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

Press Release: Dated: 1 Feb 2024

Subject: Current Weather Status and Extended Range Forecast for next two weeks (1-15 Feb 2024)

1. Salient Observed Features for week ending 31 Jan 2024

- **Season's 1st active Western Disturbance (WD) affected northwest India from 28 Jan. It also caused 1st spell of light to moderate rain/Snow of this winter season, over Kashmiri and adjoining areas Himachal Pradesh during 29-31 Jan 2024 and light rainfall over Punjab on 30-31 Jan.**
- **Large-scale dense fog/low cloud cover was continued to prevail across many parts of Indo-Gangetic plains till 30-31 Jan and then not observed from night of 31st in most areas in the region, due to impact of above active WD and stronger winds across the region.**
- **Persistent Fog and low cloud layer continued to cause Cold day to Severe Cold day conditions which mainly prevailed over Uttar Pradesh, Bihar and in isolated pockets of Uttarakhand, Punjab and Haryana till 29 Jan and then gradually abated from 31 Jan 2024.**
- **Analysis of Weekly overall Rainfall distribution during the week ending on 31 Jan 2024 and Winter Season's Rainfall Scenario (1-31 Jan 2024):** The country as a whole, the weekly cumulative All India Rainfall in % departure from its long period average (LPA) till week ending on 31 January, 2024 is -62%. All India Seasonal cumulative rainfall % departure during this year's **Winter Season's Rainfall for the period 1 to 31 January 2024** is -58%. 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 & II** respectively.

Table 1: Rainfall status (Week and season)

Region	WEEK			SEASON		
	25-01-2024 To 31-01-2024			01-01-2024 To 31-01-2024		
	Actual	Normal	% Dep	Actual	Normal	% Dep
East & Northeast India	2.3	4.4	-47	5.6	17.2	-67
Northwest India	2.4	9.8	-76	3.1	33.8	-91
Central India	1.1	2.2	-50	5.3	7.4	-29
South Peninsula	1.3	1.2	12	18.2	7.8	133
Country as a whole	1.7	4.6	-62	7.2	17.1	-58

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 Nino-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 the next year.
- Madden Julian Oscillation (MJO) index is currently in phase 6 with amplitude greater than 1. According to both GEFS and ECMWF forecasts, it is likely to continue in same phase during the first week. Thereafter, it is likely to enter in phase 7 and remain in the same phase during week 2.

3. Forecast for next two week

Forecast for next two week

Weather systems & associated Precipitation during Week 1 (01 to 07 February, 2024) and Week 2 (08 to 14 February, 2024)

Weather systems & associated Precipitation during Week 1 (01 to 07 February, 2024)

✓ **A Western Disturbance as a trough in middle tropospheric westerlies runs roughly along Long. 72°E to the north of Lat. 30°N with an induced cyclonic circulation over northwest Rajasthan & neighbourhood in lower tropospheric level. Another Western Disturbance is likely to affect Northwest India from 03rd February, 2024.**Under the influence of these systems:

- Light/moderate fairly widespread to widespread rainfall/snowfall very likely over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad, Himachal Pradesh and Uttarakhand on 01st and 3rd to 05thFebruary, 2024.
- Isolated **heavy rainfall/snowfall** also likely over Himachal Pradesh and Uttarakhand toady.
- Light/moderate scattered to fairly widespread rainfall very likely over Punjab, Chandigarh, Haryana, Delhi and isolated to scattered rainfall over Uttar Pradesh, East Rajasthan toady. Light/moderate isolated to scattered rainfall very likely over the above regions on 03rd& 04th February, 2024.
- Isolated **hailstorm** also likely over Himachal Pradesh, Uttarakhand, Punjab, Haryana, Chandigarh, West Uttar Pradesh on 01st; over West Rajasthan on 03rd and over East Rajasthan on 04th February, 2024.
- **Strong and chilly surface winds of the order of 30-40 kmph** very likely over Punjab, Haryana-Chandigarh-Delhi and West Uttar Pradesh on 01st February.

✓ Light/moderate scattered to fairly widespread rainfall/snowfall very likely over Arunachal Pradesh during next 5 days (01stto 05th February) and isolated to scattered rainfall over West Bengal & Sikkim, Odisha, Assam & Meghalaya and Nagaland, Mizoram, Manipur & Tripura during 01st to 02nd February).

✓ Isolated **heavy rainfall/snowfall** also likely over Arunachal Pradesh on 01st& 02nd February.

✓ Isolated **hailstorm** likely over Assam & Meghalaya on 02nd February; over Sub-Himalayan West Bengal & Sikkim on 01st& 02nd February, 2024.

✓ Light isolated rainfall is also likely over Kerala, Tamilnadu and Andaman & Nicobar Islands during 1st 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 to above normal** over central India and below normal over rest homogenous regions of India during the week.

Minimum temperature, Cold Wave and Fog forecast & warning for Week 1 (01 to 07 February, 2024) and Week 2 (08 to 14 February, 2024)

Minimum temperature, Cold Wave and Fog forecast & warning for Week 1 (01 to 07 February, 2024):

Minimum temperature and Cold Wave warning:

- **Minimum temperatures**: Minimum temperatures are in the range of 9-12°C over many parts of Punjab, Haryana, Chandigarh, Delhi, East Uttar Pradesh, Bihar and north Rajasthan and Sub-Himalayan West Bengal & Sikkim. These are normal to above normal over northern parts of the country.
- Fall by 2-3°Cin minimum temperatures likely over many parts of Central & East India during 2 days and no significant change thereafter and no significant change in minimum temperatures likely over the rest parts of the country during the week.
- No Cold wave conditions likely over any part of the country during next one week.

Dense fog and Cold day warning:

- **Dense to very dense fog** conditions very likely to prevail in morning hours over some parts of Punjab, Haryana-Chandigarh on 02nd February and in isolated pockets on 03rd February, 2024.
- **Dense to very dense fog** conditions very likely to prevail in morning hours over isolated pockets of Uttar Pradesh on 02nd February.
- **Dense Fog** conditions in isolated pockets very likely to prevail for a few hours in morning over Bihar on 02nd & 03rdFebruary; over north Rajasthan on 02nd February, 2024.
- **No 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 (08 to 14 February, 2024):

- **Minimum temperatures**: The Minimum temperatures are likely to be below normal by 1-3°C over most parts of the country outside parts of Gujarat and Karnataka, where these are likely to be near normal.
- **Dense Fog in isolated pockets is also likely over Punjab, Haryana, Chandigarh & Delhi and Uttar Pradesh during some Days of the week.**
- **There is no possibility of cold wave in any parts of the country (Annexure V).**

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

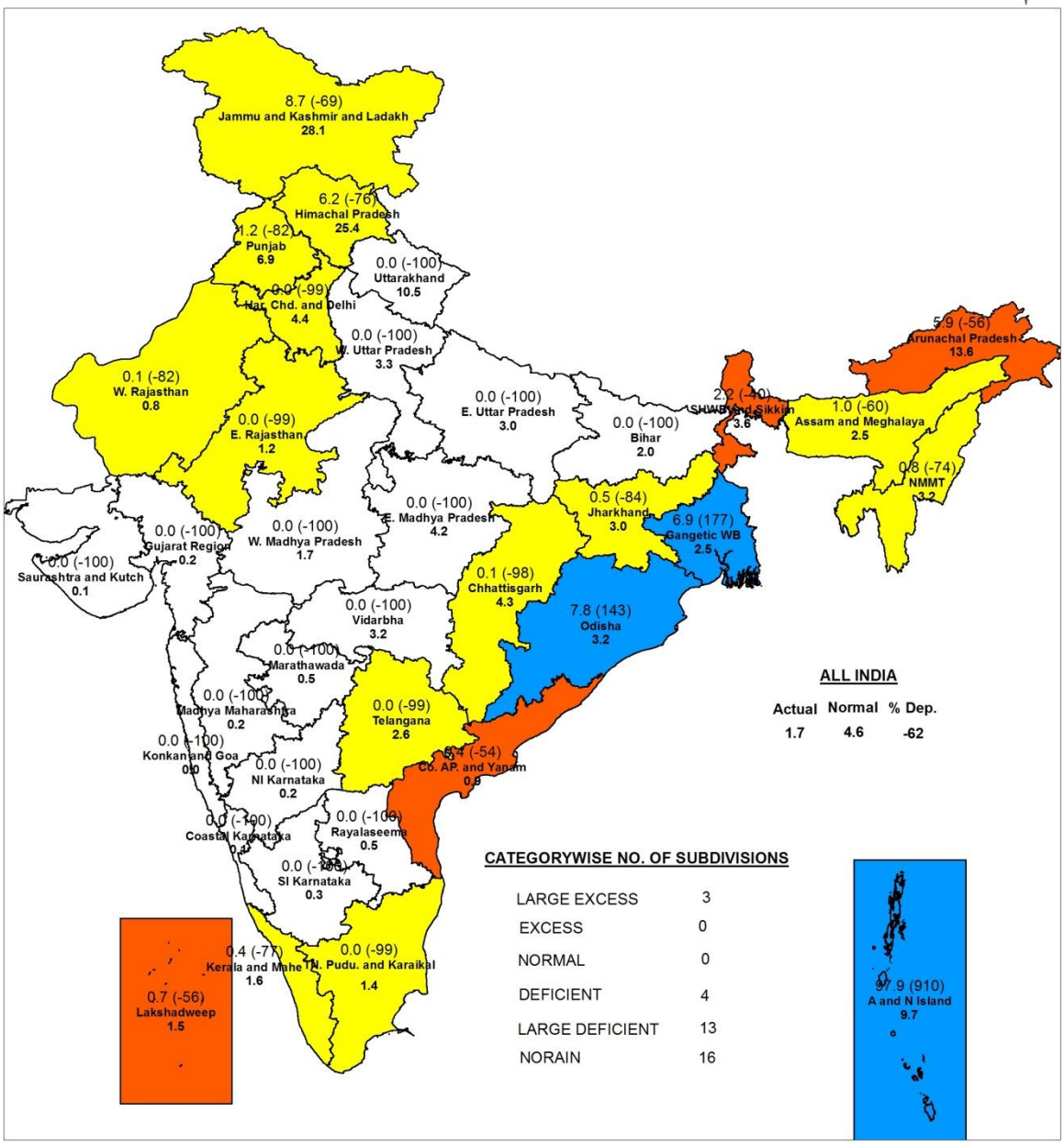
Annexure I

भारत मौसम विज्ञान विभाग
INDIA METEOROLOGICAL DEPARTMENT

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

SUBDIVISION RAINFALL MAP

Week : 25-01-2024 To 31-01-2024



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 rainfal (mm), while bold figures indicate Normal rainfall (mm).
c) Percentage Departures of rainfall are shown in brackets.

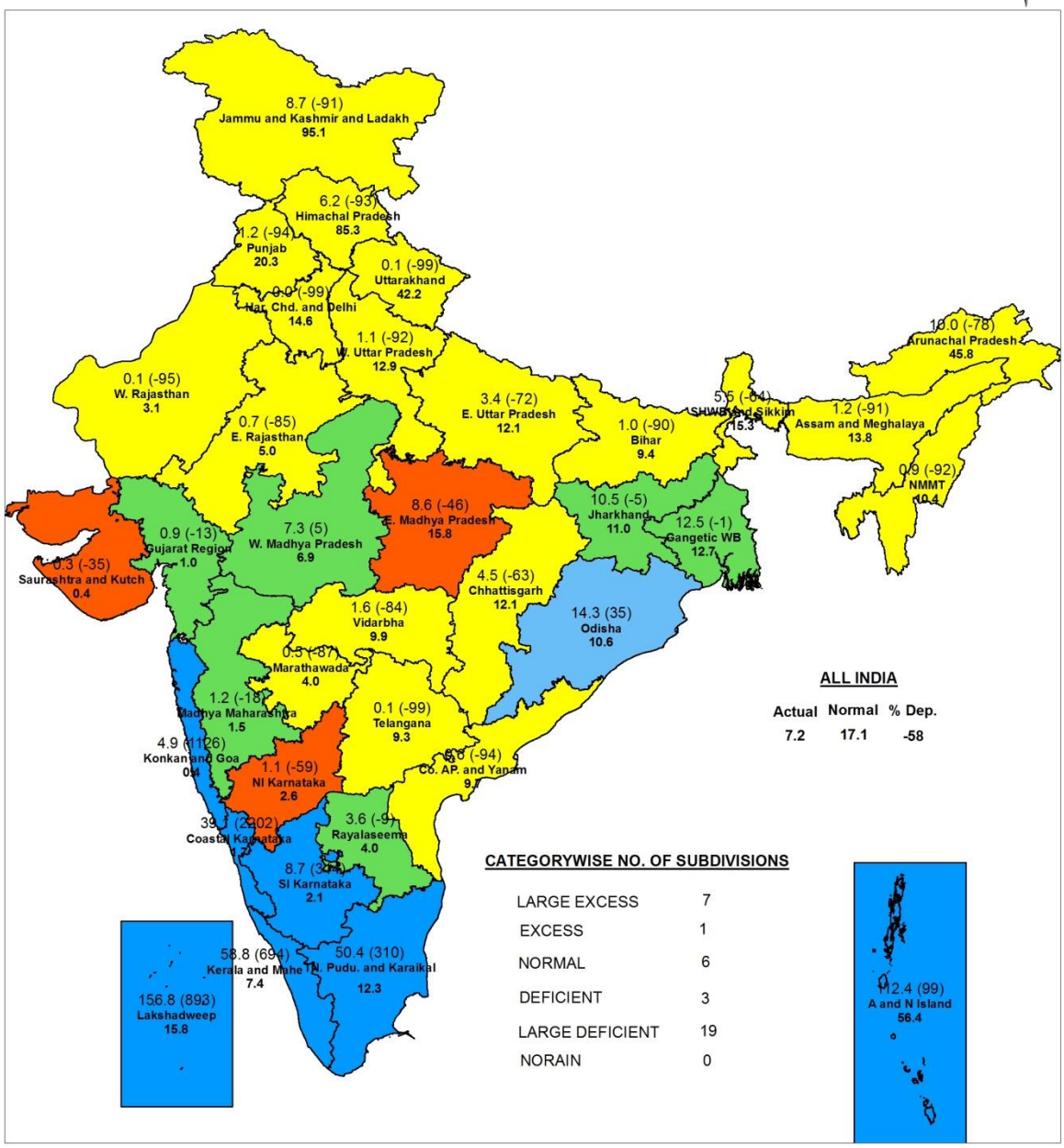
Annexure II

भारत मौसम विज्ञान विभाग
INDIA METEOROLOGICAL DEPARTMENT

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

SUBDIVISION RAINFALL MAP

Period : 01-01-2024 To 31-01-2024

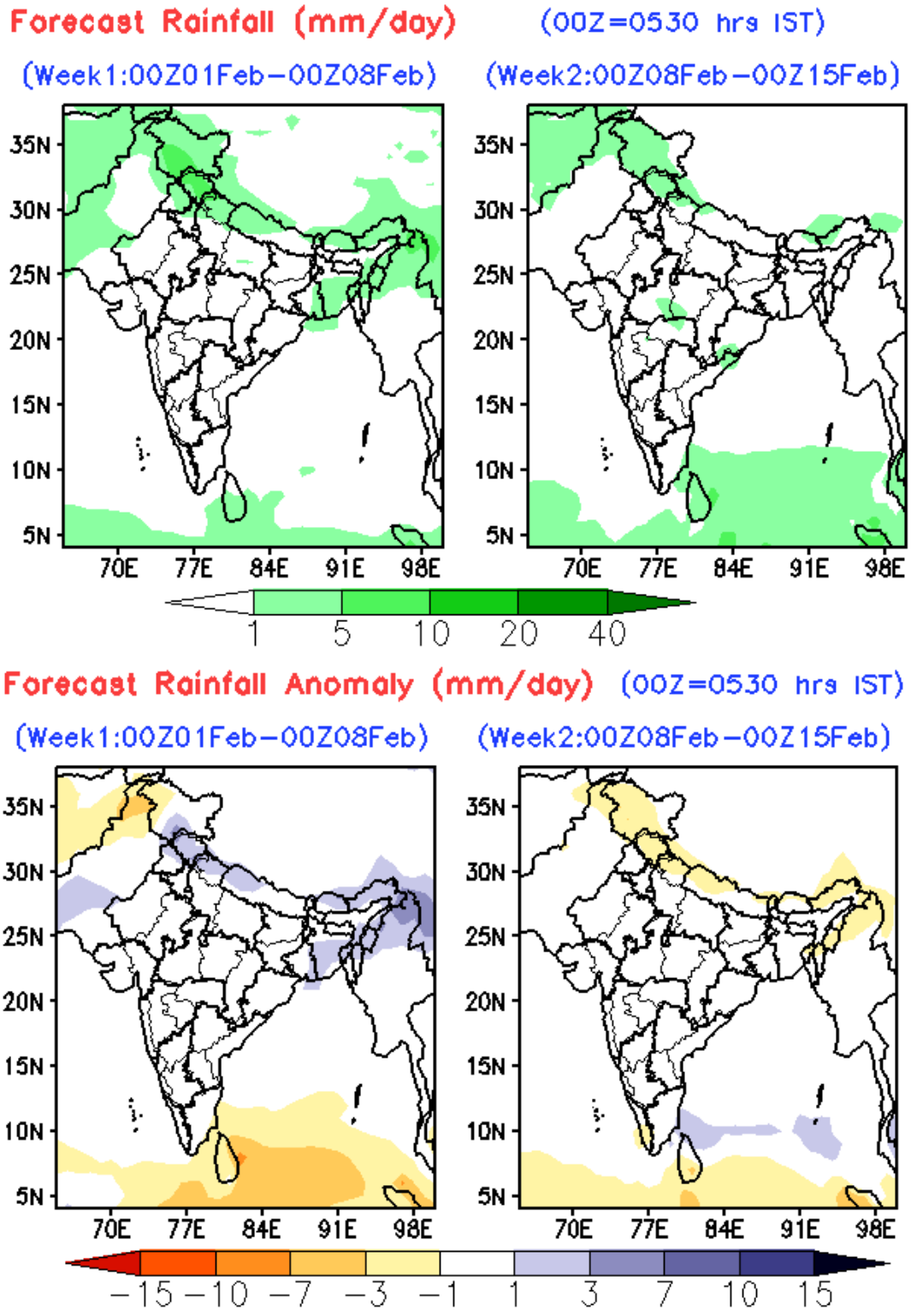


Legend

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

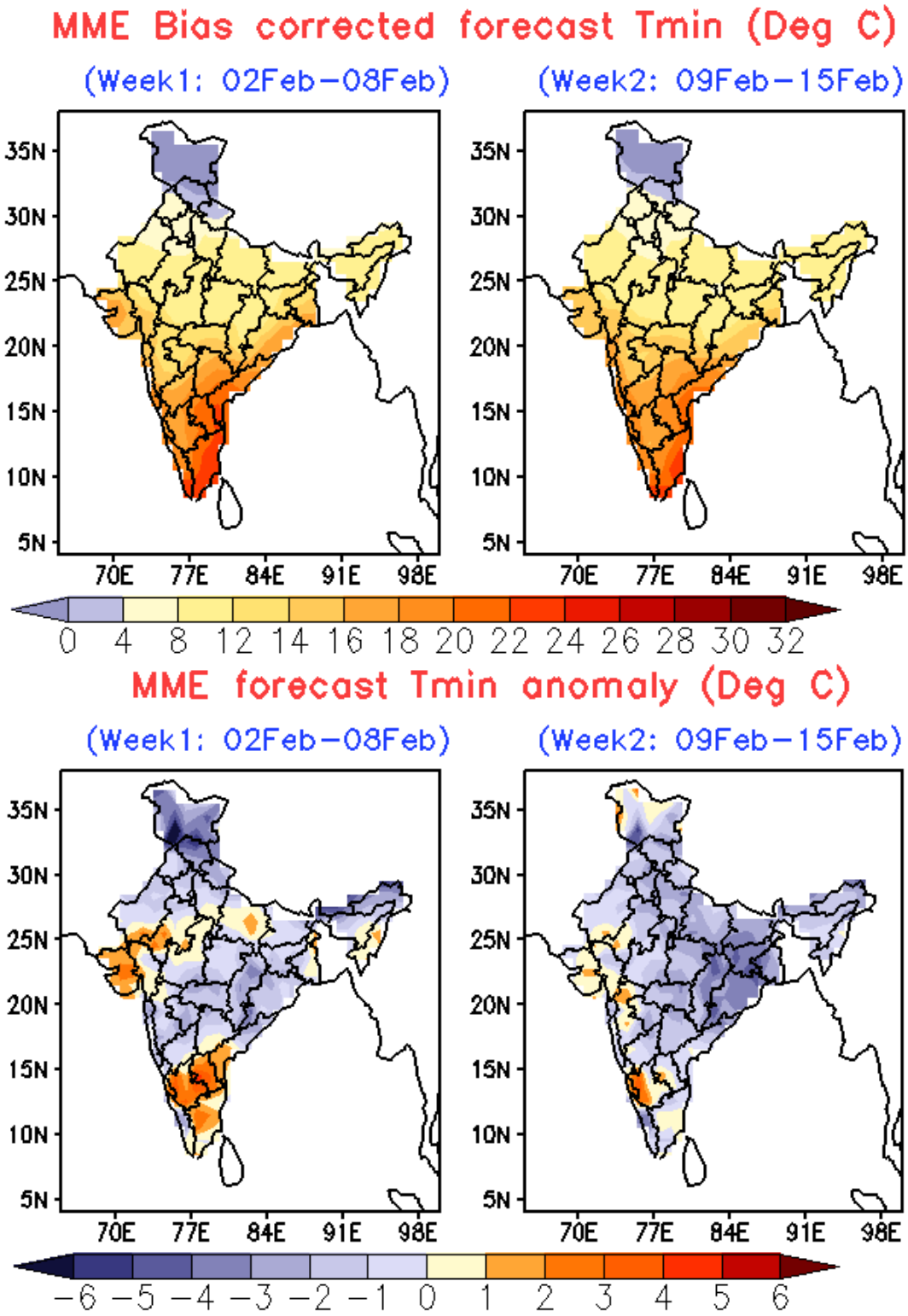
NOTES :
a) RainFall figures are based on operation data.
b) Small figures indicate actual rainfal (mm), while bold figures indicate Normal rainfall (mm).
c) Percentage Departures of rainfall are shown in brackets.

Annexure III



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

Annexure IV



Extended range froecast of Minimum Tmperature (top panel) and anomalies(lower panesl) from IMD MME

Annexure V

EXTENDED RANGE OUTLOOK FOR COLD WAVE

Week 1: 02.02.2024 - 08.02.2024

Week 2: 09.02.2024 - 15.02.2024

PROBABILITY OF COLDWAVE	CONFIDENCE
LOW (1-33% PROBABILITY)	
MODERATE (34-67% PROBABILITY)	
HIGH (68-100% PROBABILITY)	