



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

Dated: 12th August, 2021

**Subject: Current Weather Status and Extended range Forecast for next two weeks
(12-25 August 2021)**

1. Salient Features

- Last week's heavy rainfall spell over east Rajasthan and West Madhya Pradesh which started from 29 July continued till 11 Aug 2021. Such prolonged spell was initially due to sustain southwesterly wind and moisture convergence associated with a persistence low pressure area over northwest Madhya Pradesh. The Low Pressure Area continued over the same region from last week of July to 6th August. It then became less marked and its remnant as cyclonic circulation moved east-northeast-wards to Bihar during 07th-11th August across northeast Madhya Pradesh and East Uttar Pradesh. Latter system also caused increase in rainfall over east Uttar Pradesh and Bihar during 07th – 12th august, 2021.
- Subdued rainfall activity over southern Peninsular India, Maharashtra and Gujarat continued during the week, due to weak pressure gradient and absence of off-shore trough along West coast of India. This was the 2nd consecutive week with weak monsoon conditions over these areas.
- Weak monsoon conditions also prevailed over other parts of the country covering northwest India and central India towards end of the week during 10-12 July, with the eastern end of the monsoon trough close to the foot hills of the Himalayas and western end to the north of its normal position. It caused fairly widespread to widespread rainfall with isolated heavy to very heavy rainfall during 10-12 Aug over northeast and adjoining eastern parts of India and Isolated extremely heavy rainfall over Meghalaya on 10th and 12th Aug.

➤ Weekly cumulative rainfall departure for the country as a whole for the week ending on 11th Aug is 35% below its Long Period Average (LPA), while the Seasonal cumulative rainfall departure during 1st June to 11th Aug, 2021 is 6 % below the LPA. Details of the rainfall distribution over the four broad geographical regions of India are given Table 1 with met sub-divisions-wise rainfall both for week and season given in Annex 1.

➤ **Forecast for next 2 weeks based on NWP model consensus:**

a) Week 1 (5-11 Aug, 2021)

- i) The Monsoon trough lies to the north of its normal position. Its Eastern end is likely to shift gradually southwards from 15th August onwards and a cyclonic circulation is also likely to form over westcentral and adjoining northwest Bay of Bengal around 15th August which then may lead to formation of a Low Pressure Area over the same region during subsequent 48 hours.
- ii) Under such likely synoptic conditions, Sub-duded rainfall activity over most parts of northwest India and adjoining Central and adjoining Peninsular India likely to continue till 15th Aug with increase over east central and adjoining Peninsular India from 16th Aug. Current spell of widespread rainfall activity with isolated **heavy to very heavy falls** very likely to continue over Northeast India and Sub-Himalayan West Bengal & Sikkim during 12th - 15th August with reduction thereafter.

b) Week 2 (12-18 August 2021)

- i) There is likely increase in rainfall activity over most parts of the country as compare to week 1 and cumulatively rainfall during week 2 likely to be normal to above normal rainfall activity likely over the country except most parts of Western Himalayan Region, Gangetic West Bengal and Andaman & Nicobar Islands, where below normal rainfall activity is likely

Table 1: Rainfall status (Week and season)

Region	WEEK			SEASON		
	05.08.2021 TO 11.08.2021			01.06.2021 TO 11.08.2021		
	Actual	Normal	% Departure	Actual	Normal	% Departure
EAST & NORTH-EAST INDIA	71.3	72.4	-2%	785.6	898.5	-13%
NORTH-WEST INDIA	35.5	49.0	-27%	357.5	366.0	-2%

CENTRAL INDIA	35.4	77.4	-54%	566.1	614.5	-8%
SOUTH PENINSULA	29.8	44.8	-34%	479.0	448.9	+7%
country as a whole	40.0	61.5	-35%	519.8	550.8	-6%

2. Large scale features as on 5 August, 2021

- Presently, neutral ENSO conditions are seen over the equatorial Pacific. The latest global model forecasts indicate that the current neutral ENSO conditions are likely to continue over the equatorial Pacific Ocean. However, sea surface temperatures over central and east equatorial Pacific Ocean is showing cooling tendency and there is an increased possibility of re-emergence of the La Nina condition in the end of the monsoon season or thereafter. Prevailing
- At present, negative Indian Ocean Dipole (IOD) conditions are prevailing over the Indian Ocean. The latest forecast from the MMCFS and other global models together indicate negative IOD conditions over the Indian Ocean are likely to continue during remaining part of the monsoon season. .
- The Index of Madden Julian Oscillation (MJO) currently lies in Phase 1 with amplitude more than 1. It is likely to move into Phase 2, from the beginning of Week 1 maintaining the amplitude and propagate eastwards into Phase 3 with amplitude less than 1 during the initial part of Week 2. It is likely to remain in Phase 3 with amplitude less than 1 during Week 2. Hence the phase of MJO would become favorable for enhanced convection over the North Indian Ocean (NIO) during Week 2.

3. Forecast for next two week

Rainfall for week 1: (12 to 18 August, 2021)

- The Monsoon trough lies to the north of its normal position. Western end of the monsoon trough is very likely to remain north of its normal position during next 5 days. However, its Eastern end is likely to shift gradually southwards from 15th August onwards.

- A cyclonic circulation lies over west Bihar & neighbourhood at lower tropospheric levels. It is likely to persist during next 48 hours and become less marked thereafter.
- Strong lower level southwesterly winds from the Bay of Bengal to Northeast India are likely to continue during next 4 days.
- A cyclonic circulation is likely to form over westcentral and adjoining northwest Bay of Bengal around 15th August and may lead to formation of a Low Pressure Area over the same region during subsequent 48 hours.
- Under the influence of above meteorological conditions;
 - ✓ Widespread rainfall activity with isolated heavy to very heavy falls very likely over Northeast India and Sub-Himalayan West Bengal & Sikkim during 12th - 15th August and reduction thereafter. Isolated extremely heavy falls also likely over Assam & Meghalaya during 12th & 13th and over Sub-Himalayan West Bengal & Sikkim on 12th August, 2021.
 - ✓ Fairly widespread to widespread rainfall with isolated heavy falls very likely to continue over East Uttar Pradesh & Bihar during 12th to 14th August and reduction thereafter. Isolated very heavy falls are likely over East Uttar Pradesh & Bihar on 12th August, 2021.
 - ✓ Scattered to Fairly widespread rainfall very likely over Western Himalayan Region during the week. Isolated heavy rainfall very likely over Himachal Pradesh & Uttarakhand during 13th to 15th August, 2021.
 - ✓ Under the influence of likely formation of cyclonic circulation over westcentral & adjoining northwest Bay of Bengal around 15th August and subsequent formation of a Low Pressure Area during next 48 hours, fairly widespread rainfall activity is likely over Odisha, Coastal Andhra Pradesh, Telangana, Vidarbha, and Chhattisgarh. Isolated heavy falls are very likely over Odisha during 15th to 18th: over Coastal Andhra Pradesh during 15th to 17th; over Chhattisgarh during 16th to 18th and over Telangana & Vidarbha on 18th August, 2021. Isolated heavy to very heavy falls also very likely over Odisha on 16th August, 2021.
 -
 - ✓ Subdued rainfall very likely over rest parts of the country during next 5 days and increase thereafter except northwest India & Gujarat state.

Rainfall for week 2: (19 to 25 August, 2021)

- There is likely increase in rainfall activity over most parts of the country as compare to week 1.

- The monsoon trough is very likely to be near normal position during most days of the week.
- Fairly widespread to widespread rainfall activity with isolated heavy falls very likely over most parts of south Peninsular & central India during most of the days.
- Light/moderate scattered to fairly widespread rainfall likely over rest parts of country except most parts of Western Himalayan Region, Gangetic West Bengal and Andaman & Nicobar Islands.
- Overall normal to above normal rainfall activity likely over the country except most parts of Western Himalayan Region, Gangetic West Bengal and Andaman & Nicobar Islands, where below normal rainfall activity is likely.

4. Cyclogenesis:

Most of the numerical models including IMD GFS, GEFS, NCUM & NEPS, NCEP-GFS and ECMWF deterministic models are not indicating any cyclogenesis over NIO during their respective forecast periods. However, all these models are indicating likely formation of a low pressure area over west-central & adjoining northwest BoB off north Andhra Pradesh – south Odisha coasts during the latter half of Week 1. The cyclogenesis and evolution probability based on MME (CFSV₂) is not indicating any significant genesis potential zones over the NIO for the forecast period. Considering all the above, it may be concluded that no cyclogenesis is likely over the north Indian Ocean during the forecast period. However, a Low Pressure Area is likely to form over west-central & adjoining northwest BoB off north Andhra Pradesh – south Odisha coasts during the latter half of Week 1.

https://rsmcnewdelhi.imd.gov.in/uploads/archive/24/24_d4fa97_Extended%20Range%20Outlook_12082021.pdf

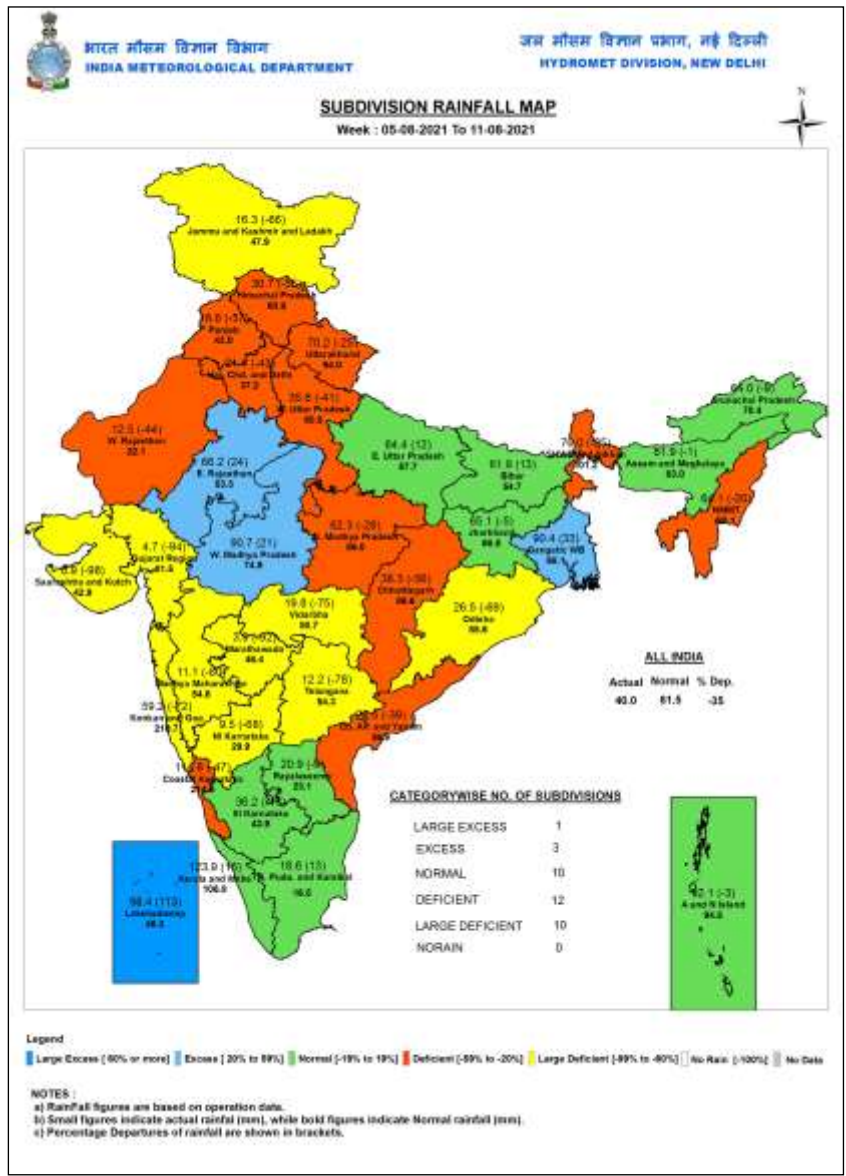
Next weekly update will be issued on next Thursday i.e. 19August 2021

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

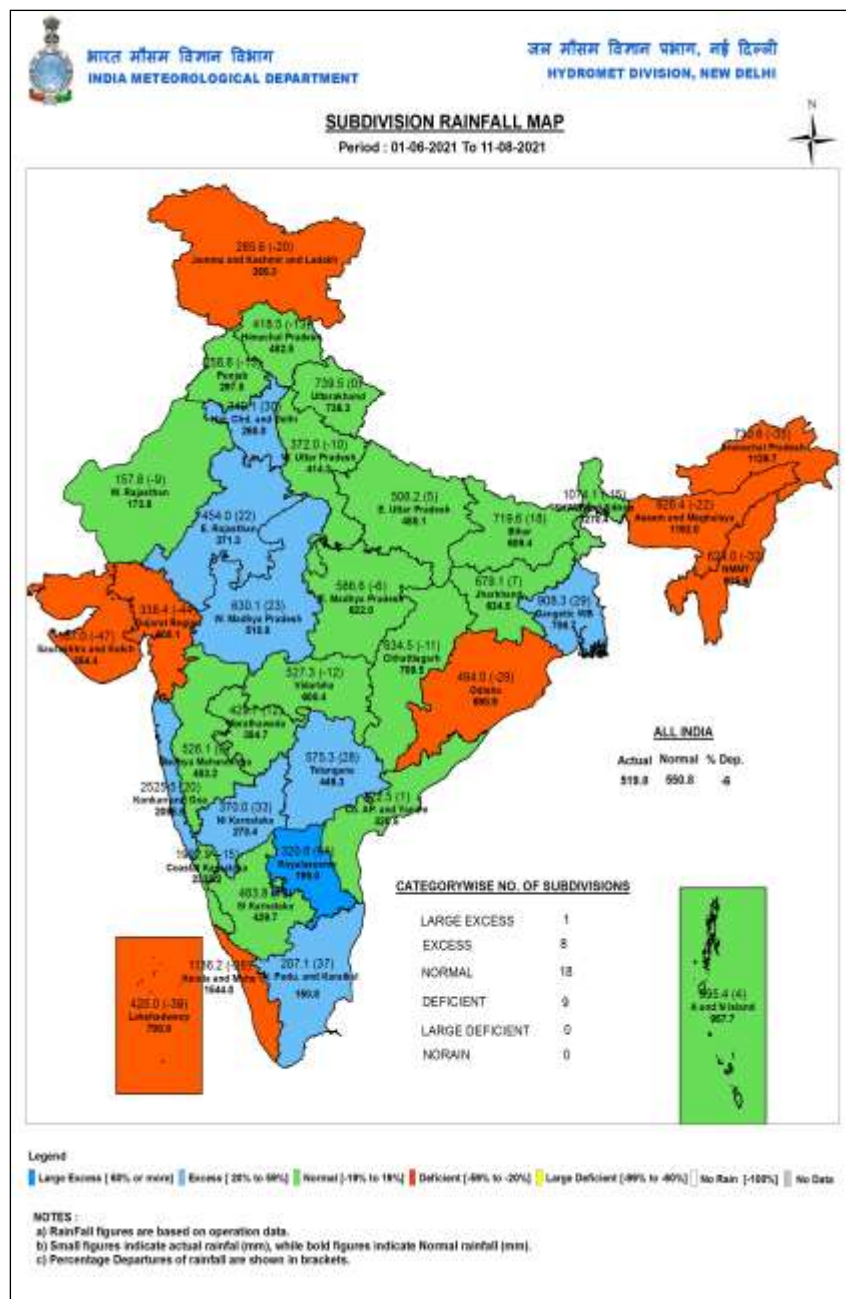
SPATIAL DISTRIBUTION (% of Stations reporting)			
% Stations	Category	% Stations	Category
76-100	Widespread (WS/Most Places)	26-50	Scattered (SCT/ A Few Places)
51-75	Fairly Widespread (FWS/ Many Places)	1-25	Isolated (ISOL)

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

Annex I



Annexure II

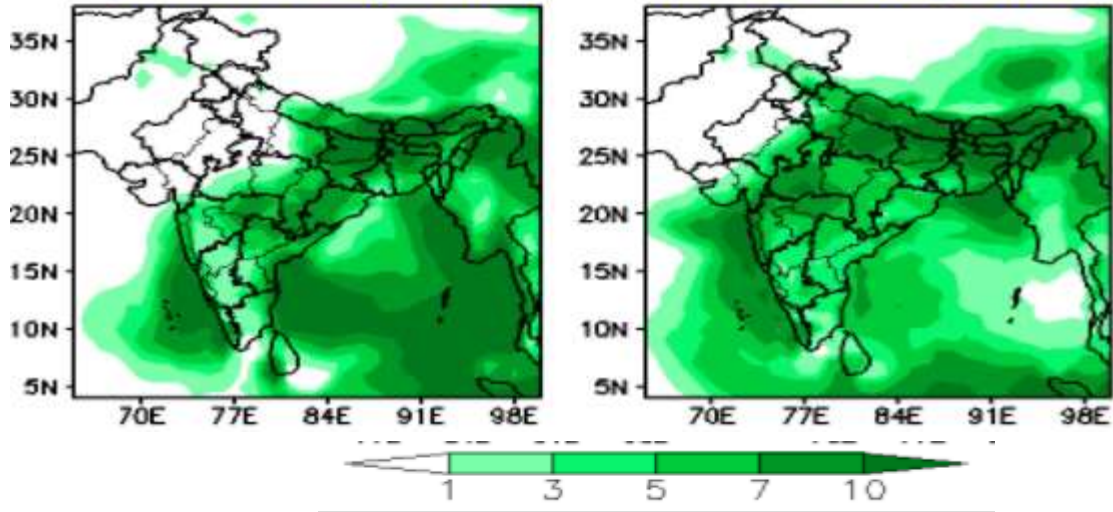


Annexure III

Forecast Rainfall (mm/day)

(Week1: 13Aug-19Aug)

(Week2: 20Aug-26Aug)



Forecast Rainfall Anomaly (mm/day)

(Week1: 13Aug-19Aug)

(Week2: 20Aug-26Aug)

