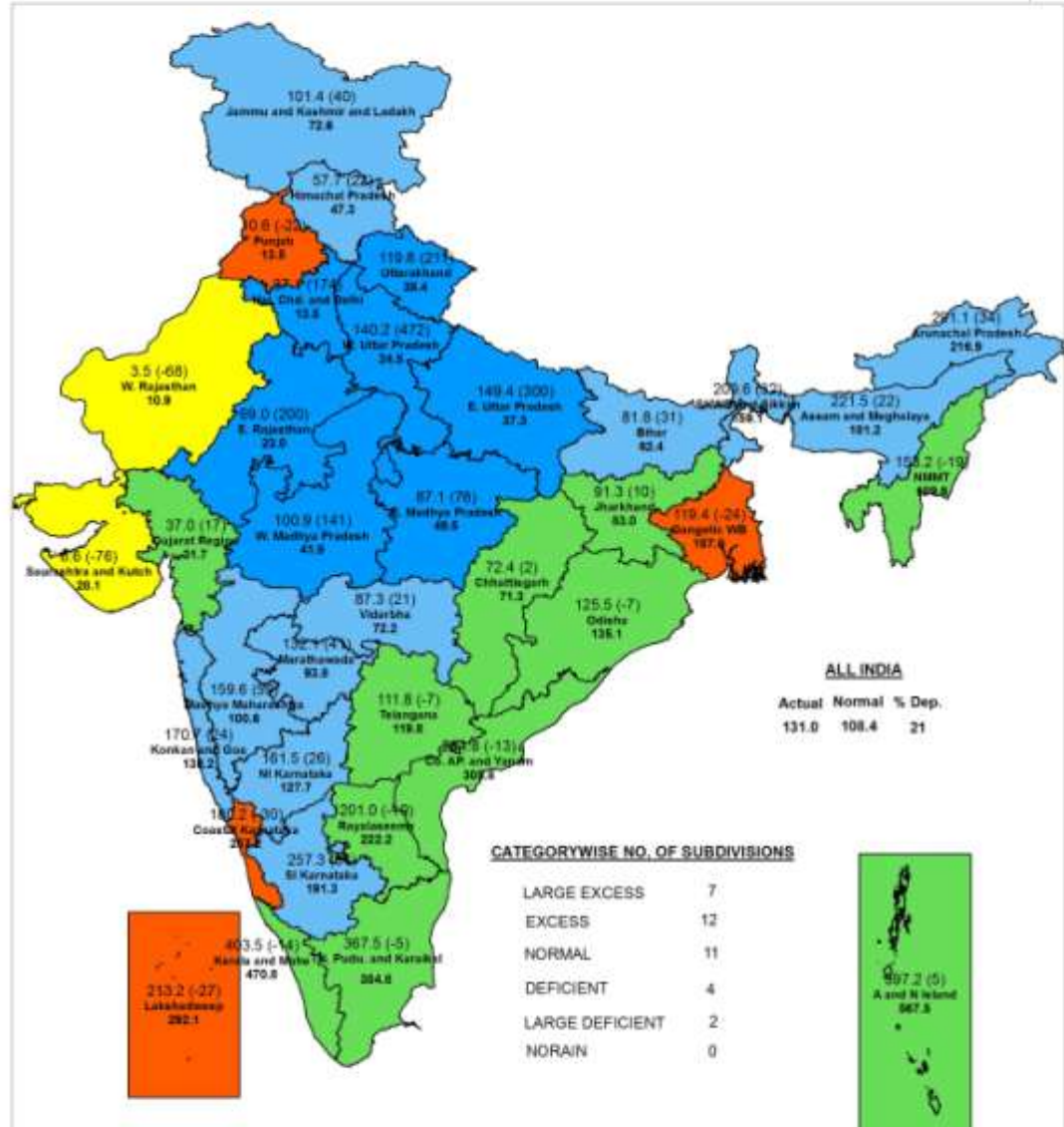


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HYDROMET DIVISION, NEW DELHI

## SUBDIVISION RAINFALL MAP

Period : 01-10-2022 To 07-12-2022



### Legend

Large Excess [60% or more] Excess [20% to 59%] Normal [-19% to 19%] Deficient [-69% to -20%] Large Deficient [-99% to -60%] No Rain [-100%] No Data

### NOTES :

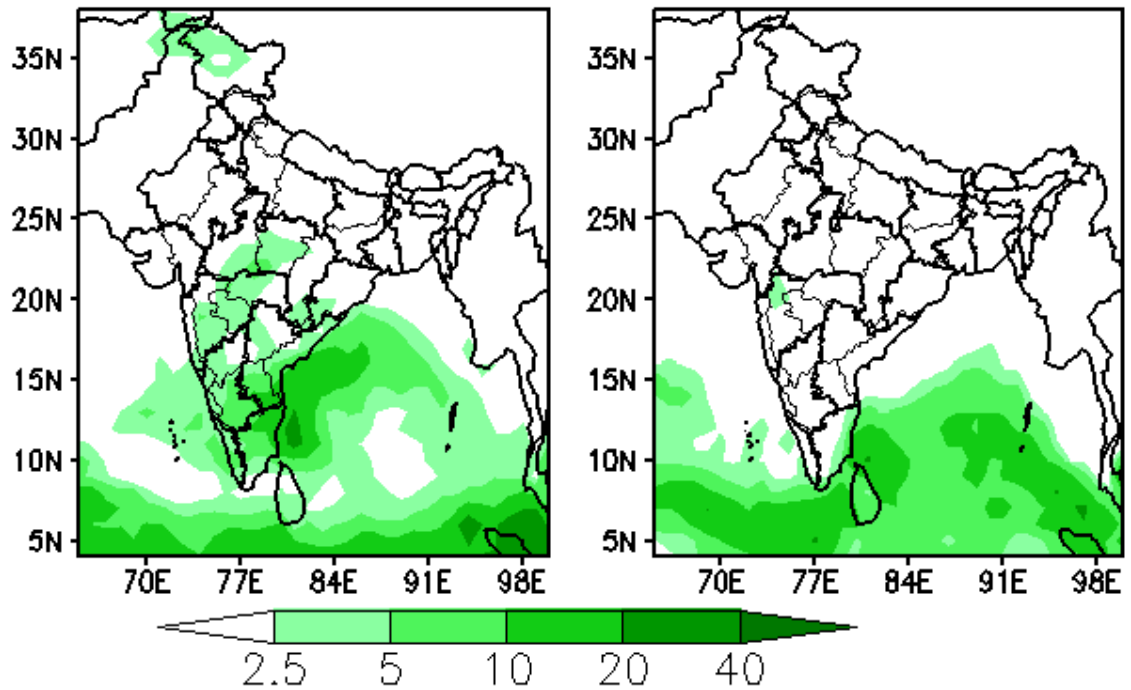
- a) Rainfall figures are based on operation data.
- b) Small figures indicate actual rainfall (mm), while bold figures indicate Normal rainfall (mm).
- c) Percentage Departures of rainfall are shown in brackets.



### Forecast Rainfall (mm/day)

(Week1: 09Dec-15Dec)

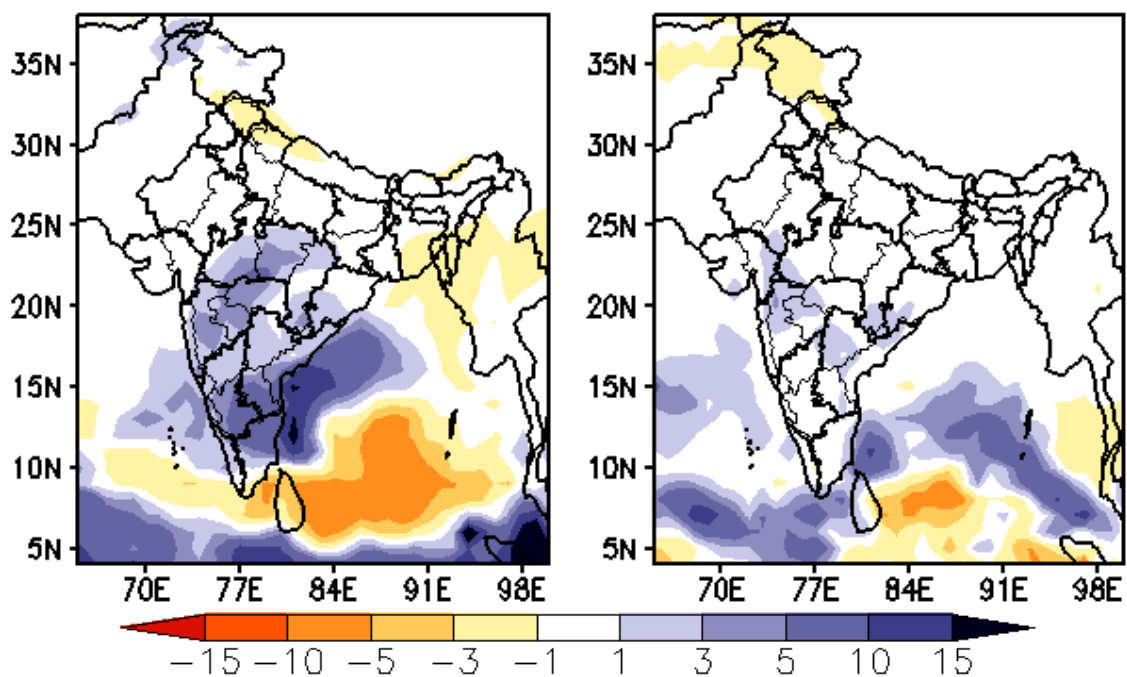
(Week2: 16Dec-22Dec)



### Forecast Rainfall Anomaly (mm/day)

(Week1: 09Dec-15Dec)

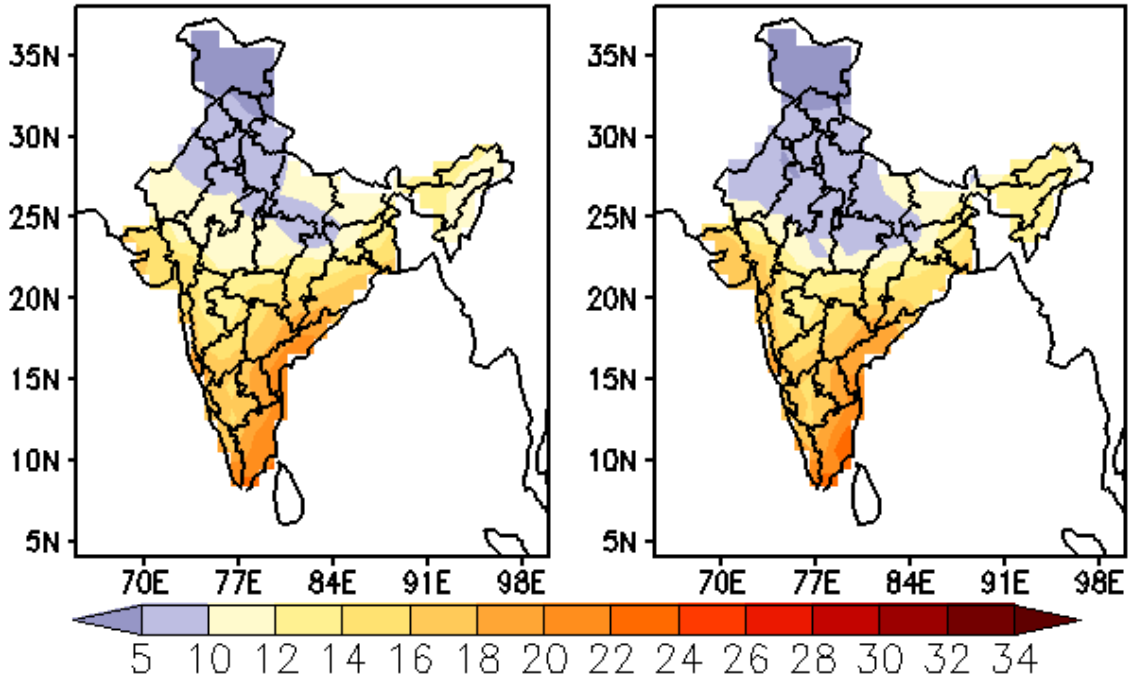
(Week2: 16Dec-22Dec)



**MME Bias corrected forecast Tmin (Deg)**

(Week1: 09Dec-15Dec)

(Week2: 16Dec-22Dec)



**MME forecast Tmin anomaly (Deg C)**

(Week1: 09Dec-15Dec)

(Week2: 16Dec-22Dec)

