



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

**Dated: 18 March, 2021**

**Subject: Current Weather Status and Outlook for next two weeks (18 to 31 March, 2021)**

**Salient Features**

- Under the influence of an active Western Disturbance and associated induced cyclonic circulation, light to moderate scattered to widespread rainfall occurred over Western Himalayan Region and light isolated rainfall over adjoining plains during 11 to 13 March, 2021. Isolated heavy rainfall also occurred over Jammu & Kashmir on 12 March, 2021.
- Due to cyclonic circulation/trough over central parts of country, light to moderate isolated/scattered rain/thundershower occurred over central India during past week (11 to 17 March, 2021).
- Rainfall activity over India as a whole was 34% below Long Period Average (LPA) during past week.
- Under the influence of an intense Western Disturbance, scattered to widespread rainfall likely over the Western Himalayan Region and isolated to scattered light to moderate rainfall over adjoining plains of Northwest India during 21<sup>st</sup> - 24<sup>th</sup> March, 2021. **Isolated heavy rainfall/snowfall also likely over the Western Himalayan Region on 22<sup>nd</sup> & 23<sup>rd</sup> March, 2021.**
- Isolated to scattered rainfall with thunderstorm, lightning and gusty winds (speed reaching 30-40 kmph) very likely over Madhya Pradesh, Vidharbha and Chhattisgarh till 21<sup>st</sup> March, 2021. Isolated hailstorm also very likely over West

Madhya Pradesh and Vidharbha on 18<sup>th</sup> & 19<sup>th</sup> March; over East Madhya Pradesh on 19<sup>th</sup> March and over Marathawada and Telangana on 19<sup>th</sup> & 20<sup>th</sup> March, 2021.

- **No significant heat wave conditions are likely over the country during next one week.**

### Weekly Rainfall Scenario (11 to 17 March, 2021)

During the week, rainfall for the country as a whole was below Long Period Average (LPA) by 34%. Details are given below:

Regions	Actual Rainfall (mm)	Normal Rainfall (mm)	% Departure from LPA
Country as a whole	4.6	6.9	-34%
Northwest India	7.4	11.1	-33%
Central India	2.1	2.0	5%
South Peninsula	2.1	3.7	-42%
East & northeast India	7.3	13.0	-44%

The Meteorological sub-division-wise rainfall for the week is given in **Annexure I**.

### Pre-monsoon Rainfall Scenario (01 to 17 March, 2021)

For the country as a whole, cumulative rainfall during this year's pre-monsoon season till 17 March, 2021 is below LPA by 47%. Details of the rainfall distribution over the four broad geographical regions of India are given below:

Regions	Actual Rainfall (mm)	Normal Rainfall (mm)	% Departure from LPA
Country as a whole	8.0	14.9	-47%
Northwest India	11.0	24.4	-55%
Central India	2.1	4.9	-57%
South Peninsula	2.6	7.2	-64%
East & northeast India	21.2	27.1	-22%

Cumulative seasonal rainfall is given in **Annexure II**.

### Weekly maximum temperature Scenario (11 to 17 March, 2021)

- The maximum temperatures were between 34 to 38°C over central and north Peninsular India. These were above normal by 2 to 3°C over most parts of central parts of the country, north Peninsular India & northeastern states (**Annexure III**).

### Chief synoptic conditions as on 18 March, 2021

- A Western Disturbance as a cyclonic circulation over Jammu & Kashmir at 3.1 km above mean sea level.
- A cyclonic circulation lies over East Rajasthan at lower levels.
- A cyclonic circulation lies over Marathawada at lower levels.
- A fresh Western Disturbance is very likely to affect the Northwest India from the night of 20<sup>th</sup> March, 2021.

### Large scale features as on 18 March, 2021

- Currently, moderate La Niña conditions are prevailing over equatorial Pacific and Sea Surface Temperatures (SSTs) are below normal over central & eastern equatorial Pacific Ocean. The latest Monsoon Mission Climate Forecasting System (MMCFS) forecast indicates warming of SSTs over Nino 3.4 region during the coming season and there is a possibility of transition of La Niña conditions to ENSO neutral conditions during the forthcoming season. However, model skill during this period is supposed to be limited because of the spring barrier.
- At present, neutral Indian Ocean Dipole (IOD) conditions are observed over Indian Ocean and the latest MMCFS forecast indicates neutral IOD conditions are likely to continue up to May, June & July (MJJ) months and negative IOD conditions likely to develop thereafter.
- The Madden Julian Oscillation (MJO) index lies in Western Hemisphere and Africa (Phase 1) with amplitude nearly one. As per the latest projections, it is likely to move over Indian Ocean (Phase 2) with amplitude nearly one during next one week.

### Forecast for next two week

#### Weather systems & associated Precipitation during Week 1 (18 to 24 March, 2021) and Week 2 (25 to 31 March, 2021)

##### Rainfall for week 1: (18 to 24 March, 2021)

- Under the influence of Western Disturbance as a cyclonic circulation lies over Jammu & Kashmir at 3.1 km above mean sea level. Under its influence, isolated

rainfall/snowfall very likely over the Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad on today, the 18<sup>th</sup> March, 2021.

- Thereafter, under the influence of an intense Western Disturbance, scattered to widespread rainfall likely over the Western Himalayan Region and isolated to scattered light to moderate rainfall over adjoining plains of Northwest India during 21<sup>st</sup> - 24<sup>th</sup> March, 2021. Isolated thunderstorm/lightning/hailstorm also likely over the region during the same period. **Isolated heavy rainfall/snowfall also likely over the Western Himalayan Region on 22<sup>nd</sup> & 23<sup>rd</sup> March, 2021.**
- Due cyclonic circulation over central parts of the country at lower tropospheric levels, isolated to scattered rainfall with thunderstorm, lightning and gusty winds (speed reaching 30-40 kmph) very likely over Madhya Pradesh, Vidharbha and Chhattisgarh during 1<sup>st</sup> half of the week 1. Isolated hailstorm also very likely over West Madhya Pradesh and Vidharbha on 18<sup>th</sup> & 19<sup>th</sup> March; over East Madhya Pradesh on 19<sup>th</sup> March and over Marathawada and Telangana on 19<sup>th</sup> & 20<sup>th</sup> March, 2021.
- Isolated rainfall/thundershowers are very likely over Tamilnadu, Puducherry & Karaikal, Telangana, Kerala & Mahe and coastal & south Interior Karnataka during most days of the week 1
- Isolated rainfall/thundershowers are very likely over Sub-Himalayan West Bengal & Sikkim and Arunachal Pradesh during the week 1 (**Annexure IV**).
- **Cumulatively, above normal rainfall likely over northwest & adjoining central India and extreme south Peninsular India; normal to above normal over many parts of north Peninsular India. It is likely to be below normal over remaining parts of the country (Annexure V).**

#### **Rainfall for week 2: (25 to 31 March, 2021)**

- **Due to absence of any active Western Disturbance, rainfall activity is likely to be below normal over northern parts of the country. However due to trough/wind discontinuity at south Peninsular India, light to moderate rainfall with thunderstorm & lightening activity likely over south Peninsular India. Hence rainfall activity is likely to be normal to above normal over above area. It is likely to be below normal over remaining parts of the country (Annexure V).**

### Temperature for week 1 & 2: (18 to 31 March, 2021)

- The maximum temperatures are in range of 34 to 38°C over central & north Peninsular India. These are above normal by 4 to 6°C over Saurashtra & Kutch and by 2 to 4°C over most parts of northwest & adjoining central India.
- Maximum temperatures over very likely to fall by 2-3°C over most parts of West India during 1<sup>st</sup> half of the week 1 and no significant change likely during its 2<sup>nd</sup> half.
- No significant change in maximum temperatures over rest parts of the country during week 1.
- **Hence, no significant heat wave conditions are likely over the country during week 1.**
- During week 2, due to likely dry weather over most parts of the country (outside south Peninsular India), **the maximum temperatures are very likely to rise gradually over most parts of the country. Hence, normal to above normal maximum temperatures likely over northwest, east & northeast India. These are likely to be below normal by 2-3°C over south Peninsular & adjoining central India (Annexure VI).**

### Cyclogenesis:

- No cyclogenesis is predicted over the north Indian Ocean during week 1 and there is a low probability of cyclogenesis over south Bay of Bengal during the latter half of week 2.

**Next weekly update will be issued on next Thursday i.e. 25 March, 2021**

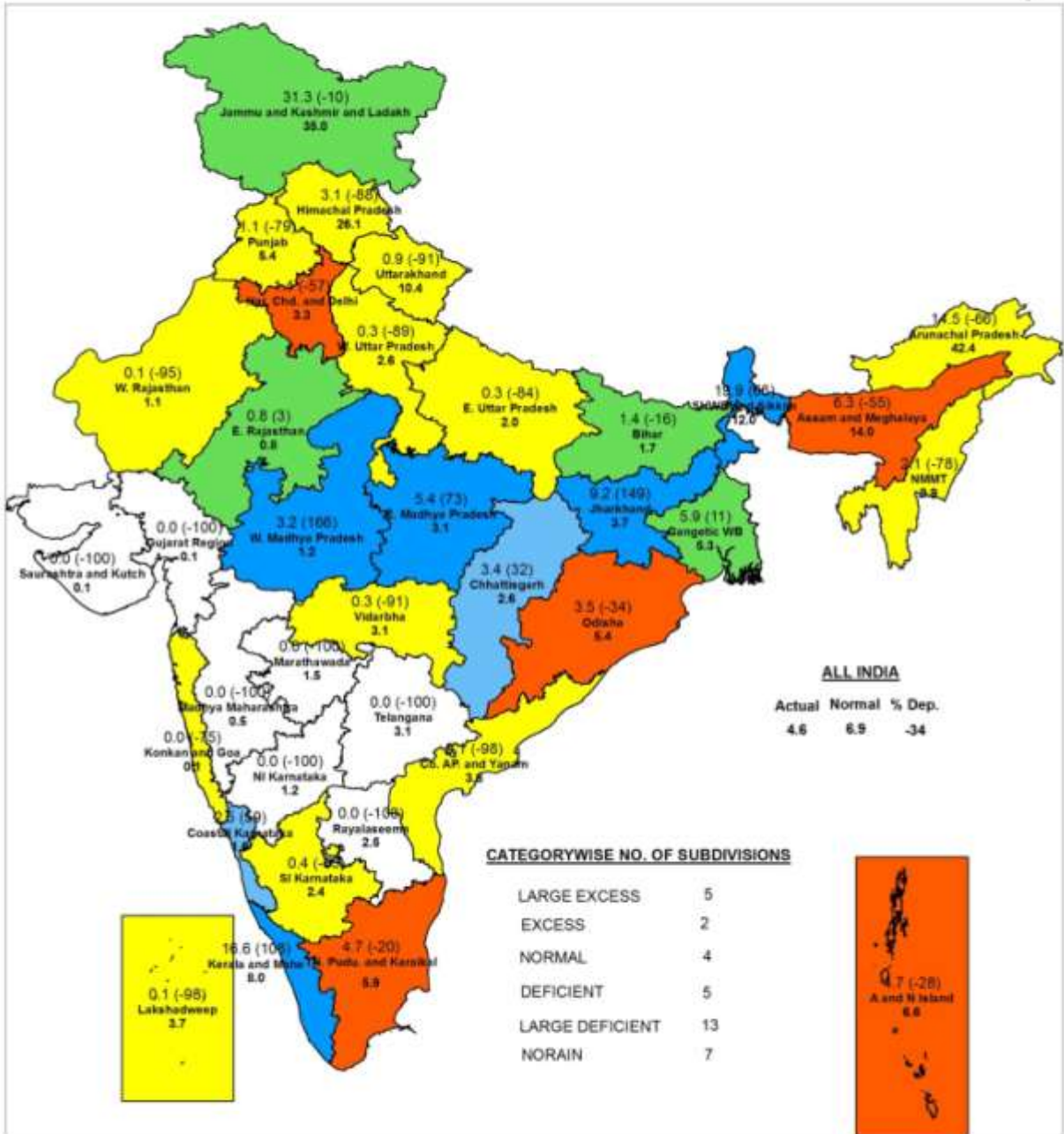


भारत मौसम विज्ञान विभाग  
INDIA METEOROLOGICAL DEPARTMENT

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

**SUBDIVISION RAINFALL MAP**

Week : 11-03-2021 To 17-03-2021



**Legend**

Large Excess [ 60% or more] Excess [ 20% to 59%] Normal [-19% to 19%] Deficient [-59% to -20%] Large Deficient [-49% 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.

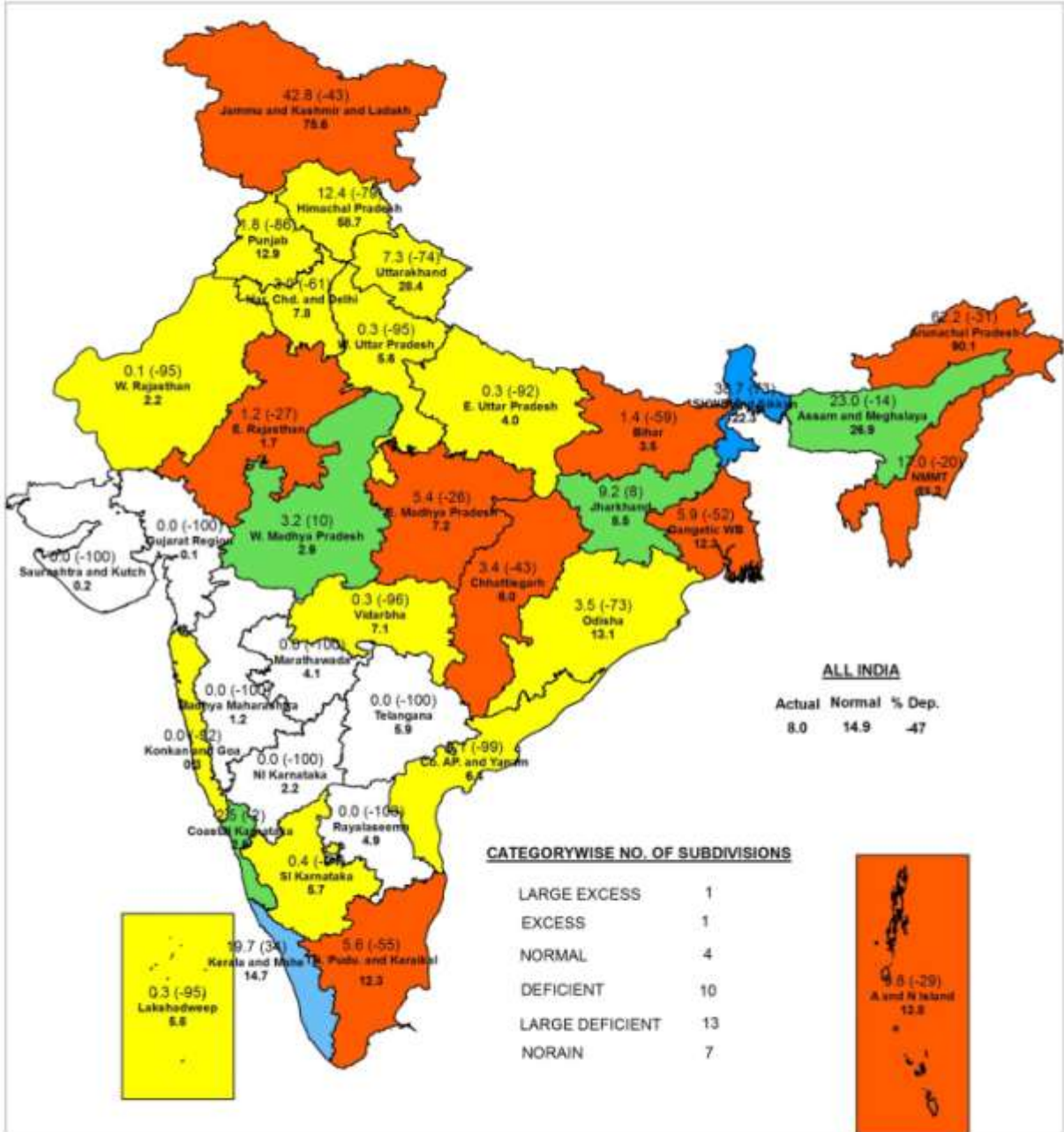


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HYDROMET DIVISION, NEW DELHI

**SUBDIVISION RAINFALL MAP**

Period : 01-03-2021 To 17-03-2021



**CATEGORYWISE NO. OF SUBDIVISIONS**

LARGE EXCESS	1
EXCESS	1
NORMAL	4
DEFICIENT	10
LARGE DEFICIENT	13
NORAIN	7

**Legend**

Large Excess [ 60% or more] Excess [ 20% to 59%] Normal [-19% to 19%] Deficient [-59% to -20%] Large Deficient [-49% to -60%] No Rain [-100%] No Data

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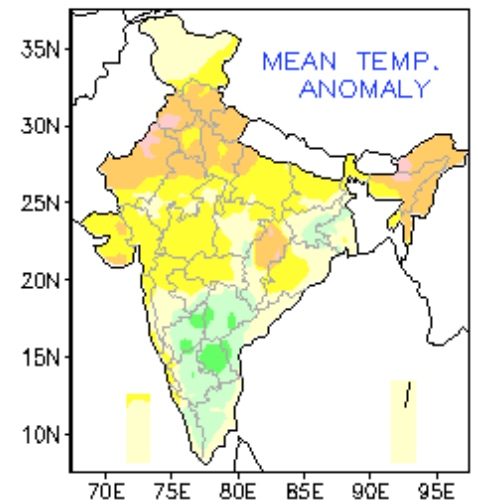
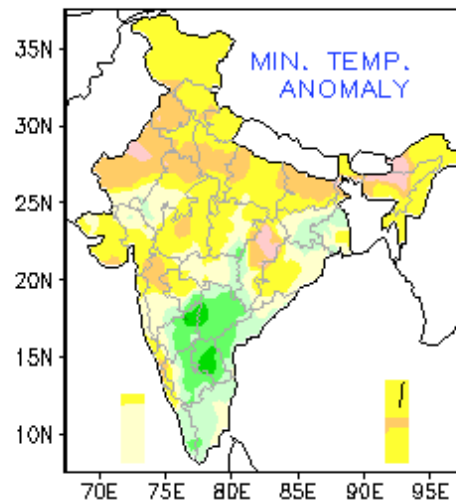
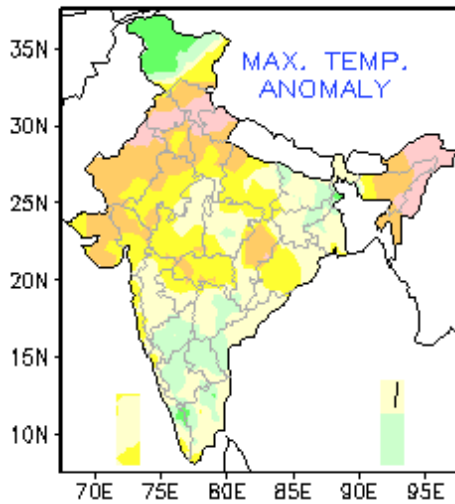
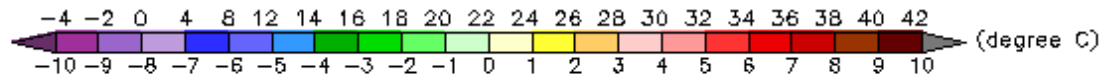
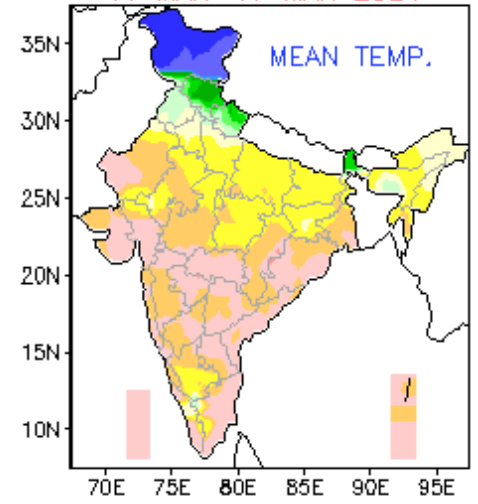
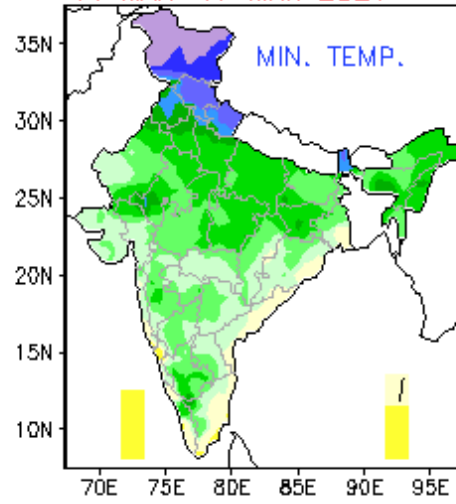
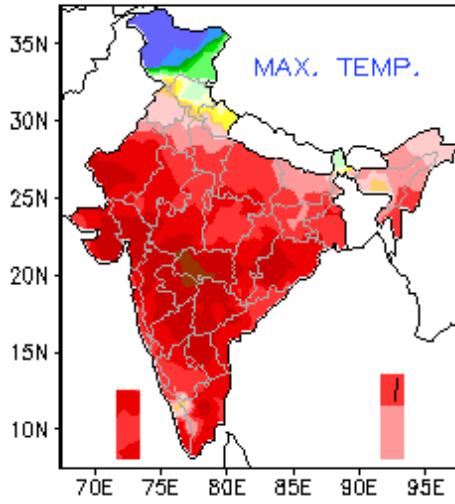
### Annexure III

#### TEMPERATURE FOR WEEK ENDING 17 MAR & ITS ANOMALY

11 MAR-17 MAR 2021

11 MAR-17 MAR 2021

11 MAR-17 MAR 2021





## Annexure IV

## METEOROLOGICAL SUB-DIVISIONWISE WEEKLY RAINFALL FORECAST &amp; Wx. WARNINGS-2021

Sr. No	MET.SUB-DIVISIONS	18 MAR	19 MAR	20 MAR	21 MAR	22 MAR	23 MAR	24 MAR
1	ANDAMAN & NICO.ISLANDS	D	D	D	D	ISOL	ISOL	ISOL
2	ARUNACHAL PRADESH	ISOL	ISOL	ISOL	SCT	ISOL	ISOL	ISOL
3	ASSAM & MEGHALAYA	ISOL	D	ISOL	ISOL	ISOL	D	D
4	NAGA.MANI.MIZO.& TRIPURA	D	D	D	ISOL	D	D	D
5	SUB-HIM.W. BENG. & SIKKIM	ISOL	ISOL	ISOL	ISOL	D	D	ISOL
6	GANGETIC WEST BENGAL	D	D	ISOL <sup>L</sup>	ISOL <sup>L</sup>	D	D	D
7	ODISHA	ISOL	ISOL <sup>L</sup>	ISOL	ISOL	ISOL	ISOL	ISOL
8	JHARKHAND	D	D	ISOL <sup>L</sup>	ISOL <sup>L</sup>	D	D	ISOL
9	BIHAR	D	D	ISOL	D	D	D	ISOL
10	EAST UTTAR PRADESH	D	ISOL	D	D	D	D	ISOL
11	WEST UTTAR PRADESH	ISOL	D	D	D	ISOL <sup>L</sup>	ISOL	SCT
12	UTTARAKHAND	D	D	D	ISOL	SCT <sup>L#</sup>	WS <sup>•</sup>	WS
13	HARYANA CHD. & DELHI	D	D	D	D	SCT <sup>L#</sup>	FWS	FWS
14	PUNJAB	D	D	D	ISOL <sup>L</sup>	SCT <sup>L#</sup>	FWS <sup>•</sup>	FWS
15	HIMACHAL PRADESH	D	D	D	SCT <sup>L#</sup>	WS <sup>L#</sup>	WS <sup>•</sup>	FWS
16	JAMMU & KASHMIR AND LADAKH	D	D	D	FWS <sup>L#</sup>	WS <sup>L</sup>	WS <sup>•</sup>	FWS
17	WEST RAJASTSAN	ISOL <sup>L</sup>	D	D	ISOL	ISOL <sup>L#</sup>	ISOL	D
18	EAST RAJASTSAN	ISOL <sup>L</sup>	ISOL <sup>L</sup>	ISOL	ISOL	ISOL <sup>L#</sup>	ISOL	ISOL
19	WEST MADHYA PRADESH	ISOL <sup>L#</sup>	SCT <sup>L#</sup>	ISOL <sup>L</sup>	ISOL	ISOL	ISOL	ISOL
20	EAST MADHYA PRADESH	ISOL <sup>L</sup>	ISOL <sup>L#</sup>	ISOL <sup>L</sup>	D	D	D	D
21	GUJARAT REGION	D	D	D	D	D	D	D
22	SAURASTRA & KUTCH	D <sup>↓</sup>	D	D	D	D	D	D
23	KONKAN & GOA	D	D	D	ISOL <sup>L</sup>	ISOL <sup>L</sup>	ISOL	ISOL
24	MADHYA MAHARASHTRA	ISOL	ISOL <sup>L</sup>	ISOL <sup>L</sup>	ISOL <sup>L</sup>	ISOL	ISOL	ISOL
25	MARATHAWADA	ISOL	SCT <sup>L#</sup>	SCT <sup>L#</sup>	ISOL <sup>L</sup>	ISOL <sup>L</sup>	ISOL	ISOL
26	VIDARBHA	ISOL <sup>L#</sup>	SCT	SCT <sup>L</sup>	ISOL	ISOL	ISOL	ISOL
27	CHHATTISGARH	ISOL <sup>L</sup>	ISOL <sup>L</sup>	ISOL <sup>L</sup>	ISOL	D	D	D
28	COASTAL ANDHRA PR. & YANAM	ISOL <sup>L</sup>	D	D	D	ISOL <sup>L</sup>	D	D
29	TELANGANA	ISOL <sup>L</sup>	ISOL <sup>L#</sup>	ISOL <sup>L#</sup>	ISOL	ISOL	ISOL	ISOL
30	RAYALASEEMA	D	D	D	D	D	D	D
31	TAMIL. PUDU. & KARAICAL	D	D	ISOL	ISOL <sup>L</sup>	ISOL <sup>L</sup>	ISOL	ISOL
32	COASTAL KARNATAKA	ISOL	ISOL <sup>L</sup>	ISOL <sup>L</sup>	ISOL	ISOL	ISOL	ISOL
33	NORTH INTERIOR KARNATAKA	D	D	ISOL <sup>L</sup>	ISOL	ISOL	ISOL	ISOL
34	SOUTH INTERIOR KARNATAKA	ISOL	ISOL <sup>L</sup>	ISOL <sup>L</sup>	ISOL	ISOL	ISOL	ISOL
35	KERALA & MAHE	ISOL <sup>L</sup>	ISOL <sup>L</sup>	ISOL <sup>L</sup>	ISOL <sup>L</sup>	SCT <sup>L</sup>	ISOL	ISOL
36	LAKSHADWEEP	D	D	D	D	D	SCT	SCT

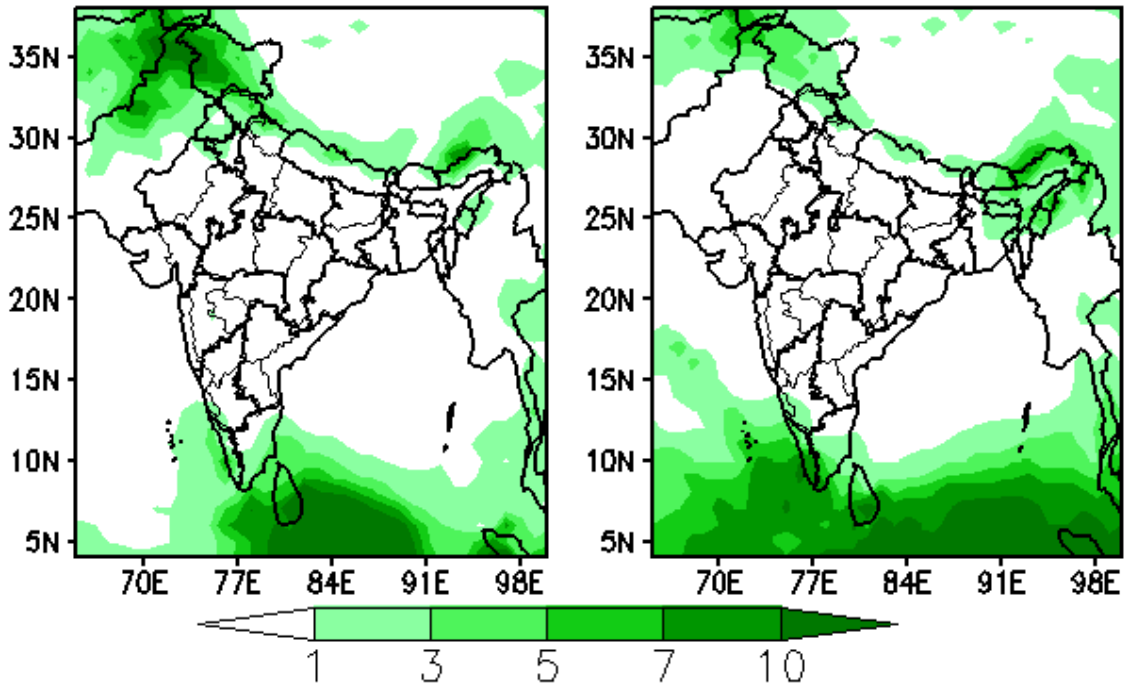
## LEGENDS:

WS - WIDE SPREAD / MOST PLACES (76-100%)			FWS - FAIRLY WIDE SPREAD / MANY PLACES (51% to 75%)					
SCT - SCATTERED / FEW PLACES (26% to 50%)			ISOL - ISOLATED (up to 25%)			D / DRY - NO RAINFALL		
* Heavy Rainfall (64.5-115.5 mm)		** Heavy to Very Heavy Rainfall (115.6-204.4 mm)			*** Extremely Heavy Rainfall (204.5 mm or more)			
F Fog	* Snowfall	D Dust storm	S Thunderstorm with Squall	L Thunderstorm with Lightning			# Thunderstorm with Hail	
↓ Cold Wave (Minimum temperature departure from Normal -4.5 °C to -6.4 °C)				↓ Severe Cold Wave (Minimum temperature departure from Normal ≤ -6.5 °C)				
↑ Heat Wave (Maximum temperature departure from Normal +4.5 °C to +6.4 °C)				↑ Severe Heat Wave (Maximum temperature departure from Normal ≥ +6.5 °C)				

### Forecast Rainfall (mm/day)

(Week1: 19Mar–25Mar)

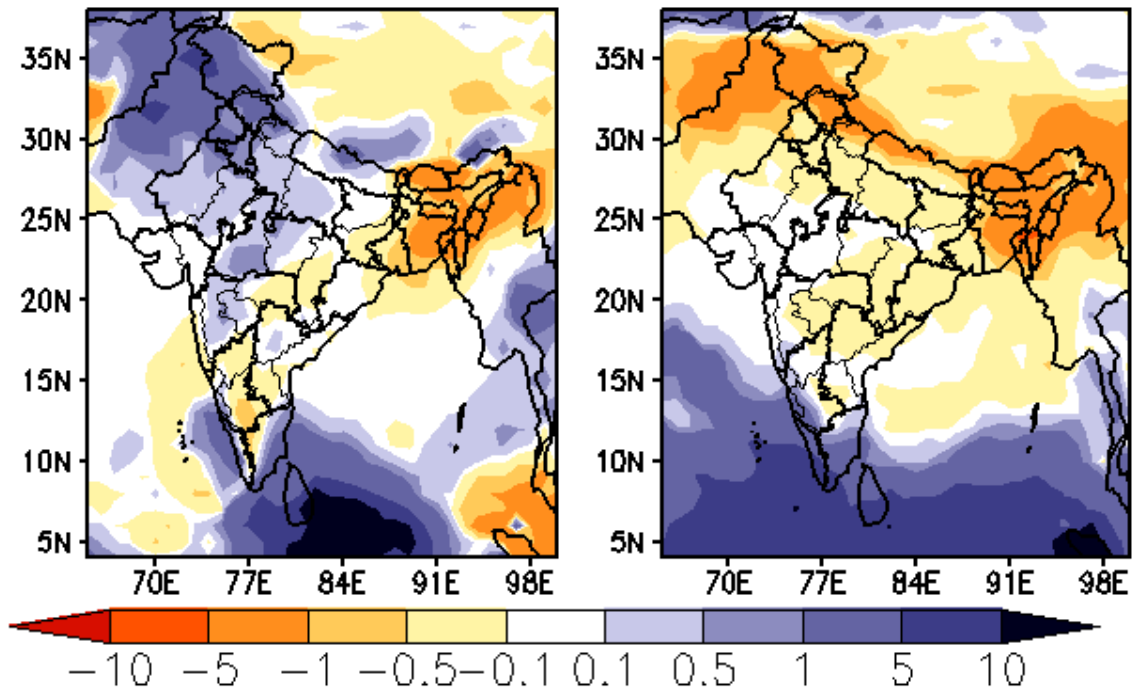
(Week2: 26Mar–01Apr)



### Forecast Rainfall Anomaly (mm/day)

(Week1: 19Mar–25Mar)

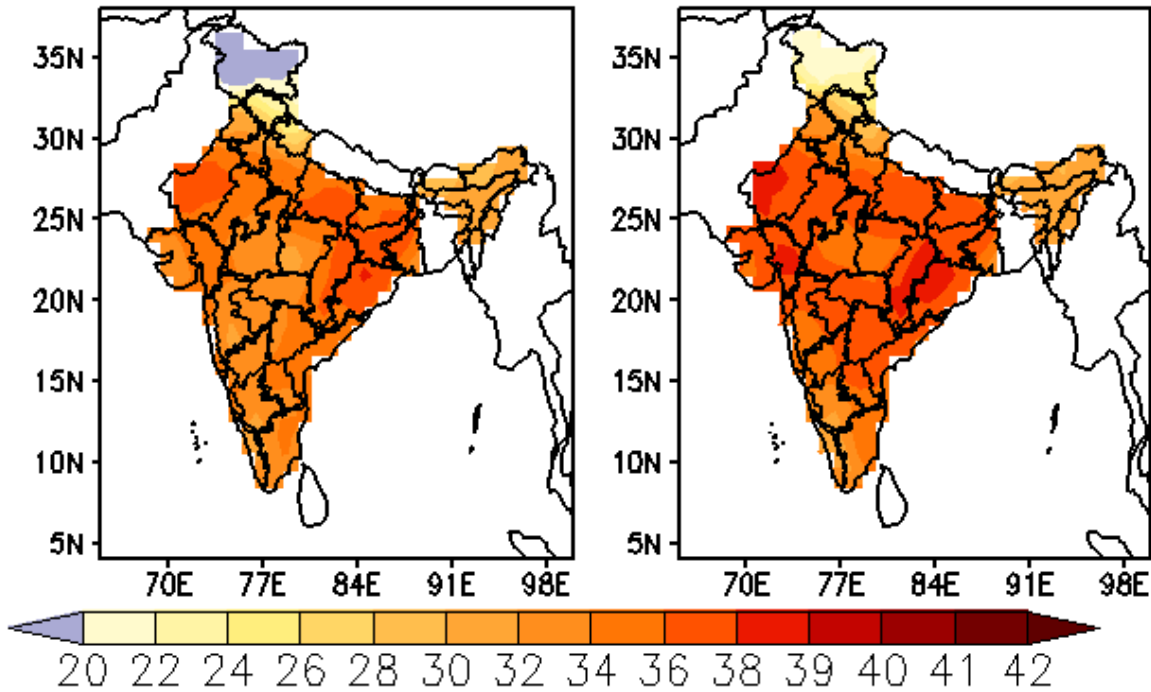
(Week2: 26Mar–01Apr)



### MME Bias corrected forecast Tmax (Deg)

(Week1: 19Mar–25Mar)

(Week2: 26Mar–01Apr)



### MME forecast Tmax anomaly (Deg C)

(Week1: 19Mar–25Mar)

(Week2: 26Mar–01Apr)

