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

Press: Dated:16th Feb, 2023

Subject: Current Weather Status and Extended range Forecast for next two weeks (16th Feb-1st March 2023)

1. Salient Observed Features during 9-15 Feb 2023

- Movement of a WD during 9-11 Feb had caused fairly widespread to widespread rainfall/snowfall/thunderstorm activity over Jammu Kashmir & Ladakh and Himachal Pradesh on one or two days along with isolated to scattered rainfall/snowfall/thunderstorm activity over these areas on two to three days whereas isolated rainfall/thunderstorm activity had occurred over Uttarakhand on two to three days during the week; Passage of the system and its induced cyclonic circulation had caused isolated rainfall/thunderstorm activity over adjacent pains also on a single day.
- **With the passage of this WD, Strong surface winds of 25-35 kmph prevailed over plains of North India during 11th-14th February, 2023 and it was due to higher northwest-southeast surface pressure gradient formed across the country.**
- **Analysis of Weekly overall Rainfall distribution during the week ending on 15 Feb 2023 and Winter Season's Rainfall Scenario (1Jan-15 Feb 2023):** 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 15 Feb was -48% with northwest India had -37% while all India Seasonal cumulative rainfall %departure during this year's Winter Season Rainfall during 01 Jan-15 Feb 2023 is -30% and over northwest India, it is -5%. 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		
	09.02.2023 TO 15.02.2023			01.01.2023 TO 15.02.2023		
	Actual	Normal	% Dep	Actual	Normal	% Dep
EAST & NORTH-EAST INDIA	4.7	5.5	-15%	10.6	29.8	-64%
NORTH-WEST INDIA	7.4	11.8	-37%	52.9	55.8	-5%
CENTRAL INDIA	0	2.4	-100%	1.9	11.7	-84%
SOUTH PENINSULA	0.1	2.6	-98%	6.1	12	-49%
Country as a whole	3	5.8	-48%	19.8	28.2	-30%

2. Large scale features

- Currently La Niña conditions are prevailing over Equatorial Pacific Ocean and near normal 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 continue till end of the Winter months.
- The Madden Julian Oscillation (MJO) Index is currently in Phase 7 with amplitude close to 1. It will move across phases 7, 8 and 1 during week 1 with amplitude becoming negligibly small. Thereafter, it will move eastwards across phases 2,3, 4,5,6 with amplitude remaining negligibly small during week 2. Thus, MJO will support enhancement of convective activity over the Bay of Bengal (BoB) during first half of week 2 only.

3. Forecast for next two week

Forecast for next two week

Weather systems & associated Precipitation during Week 1 (16 to 22 February, 2023) and Week 2 (23 February to 01 March, 2023)

Forecast for week 1 (16 to 22 February, 2023):

- Jet Stream Winds of the order of 130 knots are prevailing between Lat. 30-35°N over the Indian region. Under its influence, light isolated rainfall/snowfall very likely over

Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad during 16th-17th February, 2023.

- A fresh Western Disturbance likely to affect the Western Himalayan Region from 18th February. Under its influence:
  - ✓ Light isolated rainfall/snowfall very likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad on 18th and light to moderate scattered/fairly widespread rainfall/snowfall over the region during 19th-21st February.
  - ✓ Light isolated to scattered rainfall/snowfall over Himachal Pradesh and Uttarakhand on 19th to 21st February, 2023.
- Light isolated rainfall very likely over Arunachal Pradesh, Assam & Meghalaya and Nagaland during 2nd half of the week.
- Light isolated to scattered rainfall very likely over Andaman & Nicobar Islands during the week.
- No significant weather very likely over rest parts of the country during the week.

Rainfall for week 2 (23 February to 01 March, 2023):

- **No active Western Disturbance likely to affect northwest India during the week.**
- No significant weather activity likely over rest parts of the country except northeast & adjoining east India, where light/moderate isolated to scattered rainfall is likely during some days of the week.
- Overall, rainfall activity is likely to be below normal over all the regions of the country except northeast & adjoining east India, where, it is likely to be above normal.

Minimum Temperatures and its forecast during Week 1 (16 to 22 February, 2023) and Week 2 (23 February to 01 March, 2023):

Minimum Temperature Forecast, Cold Wave/Day & Fog Warnings for week 1 (16 to 22 February, 2023):

Minimum Temperature Forecast and Cold Wave/Day & Fog Warning

- The **Minimum Temperatures** are in the range of 9-10°C at isolated places over the plains of Northwest India and adjoining Central & East India.
- Minimum Temperatures are likely to rise gradually by 3-5°C over many parts of East India and by 2-4°C over many parts of Northwest & Central India and Maharashtra during 1st half of the week and no significantly change thereafter.
- **No Cold wave conditions likely any part of the country during the week.**

Minimum Temperatures for week 2 (23 February to 01 March, 2023):

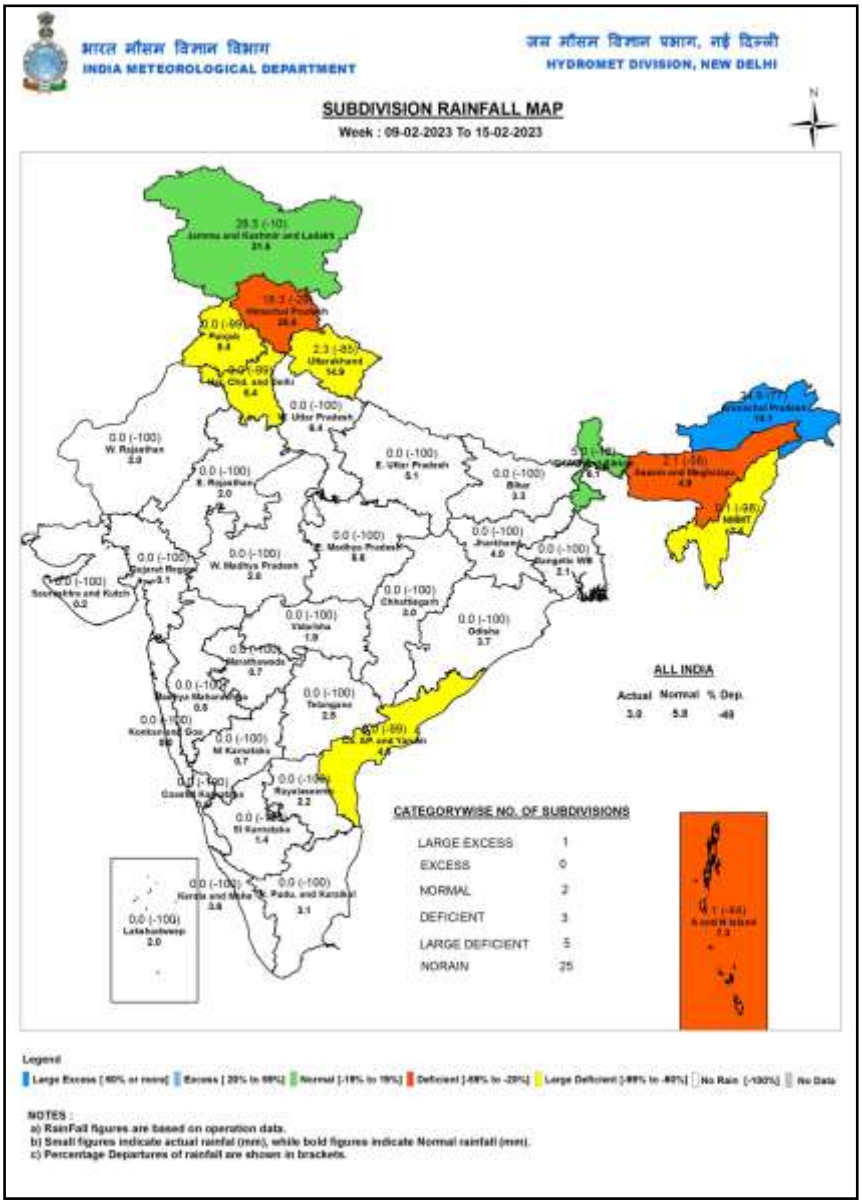
- Minimum temperatures likely be near normal to above normal by 1-2º C over north India and near normal over rest parts of the country.
- **No Cold wave conditions likely over any part of the country during the week.**

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

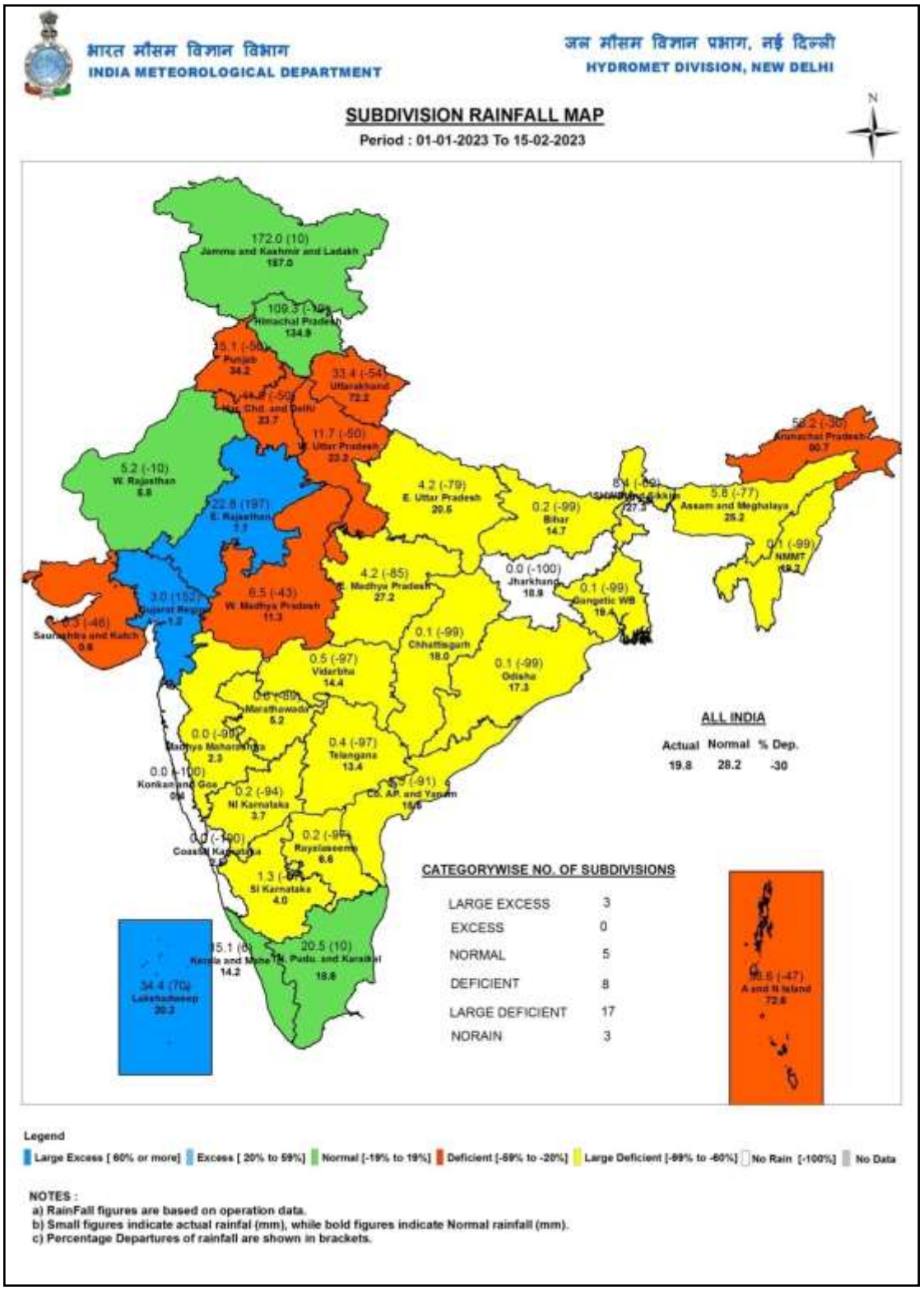
SPATIAL DISTRIBUTION (% of Stations reporting)			
% Stations	Category	% Stations	Category
76-100	Widespread (WS/Most Places)	26-50	Scattered (SCT/ A Few Places)
51-75	Fairly Widespred (FWS/ Many Places)	1-25	Isolated (ISOL)

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

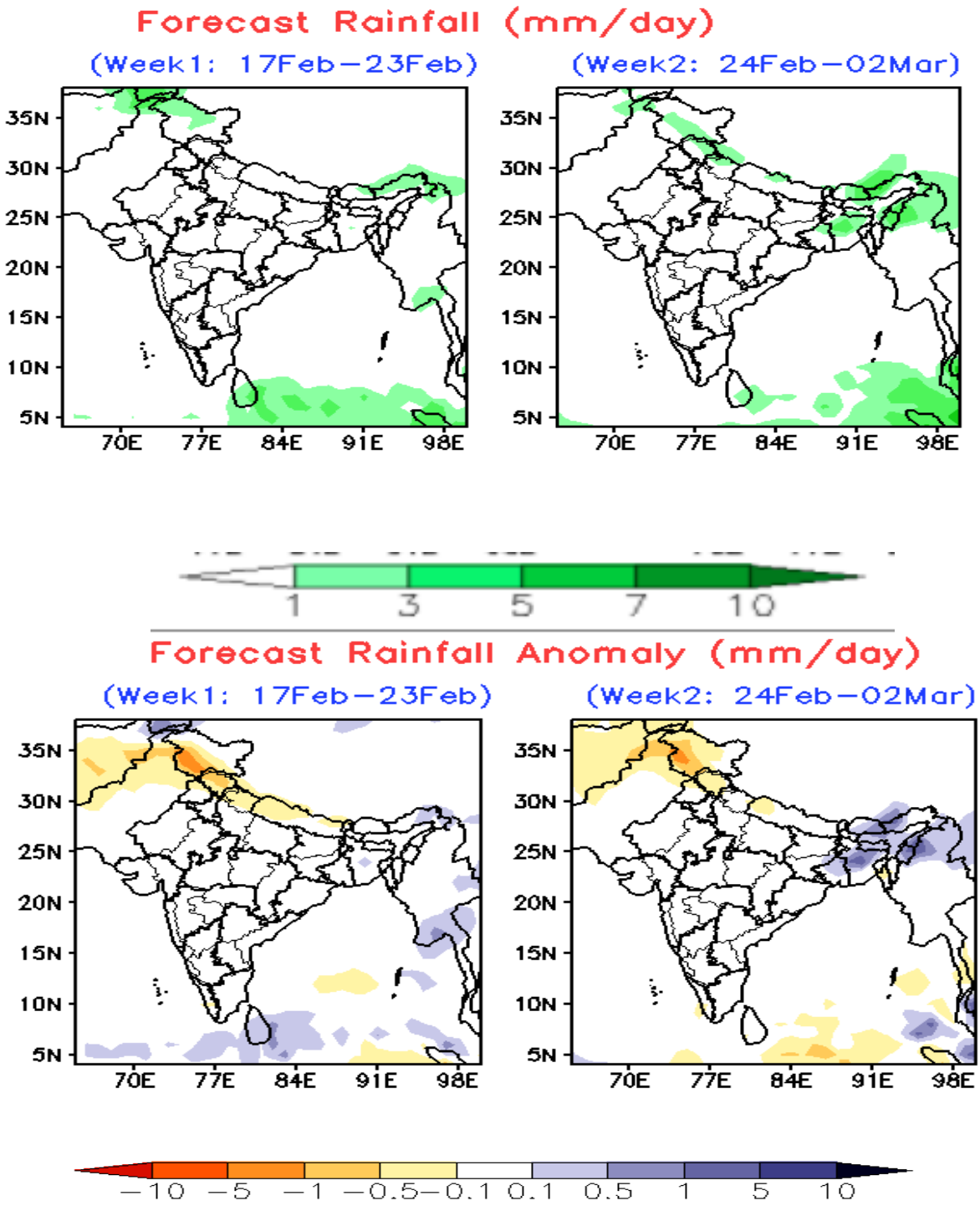
Annex 1



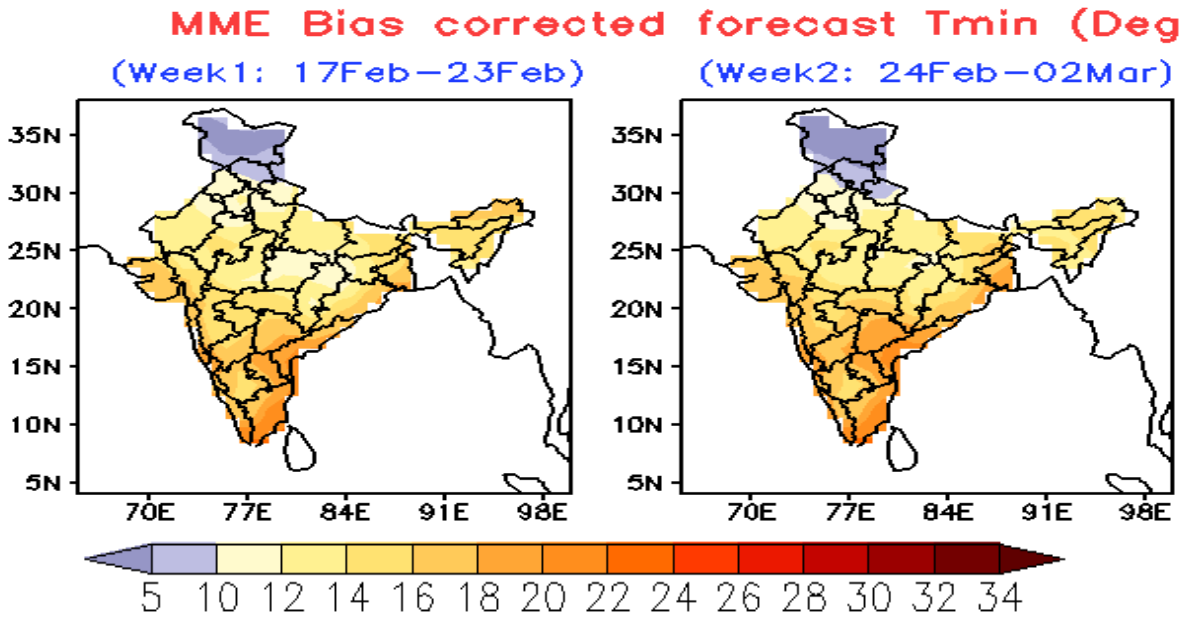
Annex: II

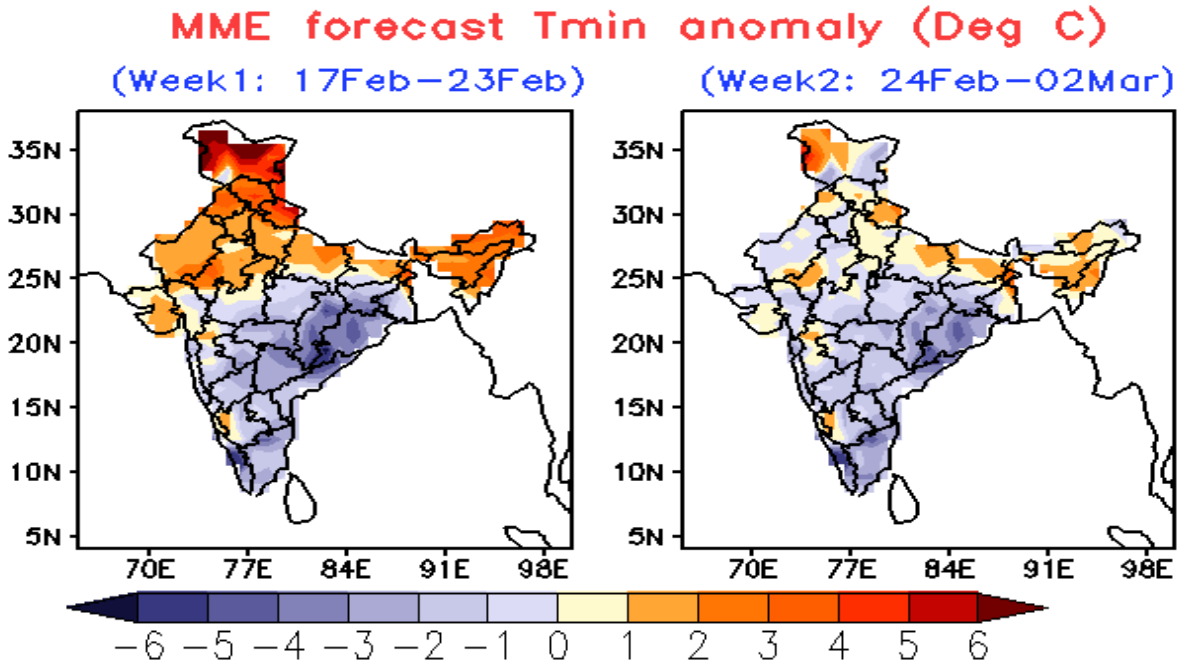

भारत मौसम विज्ञान विभाग
INDIA METEOROLOGICAL DEPARTMENT
जल मौसम विज्ञान प्रभाग, नई दिल्ली
HYDROMET DIVISION, NEW DELHI
SUBDIVISION RAINFALL MAP
Period : 01-01-2023 To 15-02-2023
N
172.0 (10)
Jammu and Kashmir and Ladakh
187.0
109.3 (-19)
Himachal Pradesh
134.8
35.1 (-56)
Punjab
34.2
33.4 (-54)
Uttarakhand
72.2
44.8 (-50)
Har. Chd. and Delhi
23.7
11.7 (-50)
W. Uttar Pradesh
23.3
5.2 (-10)
W. Rajasthan
5.8
22.8 (197)
E. Rajasthan
7.7
4.2 (-79)
E. Uttar Pradesh
20.5
0.2 (-99)
Bihar
14.7
8.4 (-69)
27.3
5.8 (-77)
Assam and Meghalaya
25.2
58.2 (-30)
Arunachal Pradesh
80.7
0.1 (-99)
NMMT
19.2
4.2 (-85)
Madhya Pradesh
27.2
0.0 (-100)
Jharkhand
18.9
0.1 (-99)
Gangetic WB
19.4
3.0 (152)
Gujarat Region
1.2
6.5 (-43)
W. Madhya Pradesh
11.3
0.3 (-46)
Saurashtra and Kutch
0.8
0.1 (-99)
Chhattisgarh
18.0
0.5 (-97)
Vidarbha
14.4
0.1 (-99)
Odisha
17.3
0.0 (-99)
Marathwada
5.2
0.0 (-99)
Madhya Maharashtra
2.3
0.4 (-97)
Telangana
13.4
0.0 (-100)
Konkan and Goa
0.6
0.2 (-94)
NI Karnataka
3.7
0.3 (-91)
Co. AP. and Yanam
15.6
0.0 (-100)
Coastal Karnataka
2.7
0.2 (-99)
Rayalaseema
9.6
1.3 (-67)
SI Karnataka
4.0
20.5 (10)
TN. Pudu. and Karaikal
18.8
15.1 (6)
Kerala and Mahe
14.2
34.4 (70)
Lakshadweep
20.2
ALL INDIA
Actual Normal % Dep.
19.8 28.2 -30
CATEGORYWISE NO. OF SUBDIVISIONS
LARGE EXCESS 3
EXCESS 0
NORMAL 5
DEFICIENT 8
LARGE DEFICIENT 17
NORAIN 3
35.6 (-47)
A and N Island
72.8
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



Annexure IV


MME Bias corrected forecast Tmin (Deg
(Week1: 17Feb-23Feb)
(Week2: 24Feb-02Mar)
35N
30N
25N
20N
15N
10N
5N
70E
77E
84E
91E
98E
5 10 12 14 16 18 20 22 24 26 28 30 32 34


MME forecast Tmin anomaly (Deg C)
(Week1: 17Feb-23Feb)
(Week2: 24Feb-02Mar)
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