



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

Press: Dated: 16 Nov, 2023

Subject: Current Weather Status and Extended range Forecast for next two weeks (16-29 Nov 2023)

1. Salient Observed Features for week ending 15 Nov 2023

- **Depression over westcentral Bay of Bengal:** A cyclonic circulation lay over Gulf of Thailand and extended upto mid-tropospheric levels tilting southwestwards with height on 12th November, 2023. It lay over South Andaman Sea extended in the same height on 13th Nov. Under its influence, a low pressure area was formed over southeast Bay of Bengal (BoB) and adjoining Andaman & Nicobar Islands in the morning (0530 hours IST) of the 14th November. It lay as a well marked low pressure area over southeast & adjoining central BoB in the same evening (1730 hours IST). It concentrated into a depression over westcentral BoB in the forenoon (0830 hours IST), the 15th November, 2023. It moved northwestwards and lay centred at 1130 hours IST of the 15th November over the same region near latitude 14.7°N and longitude 86.5°E, about 470 km southeast of Visakhapatnam (Andhra Pradesh), 620 km south-southeast of Paradip (Odisha) and 770 km south of Digha (West Bengal).
- **An upper air cyclonic circulation lay over Southwest Bay of Bengal** and extended upto middle tropospheric levels on 13th November, 2023. It lay over Southwest Bay of Bengal & adjoining Sri Lanka extended with the same height on 14th Nov and lay over north Sri Lanka & neighbourhood and extended with the same height on 15th Nov. A trough ran from the above cyclonic circulation over Southwest Bay of Bengal & adjoining Sri Lanka to the Low Pressure Area over Southeast Bay of Bengal & adjoining Andaman-Nicobar Islands and extends upto 3.1 km above mean sea level on 13th November, 2023. It slightly moved northwestwards and ran from the cyclonic circulation over north Sri Lanka & neighbourhood to the cyclonic circulation associated with the Depression over Westcentral Bay of Bengal and extended upto 3.1 km above mean sea level on 15th Nov. **Both the systems caused isolated Heavy to very heavy rainfall over coastal and Delta districts of Tamil Nadu, Puducherry & Karaikal during 13-15 Nov 2023.**

- Under the influence of an active Western Disturbance and its induced cyclonic circulation which affected north India during 1st half of the week, light to moderate rainfall accompanied with thunderstorm and lightning occurred at many places over Western Himalayan Region and adjoining northwest plains of India and during 9-11 Nov.
- **Analysis of Weekly overall Rainfall distribution during the week ending on 15 Nov 2023 and monsoon Season's Rainfall Scenario (1 Oct-15 Nov 2023):** It shows for the country as a whole, the weekly cumulative All India Rainfall in % departure from its long period average (LPA) till week ending on 15 Nov 2023 was +15%, over south Peninsula, it was +20%, central India as -80% while over northwest India had +362% and east & northeast India had got -74%. All India Seasonal cumulative rainfall % departure during this year's **Post monsoon Season's Rainfall** during **1 Oct to 15 Nov 2023** is -26% and over northwest India, it is +49%. 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		
	09.11.2023 TO 15.11.2023			01.10.2023 TO 15.11.2023		
	Actual	Normal	% Dep	Actual	Normal	% Dep
EAST & NORTH-EAST INDIA	0	6.2	-99%	136.7	137.7	-1%
NORTH-WEST INDIA	9.2	2	+362%	40.6	27.2	+49%
CENTRAL INDIA	0.7	3.5	-80%	25.8	64.6	-60%
SOUTH PENINSULA	23.4	19.6	+20%	128.9	206.9	-38%
Country as a whole	7.7	6.7	+15%	68.3	92.8	-26%

2. Large scale features

- Currently, the Sea Surface Temperatures (SSTs) and the atmospheric conditions over the Equatorial Pacific Ocean indicate moderate El Niño conditions. The latest forecasts from MMCFS and other global models suggest that these El Niño conditions are likely to continue during the upcoming season. In

addition to ENSO conditions over the Pacific, other factors such as the Indian Ocean Sea Surface Temperatures (SSTs) also influence Indian climate. Currently, positive Indian Ocean Dipole (IOD) conditions are prevailing over the Equatorial Indian Ocean. The latest MMCFS forecast indicates that the positive IOD conditions are likely to weaken during the upcoming months.

- Currently MJO lay in Phase 2 and Most of the models are indicating that MJO will retreat back to phase 6 across phase 1, 8 and 7 with amplitude < 1 during week 1. Then, it is likely to move eastwards in the beginning of week 2 from phase 6 to Phase 7 and then to phase 8 with amplitude near 1 till end of the week 2.

3. Forecast for next two week

[Weather systems & associated Precipitation during Week 1 \(16 to 22 November, 2023\) and Week 2 \(23 to 29 November, 2023\)](#)

[Week 1 \(16 to 22 November, 2023\)](#)

Deep Depression over Westcentral Bay of Bengal and Forecast & Warnings associated with

this system: A Deep Depression lay centred at 1130 hours IST of today, the 16th November over Westcentral Bay of Bengal near latitude 17.9°N and longitude 87.3°E, about 420 km east of Visakhapatnam (Andhra Pradesh), 270 km south-southeast of Paradip (Odisha), 410 km south of Digha (West Bengal) and 540 km south-southwest of Khepupara (Bangladesh). It is likely to continue to move north-northeastwards, intensify further into a cyclonic storm during next 24 hours and cross Bangladesh coast between Mongla and Khepupara with wind speed of 60-70 kmph gusting to 80 kmph by the early hours of 18th November, 2023.

Warnings:

(i) Rainfall Warning:

- Light to moderate rainfall at many places with isolated heavy rainfall is likely over coastal districts of West Bengal on 16th & 17th and over coastal districts of north Odisha on 16th November.
- Light to moderate rainfall at most places with isolated heavy rainfall is likely over Nagaland, Manipur, Mizoram & Tripura during 16th to 18th November with very heavy rainfall at isolated places over Mizoram & Tripura on 17th November.
- Light to moderate rainfall at many places with isolated heavy rainfall is likely over south Assam and east Meghalaya on 17th & 18th November.

(ii) Wind warning:

- **Squally weather** with wind speed reaching **35-45 kmph gusting to 55 kmph** is likely to prevail over southwest Bay of Bengal along & off Tamil Nadu & Puducherry and Sri Lanka coasts on 16th November.
- **Squally wind** speed reaching **50-60 kmph gusting to 70 kmph** is prevailing over Westcentral & adjoining Northwest Bay of Bengal and is likely to increase gradually becoming **60-70 kmph gusting to 80 kmph** over North Bay of Bengal from 16th midnight. It would increase further becoming **70-80 kmph gusting to 90 kmph** over North Bay of Bengal and decrease over westcentral Bay of Bengal becoming **40-50 kmph gusting to 60 kmph** on 17th morning. Thereafter, it would decrease becoming **55-65 kmph gusting to 75 kmph** over the North Bay of Bengal from 18th morning. **Squally wind** speed reaching **40-50 kmph gusting to 60 kmph** is likely over adjoining central Bay of Bengal from 17th evening to 18th morning and decrease thereafter.
- **Along & off Andhra Pradesh Coast: Squally wind speed reaching 30-40 kmph gusting to 50 kmph** is likely along & off south Andhra Pradesh coast on 16th November and **40-50 kmph gusting to 60 kmph** along & off north Andhra Pradesh coast during 16th to 17th morning. It would decrease thereafter.
- **Along & off Odisha Coast: Squally wind speed reaching 45-55 kmph gusting to 65 kmph** is prevailing and likely to increase gradually becoming **50-60 kmph gusting to 70 kmph** from 16th evening till 17th evening and decrease thereafter.
- **Along & off West Bengal Coast: Squally wind speed reaching 40-50 kmph gusting to 60 kmph** is prevailing. It is likely to increase gradually becoming **55-65 kmph gusting to 75 kmph** from 17th morning till 18th morning and decrease thereafter.
- **Along & off Bangladesh Coast: Squally wind speed reaching 45-55 kmph gusting to 65 kmph** is likely from 16th evening and increase becoming **60-70 kmph gusting to 80 kmph** from 17th evening till 18th morning and decrease thereafter.

(iii) Sea Condition:

- **Rough to very rough sea condition** is likely over
 - Southwest Bay of Bengal and along & off Tamil Nadu & Puducherry and Sri Lanka coasts on 16th November.
 - Westcentral Bay of Bengal during 16th- 17th November
 - North Bay of Bengal till midnight of 16th November. **It would become very rough to high over North Bay of Bengal from 16th midnight to 18th morning.**
 - **Along & off north Andhra Pradesh coast during 16th to 17th November.**

- **Along & off Odisha coast during 16th-17th and West Bengal & Bangladesh coasts** during 16th to 18th November

(iv) Fishermen Warning:

Fishermen are advised not to venture into

- Southwest Bay of Bengal on 16th November
- Westcentral Bay of Bengal during 16th to 17th November
- North Bay of Bengal during 16th to 18th November
- Along & off Andhra Pradesh Coast during 16th to 17th November
- Along & off Odisha coast during 16th-17th November
- Along & off West Bengal and Bangladesh coasts during 16th to 18th November

(v) Damage Expected & Action Suggested for coastal areas of Odisha & West Bengal:

- Minor damage to loose/unsecured structures.
- Minor damage to small trees like Banana, Papaya and Drumstick and ripe paddy crops.
- Partial Damage to standing crops in coastal areas of Odisha & west Bengal.
- Minor damage to Kutcha embankments.

Other Weather Systems and associated weather:

- ❖ An upper air **cyclonic circulation** lies over Southwest Bay of Bengal & adjoining Sri Lanka and a **trough** runs from this cyclonic circulation to the cyclonic circulation associated with the Deep Depression over Westcentral Bay of Bengal in the lower tropospheric levels. A fresh easterly wave is likely to affect south Peninsular India from 19th November, 2023. Under its influence, Light to moderate rainfall at some places with **isolated heavy rainfall** is very likely over Tamil Nadu on 16th, 17th, 19th & 20th and Kerala on 20th November. Light isolated to scattered rainfall is likely many parts of south Peninsular India during remaining days of the week.
- ❖ Light to moderate fairly widespread to widespread rainfall is very likely over Andaman & Nicobar Islands during the week.
- ❖ A fresh feeble Western Disturbance is likely to cause light rainfall/snowfall over Jammu & Kashmir on 19th November.
- ❖ No significant weather is likely over rest parts of the country during the week.

Rainfall Outlook for week 2 (23 to 29 November, 2023):

- ✓ Under the influence of easterly wave, scattered to fairly widespread rainfall with isolated heavy falls is very likely over south Peninsular India during many days of the week.
- ✓ No active Western Disturbance likely to affect northwest India during the week.
- ✓ Overall, rainfall activity is likely to be **above normal** over south Peninsular India; over most parts of east & northeast India; normal to above normal over many parts of plains of northwest India & over central India and below normal over Western Himalayan Region.

Minimum temperature forecast for Week 1 (16 to 22 November, 2023) and Week 2 (23 to 29 November, 2023)

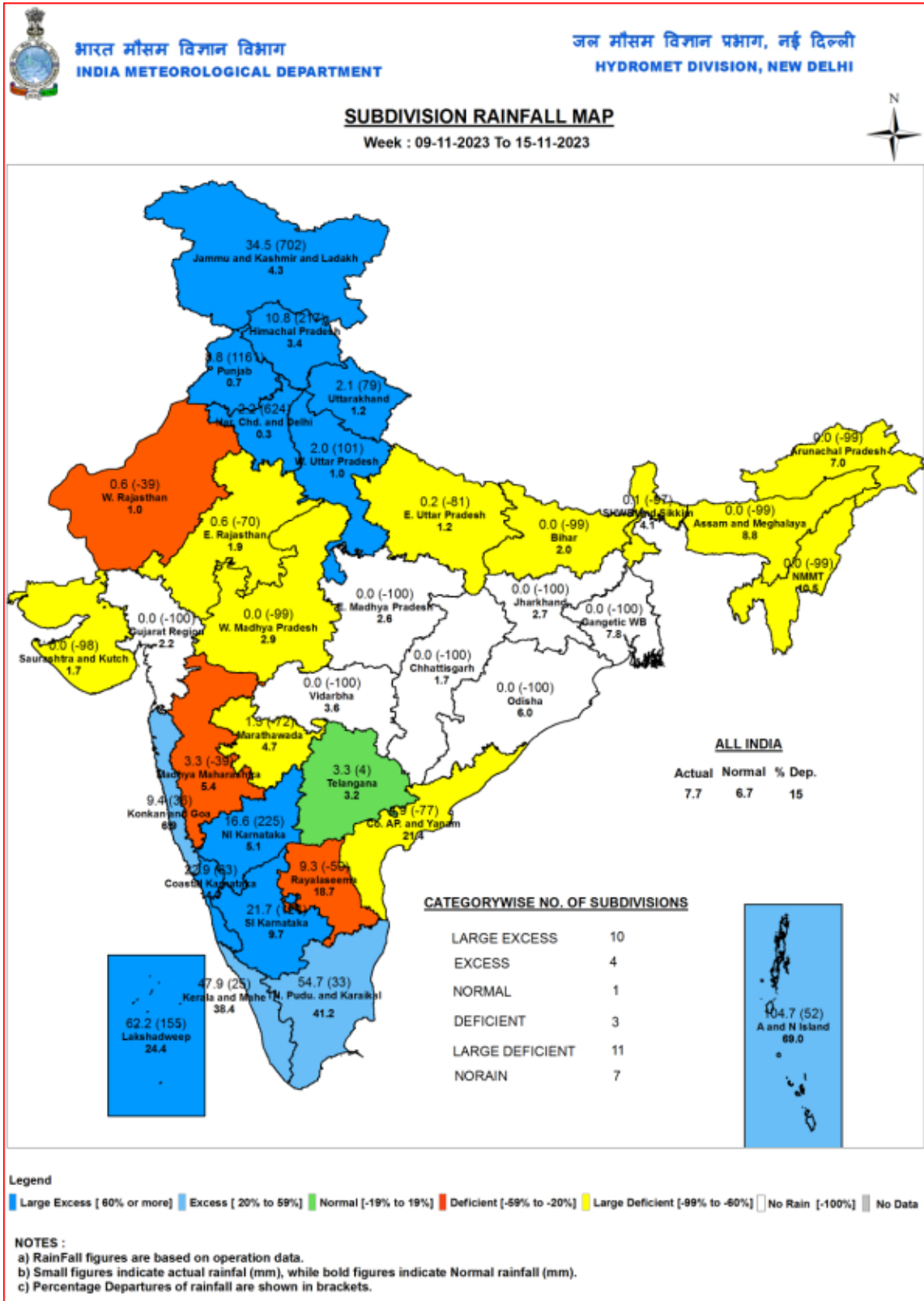
Minimum temperature forecast for Week 1 (16 to 22 November, 2023):

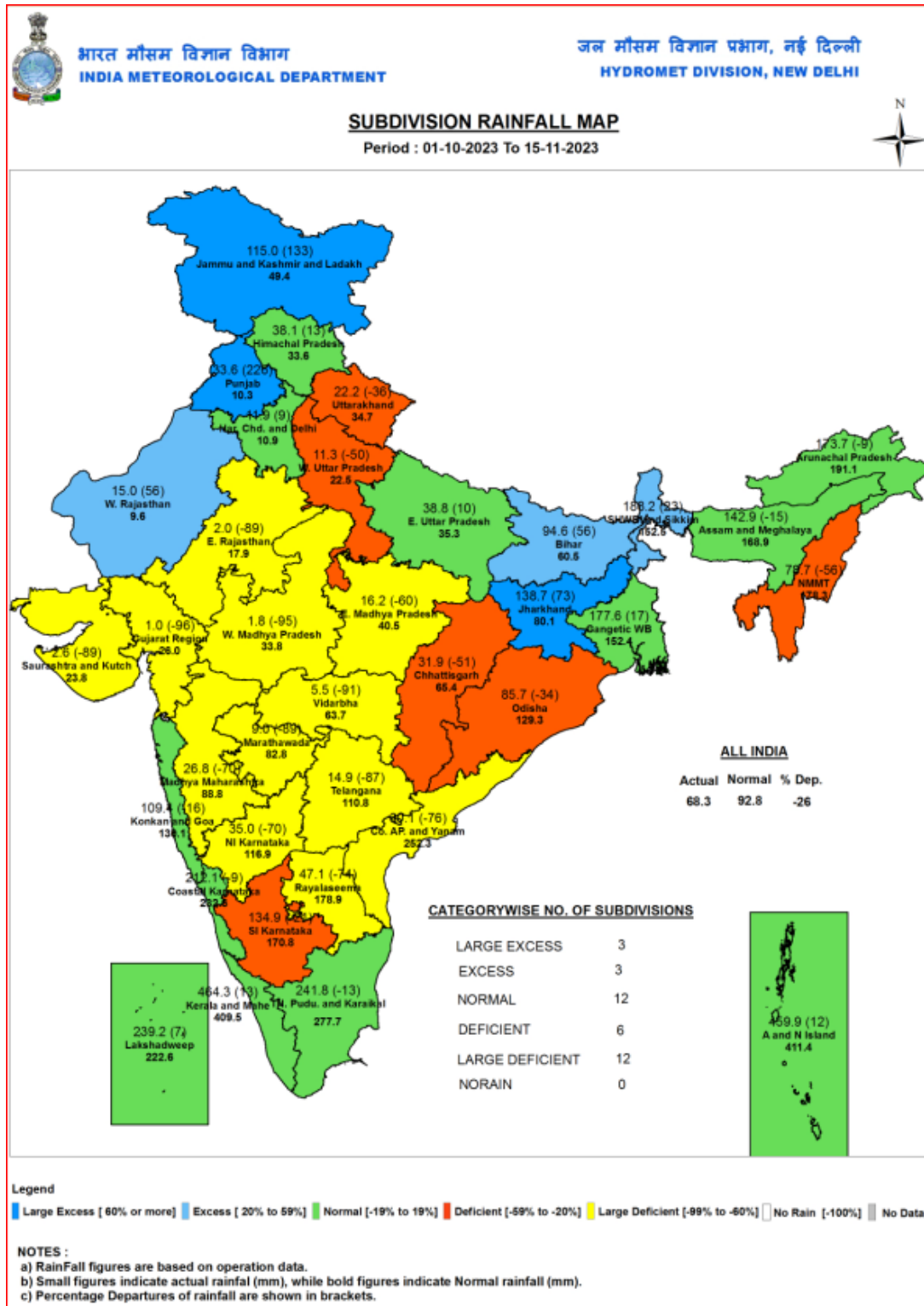
- ✓ **Minimum Temperature Departures (as on 16-11-2023):** Minimum temperatures are appreciably above normal (3.1°C to 5.0°C) at isolated places over Nagaland, Manipur, Mizoram & Tripura, Assam & Meghalaya, Gangetic West Bengal and Marathawada; above normal (1.6°C to 3.0°C) at isolated places over Punjab, Bihar, Gujarat state, Odisha, Kerala & Mahe, North & South Interior Karnataka and Tamil Nadu, Puducherry & Karaikal. They are below normal (-1.6°C to -3.0°C) at isolated places over Haryana, Madhya Pradesh, Rajasthan, West Uttar Pradesh and Telangana and near normal over rest parts of the country.
- ✓ No significant changes in the minimum temperatures are likely over the most parts of the country during the week.

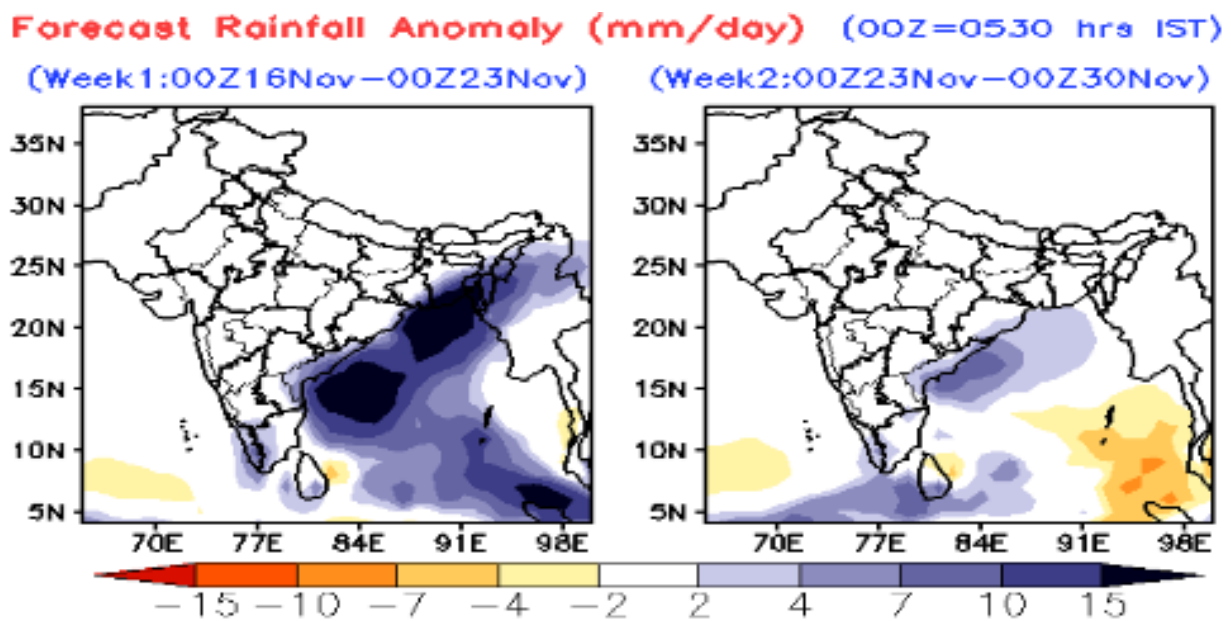
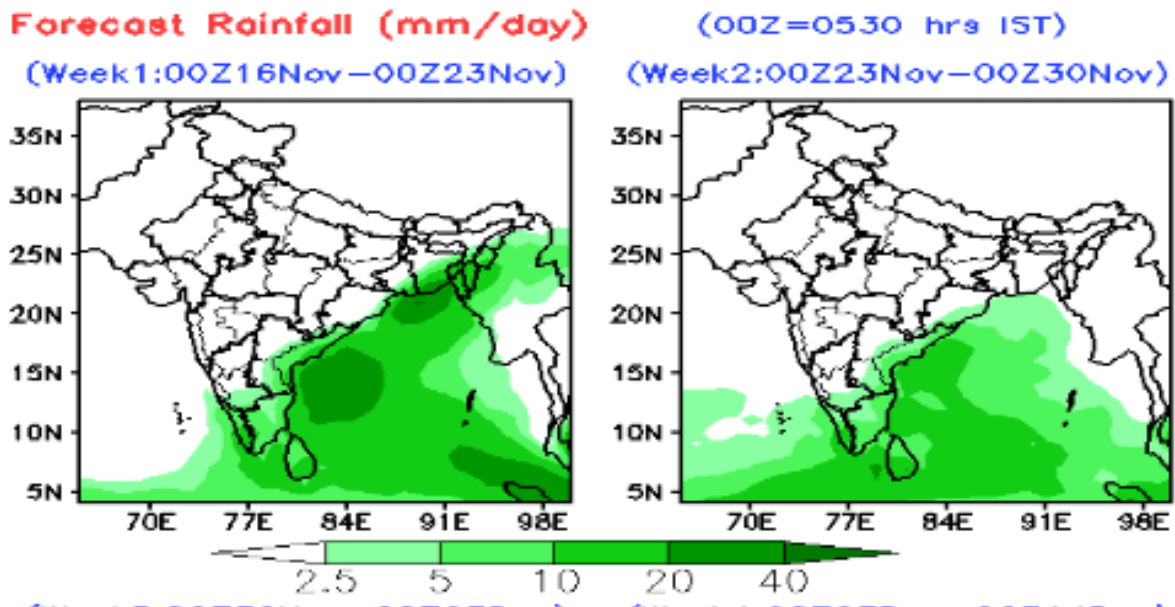
Minimum temperature forecast for Week 2 (23 to 29 November, 2023):

- ✓ **Minimum Temperature Departures** are likely to be near normal or above normal by 1°C to 3°C over most parts of the country.

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





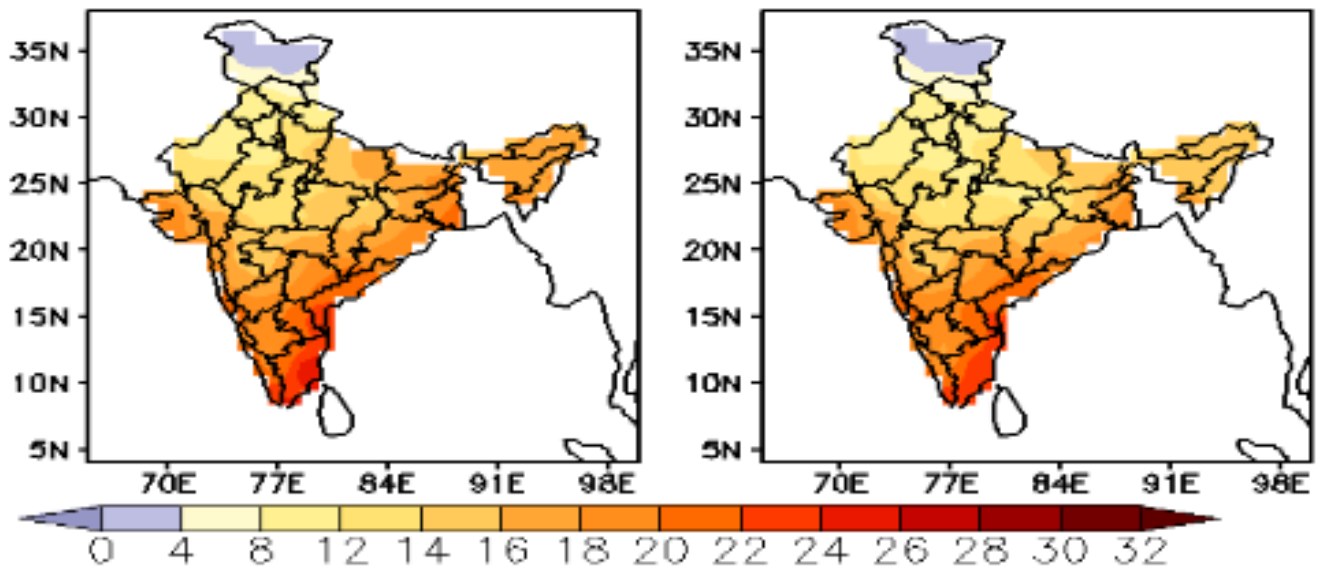


Extended range forecast of weekly distribution of rainfall in mm per day (top panel) and anomalies(lower panesl) from IMD MME

MME Bias corrected forecast Tmin (Deg C)

(Week1: 17Nov–23Nov)

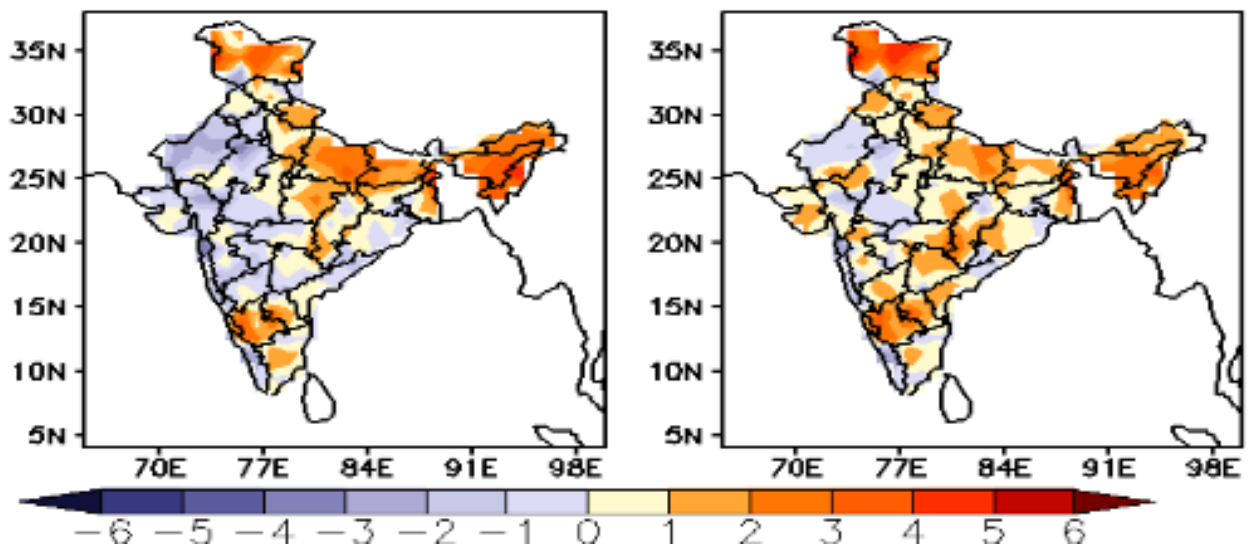
(Week2: 24Nov–30Nov)



MME forecast Tmin anomaly (Deg C)

(Week1: 17Nov–23Nov)

(Week2: 24Nov–30Nov)



Extended range forecast of Minimum Temperature (top panel) and anomalies (lower panels) from IMD MME