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

Press Release: Dated: 4 April 2024

Subject: Current Weather Status and Extended range Forecast for next two weeks (4-17 April 2024)

1. Salient Observed Features for week ending 3 April 2024

- Light/Moderate rainfall/snowfall observed at a few places to most places over Jammu-Kashmir, Uttarakhand and Himachal Pradesh during 29 to 31 March and at a few places adjoining plains during 30-31 March and at isolated places over parts of east central India on 30-31 March 2024. Isolated thunderstorm activities also reported over these areas during the period. This was caused by movement of an active WD as a cyclonic circulation from Iran & neighborhoods to northwest India with a trough aloft, as well as due to formation of an induced cyclonic circulation over northwest Rajasthan & adjoining Pakistan at lower levels, which also subsequently followed east ward movement during 28 March till 1 April.
- Due to mainly dry weather over peninsular India and adjoining west central India during most dates in the week, day maximum temperature were raised in some areas of these regions, leading to development of Season's 1st heat wave conditions. It was observed at isolated pockets over Madhya Pradesh on 28th & 29 March; West Rajasthan on 29th March; at isolated pockets over North Interior Karnataka on 01st & 2nd April.
- East-west trough from Bihar to South Assam and lower level winds with moisture incursions emanating from anti-cyclone over central and north Bay of Bengal caused fresh wet spells over northeast India during 29 March-2 April. Very heavy rainfall occurred at isolated places over Assam & Meghalaya on 03rd April; heavy at isolated places over Tripura on 29th March; Arunachal Pradesh, Manipur and Meghalaya on 01st April; Arunachal Pradesh on 2nd April.
- Hailstorm Observed at isolated places over Himachal Pradesh, Uttarakhand, Madhya Pradesh, Haryana, Chandigarh and West Uttar Pradesh on 30th March; Himachal Pradesh, Uttarakhand

and East Madhya Pradesh on 31st March; Assam & Meghalaya, Sub-Himalayan West Bengal & Sikkim and Odisha on 01st April; Mizoram on 03rd April.

- **Temperature Scenario:** The highest maximum temperature of 43.0°C was observed at Nandyal (Rayalaseema) on 03rd March 2024 and the lowest minimum temperature of 11.6°C was observed at Karnal (Haryana) on 02nd April 2024.

➢ **Analysis of Weekly overall Rainfall distribution during the week ending on 3 April 2024 and Summer Season's Rainfall Scenario (1March-3April 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 3 April was - 2%. All India Seasonal cumulative rainfall % departure during this year's **Summer Season's** during **1 to 3 April 2024** is -6% and over northwest India, it is -9%. 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		
	28.03.2024 TO 03.04.2024			01.03.2024 TO 03.04.2024		
	Actual	Normal	% Dep	Actual	Normal	% Dep
EAST & NORTH-EAST INDIA	20.1	22.6	-11%	68.2	70.7	-3%
NORTH-WEST INDIA	10.9	7.2	52%	46.1	50.5	-9%
CENTRAL INDIA	0.6	1.5	-63%	15.9	8.5	87%
SOUTH PENINSULA	0.7	3.5	-81%	3.5	17.3	-80%
Country as a whole	6.9	7	-2%	31.1	33	-6%

2. Large scale features

Madden Julian Oscillation (MJO) index is currently entered into Phase 3 with amplitude close to 1. The consensus between various forecasts (ECMWF, GEFSV12 and CFSv2 of NECP) indicate that the MJO index is likely to enter quickly into phase 4 during next 1-2 days with a slight variation in

amplitude. Thereafter, it would propagate eastward within phase 4 during subsequent days of the week 1 with decreasing amplitude to less than 1. It would continue to move eastward further into phase 5 in the beginning of second week. During week 2, the NCEP GFSV12 & CFSV2 are indicating smooth eastward propagation into phase 6 with steady increase in the amplitude reaching more than 1. But the ECMWF model is suggesting that the MJO signal is likely to have ambiguous/looping movement within phase 5 during the second week. Therefore, the MJO is not likely to provide support for the enhancement of convective activity over the North Indian Ocean (NIO) region due to its very short stint inside phase 3.

3. Forecast for next two week

Weather systems & associated Precipitation during Week 1 (04 to 10 April, 2024) and Week 2 (11 to 17 April, 2024)

Weather systems & associated Precipitation during Week 1 (04 to 10 April, 2024)

❖ A Western Disturbance as a trough in middle tropospheric westerlies runs roughly along long. 65°E to the north of lat. 30°N.A cyclonic circulation lies over northeast Rajasthan & neighbourhood in lower tropospheric level. Under their influence:

✓ Isolated to scattered light to moderate rainfall/snowfall very likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh during next 3 days and Uttarakhand during next 7 days.

❖ The cyclonic circulation over north Bangladesh persists; another cyclonic circulation lies over east Assam & neighbourhood in lower tropospheric levels. Under the influence of these systems:

✓ Fairly widespread to widespread light/moderate rainfall/snowfall with isolated **thunderstorms & lightning very likely** over Arunachal Pradesh; scattered to fairly widespread light to moderate rainfall over Assam & Meghalaya and Nagaland, Manipur, Mizoram &Tripura during next 7 days.

✓ ***Isolated heavy rainfall/snowfall very likely over Arunachal Pradesh during 04th-07th April with possibility of very heavy falls on 06th April, 2024.***

✓ ***Isolated heavy rainfall over Assam & Meghalaya on 05thApril.***

✓ Isolated light rainfall very likely over Sub-Himalayan West Bengal & Sikkim during next 2 days and scattered to fairly widespread light to moderate rainfall with isolated **thunderstorms & lightning** during 06th-10th April, 2024.

✓ Isolated to scattered light/moderate rainfall with **thunderstorms & lightning** very likely over Gangetic West Bengal, Odisha, Jharkhand during 06th-09th April; over Bihar on 07th& 08th April, 2024.

❖ The trough/wind discontinuity runs from south Tamil Nadu to southeast Madhya Pradesh in lower tropospheric levels. Under its influence; Isolated light rainfall likely over Madhya Maharashtra during 05th-09th April; over Konkan & Goa, Marathawada, Madhya Pradesh, Vidarbha, Chhattisgarh, Karnataka, Telangana, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe during 06th-10thApril; over Coastal Andhra Pradesh & Yanam during 07th-09th April, 2024.

Rainfall for week 2 (11 to 17 April, 2024):

✓ Under the influence of Western Disturbances, light to moderate scattered/fairly widespread rainfall/snowfall activity likely over Western Himalayan Region and light to moderate isolated/scattered rainfall/thunderstorm likely over plains of northwest India during some days of the week.

✓ Due to trough/wind discontinuity over central & south peninsular India, light to moderate isolated/scattered rainfall/thunderstorm & lightening likely over plains of northwest India during some days of the week.

✓ Overall, rainfall activity is likely to be above **normal** over northwest, central, east and south Peninsular India during the week.

Maximum temperatures for Week 1 (04 to 10 April, 2024) and Week 2 (11 to 17 April, 2024)

Maximum temperatures for Week 1 (04 to 10 April, 2024):

❖ Yesterday, Maximum temperatures were in the range of 40-42°C over many parts of Vidarbha, some parts of south Chhattisgarh, Marathawada, Telangana & adjoining north interior Karnataka, Rayalaseema and at isolated pockets over southeast Uttar Pradesh, North Interior Odisha, Madhya Maharashtra, coastal Andhra Pradesh & south interior Tamil Nadu. Maximum temperatures departures are above normal by 3-4°C at isolated pockets over Madhya Pradesh, Vidarbha & Telangana.

❖ Yesterday, the maximum temperature exceeded 98th percentile over some parts of Vidarbha and at isolated pockets over East Rajasthan, southwest Rajasthan, northwest Madhya Pradesh, East Madhya Pradesh, Marathawada, Odisha, Interior Karnataka, Telangana & Rayalaseema.

❖ The maximum temperature likely to exceed 98th percentile at isolated pockets over Karnataka & Rayalaseema during 04th-07th; south Kerala during 05th-07th and north interior Tamil Nadu on 06th& 07th April, 2024.

❖ Today, Minimum temperatures are **above normal by 3-5°C** at many places over Manipur, Tripura, Gujarat Region, East Rajasthan; at isolated places over North Interior Karnataka, Odisha, Vidarbha, southwest Rajasthan, central Madhya Pradesh, Madhya Maharashtra and Marathawada.

❖ Gradual rise in maximum temperatures by 2-3°C very likely over many parts of East India during 1st half of the week and gradual fall by 3-4°C thereafter.

❖ No significant change in maximum temperatures very likely over Maharashtra during 1st half of the week and gradual fall by 2-3°C thereafter.

❖ No significant change in maximum temperatures very likely over rest parts of the country.

Heat wave, Warm Night and Hot & Humid weather warning for next 5 days:

❖ **There is moderate probability of Heat wave conditions** in isolated pockets over North Interior Karnataka, Odisha, Gangetic West Bengal, Jharkhand, Coastal Andhra Pradesh & Yanam, and Rayalaseema during 04th-06th; Telangana and Vidarbha on 05th & 06th April, 2024. There is low probability of **Heat wave conditions** over East Madhya Pradesh and Chhattisgarh towards end of the week 1 **(Annexure III).**

❖ **Warm night conditions** very likely to prevail in isolated pockets over Odisha and North Interior Karnataka during 04th-06th, Chhattisgarh on 04th& 05th and Vidarbha on 05th& 06thApril, 2024.

❖ **Hot and humid weather** very likely to prevail over Kerala & Mahe, Tamil Nadu and Puducherry & Karaikal during 04th-08th;over Coastal Karnataka during 04th-06thand over Konkan & Goa during 05th-07thApril,2024.

Maximum temperatures for Week 2 (11 to 17 April, 2024):

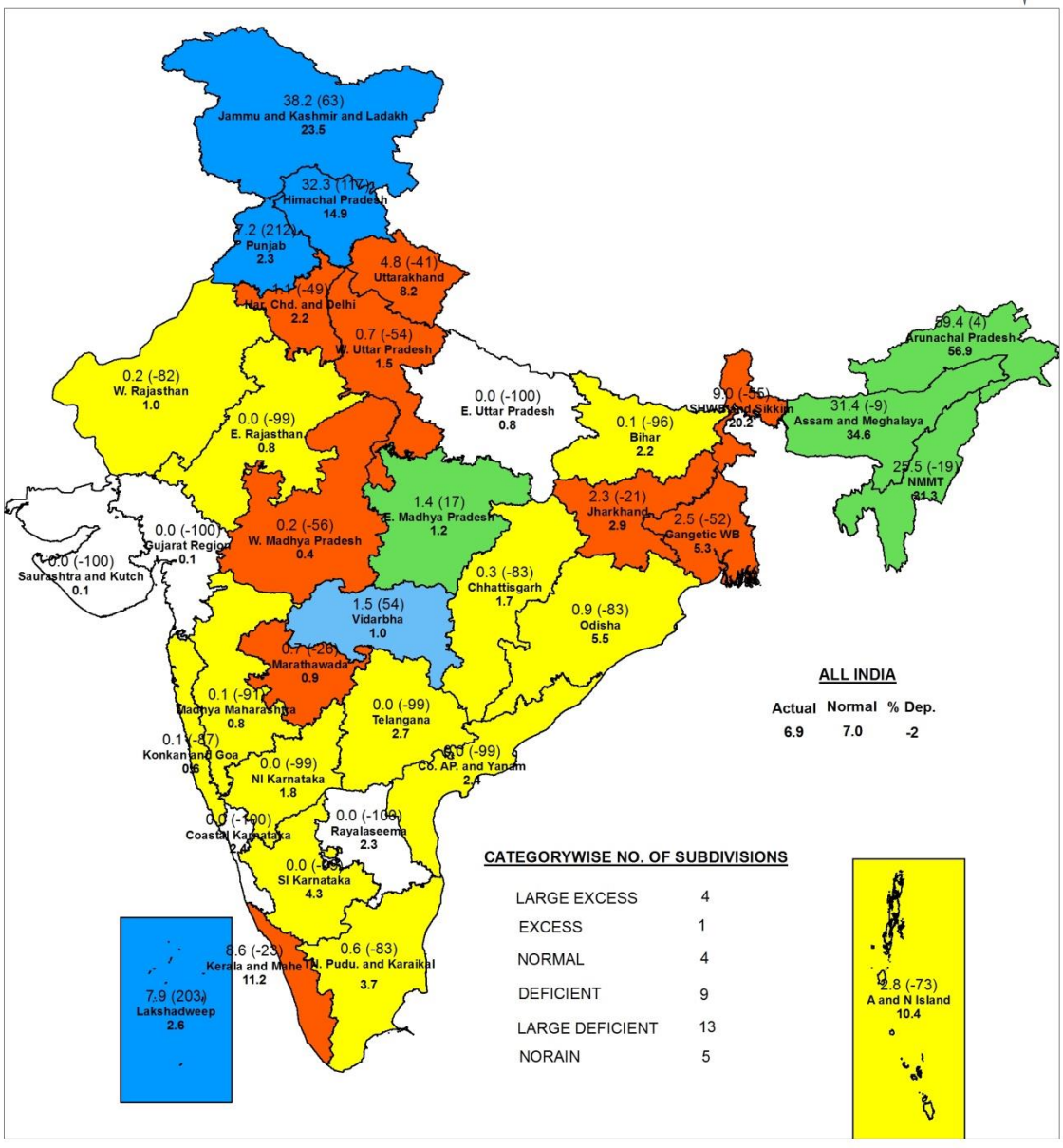
- Due to rainfall/thunderstorm activity over most parts of the country, maximum temperatures are likely to be below normal to near normal over most parts of the country except over Tamilnadu, Andhra Pradesh and Odisha, where these are likely to above normal by 2-3°C.
- **Hot and humid weather likely to prevail over isolated pockets of Maharashtra & Karnataka Coast, Tamilnadu and Andhra Pradesh during some days of the week.**
- **There is low probability of heat wave over isolated pockets of Odisha, Gangetic West Bengal, Coastal Andhra Pradesh and Chhattisgarh during some days of the week(Annexure V).**

भारत मौसम विज्ञान विभाग
INDIA METEOROLOGICAL DEPARTMENT

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

SUBDIVISION RAINFALL MAP

Week : 28-03-2024 To 03-04-2024

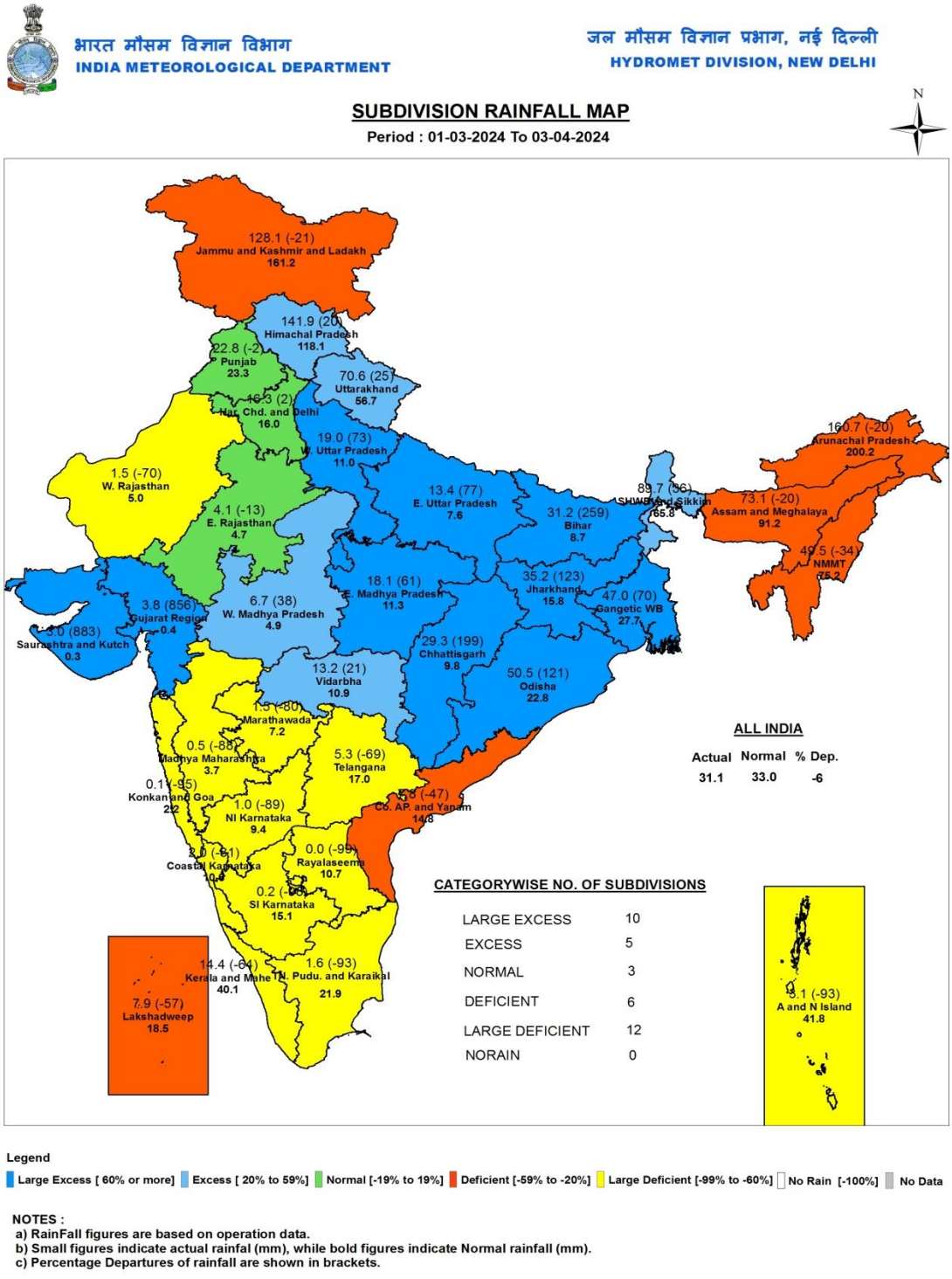


Legend

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

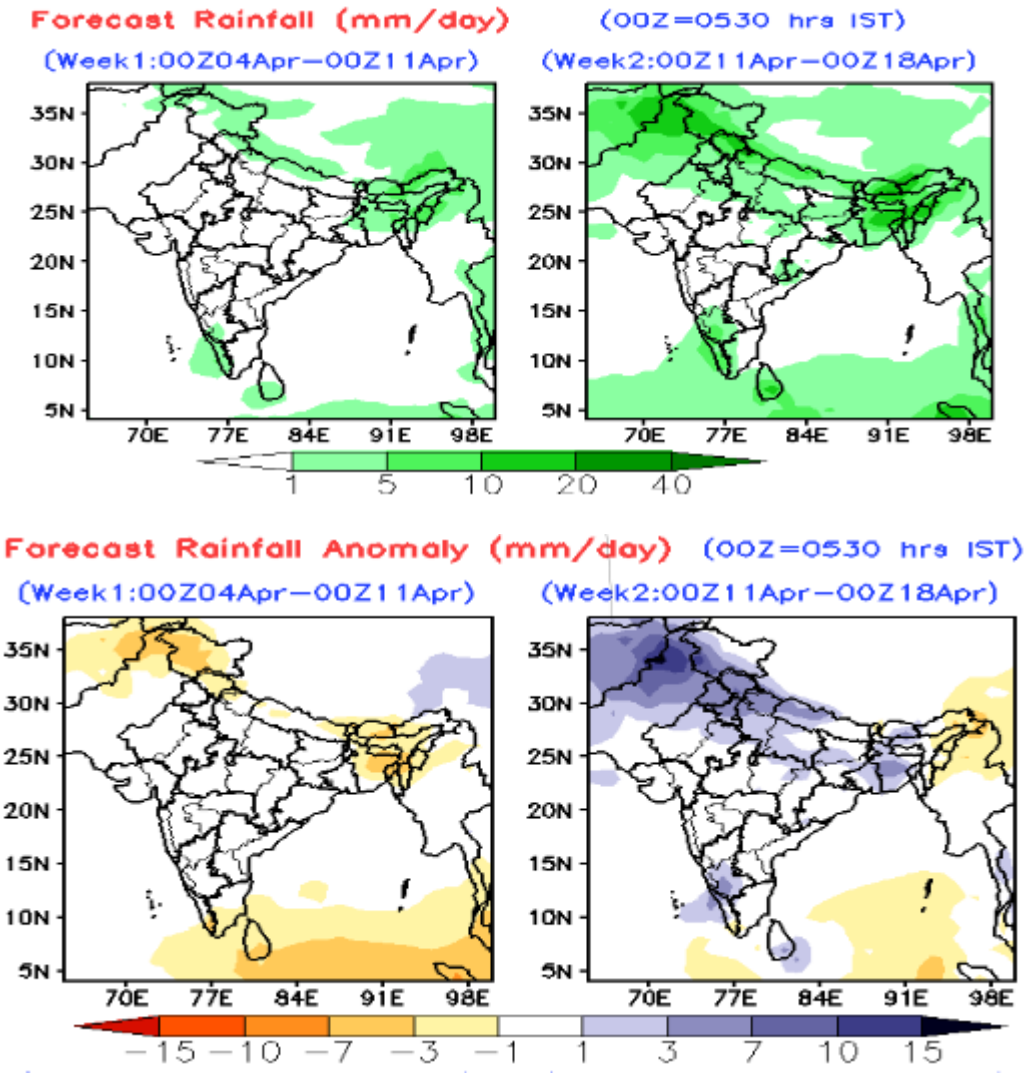
NOTES :

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.



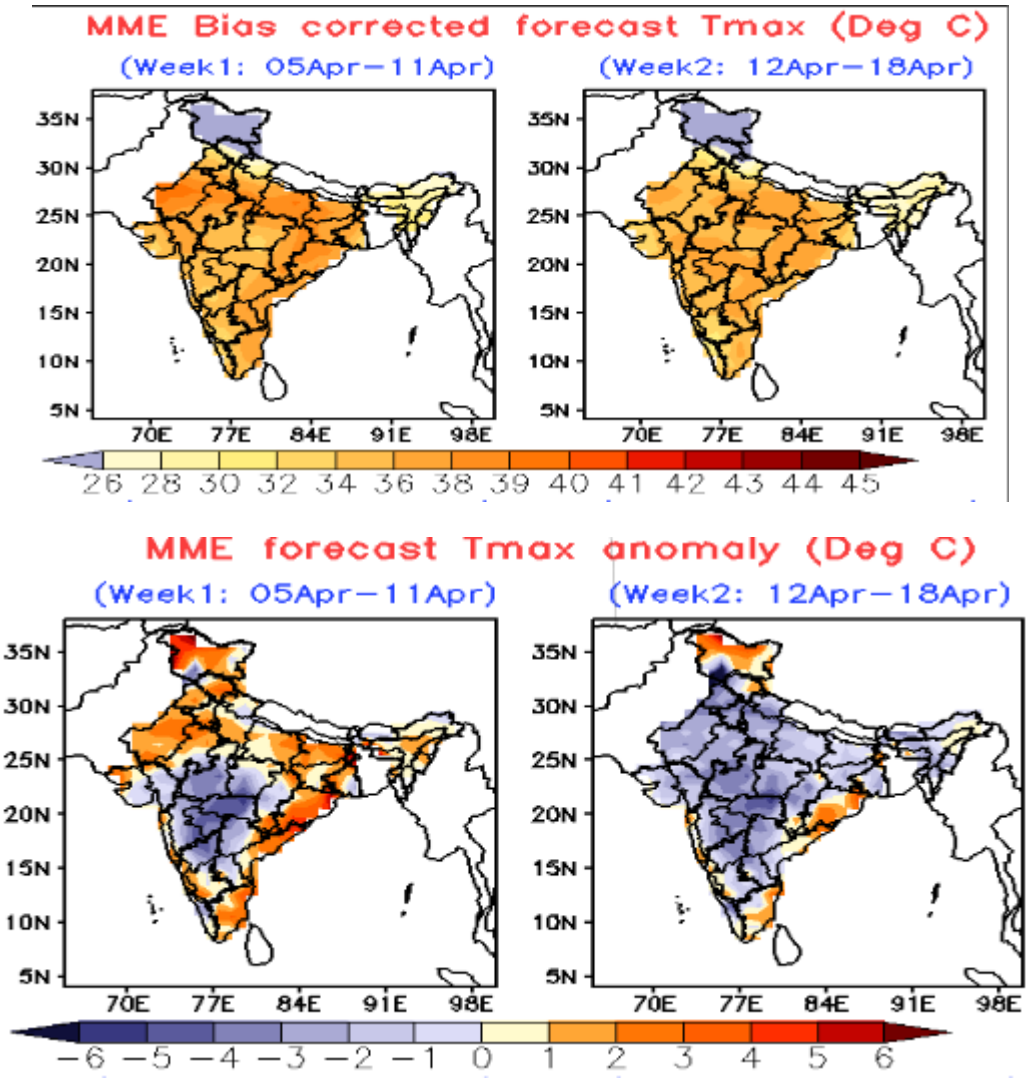
NOTES :
a) RainFall figures are based on operation data.
b) Small figures indicate actual rainfal (mm), while bold figures indicate Normal rainfall (mm).
c) Percentage Departures of rainfall are shown in brackets.

Annexure III



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

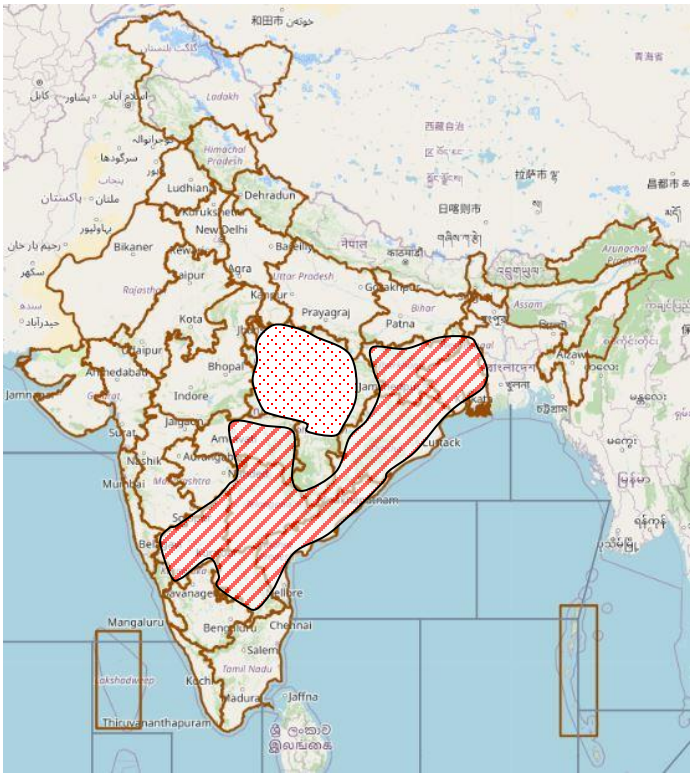
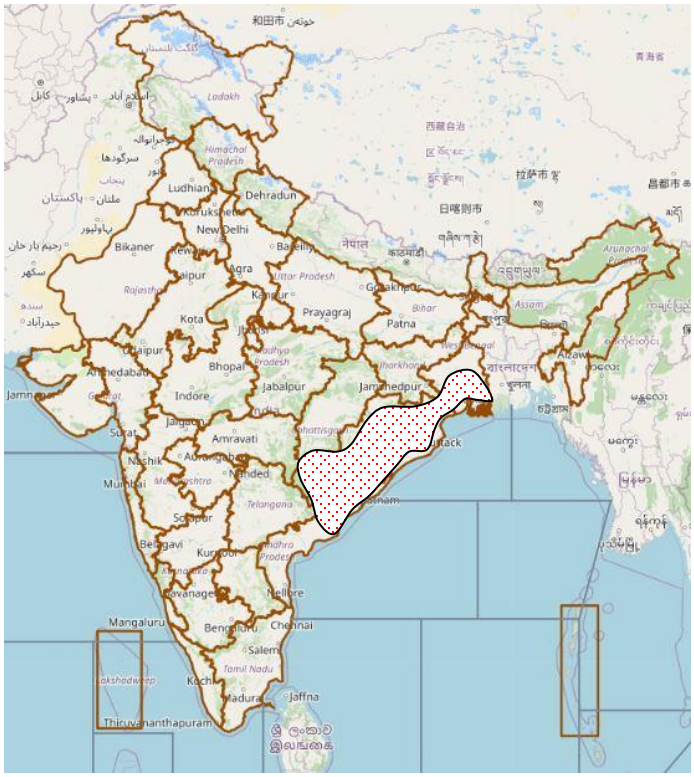
Annexure IV



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

Annexure V

EXTENDED RANGE OUTLOOK FOR HEATWAVE

Week 1: 05.04.2024 - 11.04.2024	Week2: 12.04.2024 - 18.04.2024
	

PROBABILITY OF HEATWAVE CONFIDENCE

LOW (1-33% PROBABILITY)

MODERATE (34-67% PROBABILITY)

HIGH (68-100% PROBABILITY)