



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

Dated: 29 July, 2021

**Subject: Current Weather Status and Extended range Forecast for next two weeks
(29 July-11 August 2021)**

1. Significant Features for the Country

- Previous week's extremely heavy rainfall spells (24 hours rainfall > 204.4 mm) over Konkan and Goa, and Ghat areas of Maharashtra was continued till 24th July followed with drastic reduction thereafter. It was only moderate to isolated heavy rainfall occurrences over these areas during 24-29th July.
- A fresh spell of heavy to very heavy rainfall spell with Isolated extremely heavy rainfall was occurred over Western Himalayan Region and adjoining plains (Himachal Pradesh and Uttarakhand and Punjab and Haryana), during 2nd half of the week i.e. 26-29 July.
- Weekly cumulative % rainfall departure for the country as a whole is +15% from its Long Period Average (LPA) during the week, while it's Seasonal cumulative % Rainfall departure from LPA since 1 June till 28 July, 2021 is -2 %. 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: Week 1 (29 July-4 Aug, 2021) and Week 2 (5-11 August 2021)** based on NWP model consensus shows **“On-going normal to above normal rainfall is likely to continue during week 1, over central parts of India and adjoining northwest plains of India, Uttar Pradesh, Bihar, Jharkhand and West Bengal with slight reduction over these areas in week 2. Subdued activity is likely to continue during week 1 over Peninsular India with slight improvement over southwest coast of India (coastal Karnataka and Kerala) during the week**

Table 1: Rainfall status (Week and season)

Region	WEEK			SEASON		
	22.07.2021 TO 28.07.2021			01.06.2021 TO 28.07.2021		
	Actual	Normal	% Departure	Actual	Normal	% Departure
EAST & NORTH-EAST INDIA	45.2	92.4	-51%	608.3	740.9	-18%
NORTH-WEST INDIA	53.3	52.9	1%	246.5	265.1	-7%
CENTRAL INDIA	117.9	77.3	53%	470.0	459.0	+2%
SOUTH PENINSULA	72.3	52.8	37%	435.8	356.0	+22%
country as a whole	77.5	67.4	15%	416.6	424.1	-2%

2. Large scale features as on 29 July, 2021

- Presently, neutral ENSO conditions are seen over the equatorial Pacific along with substantially 3 warmer subsurface temperatures over the region. Atmospheric patterns also reflect neutral ENSO conditions. The latest MMCFS and other global model forecast indicate that neutral ENSO conditions will continue during the upcoming monsoon season.
- At present, neutral Indian Ocean Dipole (IOD) conditions are prevailing over the Indian Ocean. The latest forecast from the MMCFS and other global models together indicate possibility of development of negative IOD conditions during the monsoon season.
- The Index of Madden Julian Oscillation (MJO) currently lies in Phase 7 with amplitude less than 1. It is likely to move into Phase 1 across Phase 8 with amplitude close to 1 by the first half of Week 1 and further propagate eastwards into Phase 2, maintaining the amplitude, during Week 2. Hence the Phase of MJO will not support convective activity over the north Indian Ocean (NIO) during Weeks 1 & 2.

3. Forecast for next two week

Weather systems & associated Precipitation during Week 1 (29 July to 04 August, 2021) and Week 2 (05 to 11 August, 2021)

Rainfall for week 1: (29 July to 04 August, 2021)

- A Well Marked Low Pressure Area lies over Gangetic West Bengal & adjoining Bangladesh. The associated cyclonic circulation extends upto upper tropospheric levels. The system and its remnant is very likely to move west north-westwards across Jharkhand, south Bihar and southern parts of Uttar Pradesh during next 3-4 days.
- **The western end of the Monsoon trough at mean sea level passes through north of its normal position, while its eastern end is near its normal position. The western end likely to stay along normal position or slightly south of the normal while eastern end is very likely to shift gradually northwards during next 3-4 days.**
- **There is high wind convergence from Arabian Sea to plains of northwest India at lower levels and likely to continue during next 3-4 days.**
- Under the influence of these meteorological conditions;
 - Fairly widespread to widespread rainfall with **isolated heavy to very heavy falls** very likely over Odisha, Gangetic West Bengal, Jharkhand and Bihar during 29th - 31st July and over East Madhya Pradesh and Chhattisgarh during 29th July - 02nd August. Its intensity is likely to decrease thereafter. **Isolated extremely heavy falls are likely over Gangetic West Bengal on 29th July; over Jharkhand & Chhattisgarh on 30th July and over East Madhya Pradesh on 31st July, 2021.**
 - Fairly widespread to widespread rainfall with **isolated heavy to very heavy falls** likely to continue over East Rajasthan and West Madhya Pradesh during 29th July - 02nd August. It is likely to increase from 30th July with **isolated extremely heavy falls are likely over East Rajasthan during 30th July-01st August and over West Madhya Pradesh on 31st July, 2021.** it is likely to decrease in intensity thereafter with possibility of isolated heavy falls over these areas.
 - Current spell of widespread rainfall activity with isolated heavy to very heavy falls very likely to continue over Jammu and Kashmir, Himachal Pradesh, Utrakhnad, Punjab and Haryana till 30th July and decrease thereafter. Fairly widespread to widespread rainfall with **isolated heavy falls** very likely over Uttar Pradesh during most days of the week.
 - Light/moderate isolated to scatted rainfall activity is likely over remaining parts of the country during the week (**Annexure IV**).

Rainfall for week 2: (05 to 11 August, 2021)

- The monsoon trough is very likely to be north of its normal or near normal position during most days of the week.
- Fairly widespread to widespread rainfall with isolated heavy to very heavy falls very likely over West Bengal, Jharkhand, Bihar, Uttar Pradesh and adjoining northern parts of Madhya Pradesh and east Rajasthan during most days of the week.
- Enhanced rainfall activity over southwest coast of India covering Kerala and coastal Karnataka.
- **In week 2, Cumulatively:**
 - ✓ **It is normal to above normal active monsoon rainfall likely to continue West Bengal, Jharkhand, Bihar, Uttar Pradesh and adjoining northern parts of Madhya Pradesh and east Rajasthan.**
 - ✓ **Normal to below normal activity is likely to continue during week 2 over Peninsular India with slight improvement over southwest coast of India covering Kerala and coastal Karnataka.**
 - ✓ **It is likely to be normal over Northeast India and below normal over Western Himalaya region and adjoining plains of northwest India.**

4. Cyclogenesis:

Most of the numerical models including IMD GFS, GEFS, NCUM & NEPS are not indicating any fresh cyclogenesis over NIO during their respective forecast periods. ECMWF and NCEP GFS are indicating the development of a fresh low pressure area over northwest BoB and adjoining coastal areas of West Bengal towards the later part of Week 1. The cyclogenesis and evolution probability based on MME (CFSV₂) is indicating a genesis potential of >90 % for the present well marked Low Pressure area located over Gangetic west Bengal & adjoining Bangladesh, across eastern parts of the Indo Gangetic Plains till 1st August and not much probability for fresh genesis during the subsequent forecast period.

Considering all the above, it may be concluded that no cyclogenesis is likely over the north Indian Ocean during the forecast period.

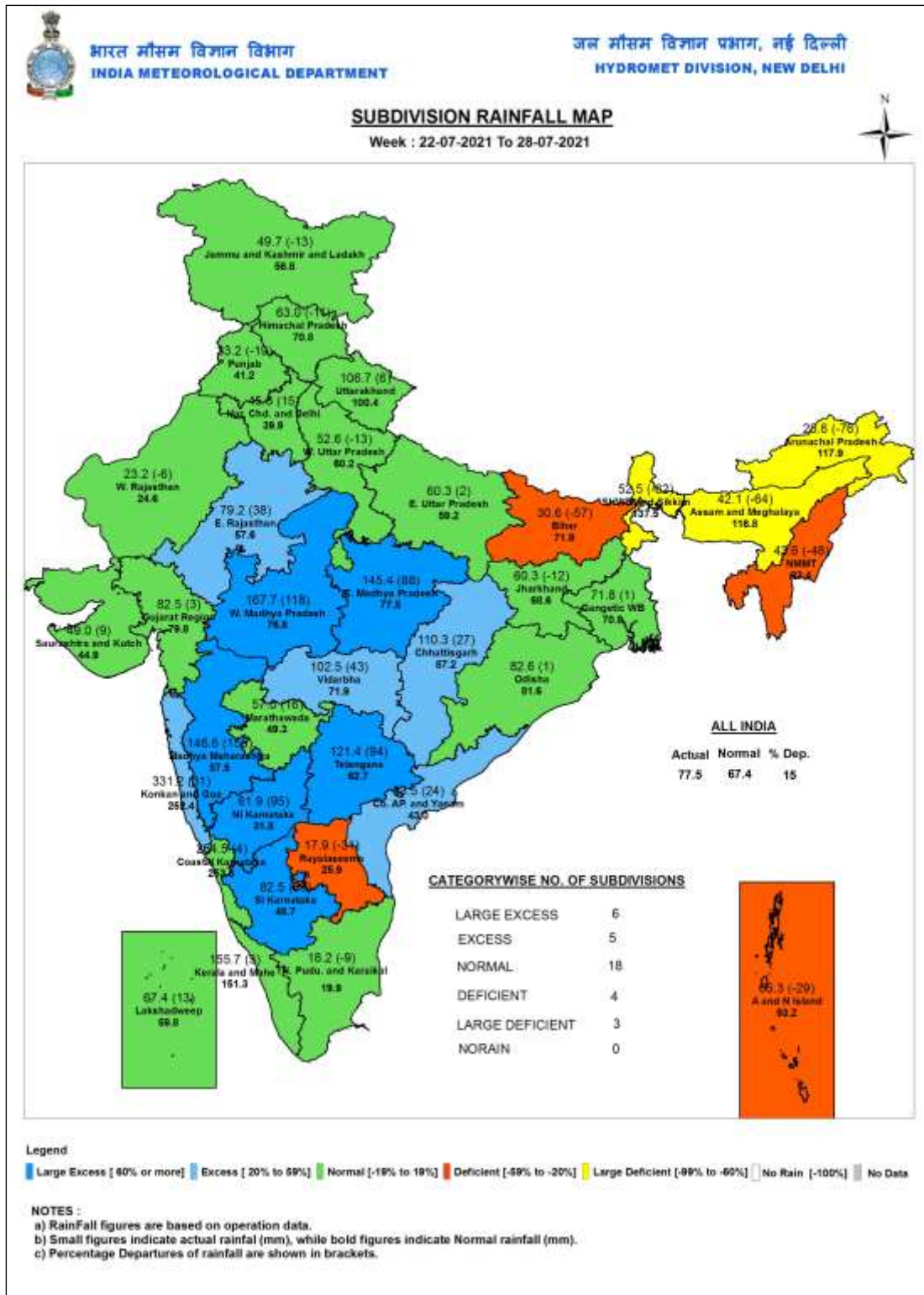
https://rsmcnewdelhi.imd.gov.in/uploads/archive/24/24_2b1c7f_Extended%20Range%20Outlook_22072029.pdf

Next weekly update will be issued on next Thursday i.e. 4 August 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



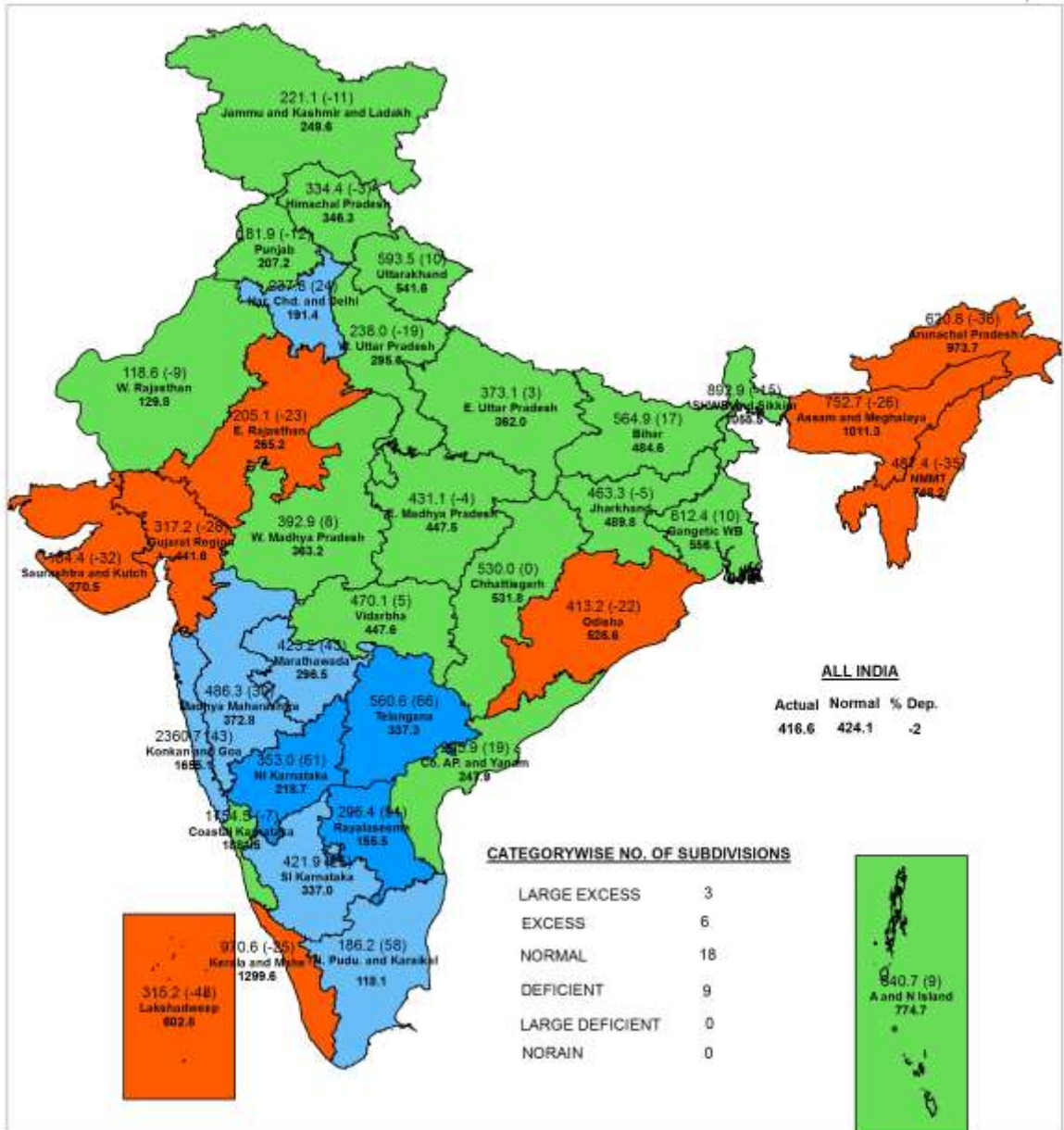


भारत मौसम विज्ञान विभाग
INDIA METEOROLOGICAL DEPARTMENT

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

SUBDIVISION RAINFALL MAP

Period : 01-06-2021 To 28-07-2021



ALL INDIA

Actual	Normal	% Dep.
416.6	424.1	-2

CATEGORYWISE NO. OF SUBDIVISIONS

LARGE EXCESS	3
EXCESS	6
NORMAL	18
DEFICIENT	9
LARGE DEFICIENT	0
NORAIN	0

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

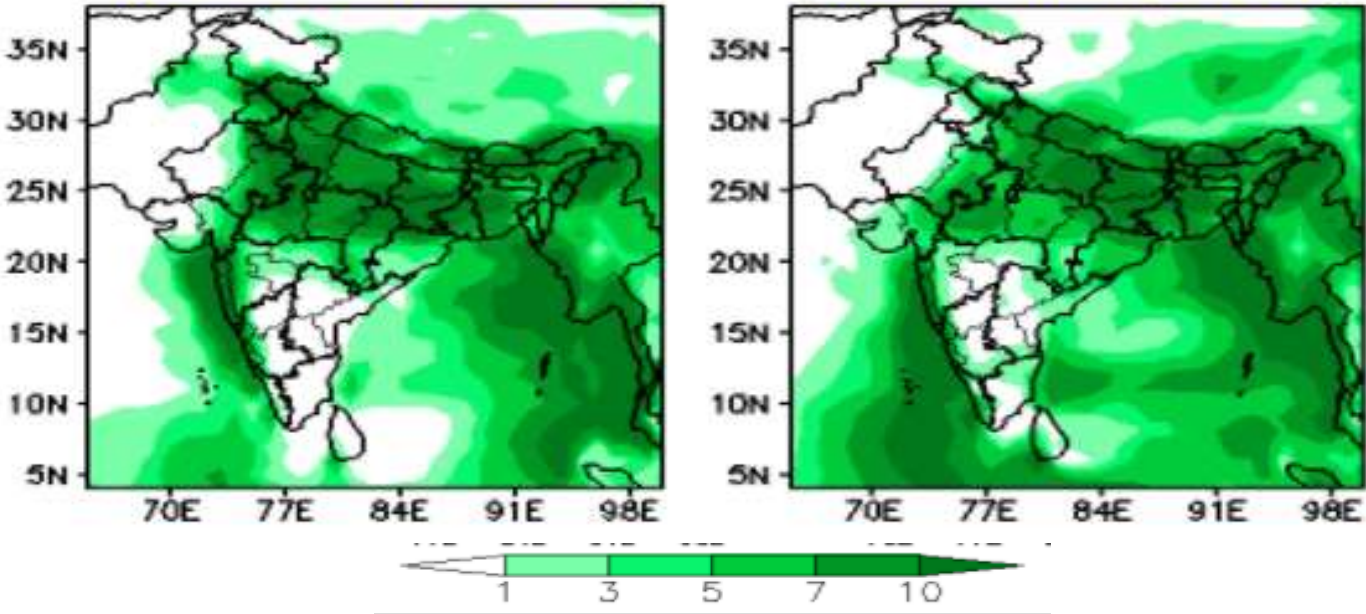
NOTES :

- 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)

(Week 1: 30Jul-05Aug)

(Week 2: 06Aug-12Aug)



Forecast Rainfall Anomaly (mm/day)

(Week 1: 30Jul-05Aug)

(Week 2: 06Aug-12Aug)

