



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

**Press: Dated: 9 Dec, 2021**

**Subject: Current Weather Status and Extended range Forecast for next two weeks  
(9-22 Dec 2021)**

**1. Salient Features for week ending on 8 Dec 2021**

- Isolated Heavy to very heavy rainfall occurred over south coastal Odisha on 5<sup>th</sup> Dec; Isolated Heavy to very heavy rainfall with isolated extremely heavy falls occurred over coastal Odisha and Isolated Heavy to very heavy rainfall occurred over Gangetic West Bengal on 6<sup>th</sup> Dec. This was under the influence of the cyclonic storm “JAWAD” over westcentral Bay of Bengal (BoB) which weakened into a deep depression over west central BoB on evening of the 4<sup>th</sup> Dec; further weakened into a Depression in the afternoon of 5 Dec and lay centered at 1430 hrs IST of 05th December 2021, over Northwest Bay of Bengal close to Odisha coast, about 50 km southeast of Puri (Odisha), 100 km south-southwest of Paradip (Odisha) and then moved northeastwards and weakened into a well marked low pressure area over northwest BoB and adjoining West Bengal & Bangladesh coasts in the morning of the 6<sup>th</sup> December, 2021.
- Under the influence of a Western Disturbances which moved as long amplitude north-south trough in middle and upper tropospheric westerly winds across northwest India with its southern end dipping to north Arabian sea during 3-5 Dec and favored moisture incursion during the period, fairly widespread to widespread rainfall /thunderstorm activity had been reported over Western Himalayan Region and adjoining plains and Rajasthan during 3-5 Dec.
- Isolated heavy rainfall also reported over extreme southern Peninsular India including

Tamil Nadu and Kerala during 1<sup>st</sup> half of the week i.e. during 3-6 Dec 2021 due to a lower level cyclonic circulation lay over Gulf of Mannar & neighbourhood which then moved to Comorin Area and neighbourhood till 6 Dec.

## 2. Rainfall distribution during the current week of 2-8 Dec 2021 and Post-monsoon Rainfall Scenario (01 Oct to 8 Dec, 2021)

During the week ending on 8 Dec 2021, for the country as a whole, the weekly cumulative All India Rainfall departure from its long period average (LPA) during the week was **+190%** with weekly cumulative over south Peninsular India reported above normal of **+14%**, while all India cumulative rainfall during this year's post-monsoon season till 8 Dec, 2021 is above LPA by **+52%** and over south Peninsular India, it is above LPA by **+69%**. 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		
	02.12.2021 TO 08.12.2021			01.10.2021 TO 08.12.2021		
	Actual	Normal	% Dep	Actual	Normal	% Dep
EAST & NORTH-EAST INDIA	14.7	1.6	+818%	174.7	155.8	+12%
NORTH-WEST INDIA	3.5	1.9	+85%	75.7	37.1	+104%
CENTRAL INDIA	14.0	1.9	+636%	95.6	71.6	+34%
SOUTH PENINSULA	13.3	11.7	+14%	434.6	256.5	+69%
country as a whole	10.7	3.7	+190%	168.7	110.7	+52%

### 3. 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 The Madden Julian Oscillation (MJO) index currently lies in Phase 6 with amplitude more than 1. It is likely to continue in Phase 6 during week 1 and enter phase 7 with amplitude remaining more than 1 during week 2. Thus, MJO phase is not conducive for enhancement of convective activity and hence cyclogenesis over the Bay of Bengal (BoB) and the Arabian Sea (AS) during entire forecast period.

### 4. Forecast for next two week

#### Weather systems & associated Precipitation during Week 1 (09 to 15 December, 2021) and Week 2 (16 to 22 December, 2021)

##### **Rainfall for week 1 (09 to 15 December, 2021):**

- A trough in easterlies runs from Sri Lanka to Westcentral Bay of Bengal off Andhra Pradesh coast in lower levels on today, the 09 December and northeasterly winds from Bay of Bengal over south Peninsular India, isolated/scattered light to moderate rainfall activity likely over Coastal Andhra Pradesh & Yanam, Rayalaseema, Tamilnadu, Puducherry & Karaikal and Kerala & Mahe during the week and over Odisha, South Interior Karnataka and Telangana during next 2 days. **Isolated heavy rainfall** activity is likely over south Tamilnadu on 09th December, 2021
- **No Western Disturbance is very likely to affect Northwest India during next 4-5 days.** Thereafter a Western Disturbance is very likely to affect northwest India from 13<sup>th</sup> night, it is very likely to cause isolated/scattered light to moderate rainfall/snowfall activity over Western Himalayan Region during 13<sup>th</sup> to 16<sup>th</sup> and cause light isolated rainfall over Punjab, Haryana & Chandigarh on 15<sup>th</sup> & 16<sup>th</sup> December, 2021.
- Light isolated to scattered rainfall/snowfall is very likely over Arunachal Pradesh and light isolated rainfall over Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura during 09<sup>th</sup> to 11<sup>th</sup> December, 2021.

##### **Rainfall for week 2 (16 to 22 December, 2021):**

- No active Western Disturbance is likely to affect northwest India during week 2.
- Rainfall activity is likely to be below normal over the country except Arunachal Pradesh, where it is likely to be near normal.

### **Minimum Temperatures for week 1(09 to 15 December, 2021) and week 2(16 to 22 December, 2021)**

#### **Minimum Temperatures for Week 1(09 to 15 December, 2021):**

- Minimum temperatures are below normal by 2° to 3°C over many parts of East Rajasthan, West Madhya Pradesh and Gujarat. These are near normal or above normal by 2° to 3°C over most parts of northwest, central, east & south Peninsular India.
- No significant change in minimum temperatures likely over northwest India during 1<sup>st</sup> half of the week and gradual fall by 2-4°C thereafter.
- Gradual fall in minimum temperatures by 2-3°C likely over most parts of East India during 1<sup>st</sup> half of the week and no significant change thereafter.
- No significant change in minimum temperatures likely over rest parts of the country during the week.
- **Overall, these are likely to be normal to below normal over most parts of the country except parts of north Peninsular India & northeastern states, where these are likely to be above normal by 2-3°C.**
- **Cold wave in isolated pockets is likely over part of northwest India during 2<sup>nd</sup> half of the week.**

#### **Minimum Temperatures for week 2 (16 to 22 December, 2021):**

- **Gradual fall in minimum temperatures likely over the most parts of the country as compared to week 1. These are likely to be below normal by 2 to 3° C over most parts of the country except northeastern states, where these are likely to be near normal.**
- **Cold wave in isolated pockets is likely over part of northwest India. (Refer Annex IV)**

### **5. Cyclogenesis forecast for North Indian Ocean during next 2 weeks**

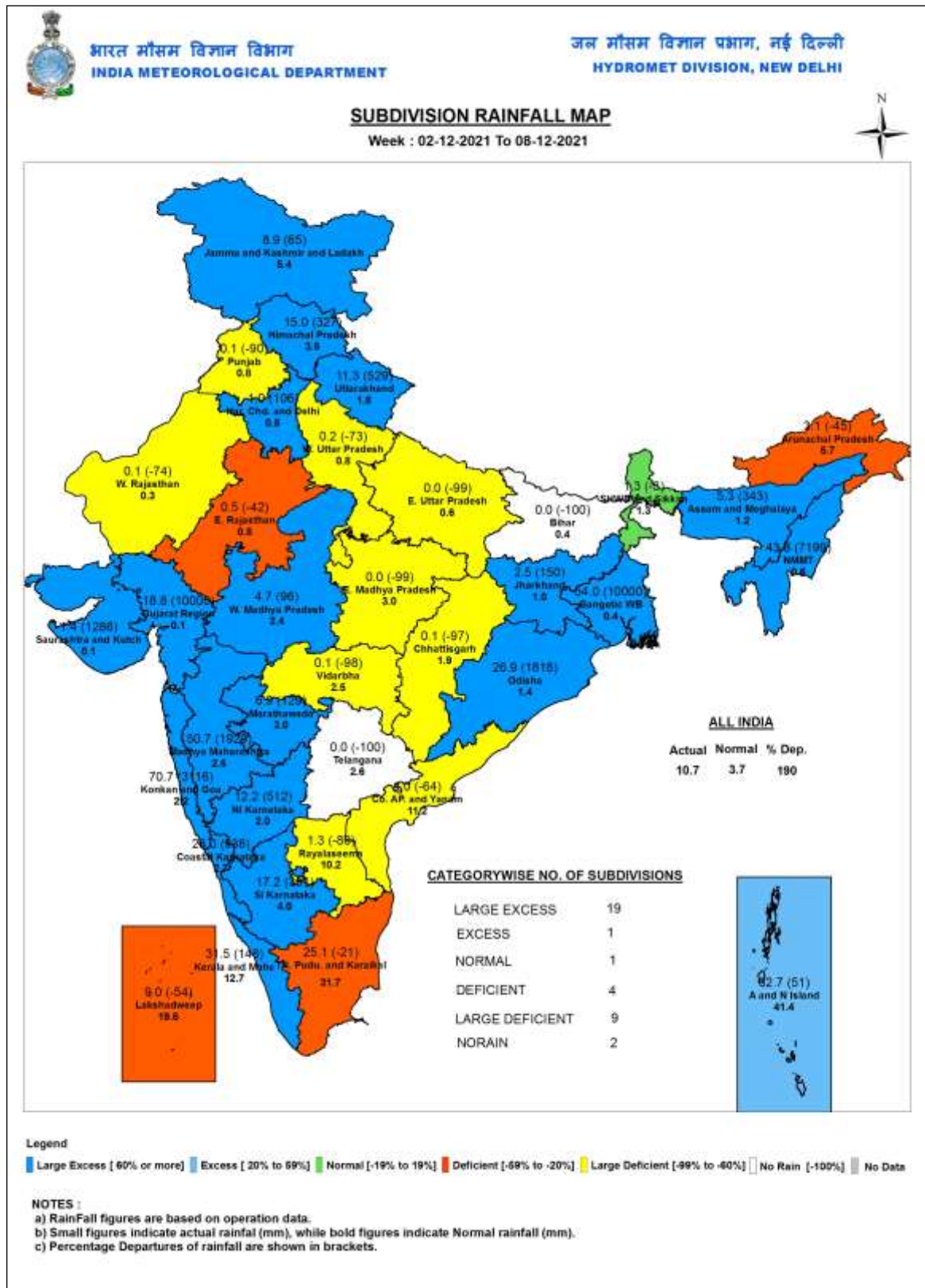
Model consensus shows: no cyclogenesis (formation of Depression and above intensity systems) likely over the north Indian Ocean during next 2 weeks.

**Next weekly update will be issued on next Thursday i.e. 16 Dec 2021**

**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	Widespread (WS/Most Places)	26-50	Scattered (SCT/ A Few Places)
51-75	Fairly Widespread (FWS/ Many Places)	1-25	Isolated (ISOL)

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

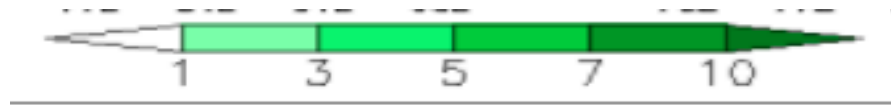
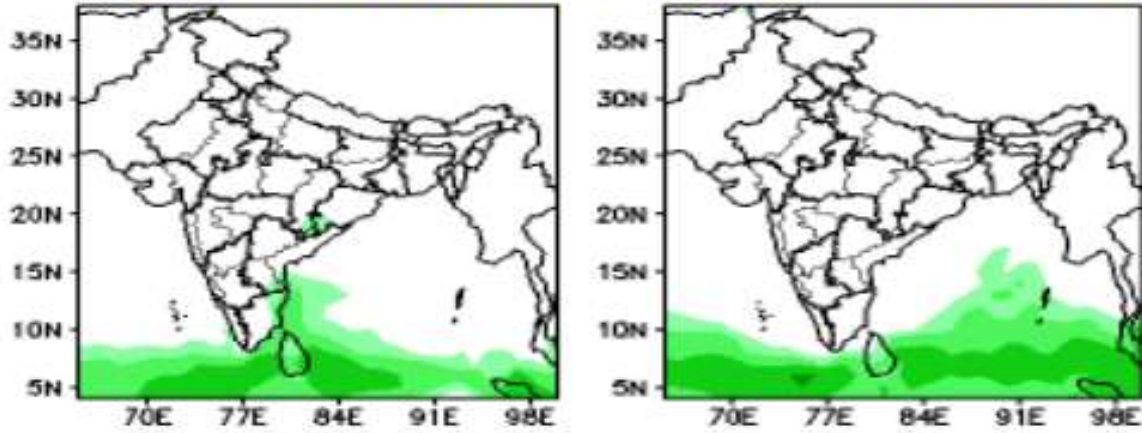




**Forecast Rainfall (mm/day)**

(Week1: 10Dec-16Dec)

(Week2: 17Dec-23Dec)



**Forecast Rainfall Anomaly (mm/day)**

(Week1: 10Dec-16Dec)

(Week2: 17Dec-23Dec)

