



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

Press: Dated: 26th Jan, 2023

**Subject: Current Weather Status and Extended range forecast for next two weeks
(26th Jan-8th Feb, 2023)**

1. Salient Observed Features during 20 Jan till 26 Jan 2023

- **Two WDs moved across north India during the week:** 1st WD moved across north Pakistan and adjoining Jammu & Kashmir during 19th -22nd Jan 2023. The 2nd WD which was more active was seen as a trough in middle tropospheric westerlies with its axis at 5.8 km above mean sea level roughly along Long. 62°E to the north of Lat. 24°N on 20th and the as a cyclonic circulation over Afghanistan & neighbourhood at 5.8 km above on 21st January. It then lay over east Afghanistan & neighbourhood between 3.1 km & 9.6 km above mean sea level on 23rd and persisted on 24th and then moved slowly over to north Pakistan & adjoining Afghanistan on 25th Jan. It lay as a trough in middle tropospheric westerlies with its axis at 5.8 km above mean sea level roughly along Long. 70°E to the north of Lat. 32°N on 26th Jan. During the week, an induced cyclonic circulation was also seen over southwest Rajasthan & neighbourhood at 1.5 km above mean sea level on 20th January 2023 and it persisted over the same areas at 1.5 km above mean sea level on 21st; it continued to be seen over southwest Rajasthan & neighbourhood but extended upto 1.5 km above mean sea level on 22nd and 23rd; it lay over central parts of south Rajasthan and extended upto 1.5 km above mean sea level on 24th; it lay over Punjab & neighbourhood and extended upto 1.5 km above mean sea level on 25th January 2023. Due to these systems, wet spell was observed over western Himalayan region covering states of Jammu Kashmir & Ladakh, Himachal Pradesh and Uttarakhand mainly during 20th-22nd Jan and then during 23rd -26th Jan. The 2nd WD also caused light to moderate rainfall over parts of the plains of northwest India during 23rd -26th Jan periods.
- **Due to movement of 2 WDs across northwest India, which were seen back to back and the induced cyclonic circulation and associated clouds, no major cold wave/cold days and dense**

fog spells were observed in the region.

- **Analysis of Weekly overall Rainfall distribution during the week ending on 25th Jan 2023 and Winter Season's Rainfall Scenario (1st Jan-25th Jan 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 25th Jan 2023 was 7 % with south Peninsular India had 118% while all India Seasonal cumulative rainfall %departure during this year's Winter Season Rainfall during 01st Jan-25th Jan 2023 is -45% and over south Peninsula, it is -70%. 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		
	19.01.2023 TO 25.01.2023			01.01.2023 TO 25.01.2023		
	Actual	Normal	% Dep	Actual	Normal	% Dep
EAST & NORTH-EAST INDIA	0.2	4.5	-96%	1.9	13.2	-86%
NORTH-WEST INDIA	11.2	7.9	+42%	20.5	25.1	-18%
CENTRAL INDIA	0.2	1.1	-78%	0.3	5.4	-94%
SOUTH PENINSULA	1.5	0.7	+118%	2	6.7	-70%
Country as a whole	3.9	3.6	+7%	7.1	12.9	-45%

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 3 with amplitude more than 1. It will continue to be in the same phase during week 1 but with decreasing amplitude during the latter part of the week. During the first half of week 2, the amplitude will decrease further as it will move to phase 4.

Thereafter, it would continue in the same phase with amplitude less than 1 during week 2. Thus, MJO will support enhancement of convective activity over the North Indian Ocean (NIO) during the entire forecast period while it will be more favorable during week 2.

3. Forecast for next two week

(A) Weather systems & associated Precipitation

Forecast and warning for week 1 (26th January to 01st February, 2023):

- A Western Disturbance seen as a trough along Long. 70°E to the north of Lat. 32°N in middle tropospheric levels. Under its influence, light isolated rainfall/ snowfall very likely to continue over Western Himalayan Region on 26th January.
- A fresh Western Disturbance is likely to affect Northwest India from 28th January, 2023. It is very likely to cause:
 - ✓ Light/moderate fairly widespread to widespread rainfall/snowfall over Western Himalayan Region and light/moderate scattered to fairly widespread rainfall over plains of northwest India on 29th & 30th January, 2023.
 - ✓ **Isolated heavy rainfall/snowfall over Western Himalayan Region on 29th & 30th January, 2023.**
 - ✓ **Isolated hailstorm over Himachal Pradesh on 29th; over Uttarakhand on 29th & 30th; over East Rajasthan on 28th & 29th and over West Rajasthan on 29th January, 2023.**
- Another fresh Western Disturbance is likely to affect Western Himalayan Region from 01st February, 2023.
- **A cyclonic circulation lies over east Equatorial Indian Ocean & adjoining Southeast Bay of Bengal in lower tropospheric levels. Under its influence, a Low Pressure Area is likely to form over Southeast Bay of Bengal & adjoining east Equatorial Indian Ocean around 27th January, 2023. It is likely to move west-north-westwards slowly during subsequent 3 days.**
- Light isolated rainfall/snowfall is likely over Sikkim and Arunachal Pradesh during 2nd half of the week; light/moderate isolated to scattered rainfall over Andaman Nicobar Islands during the week and over extreme south Peninsula during 2nd half of the week.

(ii) Forecast and warning for week 2 (02-08 February, 2023):

- **No intense Western Disturbance is likely to influence northwest India during the week.**
- Due to easterly wave, light isolated to scattered rainfall is likely over south Peninsular and Andaman & Nicobar Islands during many days of the week.
- Overall, rainfall activity is likely to be above normal over south Peninsular India and below normal over rest parts of the country.

(B) Forecast of Temperature and Fog:

(i) Forecast and warning for week 1 (26th January to 01st February, 2023):

Minimum Temperature: The **minimum temperatures** are in the range of 6-10°C over many parts of Rajasthan, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura; some parts of Haryana and Gujarat state. Fall by 3-5°C in minimum temperatures likely over most parts of Northwest India till 28th and rise by 3-5°C thereafter during subsequent 2 days and no change thereafter. Fall by 2-4°C in minimum temperatures likely over Madhya Pradesh till 28th and rise by 2-4°C thereafter for subsequent 2 days and no change thereafter.

Cold wave: Cold Wave conditions very likely in isolated pockets over Punjab & West Rajasthan during next 48 hours and over Saurashtra & Kutch during next 24 hours.

Fog: Dense to very dense fog conditions very likely in morning hours over some areas of Punjab, Haryana, Chandigarh; dense fog in isolated pockets over Himachal Pradesh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura during next 48 hours.

(ii) Forecast and warning for week 2 (02nd -08th February, 2023):

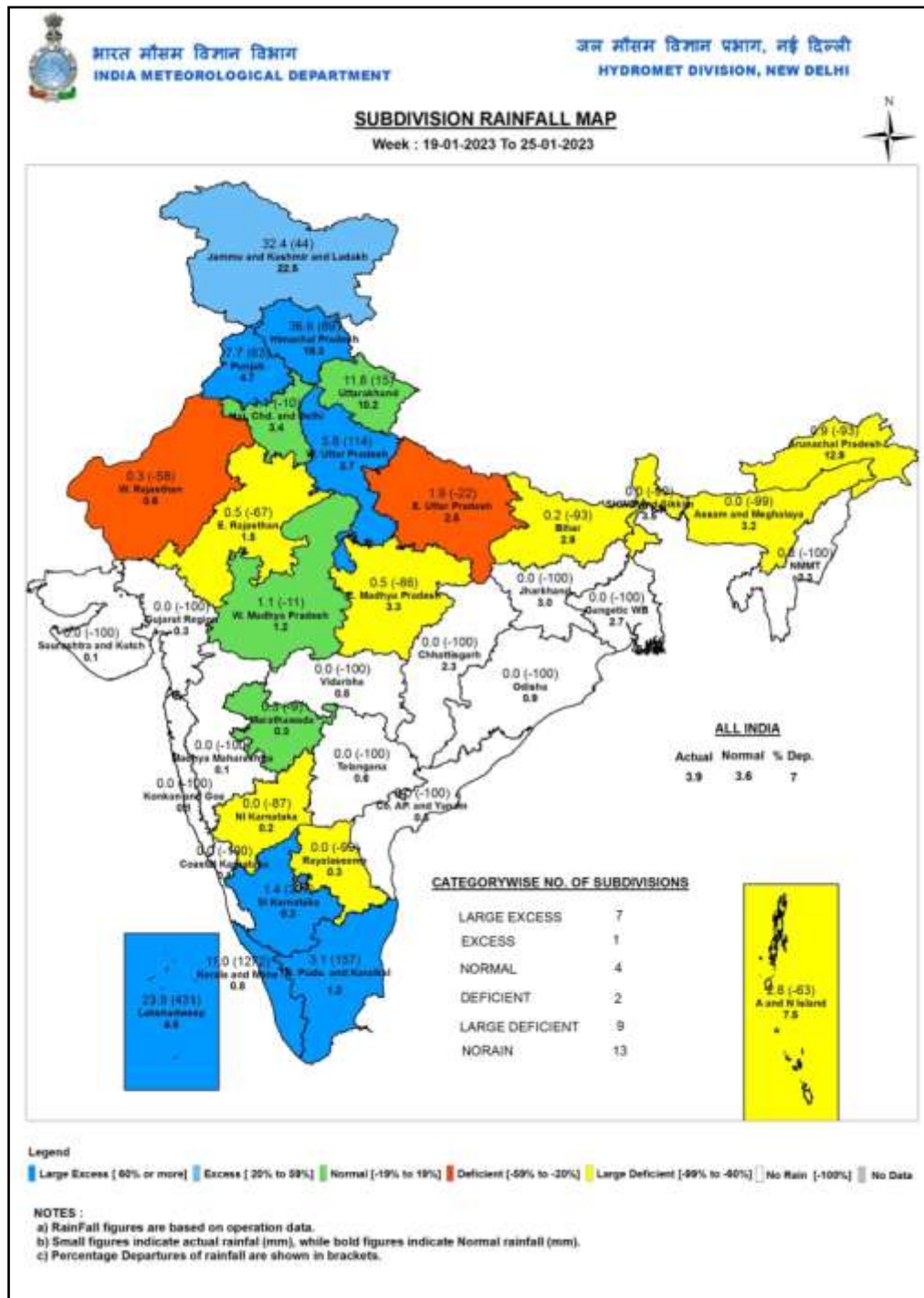
Minimum Temperatures: Minimum temperatures likely to be normal to above normal by 1-3°C over northwest, northeast & south Peninsular India during most days of the week. These are likely to be below normal by 1-3°C over Central, east and north Peninsular India.

Cold wave: No significant 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 Widespread (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



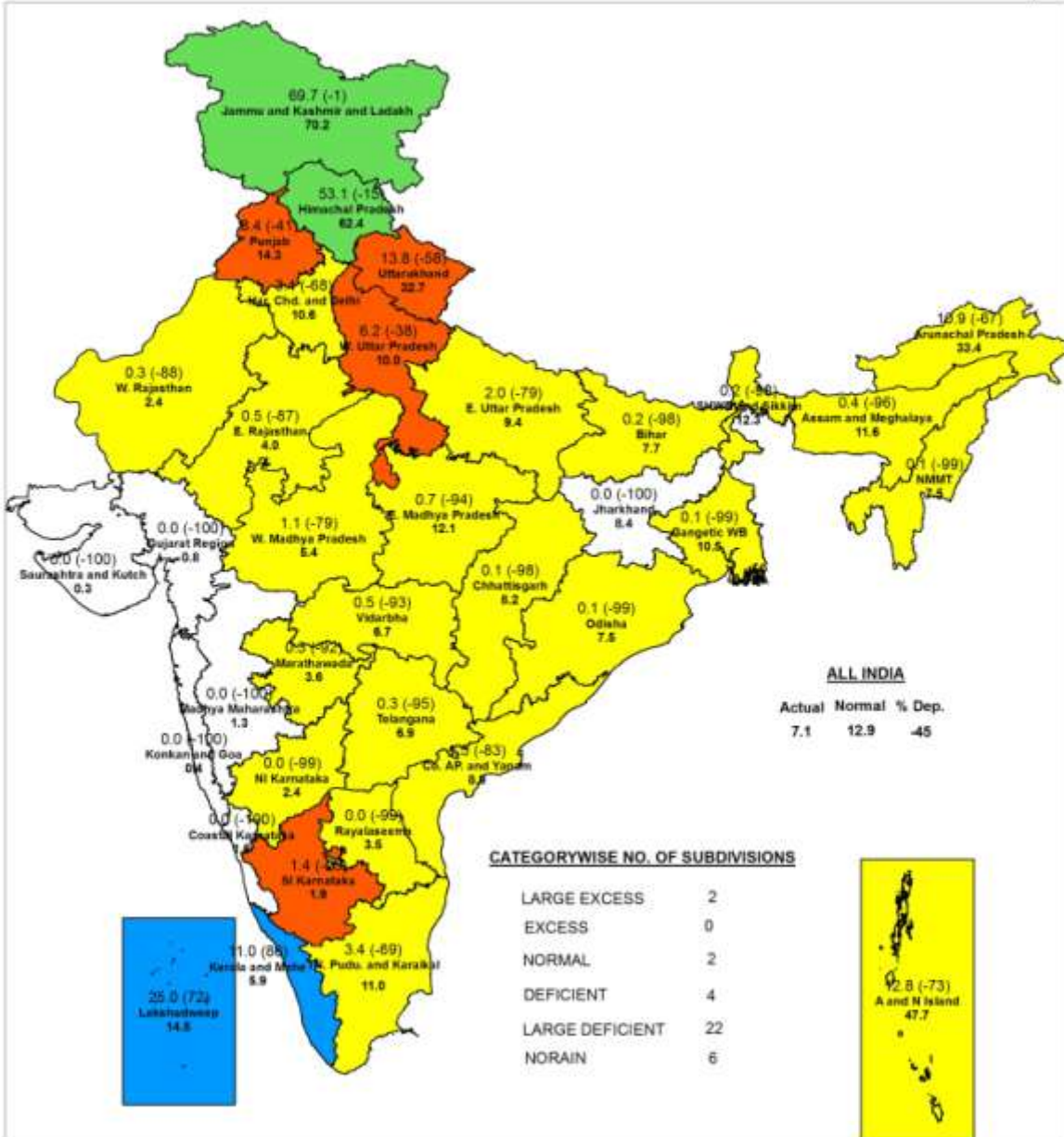


भारत मौसम विज्ञान विभाग
INDIA METEOROLOGICAL DEPARTMENT

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

SUBDIVISION RAINFALL MAP

Period : 01-01-2023 To 25-01-2023

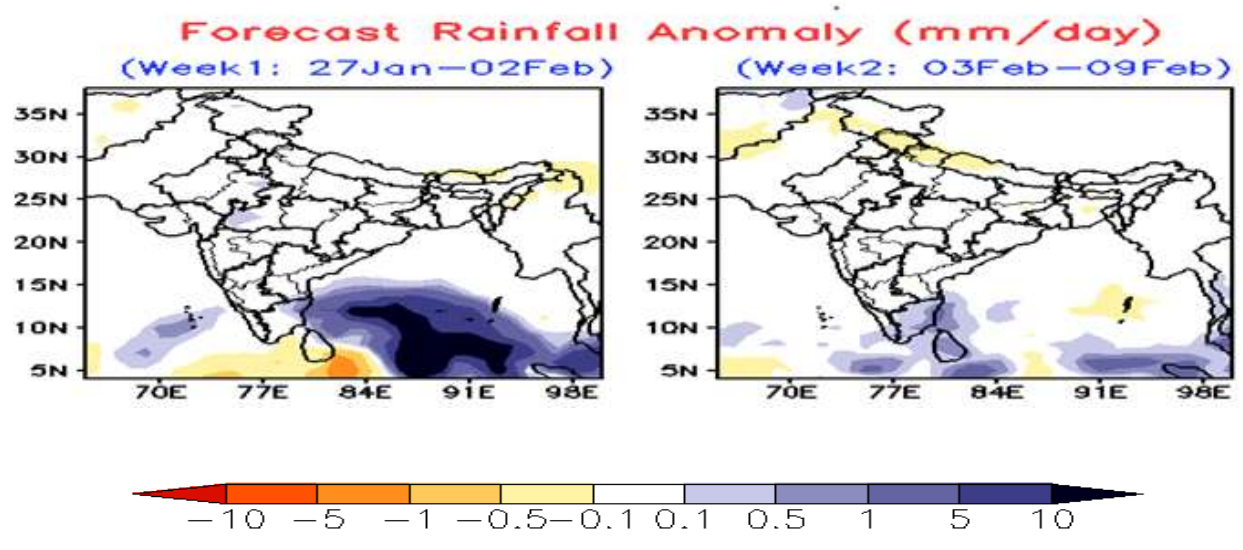
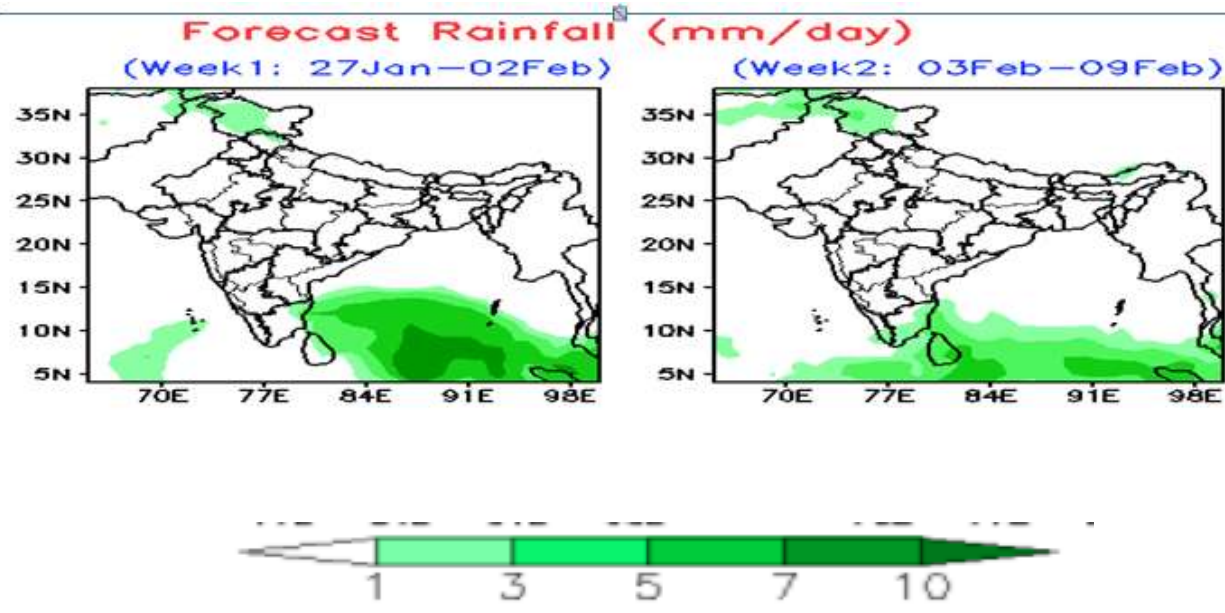


Legend

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 :

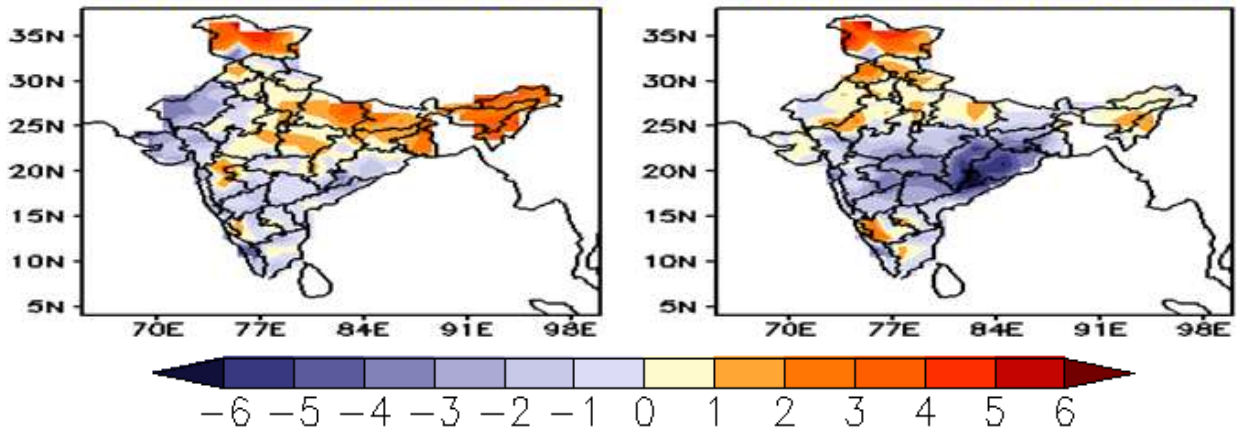
- a) Rainfall figures are based on operation data.
- b) Small figures indicate actual rainfall (mm), while bold figures indicate Normal rainfall (mm).
- c) Percentage Departures of rainfall are shown in brackets.



MME forecast Tmin anomaly (Deg C)

(Week1: 27Jan-02Feb)

(Week2: 03Feb-09Feb)



MME forecast Tmax anomaly (Deg C)

(Week1: 27Jan-02Feb)

(Week2: 03Feb-09Feb)

