



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

Press Release: Dated: 8 Feb 2024

Subject: Current Weather Status and Extended range Forecast for next two weeks (08-22 Feb 2024)

1. Salient Observed Features for week ending 7 Feb 2024

- An active Western Disturbance (WD) affected northwest India during 3rd to 5th Feb 2024. It caused light to moderate rain/snow over western Himalayan region and rainfall and thunderstorms over adjoining plains of northwest India during the period with peak activities on 3rd and 4th Feb. It is the 2nd active WD affected this region (1st WD was during 29 Jan to 1st Feb).
- Strong surface winds of the order 15-25 kmph prevailed over plains of Northwest India on 6 to 8 Feb.
- Isolated dense fog was observed over Rajasthan on 1, 2 and 5 Feb; over Punjab, Haryana Delhi on 2 Feb; over Uttar Pradesh on 2 and 6 Feb; over Bihar 1, 5 and 6 Feb; over Madhya Pradesh on 2, 3, 6 and 7 Feb and over Odisha on 4 and 7 Feb, 2024.
- **Cold wave conditions:** Cold wave conditions prevailed over isolated pockets in Punjab, Himachal Pradesh and Haryana on 7th February.
- **Temperature Scenario:** The highest maximum temperature of 38.5°C had been recorded at Kurnool (Rayalaseema) on 07th February 2024 and the lowest minimum temperature of 1.0°C had been recorded at Fursatganj (East Uttar Pradesh) on 01st February 2024 over the plains of the country during the week.

➤ **Analysis of Weekly overall Rainfall distribution during the week ending on 7 Feb 2024 and Winter Season's Rainfall Scenario (1 Jan- 7 Feb 2024):** 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 7 Feb 2024 was 80%. All India Seasonal cumulative rainfall % departure during this year's **Winter's Rainfall** during **1 Jan to 7 Feb 2024** is -30% and over northwest India, it is -47%. 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		
	01.02.2024 TO 07.02.2024			01.01.2024 TO 07.02.2024		
	Actual	Normal	% Dep	Actual	Normal	% Dep
EAST & NORTH-EAST INDIA	10.1	6	+68%	15.7	23.2	-32%
NORTH-WEST INDIA	19.1	8.2	+133%	22.2	42	-47%
CENTRAL INDIA	0.6	1.5	-61%	5.8	8.9	-35%
SOUTH PENINSULA	0.3	1.3	-73%	18.5	9.1	+103%
Country as a whole	7.8	4.3	+80%	14.9	21.4	-30%

2. Large scale features

- Currently, the moderate to strong El Niño conditions are prevailing over equatorial Pacific and the sea surface temperatures (SSTs) are above average over most parts of the central and eastern equatorial Pacific Ocean. The latest MMCFS forecast indicates that moderate to strong El Niño conditions are likely to continue during the upcoming season. In addition to El Niño-Southern Oscillation (ENSO) conditions over the Pacific, other factors such as the Indian Ocean SSTs also influence on Indian climate. At present, strong positive Indian Ocean Dipole (IOD) conditions are observed over the Indian Ocean and the latest MMCFS forecast indicates positive IOD conditions are likely to weaken and turn to neutral condition by early part of the next year.
- Madden Julian Oscillation (MJO) index shows looping and it is currently in phase 7 with amplitude greater than 1. In the forecasts, both GEFS and ECMWF ensembles indicate a slowing down of the MJO signal as it approaches towards phase 8 (Western Hemisphere and Africa) during the first week. With some ensemble members returning the MJO index back into phase 7 as well as amplitude towards the unit circle and a few members showing eastward movement into phase 8, the eastward propagation is not very obvious during week 1. But during week 2, models depict a healthier eastward propagation inside phases 8.

3. Forecast for next two week

Weather systems & associated Precipitation during Week 1 (08 to 14 February, 2024) and Week 2 (15 to 21 February, 2024)

Weather systems & associated Precipitation during Week 1 (08 to 14 February, 2024)

- Light to moderate isolated to scattered rainfall/snowfall very likely over Arunachal Pradesh and Sub-Himalayan West Bengal & Sikkim on 08th & 09th; isolated rainfall activity over Assam & Meghalaya on 08th and Odisha on 08th, 11th & 12th February, 2024.
- Under the influence of a likely formation of trough/cyclonic circulation over central parts of country; isolated to scattered light rainfall activity is likely over Madhya Pradesh, Vidarbha, Chhattisgarh during 10th-14th, Madhya Maharashtra on 10th & 11th; Marathwada during 09th-11th; over Uttar Pradesh, Bihar, Jharkhand 12th-14th and Gangetic West Bengal on 13th & 14th February, 2024.
- Thunderstorm accompanied with lightning very likely over Madhya Pradesh, Vidarbha, Marathwada and Chhattisgarh on 11th February, 2024.
- Light isolated rainfall very likely over Coastal Andhra Pradesh on 08th & 09th; Tamilnadu on 09th & 10th; Telangana on 10th & 11th and Kerala on 14th February, 2024.
- ✓ Light isolated to scattered rainfall is also likely over Andaman & Nicobar Islands during 2nd half of the week.

Rainfall for week 2 (08 to 14 February, 2024):

- ✓ No active Western Disturbance likely to affect northwest India during the week.
- ✓ Due to trough/cyclonic circulation over Central parts of the country, light isolated to scattered rainfall activity likely over central India during some days of the week.
- ✓ Overall, rainfall activity is likely to be **normal** over most parts of the country except Western Himalayan region where rain is likely to **blow normal**.

Minimum temperature, Cold Wave and Fog forecast & warning for Week 1 (08 to 14 February, 2024) and Week 2 (15 to 21 February, 2024)

Minimum temperature, Cold Wave and Fog forecast & warning for Week 1 (08 to 14 February, 2024):

Minimum temperature and Cold Wave warning:

- **Minimum temperatures:** Minimum temperatures are in the range of 4-8°C over most parts of Punjab, Haryana-Chandigarh, plains of Uttarakhand, north Rajasthan; in the range of 8-12°C over many parts of Delhi, rest of Rajasthan, Uttar Pradesh and Madhya Pradesh which are normal to below normal over the region. **Today, the lowest minimum temperature of 3.5°C reported at Sikar (East Rajasthan).**
- No significant change in minimum temperatures very likely over many parts of East India during 1st half of

the week and rise by 2-3°C thereafter. No significant change in minimum temperatures over rest parts of the north India during the week.

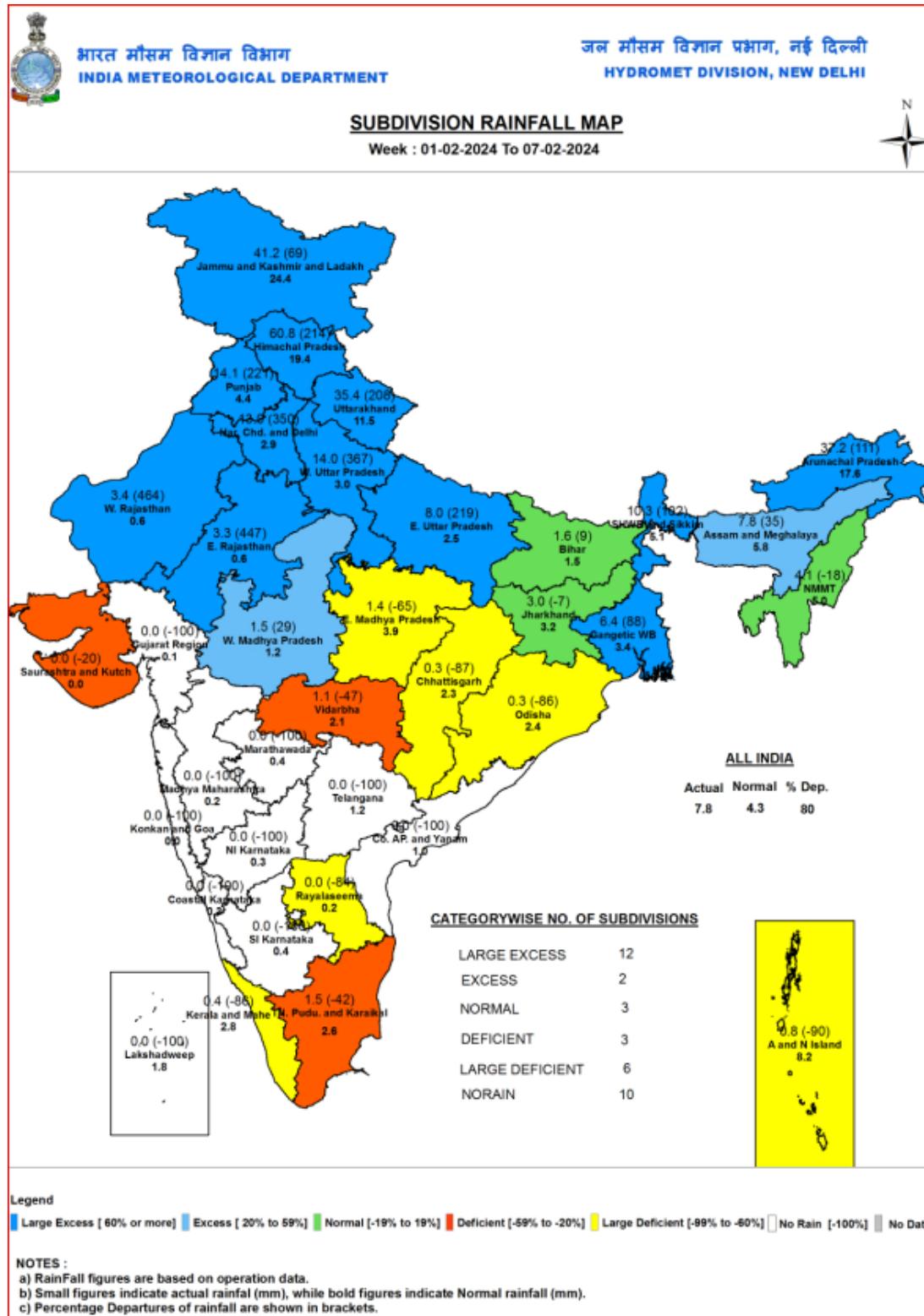
- **No Cold wave conditions** likely over any part of the country during next one week except Himachal Pradesh and Punjab, where cold wave conditions very likely in isolated pockets on 08th February, 2024.

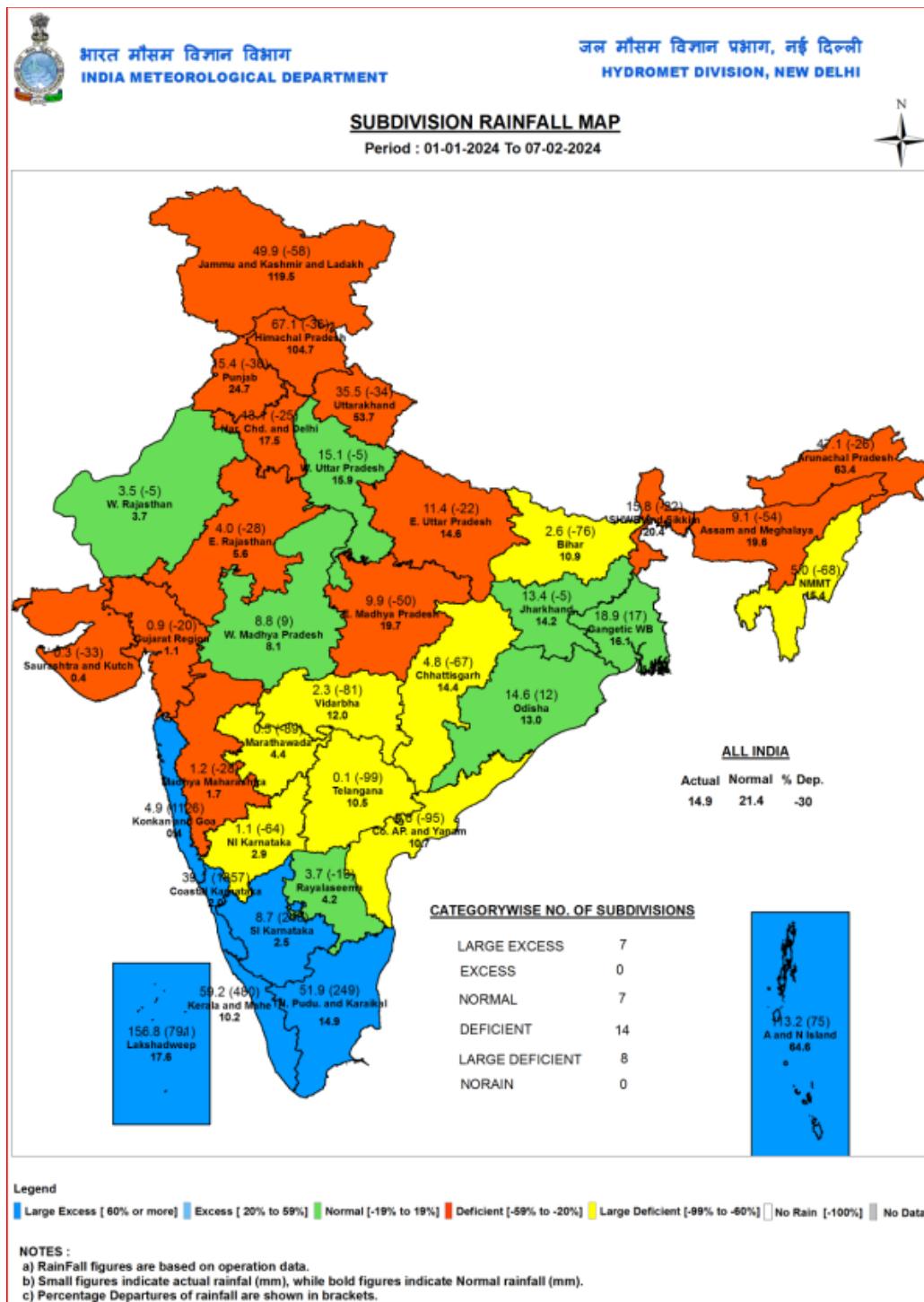
Dense fog and Cold day warning:

- **No Dense Fog and Cold day conditions** likely over any part of the country during next one week.

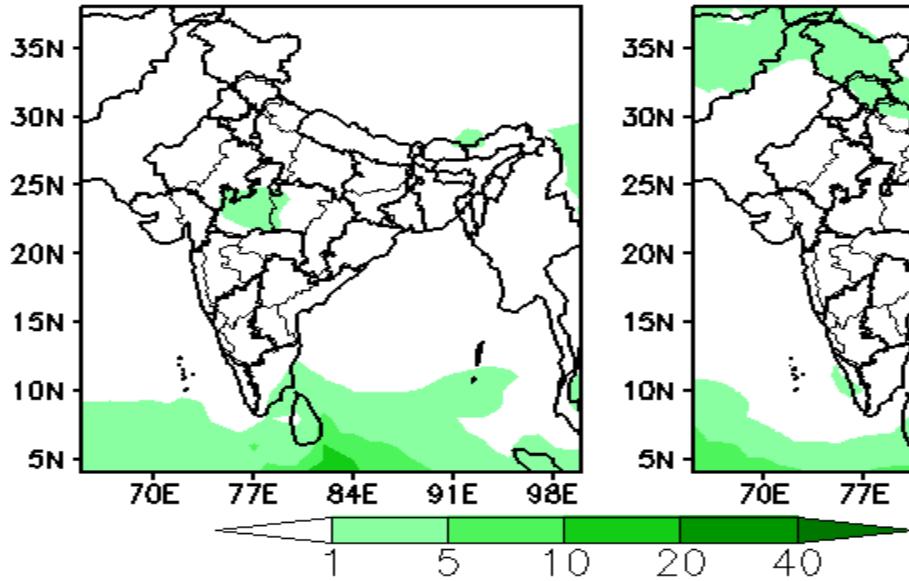
Minimum temperature, Cold Wave and Fog forecast & warning for Week 2 (15 to 21 February, 2024):

- **Minimum temperatures:** The Minimum temperatures are likely to rise gradually by 2-4°C as compared to week 1. These are likely to be near normal over most parts of the country except Western Himalayan Region, where these are likely to be above normal by 1-3°C.
- **No Dense Fog and Cold day conditions** likely over any part of the country during the week.
- **There is no possibility of cold wave in any parts of the country (Annexure V).**

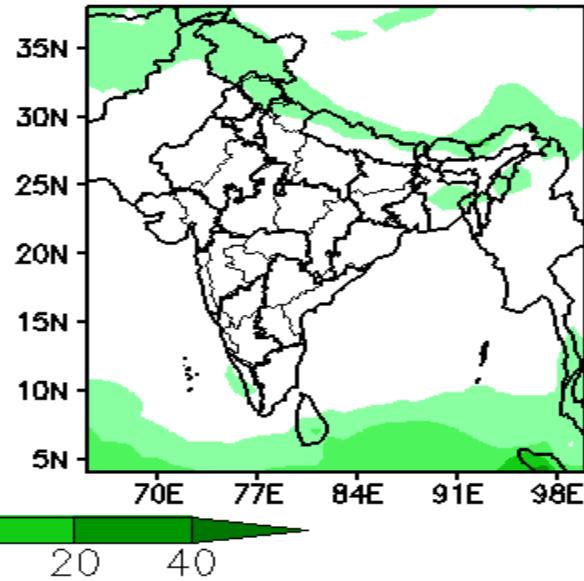




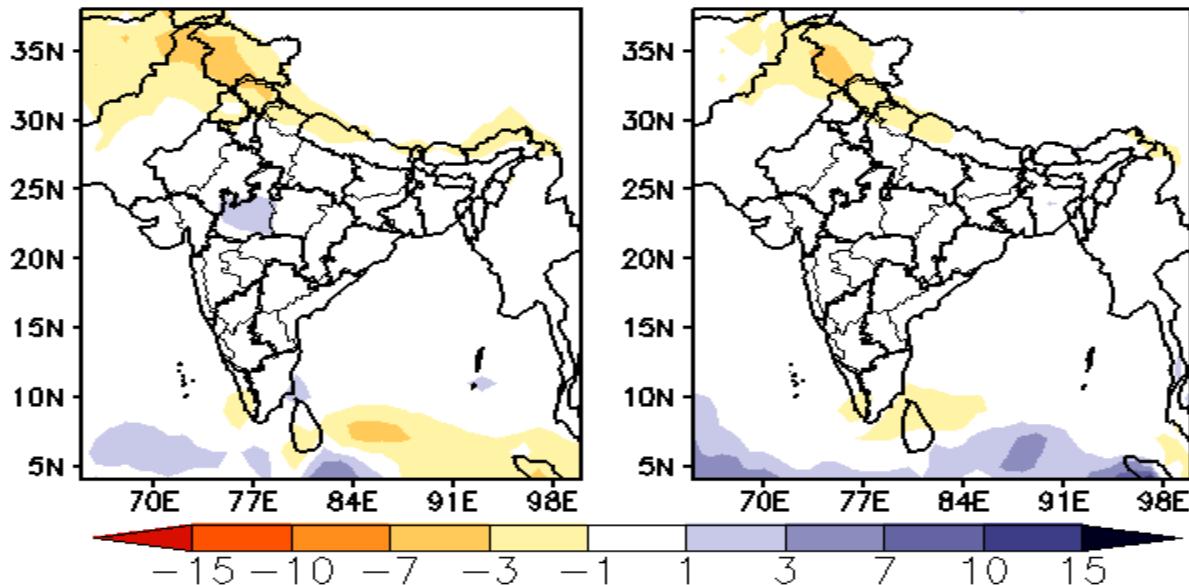
Forecast Rainfall (mm/day)
(Week1:00Z08Feb–00Z15Feb)



(00Z=0530 hrs IST)
(Week2:00Z15Feb–00Z22Feb)



Forecast Rainfall Anomaly (mm/day) (00Z=0530 hrs IST)
(Week1:00Z08Feb–00Z15Feb)



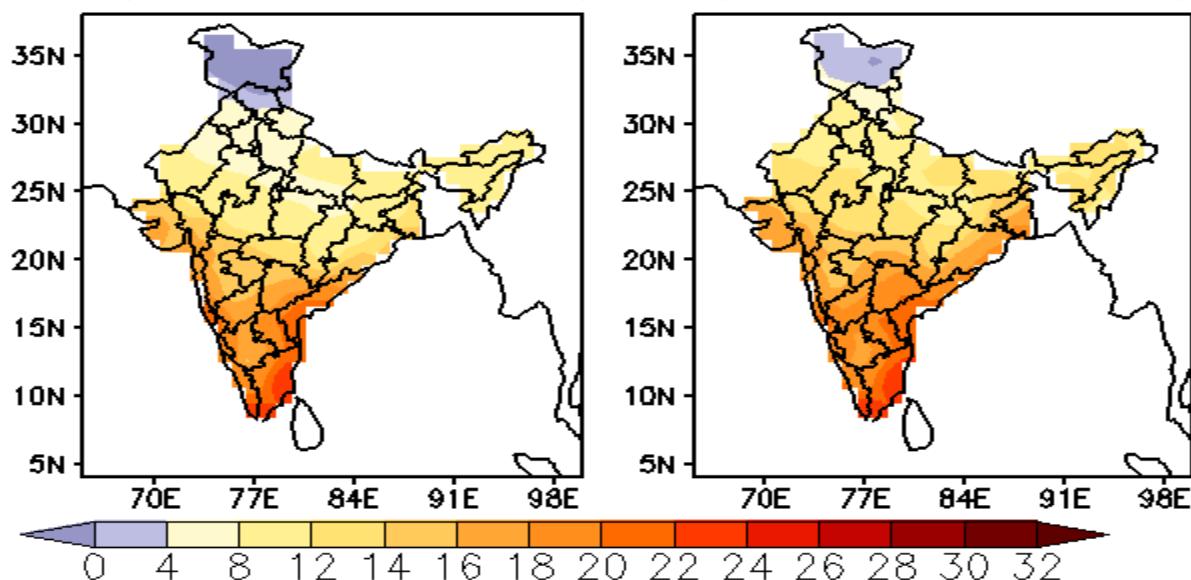
(Week2:00Z15Feb–00Z22Feb)

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

MME Bias corrected forecast Tmin (Deg C)

(Week1: 09Feb–15Feb)

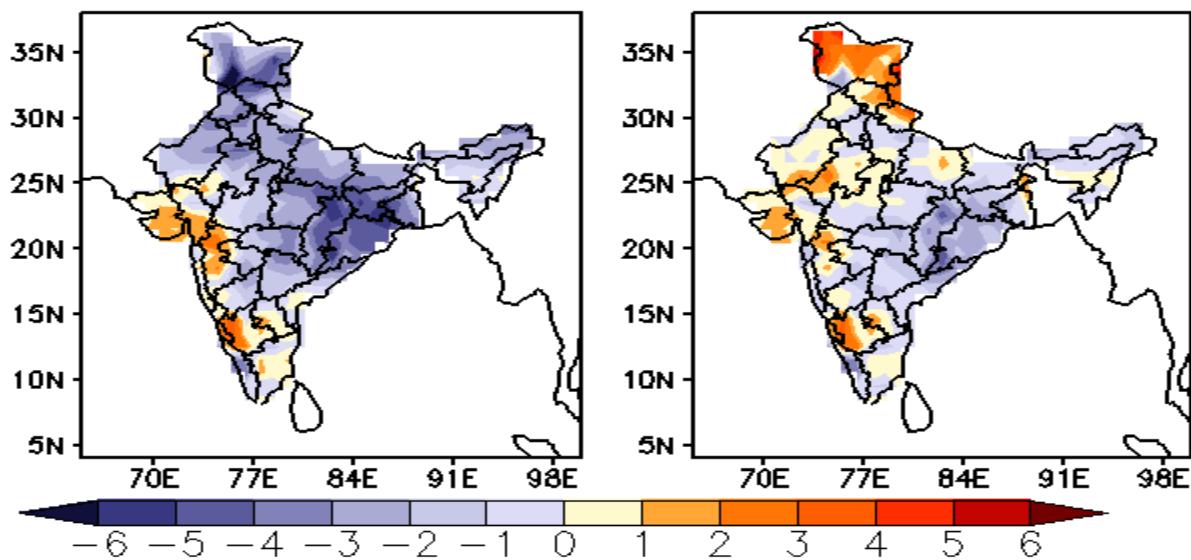
(Week2: 16Feb–22Feb)



MME forecast Tmin anomaly (Deg C)

(Week1: 09Feb–15Feb)

(Week2: 16Feb–22Feb)



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

EXTENDED RANGE OUTLOOK FOR COLD WAVE

Week 1: 09.02.2024 - 15.02.2024



Week 2: 16.02.2024 - 22.02.2024



PROBABILITY OF COLDWAVE

CONFIDENCE

LOW (1-33% PROBABILITY)



MODERATE (34-67% PROBABILITY)



HIGH (68-100% PROBABILITY)

