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

Press Release: Dated: 15 Feb 2024

Subject: Current Weather Status and Extended range Forecast for next two weeks (15-28 Feb 2024)

1. Salient Observed Features for week ending 15 Feb 2024

- A cyclonic circulation lay over Marathwada & neighbourhood at 0.9 km above mean sea level on 12th Feb, persisted at the same level on 13th Feb, lay over to central parts of Madhya Maharashtra & neighbourhood at 0.9 km above mean sea level on 14th Feb. Another cyclonic circulation lay over west Vidarbha & neighbourhood at 1.5 km above mean sea level on 12th Feb and became less marked on 13th Feb. A trough ran from above cyclonic circulation to northeast Uttar Pradesh across Madhya Pradesh at 0.9 km above mean sea level on 14th Feb. All these systems caused isolated Light to Moderate rainfall accompanied with Thunderstorm and Hailstorm over Vidarbha on 11th and 12th February; over Jharkhand from 12th to 14th February; over Chhattisgarh and Odisha on 12th and 14th February.
- **Cold Wave condition** observed at isolated pockets over Punjab, Haryana & Himachal Pradesh on 8th, 9th, 11th & 12th February; over Bihar, Jharkhand and Gangetic West Bengal on 10th February.
- **Dense Fog condition occurred** at isolated pockets over Punjab, Haryana and Delhi on 11th and 13th February, over Odisha on 13th February.

➢ **Analysis of Weekly overall Rainfall distribution during the week ending on 14 Feb 2024 and Winter Season's Rainfall Scenario (1 Jan- 14 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 14 Feb 2024 was -77%. All India Seasonal cumulative rainfall % departure during this year's **Winter's Rainfall** during **1 Jan to 14 Feb 2024** is -40% and over northwest India, it is -57%. 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		
	08.02.2024 TO 14.02.2024			01.01.2024 TO 14.02.2024		
	Actual	Normal	% Dep	Actual	Normal	% Dep
EAST & NORTH-EAST INDIA	3	5.6	-46%	19	28.8	-34%
NORTH-WEST INDIA	0.8	11.7	-93%	23	53.7	-57%
CENTRAL INDIA	1.8	2.4	-27%	7.5	11.3	-34%
SOUTH PENINSULA	0	2.6	-98%	18.6	11.7	+59%
Country as a whole	1.3	5.8	-77%	16.3	27.2	-40%

2. Large scale features

Madden Julian Oscillation (MJO) index Madden Julian Oscillation (MJO) index shows looping and it is Madden Julian Oscillation (MJO) index shows that the associated signal is currently meandering between phases 7 and 8 with amplitude decaying near to 1. The GEFS model predicts a very slow eastward propagation of MJO index within phase 8 to enter into phase 1 during the end of first week while amplitude drops to less than 1. In the beginning of second week, it is likely to advance slowly into phase 2 with further decay in amplitude. Whereas, the ECMWF model indicates a diagonal propagation of MJO signal in the phase diagram from phase 7 to 5 with weak amplitude very much less than 1 during first week and likely to remain in the same phase during week 2. The ensemble members of both the models favour an incoherent MJO with amplitude falling below 1 during the forecast period. Thus, MJO is not likely to favour any cyclogenesis over the North Indian Ocean (NIO) during entire forecast period. However, it is likely to provide support towards enhancement of convective activity over peninsular India and southeast AS & adjoining areas during the second week.

3. Forecast for next two week

Weather systems & associated Precipitation during Week 1 (15 to 21 February, 2024) and Week 2 (22 to 28 February, 2024)

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

Rainfall Forecast:

- ✓ Isolated/scattered **light to moderate rainfall accompanied with thunderstorms, lightning** activity in isolated places very likely over Vidarbha, north Chhattisgarh, Gangetic West Bengal & Sikkim, Jharkhand with Isolated **Hailstorm** very likely over north Chhattisgarh, Gangetic West Bengal, Jharkhand and north interior Odisha on 15th February, 2024 and dry weather thereafter.
- ✓ Isolated/scattered **light to moderate rainfall accompanied with thunderstorms, lightning and hailstorm** activity in isolated places very likely over Arunachal Pradesh, Assam & Meghalaya and Nagaland on 15th February, 2024.
- ✓ **A fresh active Western Disturbance(WD) is likely to affect northwest India from 17th February till 21 Feb and cause:**

- Fairly widespread to widespread **light/moderate rainfall/snowfall accompanied with thunderstorms, lightning and hail** during 17th-21st with isolated Heavy Rainfall/Snowfall very likely over Western Himalayan Region during 18th-21st February, 2024.
- Scattered to fairly widespread **light/moderate rainfall accompanied with thunderstorms, lightning and hail with gusty winds (speed reaching 30-40 gusting to 50 kmph)** likely over Punjab during 18th-20th; Haryana-Chandigarh, West Uttar Pradesh during 19th-21st and over Rajasthan on 19th February, 2024.
- **The peak activities from WD impact on 19 and 20 Feb 2024 over region.**

Rainfall for week 2 (22 to 28 February, 2024):

- ✓ One feeble western disturbance likely to affect western Himalayan region and adjoining plains during 2nd half of the week.
- ✓ Due to trough/cyclonic circulation in lower levels over east & adjoining northeast India, light to moderate rainfall activity likely over many parts of northeast India and at isolated places over adjoining east India during some days of the week.
- ✓ Overall, rainfall activity is likely to be normal to above normal over most parts of the country except parts of Jammu, Kashmir & Ladakh where rainfall activity likely to be below normal.

Minimum temperature, Cold Wave and Fog forecast & warning for Week 1 (15 to 21 February, 2024) and Week 2 (22 to 28 February, 2024)

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

Minimum temperature and Cold Wave warning:

- Minimum temperatures are in the range of 8-12°C over most parts of Punjab, Haryana, West Uttar Pradesh and north Rajasthan. These are normal over many parts of northwest India and above normal over rest parts of north India. **Today, the lowest minimum temperature of 5.8°C reported at Amritsar (Punjab).**
- No significant change in minimum temperatures likely over Northwest India during next 2 days and rise by 3-5 °C thereafter.
- Fall in minimum temperatures by 2-3°C likely over East India during next 3 days and rise by 2-3°C for the subsequent 2 days.
- **No Cold wave conditions** likely over any part of the country during next one week.

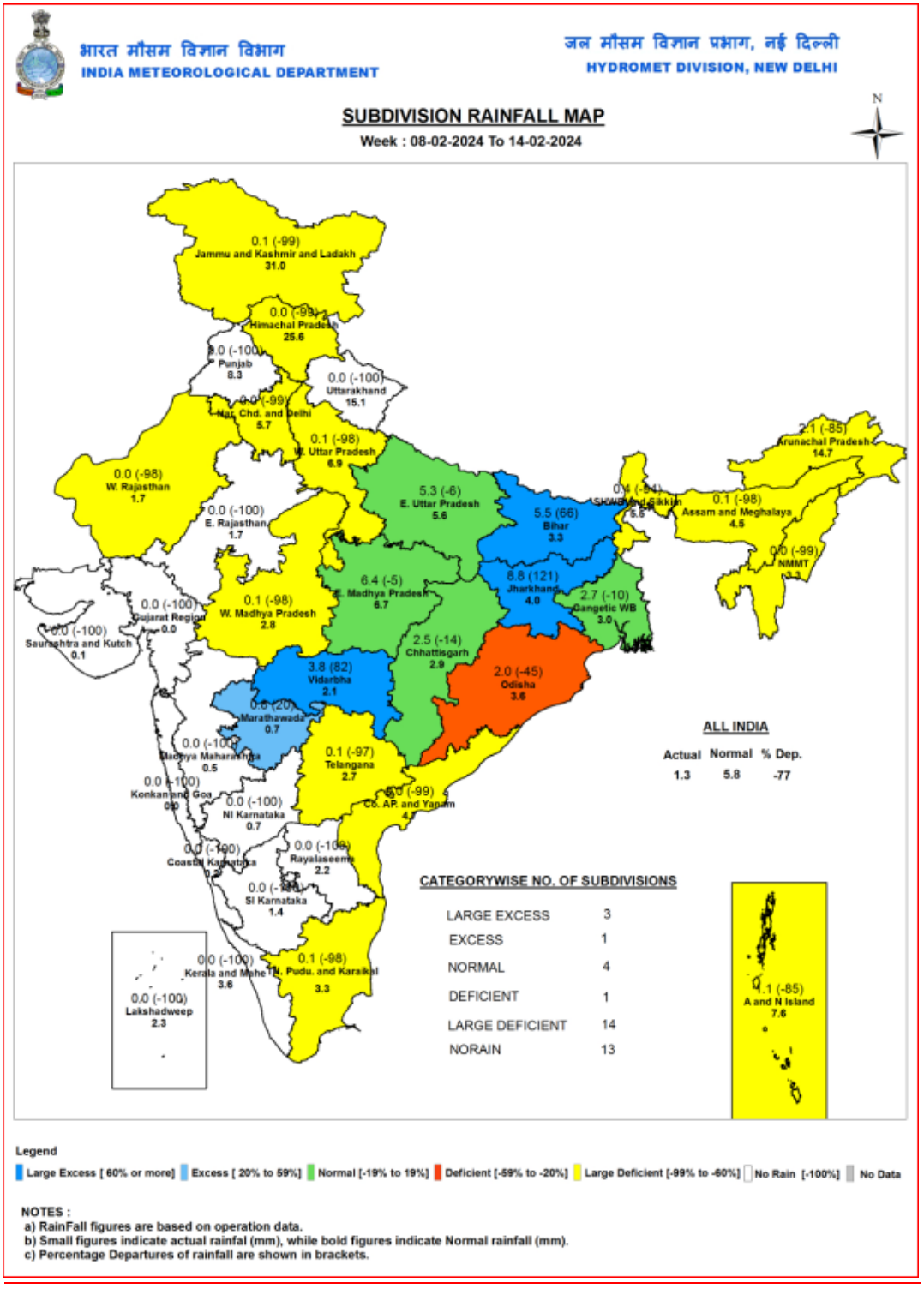
Dense fog and Cold day warning:

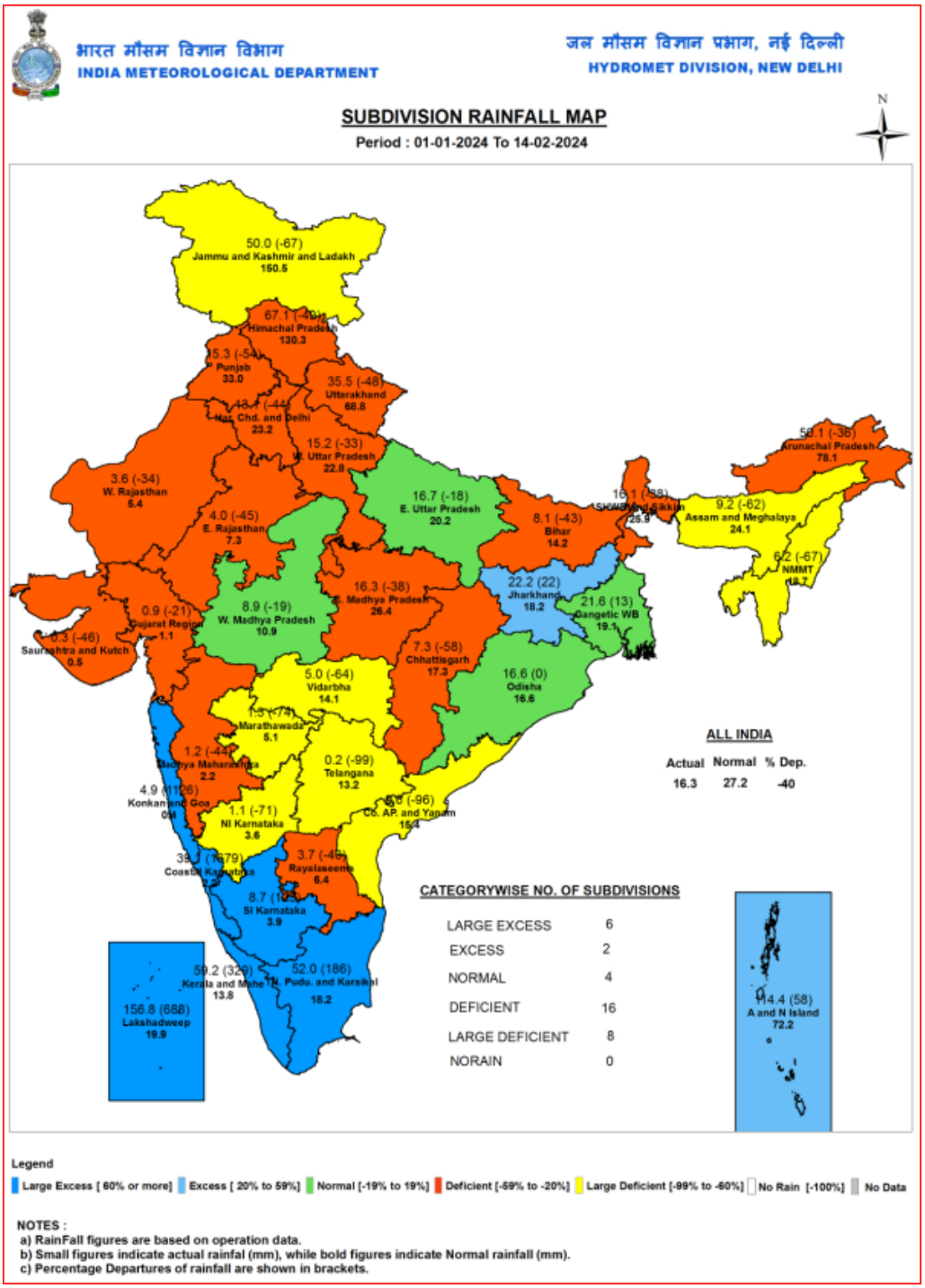
- **Dense fog** conditions very likely to prevail in morning hours in isolated pockets of Bihar and Odisha on 16th & 17th February; over East Uttar Pradesh and Jharkhand on 16th February, 2024.
- **No Dense Fog and Cold day conditions** likely over any other part of the country during next one week.

Minimum temperature, Cold Wave and Fog forecast & warning for Week 2 (22 to 28 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 below normal by 1-3°C over most parts of the country except Andhra Pradesh, Karnataka and Tamil Nadu, where these are likely to be above normal by 2-3°C.
- **No significant spell of Dense Fog and Cold day conditions** likely over any part of the country during the week.
- **No cold wave in any parts of the country.**

Annex: I


भारत मौसम विज्ञान विभाग
INDIA METEOROLOGICAL DEPARTMENT
जल मौसम विज्ञान प्रभाग, नई दिल्ली
HYDROMET DIVISION, NEW DELHI
SUBDIVISION RAINFALL MAP
Week : 08-02-2024 To 14-02-2024
N
0.1 (-99)
Jammu and Kashmir and Ladakh
31.0
0.0 (-98)
Himachal Pradesh
25.6
0.0 (-100)
Punjab
8.3
0.0 (-100)
Uttarakhand
15.1
0.0 (-99)
Har, Chd. and Delhi
5.7
0.1 (-98)
W. Uttar Pradesh
6.9
0.0 (-98)
W. Rajasthan
1.7
0.0 (-100)
E. Rajasthan
1.7
5.3 (-6)
E. Uttar Pradesh
5.6
5.5 (66)
Bihar
3.3
0.1 (-94)
Sikkim
5.6
2.1 (-85)
Arunachal Pradesh
14.7
0.1 (-98)
Assam and Meghalaya
4.5
0.0 (-99)
NMMT
3.3
6.4 (-5)
E. Madhya Pradesh
6.7
8.8 (121)
Jharkhand
4.0
2.7 (-10)
Gangetic WB
3.0
0.0 (-100)
Gujarat Region
0.0
0.1 (-98)
W. Madhya Pradesh
2.8
0.0 (-100)
Saurashtra and Kutch
0.1
2.5 (-14)
Chhattisgarh
2.9
3.8 (82)
Vidarbha
2.1
2.0 (-45)
Odisha
3.6
0.6 (20)
Marathawada
0.7
0.0 (-100)
Madhya Maharashtra
0.5
0.1 (-97)
Telangana
2.7
0.0 (-100)
Konkan and Goa
0.0
0.0 (-100)
NI Karnataka
0.7
0.0 (-99)
Co. AP. and Yanam
4.7
0.0 (-100)
Coastal Karnataka
0.2
0.0 (-100)
Rayalaseema
2.2
0.0 (-100)
SI Karnataka
1.4
0.0 (-100)
Kerala and Mahe
3.6
0.1 (-98)
N. Pudu. and Karaikal
3.3
0.0 (-100)
Lakshadweep
2.3
0.1 (-85)
A and N Island
7.6
ALL INDIA
Actual Normal % Dep.
1.3 5.8 -77
CATEGORYWISE NO. OF SUBDIVISIONS
LARGE EXCESS 3
EXCESS 1
NORMAL 4
DEFICIENT 1
LARGE DEFICIENT 14
NORAIN 13
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.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HYDROMET DIVISION, NEW DELHI
SUBDIVISION RAINFALL MAP
Period : 01-01-2024 To 14-02-2024
N
50.0 (-67)
Jammu and Kashmir and Ladakh
150.5
67.1 (-41)
Himachal Pradesh
130.3
15.3 (-54)
Punjab
33.0
35.5 (-48)
Uttarakhand
68.8
13.4 (-44)
Har. Chd. and Delhi
23.2
15.2 (-33)
W. Uttar Pradesh
22.8
3.6 (-34)
W. Rajasthan
5.4
4.0 (-45)
E. Rajasthan
7.3
16.7 (-18)
E. Uttar Pradesh
20.2
8.1 (-43)
Bihar
14.2
16.1 (-38)
Sikkim
26.9
9.2 (-62)
Assam and Meghalaya
24.1
58.1 (-36)
Arunachal Pradesh
78.1
6.2 (-67)
NMMT
18.7
0.9 (-21)
Gujarat Region
1.1
0.3 (-46)
Saurashtra and Kutch
0.5
8.9 (-19)
W. Madhya Pradesh
10.9
16.3 (-38)
E. Madhya Pradesh
26.4
22.2 (22)
Jharkhand
18.2
21.6 (13)
Gangetic WB
19.1
7.3 (-58)
Chhattisgarh
17.3
16.6 (0)
Odisha
16.6
5.0 (-64)
Vidarbha
14.1
1.5 (-74)
Marathawada
5.1
1.2 (-44)
Madhya Maharashtra
2.2
0.2 (-99)
Telangana
13.2
4.9 (-26)
Konkan and Goa
0.0
1.1 (-71)
NI Karnataka
3.6
0.6 (-96)
Co. AP. and Yanam
15.4
39.7 (-79)
Coastal Karnataka
3.7 (-43)
Rayalaseema
6.4
8.7 (-10)
SI Karnataka
3.9
59.2 (329)
Kerala and Mahe
13.8
52.0 (186)
N. Pudu. and Karaikal
18.2
156.8 (688)
Lakshadweep
19.9
14.4 (58)
A and N Island
72.2
ALL INDIA
Actual Normal % Dep.
16.3 27.2 -40
CATEGORYWISE NO. OF SUBDIVISIONS
LARGE EXCESS 6
EXCESS 2
NORMAL 4
DEFICIENT 16
LARGE DEFICIENT 8
NORAIN 0
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.
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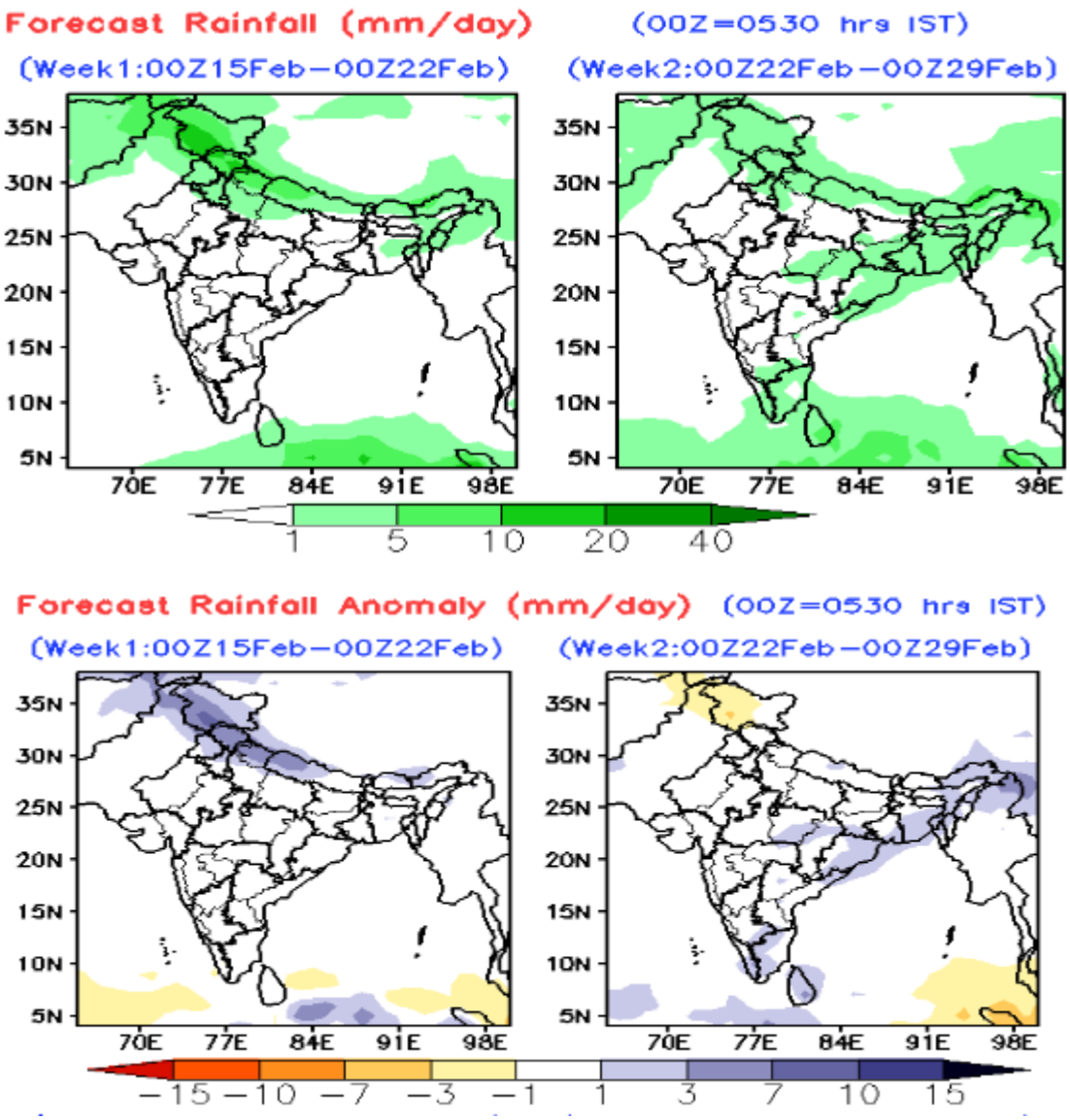
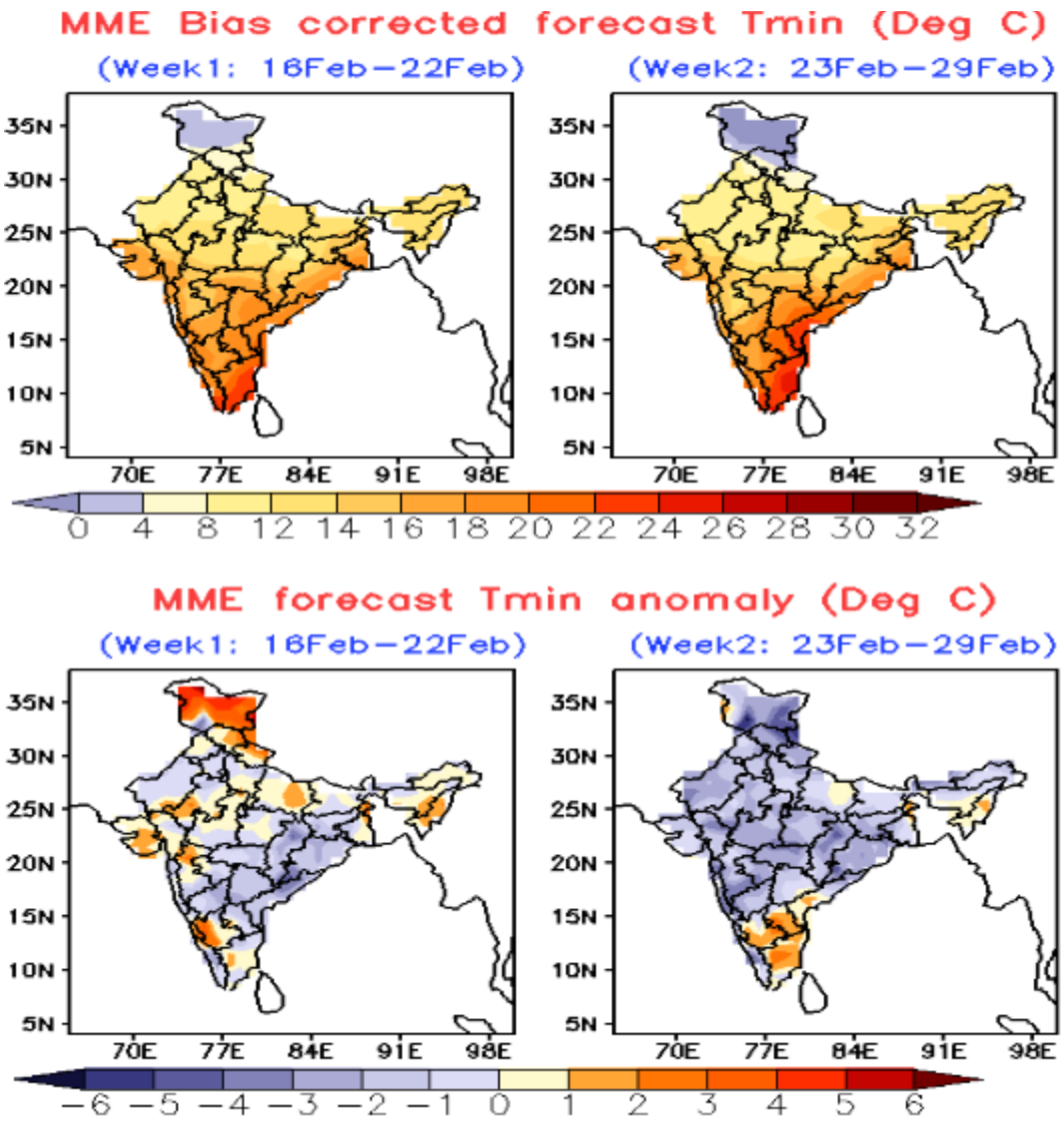
c) Percentage Departures of rainfall are shown in brackets.

Annexure III



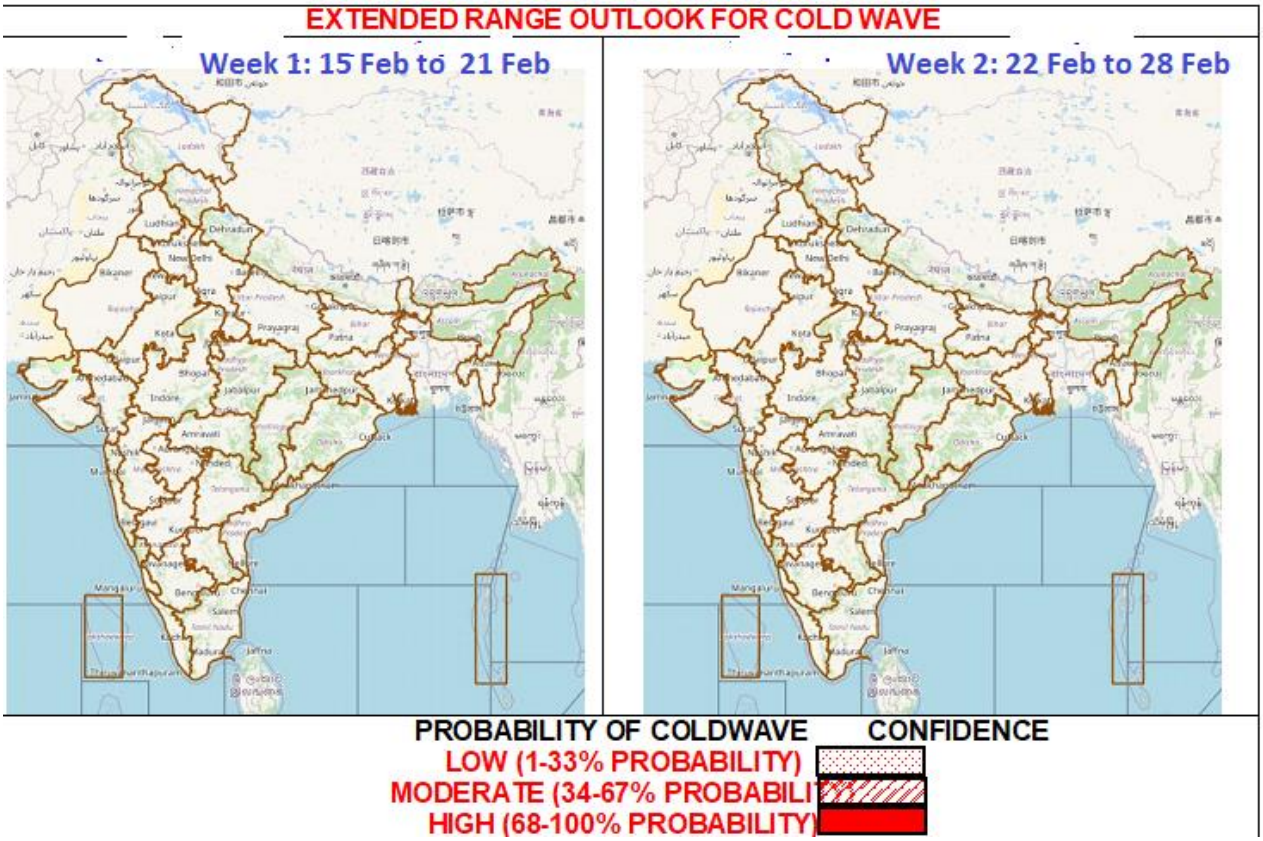
Extended range froecast of weekly dsitirubtion of rainfall in mm per day (top panel) and anomalies (lower panesl) from IMD MME

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: 15 Feb to 21 Feb
Week 2: 22 Feb to 28 Feb
PROBABILITY OF COLDWAVE
CONFIDENCE
LOW (1-33% PROBABILITY)
MODERATE (34-67% PROBABILI
HIGH (68-100% PROBABILITY)