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

Press: Dated: 20 Jan, 2022

Subject: Current Weather Status and Extended range Forecast for next two weeks (20 Jan-2 Feb 2022)

1. Salient Features for week ending on 19 Jan 2022

- Eastward movement of the remnants of Last week's active Western Disturbance with moisture incursion from Bay of Bengal had caused fairly widespread to widespread rainfall/thunderstorm activity over parts of East and Northeast India during 13-15 Jan. Under its influence, thunderstorm accompanied with isolated hailstorm activity had been reported over parts of East India and isolated heavy rainfall activity had been reported over Odisha on 13 Jan.
- Under the influence of cyclonic circulations/troughs in the lower tropospheric levels, fairly widespread to widespread rainfall/thunderstorm activity had occurred over Coastal Andhra Pradesh & Yanam during 13 to 15 Jan. Under their influence, isolated heavy/very heavy rainfall had occurred over Coastal Andhra Pradesh & Yanam and Telangana during the same period along with; thunderstorm accompanied with hailstorm activity also had been reported over Telangana and Chhattisgarh during the same period.
- Dense fog/low clouds covers started on 11 Jan over Punjab, Haryana, Chandigarh & Delhi, Punjab, northern parts of Rajasthan, northwest Madhya Pradesh further extended eastwards covering whole Uttar Pradesh, Bihar and east Madhya Pradesh on 14 Jan. It almost persisted over such a larger areas during almost all days of the week till 20 Jan 2022, and it is the most intense fog and low cloud spell over the region in this winter season of 2022 so far. This also resulted cold day to severe cold days conditions during almost all days in the week over most of these areas covering Punjab Haryana, Chandigarh & Delhi, northern parts of Rajasthan, Uttar Pradesh, Madhya Pradesh during 14 to 19 Jan and over Bihar mainly on 14, 16 and 18-19 Jan.

- No major cold wave conditions over any states during the week over northwest and central India, due to persistence of above low clouds and fog conditions covering skies in most parts of the night.
- **Weekly overall Rainfall distribution during the current week ending on 19 Jan 2022 Winter Season's Rainfall Scenario (01 Jan to 19 Jan, 2022):** During the week ending on 19 Jan 2022, for the country as a whole, the weekly cumulative All India Rainfall departure from its long period average (LPA) was very high during the week and it was **+27%** with weekly cumulative over central India reached as high as above normal by **+329%,** while all India cumulative rainfall during this year's Winter Season till 19 Jan, 2022 is above LPA by **+222%** and over central India, it is above LPA by **+373%**. 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		
	13.01.2022 TO 19.01.2022			01.01.2022 TO 19.01.2022		
	Actual	Normal	% Dep	Actual	Normal	% Dep
EAST & NORTH-EAST INDIA	8.5	4.1	+107%	12.7	9.3	+36%
NORTH-WEST INDIA	0.8	8.3	-90%	60.1	17.4	+245%
CENTRAL INDIA	6.0	1.4	+329%	21.3	4.5	+373%
SOUTH PENINSULA	8.6	2.3	+276%	18.2	6.8	+168%
country as a whole	5.3	4.2	+27%	31.2	9.7	+222%

2. Large scale features

- Currently La Niña conditions are prevailing over the Equatorial Pacific Ocean and neutral Indian Ocean Dipole (IOD) conditions are prevailing over the Indian Ocean. The latest global model forecasts indicate that the La Niña conditions are likely to prevail until March 2022 and neutral IOD conditions are likely to continue during the upcoming seasons.

- The Madden Julian Oscillation (MJO) index currently lies in Phase 8 (West Pacific) with amplitude more than 1. It is likely to be retreat back to phase 7 and stay there during next 2 weeks.

3. Forecast for next two week

Forecast for next two week

Weather systems & associated Precipitation during Week 1 (20 to 26 Jan, 2022) and Week 2 (27 Jan-2 Feb , 2022)

Rainfall for week 1 (20-26 Jan, 2022):

Synoptic Situations:

- A Western Disturbance as a cyclonic circulation lies over north Pakistan & neighbourhood at 3.1 km above mean sea level.
- An induced cyclonic circulation lies over central parts of Rajasthan and extends upto 0.9 km above mean sea level.
- A fresh active Western Disturbance is likely to affect Northwest India from 21st January onwards. An induced cyclonic circulation is very likely to form over southwest Rajasthan on 22nd January, 2022.

Under the influence of above systems:

- ✓ Isolated to scattered rainfall/snowfall very likely over Jammu, Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Himachal Pradesh & Uttarakhand during next 2 days and increase thereafter with fairly widespread to widespread rainfall/snowfall on 22nd & 23rd January and reduction thereafter. Isolated **heavy rainfall/snowfall** very likely over above sub-divisions on 22nd & 23rd January.
- ✓ Isolated to scattered rainfall very likely over Punjab, Haryana, Chandigarh, Delhi, West Uttar Pradesh & East Rajasthan on 20th & 21st and increase thereafter with fairly widespread to widespread rainfall on 22nd & 23rd January. Isolated to scattered rainfall

over East Rajasthan during 20th-23rd; East Uttar Pradesh & Chhattisgarh during 22nd-24th and Madhya Pradesh on 22nd & 23rd January. Isolated **heavy rainfall** likely over Punjab on 22nd January.

- ✓ Scattered to fairly widespread rainfall very likely over Bihar, Jharkhand and West Bengal & Sikkim during 22nd-24th January.
- ✓ **Isolated thunderstorm with lightning & hail** very likely over West Madhya Pradesh on 21st & 22nd ; over Uttarakhand, Punjab, Haryana, Chandigarh, Delhi, West Uttar Pradesh, north Rajasthan, East Madhya Pradesh and Sub-Himalayan West Bengal & Sikkim on 22nd January; over Bihar on 22nd & 23rd and over Jharkhand and Gangetic West Bengal on 23rd January, 2022.
- ✓ Strong surface winds (20-30 kmph) very likely over Punjab, Haryana, Chandigarh & Delhi, Rajasthan and west Uttar Pradesh on 21st & 22nd January, 2022.
- ✓ Fairly widespread to widespread rainfall very likely over northeast India during 23rd-25th January. **Isolated thunderstorm with lightning & hail** very likely over Assam & Meghalaya on 20th January. Isolated **heavy rainfall** likely over Assam & Meghalaya on 24th January, 2022.

- Under the influence of a cyclonic circulation over Southwest Bay of Bengal and another over south Tamil Nadu in lower tropospheric levels; isolated light rainfall/thundershower over Tamilnadu, Puducherry & Karaikal and Kerala & Mahe during next 4-5 days.

- Dry weather very likely over remaining parts of the country during most days of the week.

Rainfall for week 2 (27 Jan-2 Feb, 2022):

- Under the influence of a feeble Western Disturbances likely from night of 27th Jan, light/moderate scattered to fairly widespread rainfall/snowfall likely over Western Himalayan Region and light/moderate isolated to scattered rainfall over adjoining plains of northwest India mainly during 1st half of the week.
- Light/moderate isolated to scattered rainfall/thundershower is likely over northeast & adjoining east India during many days of the week
- Overall precipitation activity is likely to be normal to below normal over northwest and

above normal over northeast India.

Minimum Temperatures for week 1(20 to 26 Jan, 2022) and week 2(27 Jan-2 Feb, 2022)

Minimum Temperatures, cold day and cold wave and fog for week 1(20 to 26 Jan, 2022):

- ✓ Minimum temperatures are likely to rise by 2-4° C over Northwest India during next 2-3 days and fall by 3-5°C thereafter.
- ✓ No significant change in minimum temperatures over Madhya Pradesh during next 3 days and fall by 3-4°C thereafter.
- ✓ No significant change in minimum temperatures over Maharashtra during next 3 days and fall by 2-3°C thereafter.
- ✓ No significant change in minimum temperatures over Gujarat state during next 2 days and fall by 3-5°C thereafter.
- ✓ Gradual rise in minimum temperatures by 2-4°C over East India during next 5 days.
- ✓ **Very Dense Fog** very likely in isolated pockets over Uttar Pradesh and **Dense Fog** in isolated pockets over Punjab, Chandigarh & Delhi, Haryana, West Rajasthan, north Madhya Pradesh and Sub-Himalayan West Bengal & Sikkim on night of 20th and morning hours of 21st. It is likely to persist over east Uttar Pradesh and Bihar during subsequent 24 hours i.e. till morning hours of 22 Jan .
- ✓ **Cold Day to Severe Cold Day Conditions** very likely to prevail in isolated pockets of Madhya Pradesh and **Cold Day Conditions** in isolated pockets over Punjab, Haryana, Uttar Pradesh during next 24 hours and over Bihar during next 2 days.

  After the passage of the Western Disturbances on 24th Jan from northwestern parts of India, conditions are likely to be favorable for another fresh spell of dense fog/low clouds conditions and cold day conditions over plains of northwest and adjoin central India during 25-27 Jan 2022. This new spell likely to be shorter in view of the stronger lower levels westerly winds likely thereafter over these areas.

Minimum Temperatures, cold day and cold wave and fog for week for week 2(27 Jan-2 Feb, 2022:

- Minimum temperatures likely to be below normal by 2-3°C over Western Himalayan region, Punjab, Haryana, Chandigarh and Delhi, east central, east & northeast India and near normal over rest parts of the country outside Gujarat and Rajasthan.
- **Cold wave at Isolated places over Rajasthan, Punjab,** Haryana, northwest Madhya Pradesh **during 1st half of the week.**
- **Dense fog in isolated pockets likely to occur over northern parts of the country during many days of the week.** (Refer Annex IV)

3. Cyclogenesis forecast for North Indian Ocean during next 2 weeks

Various broad scale features and model guidance indicate that no cyclogenesis is likely over the North Indian Ocean during the ensuing 2 weeks

Next weekly update will be issued on next Thursday i.e. 27 Jan 2022

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

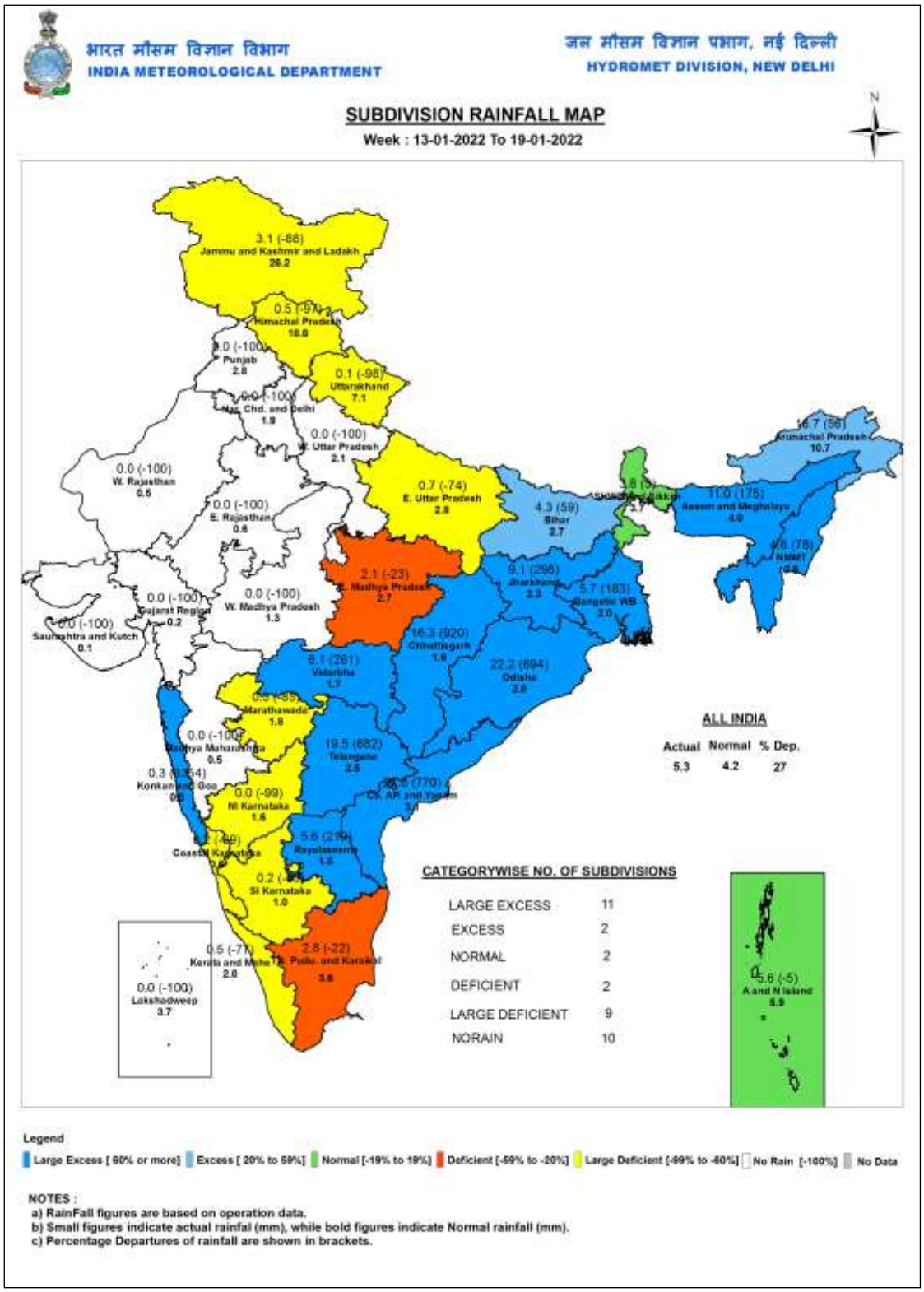
SPATIAL DISTRIBUTION (% of Stations reporting)

% Stations	Category	% Stations	Category
76-100	Widespread (WS/Most Places)	26-50	Scattered (SCT/ A Few Places)
51-75	Fairly Widespred (FWS/ Many Places)	1-25	Isolated (ISOL)

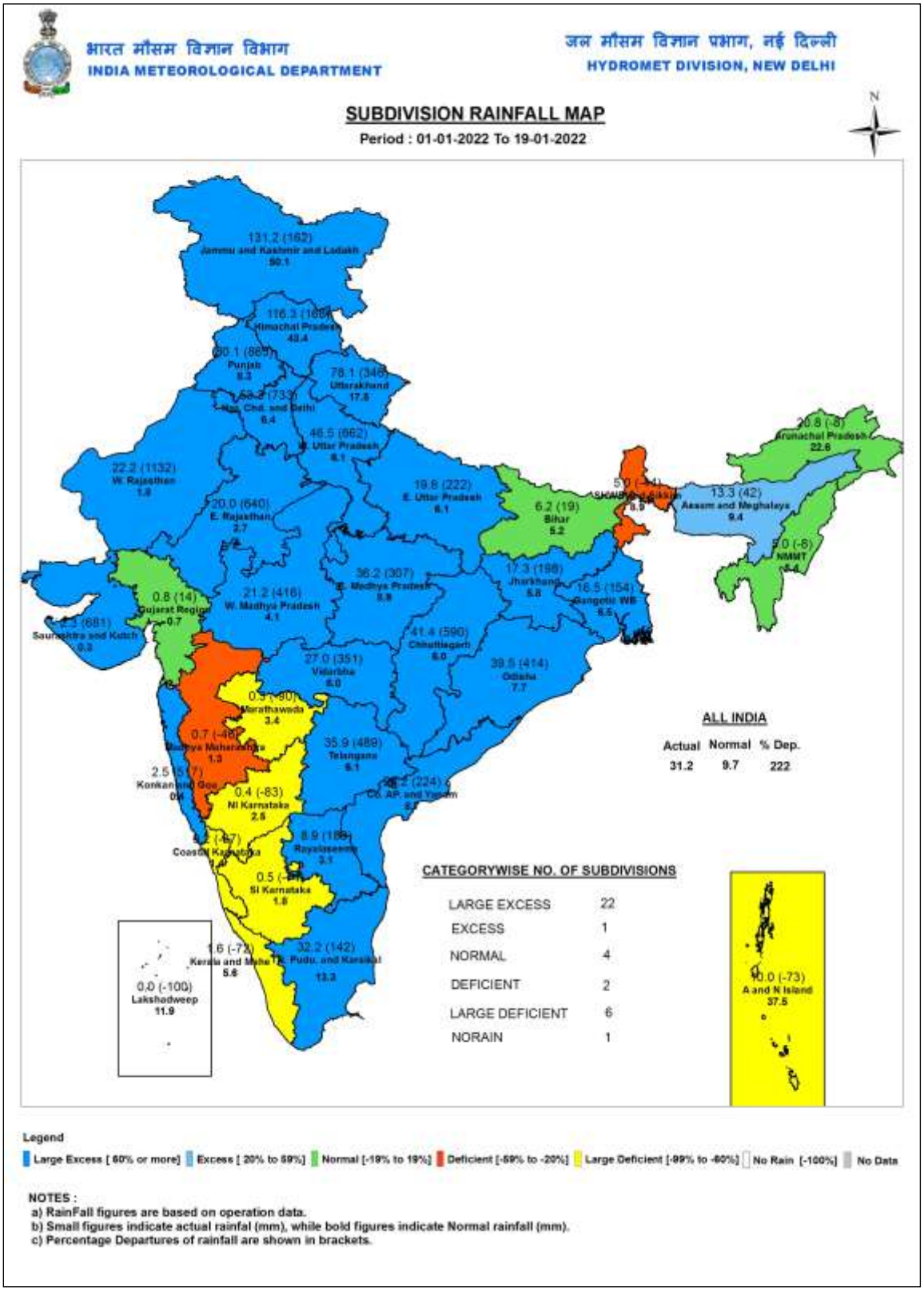
Probabilistic Forecast

Terms	Probability of Occurrence (%)
Unlikely	< 25
Likely	25 - 50
Very Likely	50 - 75
Most Likely	> 75

Annex I


भारत मौसम विज्ञान विभाग
INDIA METEOROLOGICAL DEPARTMENT
जल मौसम विज्ञान प्रभाग, नई दिल्ली
HYDROMET DIVISION, NEW DELHI
SUBDIVISION RAINFALL MAP
Week : 13-01-2022 To 19-01-2022
N
3.1 (-88)
Jammu and Kashmir and Ladakh
26.2
0.5 (-97)
Himachal Pradesh
16.6
0.0 (-100)
Punjab
2.8
0.1 (-98)
Uttarakhand
7.1
0.0 (-100)
Nat. Chd. and Delhi
1.9
0.0 (-100)
W. Uttar Pradesh
2.1
0.0 (-100)
W. Rajasthan
0.5
0.7 (-74)
E. Uttar Pradesh
2.8
0.0 (-100)
E. Rajasthan
0.8
4.3 (59)
Bihar
2.7
16.7 (56)
Arunachal Pradesh
10.7
11.0 (175)
Assam and Meghalaya
4.0
2.1 (-23)
E. Madhya Pradesh
2.7
9.1 (296)
Jharkhand
2.3
5.7 (183)
Gangetic WB
2.0
0.0 (-100)
Gujarat Region
0.2
0.0 (-100)
W. Madhya Pradesh
1.3
0.0 (-100)
Saurashtra and Kutch
0.1
16.3 (920)
Chhattisgarh
1.6
8.1 (261)
Vidarbha
1.7
22.2 (694)
Odisha
2.8
0.3 (-85)
Marathawada
1.8
0.0 (-100)
Madhya Maharashtra
0.5
19.5 (682)
Telangana
2.5
0.3 (-94)
Konkan and Goa
0.0
0.0 (-99)
NI Karnataka
1.6
5.6 (210)
Rayalaseema
1.8
0.2 (-98)
SI Karnataka
1.0
0.5 (-77)
Kerala and Mahe
2.0
2.8 (-22)
Tamil Nadu and Karaikal
3.6
0.0 (-100)
Lakshadweep
3.7
5.6 (-5)
A and N Island
5.9
ALL INDIA
Actual Normal % Dep.
5.3 4.2 27
CATEGORYWISE NO. OF SUBDIVISIONS
LARGE EXCESS 11
EXCESS 2
NORMAL 2
DEFICIENT 2
LARGE DEFICIENT 9
NORAIN 10
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 : 01-01-2022 To 19-01-2022
N
131.2 (162) Jammu and Kashmir and Ladakh 50.1
116.3 (169) Himachal Pradesh 43.4
80.1 (869) Punjab 6.3
78.1 (346) Uttarakhand 17.8
58.2 (733) Hry. Chd. and Delhi 6.4
46.5 (662) W. Uttar Pradesh 6.1
22.2 (1132) W. Rajasthan 1.8
20.0 (640) E. Rajasthan 2.7
19.8 (222) E. Uttar Pradesh 6.1
6.2 (19) Bihar 5.2
13.3 (42) Assam and Meghalaya 9.4
20.8 (-8) Arunachal Pradesh 22.6
5.0 (-8) NMMT 5.4
36.2 (307) E. Madhya Pradesh 3.9
21.2 (416) W. Madhya Pradesh 4.1
0.8 (14) Gujarat Region 0.7
2.3 (681) Saurashtra and Kutch 0.3
17.3 (198) Jharkhand 5.8
16.5 (154) Gangetic WB 6.5
41.4 (590) Chhattisgarh 6.0
39.5 (414) Odisha 7.7
27.0 (351) Vidarbha 6.0
0.3 (-90) Marathawada 3.4
0.7 (-48) Madhya Maharashtra 1.3
35.9 (489) Telangana 6.1
2.5 (-17) Konkan and Goa 0.4
0.4 (-83) NI Karnataka 2.5
8.9 (186) Rayalaseema 3.1
0.5 (-87) SI Karnataka 1.8
1.6 (-72) Kerala and Mahe 5.6
32.2 (142) Tn. Pudu. and Karaikal 13.3
0.0 (-100) Lakshadweep 11.9
0.0 (-73) A and N Island 37.5
ALL INDIA
Actual Normal % Dep.
31.2 9.7 222
CATEGORYWISE NO. OF SUBDIVISIONS
LARGE EXCESS 22
EXCESS 1
NORMAL 4
DEFICIENT 2
LARGE DEFICIENT 6
NORAIN 1
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).
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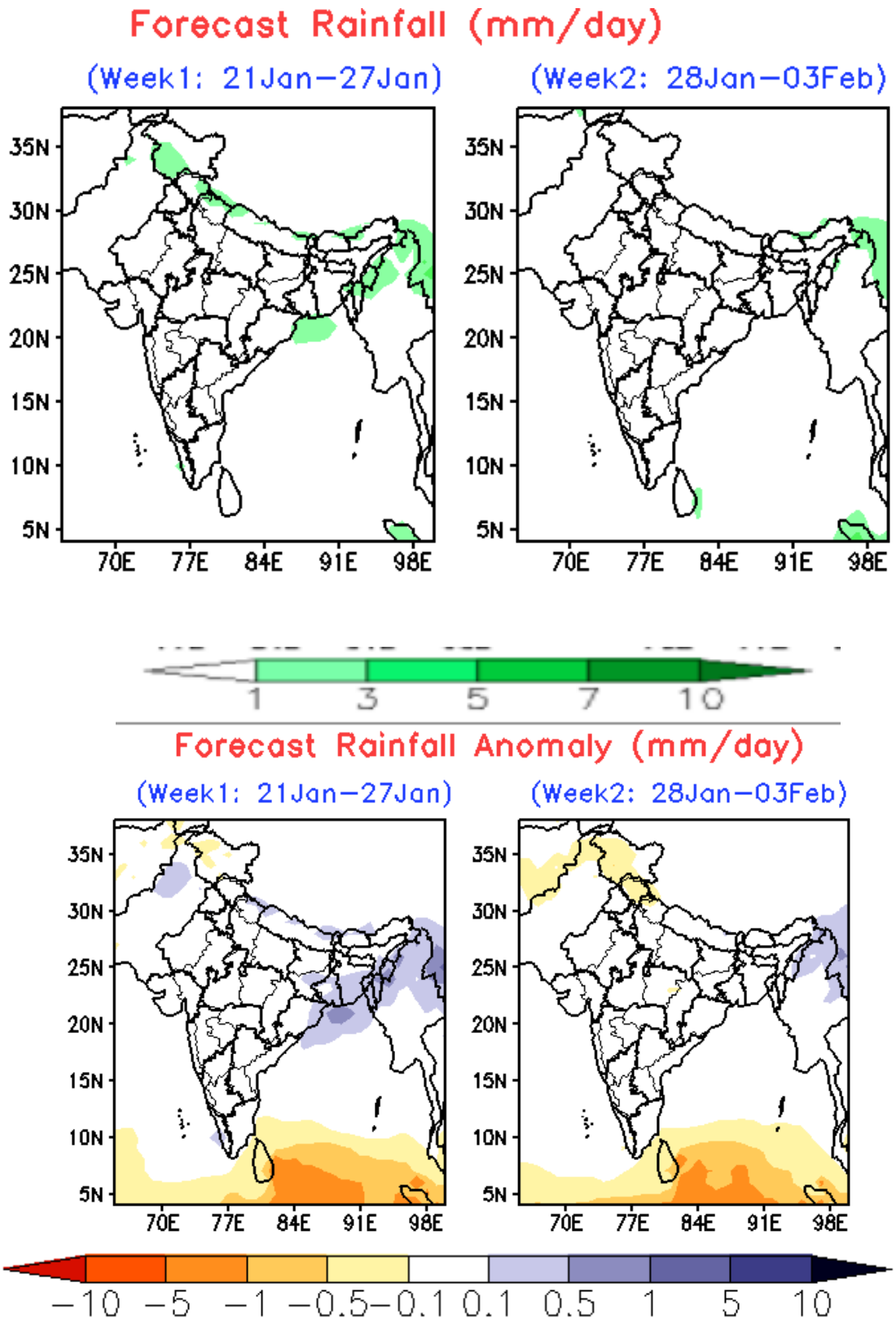
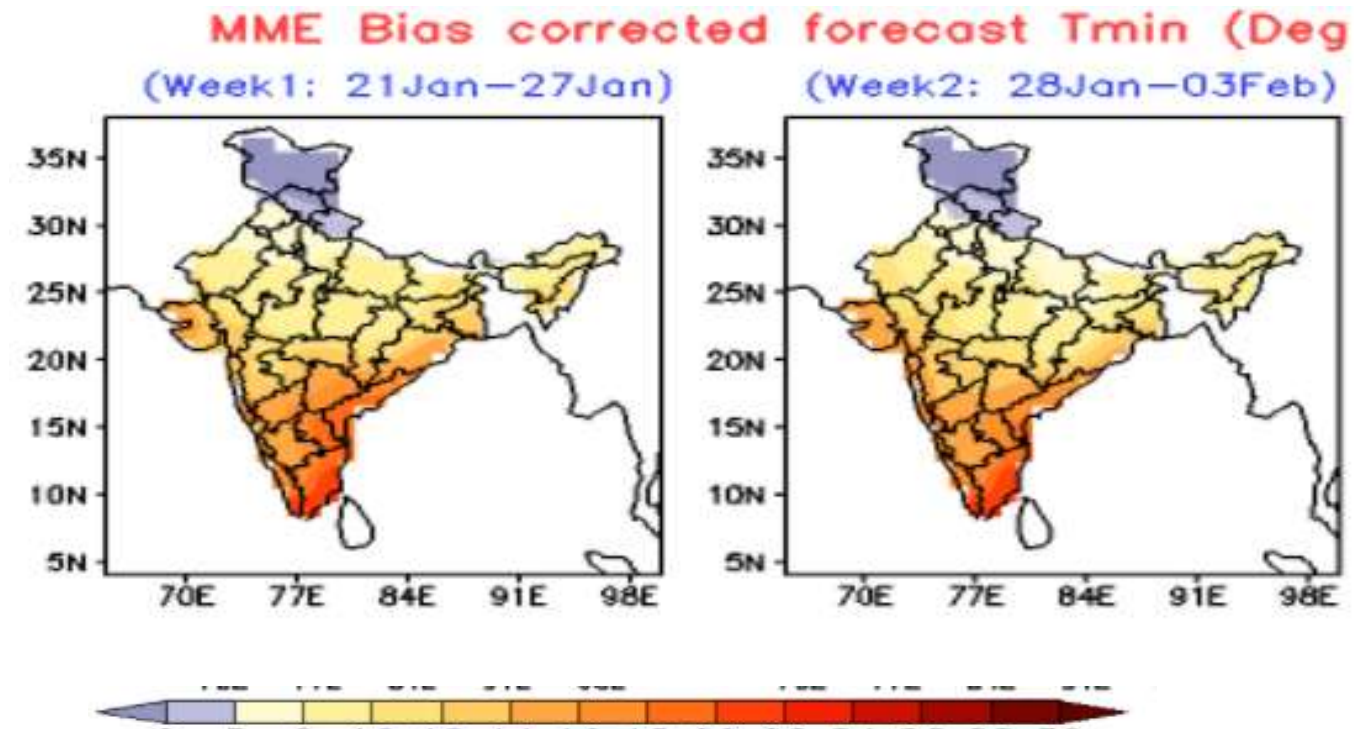
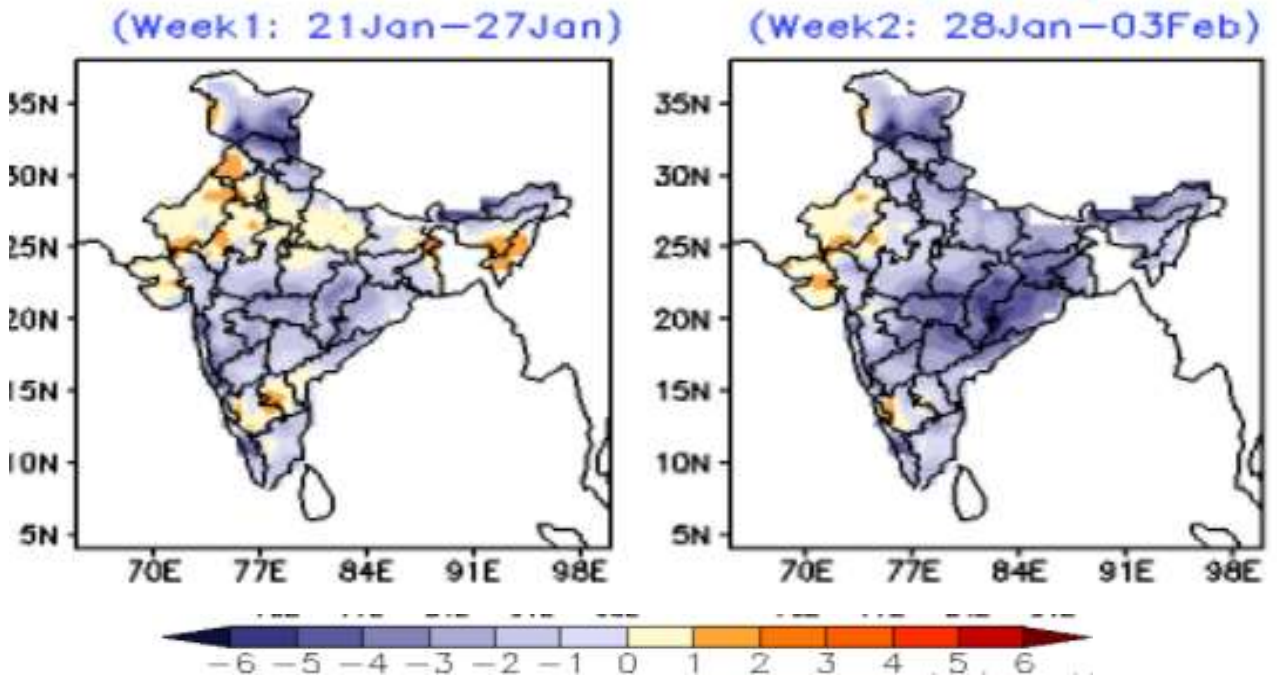
Annex III


Forecast Rainfall (mm/day)
(Week1: 21Jan–27Jan)
(Week2: 28Jan–03Feb)
35N
30N
25N
20N
15N
10N
5N
70E
77E
84E
91E
98E
1
3
5
7
10
Forecast Rainfall Anomaly (mm/day)
(Week1: 21Jan–27Jan)
(Week2: 28Jan–03Feb)
−10
−5
−1
−0.5
−0.1
0.1
0.5
1
5
10

Annex IV


MME Bias corrected forecast Tmin (Deg
(Week1: 21Jan–27Jan)
(Week2: 28Jan–03Feb)
35N
30N
25N
20N
15N
10N
5N
70E
77E
84E
91E
98E
0 5 8 10 12 14 16 18 20 22 24 26 28 30


MME forecast Tmin anomaly (Deg C)
(Week1: 21Jan–27Jan)
(Week2: 28Jan–03Feb)
35N
30N
25N
20N
15N
10N
5N
70E
77E
84E
91E
98E
−6 −5 −4 −3 −2 −1 0 1 2 3 4 5 6