



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

**Press: Dated: 16th March, 2023**

**Subject: Current Weather Status and Extended range Forecast for next two weeks  
(16-29 March 2023)**

**1. Salient Observed Features during 9-15 March 2023**

- Movement of a Western Disturbance as deep trough in westerly at middle and upper tropospheric westerlies and induced cyclonic circulation at lower levels, across south Rajasthan and Gujarat, during 13-15 March, had caused light to moderate rainfall/thundershowers observed over Gujarat State, Madhya Pradesh and north Maharashtra during the period.
- Absence of the heat wave conditions was seen during this week over most parts of India except it was observed at isolated locations of Saurashtra & Kutch on one day, Coastal Karnataka and Goa on two days and Konkan on five days during 9-13 March. **Interestingly, Heat wave conditions has been absent across most parts of India, consecutively for 2<sup>nd</sup> week in this month of March 2023 due to favorable synoptic system and active WDs moved across north India.**
- Mumbai-Santacruz recorded had the highest maximum temperature of on 11 and 12 March as 38.5 and 39.4°C respectively.
- **Highest Observed Temperature Scenario over the country during the week:** The highest maximum temperature of **39.8°C** had been recorded at **Mangalore (Coastal Karnataka)** on 11<sup>th</sup> March 2023 over the plains of the country during the week.
- **Analysis of Weekly overall Rainfall distribution during the week ending on 15 March 2023 and Pre-monsoon Season's Rainfall Scenario (1 March-15 March 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 March 2023 was -91 % with northwest India had -86% while all India Seasonal cumulative rainfall %departure during this year's **Pre-monsoon Season's Rainfall** during **1 March-15 March 2023** is -78% and over northwest India , it is -78%. 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		
	09.03.2023 TO 15.03.2023			01.03.2023 TO 15.03.2023		
	Actual	Normal	% Dep	Actual	Normal	% Dep
<b>EAST &amp; NORTH-EAST INDIA</b>	3	11.3	<b>-74%</b>	5	22.8	<b>-78%</b>
<b>NORTH-WEST INDIA</b>	1.1	12.2	<b>-91%</b>	5.4	24.5	<b>-78%</b>
<b>CENTRAL INDIA</b>	0.5	2.5	<b>-81%</b>	1.7	4.8	<b>-64%</b>
<b>SOUTH PENINSULA</b>	0.2	4	<b>-94%</b>	0.5	7.5	<b>-93%</b>
<b>Country as a whole</b>	<b>1</b>	<b>7.2</b>	<b>-86%</b>	<b>3.2</b>	<b>14.3</b>	<b>-78%</b>

## 2. Large scale features

- Currently, La Niña conditions are prevailing over the equatorial Pacific region. The La Niña is likely to weaken and turn to El Nino Southern Oscillation (ENSO) neutral conditions during the pre-monsoon season. In addition to ENSO conditions over the Pacific, other factors such as the Indian Ocean SST also influence the Indian week to week weather. At present, neutral IOD conditions are present over the Indian Ocean and the latest MMCFS forecast indicates that the neutral IOD conditions are likely to continue during the pre-monsoon season.
- The Madden Julian Oscillation (MJO) Index is currently in Phase 1 with amplitude more than 2. It will move across phase 2 from middle of week 1 with amplitude remaining more than 1. It will move across phases 2,3,4 and 5 thereafter with amplitude gradually becoming less than 1 from week 2. Hence, MJO would support enhancement of convective activity over the North Indian Ocean (NIO) from middle of

week 1 especially over the Arabian Sea (AS) during later half of week 1 and over the Bay of Bengal (BoB) during week 2.

### 3. Forecast for next two week

#### Weather systems & associated Precipitation during Week 1 (16 to 22 March, 2023) and Week 2 (23 to 29 March, 2023)

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

- A Western Disturbance as a cyclonic circulation lies over Afghanistan & neighbourhood in middle tropospheric levels with an induced cyclonic circulation over southwest Rajasthan in lower tropospheric levels. Another cyclonic circulation lies over northeast Rajasthan & neighbourhood in lower tropospheric levels.
- A trough runs from Bangladesh to north Coastal Andhra Pradesh and another from Tamilnadu to north Konkan in lower tropospheric levels.
- Under the influence of above favourable conditions, following weather is expected;

##### **Northwest India:**

- ✓ Scattered to fairly widespread light/moderate rainfall with thunderstorm, lightning & gusty winds and hailstorm likely over Western Himalayan Region during 16th-20<sup>th</sup> and isolated for subsequent 02 days.
- ✓ Scattered to fairly widespread light/moderate rainfall with thunderstorm, lightning & gusty winds also likely over Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh and Rajasthan during most days of the week.
- ✓ **Isolated hailstorm** also likely over West Uttar Pradesh & northwest Rajasthan on 17th and over northeast Rajasthan during 17th-19th March, 2023.

##### **West & Central India:**

- ✓ Scattered to fairly widespread light/moderate rainfall with thunderstorm, lightning & gusty winds likely over Gujarat, Maharashtra, Madhya Pradesh, Vidarbha, Chhattisgarh during 16th-19th March, 2023.
- ✓ **Isolated hailstorm** also likely over Madhya Pradesh, Vidarbha and Chhattisgarh on 16th & 17th; over Madhya Maharashtra & Marathawada on 16th March, 2023.
- ✓ Isolated heavy rainfall very likely over Chhattisgarh on 18th March, 2023.

### **South Peninsular India:**

- ✓ Scattered to fairly widespread light/moderate rainfall with thunderstorm, lightning & gusty winds likely over north interior Tamil Nadu, Andhra Pradesh, Telangana, Karnataka during 16th-19th March, 2023.
- ✓ **Isolated hailstorm** also likely over Telangana on 16th & 17th March, 2023.
- ✓ Isolated heavy rainfall very likely over Coastal Andhra Pradesh & Telangana on 18th March.

### **East & Northeast India:**

- ✓ Fairly widespread to widespread light/moderate rainfall activity with thunderstorm, lightning & gusty winds likely over East and Northeast India during most days of the week.
- ✓ Isolated hailstorm also likely over Sub-Himalayan West Bengal, south Assam & Meghalaya on 16th; over Bihar, Jharkhand and Gangetic West Bengal on 16th & 17th and over Odisha on 18th March, 2023.

### **Rainfall for week 2 (23 to 29 March, 2023):**

- **Under the influence of Western Disturbance and associated induced cyclonic circulation, isolated to scattered rainfall with thunderstorm likely over Western Himalayan Region & adjoining plains during many days of the week.**
- **Due to trough/cyclonic circulation over East & south Peninsular India, isolated to scattered rainfall with thunderstorm likely over these areas during many days of the week.**
- **Overall, rainfall activity is likely to be above normal over south Peninsular India and Western Himalayan Region and below normal over northeast India. It is likely to be near normal over rest parts of the country.**

### **Maximum Temperatures and its forecast during Week 1 (16 to 22 March, 2023) and Week 2 (23 to 29 March, 2023):**

#### **Maximum Temperature Forecast for week 1 (16 to 22 March, 2023):**

- **Maximum temperatures** are in the range of 33-37°C over most places over plains of the country.
- **Maximum temperatures** are 2-4°C above normal over north India and near normal of below

normal over rest parts of the country.

- **Due to likely rainfall/thunderstorm activity over most parts of the country during next 4-5 days, maximum temperatures are very likely to be near normal or below normal over most parts of the country during most days of the week.**
- **No significant heat wave conditions very likely over any part of the country during the week.**

**Maximum Temperature for week 2 (23 to 29 March, 2023):**

- Maximum temperatures likely to rise gradually by 1-3° C over most parts of the country as compared to week 1. However, these are likely to be below normal over most parts of the country by 1-3° C except parts of Western Himalayan Region and along east India, where it is likely to be near normal to above normal.
- **No significantly heat 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

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

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

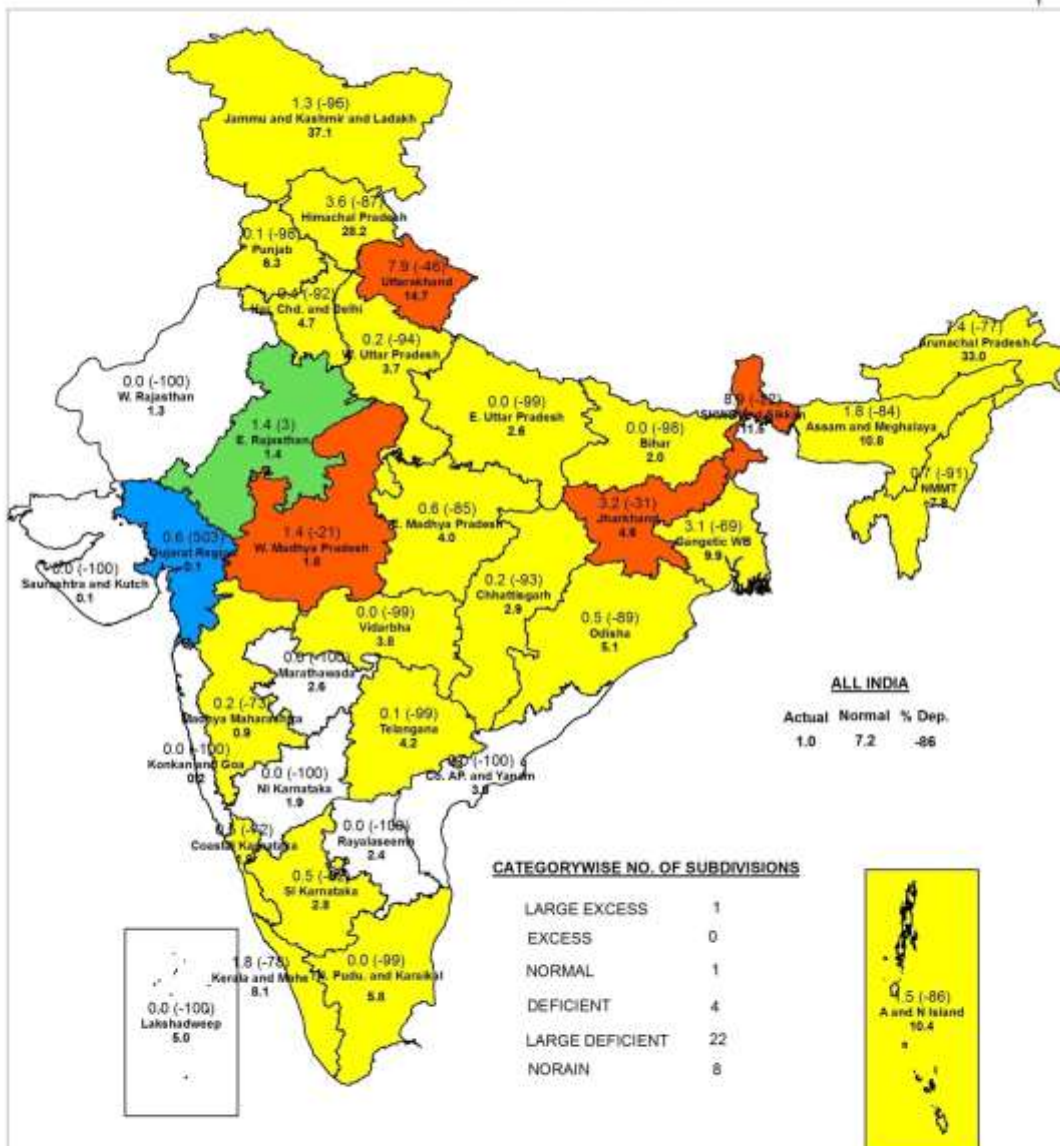


भारत मौसम विज्ञान विभाग  
INDIA METEOROLOGICAL DEPARTMENT

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

**SUBDIVISION RAINFALL MAP**

Week : 09-03-2023 To 15-03-2023



**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 :**

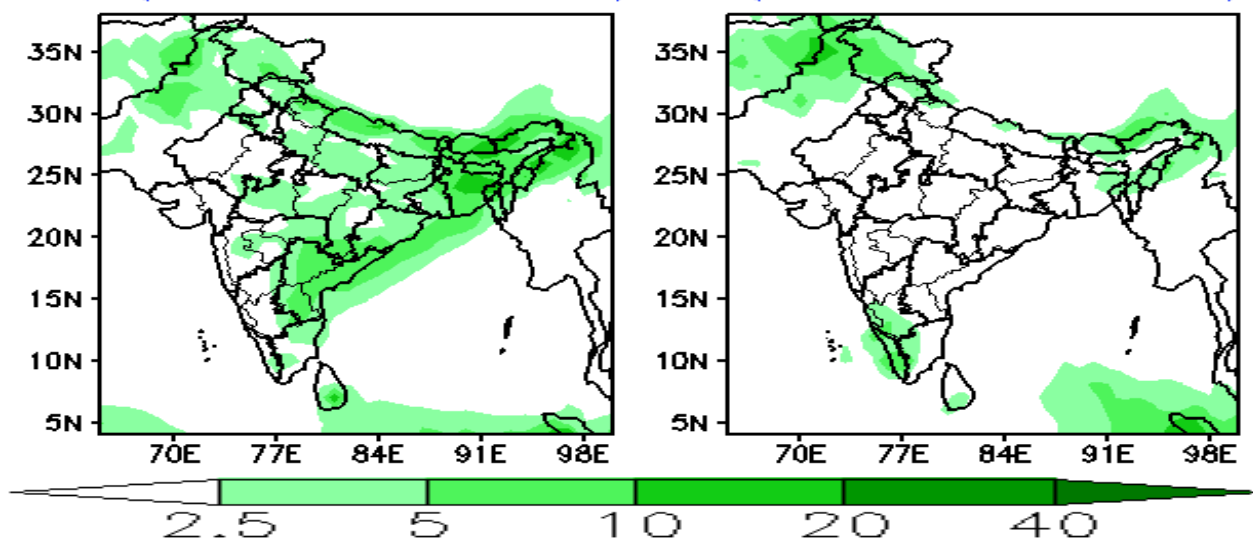
- a) Rainfall figures are based on operation data.
- b) Small figures indicate actual rainfall (mm), while bold figures indicate Normal rainfall (mm).
- c) Percentage Departures of rainfall are shown in brackets.



### Forecast Rainfall (mm/day)

(Week1: 17Mar–23Mar)

(Week2: 24Mar–30Mar)



### Forecast Rainfall Anomaly (mm/day)

(Week1: 17Mar–23Mar)

(Week2: 24Mar–30Mar)

