



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

Dated: 22 July, 2021

**Subject: Current Weather Status and Extended range Forecast for next two weeks
(22 July-4 August 2021)**

1. Significant Features for the Country

- Prolonged isolated extremely heavy rainfall spells (24 hours rainfall > 204.4 mm) occurred over Konkan and Goa including Mumbai and its sub-urban areas, and Ghat areas of Maharashtra when it was observed in almost all dates of the week of 15-21 July. It causes severe flooding and inundation over some districts of Konkan areas including over Mumbai.
- Isolated extremely heavy rainfall also occurred over Western Himalayan Region and adjoining plains (Himachal Pradesh and Uttarakhand and Punjab and Haryana), but it was during 2nd half of the week i.e. 18-21 July.
- Weekly cumulative % rainfall departure for the country as a whole from its Long Period Average (LPA) was -3% during the week, while it's Seasonal cumulative % Rainfall departure from LPA since 1 June till 21 July, 2021 was -5 %. 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 (22 to 28 July, 2021) and Week 2 (29 July-4 August 2021) based on NWP model consensus shows **“On-going normal to above normal active monsoon conditions for the country as a whole is likely to continue during the first week and subdued activity is likely during the second week”**.
- Based on current model guidance, **a low pressure area is very likely to develop over north Bay of Bengal and neighbourhood during the end of week 1 and beginning of week 2.**

Table 1: Rainfall status (Week and season)

Region	WEEK			SEASON		
	15.07.2021 TO 21.07.2021			01.06.2021 TO 21.07.2021		
	Actual	Normal	% Departure	Actual	Normal	% Departure
EAST & NORTH-EAST INDIA	62.9	99.7	-37%	563.3	648.5	-13%
NORTH-WEST INDIA	58.0	52.9	10%	193.0	212.2	-9%
CENTRAL INDIA	64.7	76.3	-15%	352.1	381.7	-8%
SOUTH PENINSULA	83.5	50.7	65%	363.5	303.2	+20%
country as a whole	66.0	67.8	-3%	339.1	356.7	-5%

2. Large scale features as on 22 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 5 with amplitude more than 1. It is likely to move into Phase 6 with gradual reduction in amplitude during next 5 days. Thereafter, it will propagate further eastwards into Phase 8 across Phases 6 and 7 with amplitude remaining less than 1. Hence the Phase of MJO will support enhancement of convective activity over the north Indian Ocean (NIO) only during week 1.

3. Forecast for next two week

Weather systems & associated Precipitation during Week 1 (22 to 28 July, 2021) and Week 2 (29 July-4 August, 2021)

Rainfall for week 1: (22 to 28 July, 2021)

- A Low Pressure Area lies over Northwest Bay of Bengal & neighbourhood. The associated cyclonic circulation extends upto upper tropospheric level tilting southwest with height. It is very likely to move west-northwestwards along the monsoon trough during next 2-3 days.
- The western end of monsoon trough at mean sea level is north of its normal position and its eastern end is south of its normal position dipping to eastcentral Bay of Bengal across northwest Bay of Bengal. The western end is very likely to shift gradually to its normal position and eastern end likely to be south of its normal position during next 3 days. Thereafter, the monsoon trough likely to shift northwards during subsequent 3-4 days.
- An off-shore trough at mean sea level runs from south Gujarat coast to Kerala coast. It is likely to persist during next 2-3 days.
- Under the influence of these meteorological conditions;
 - Fairly widespread to widespread rainfall with isolated **heavy falls** very likely over Himachal Pradesh and Uttarakhand on 22nd and 23rd which is likely to increase to isolated **heavy to very heavy falls** on 25th and 28th July, 2021. Fairly widespread to widespread rainfall with isolated **heavy falls** very likely over Jammu & Kashmir and Ladakh on 27th & 28th July, 2021.
 - Scattered to fairly widespread rainfall over plains of northwest India likely during 1st half of the week with enhanced rainfall activity thereafter with isolated **heavy to very heavy falls** over Uttar Pradesh on 25th & 26th and isolated heavy falls on 27th & 28th July, 2021.
 - Fairly widespread to widespread rainfall with isolated **heavy to very heavy falls** very likely to continue over west coast till 24th July and reduce thereafter. **Isolated extremely heavy falls also very likely over Konkan & Goa & adjoining Ghat areas of Madhya Maharashtra and Coastal Karnataka today, the 22nd July, 2021.**
 - Scattered to fairly widespread rainfall with isolated heavy falls likely to continue over Gujarat state till 23rd and fairly widespread to widespread rainfall with **isolated heavy**

to very heavy falls on 25th & 26th July, 2021.

- Fairly Widespread to widespread rainfall with isolated **heavy to very heavy falls** likely over east & adjoining central India during 22nd to 24th July and reduce thereafter. **Isolated extremely heavy falls also likely over Telangana, south Chhattisgarh and Vidharbha today, the 22nd July, 2021.**
- Increase in rainfall activity over northeast India likely on 26th July with fairly widespread to widespread rainfall with isolated heavy to very heavy falls over the region.

➤ Isolated to scatted rainfall activity is likely over remaining parts of the country during the week (**Annexure IV**).

Rainfall for week 2: (29 July to 04 August, 2021)

- The monsoon trough is very likely to be north of its normal position during most days of the week. Hence rainfall activity is very likely to be confined to the northern parts of the country during this week.
- Fairly widespread to widespread rainfall with isolated heavy to heavy falls very likely over northeast & adjoining east India during most days of the week.
- Fairly widespread to widespread rainfall with isolated heavy falls also likely over Western Himalayan Region & adjoining plains of northwest India and Uttar Pradesh during most days of the week.
- Overall, normal to above normal rainfall activity is likely over Western Himalayan Region, Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh, Bihar, Jharkhand, West Bengal & Sikkim and northeastern states.

4. Cyclogenesis:

Considering existing environmental features and model guidance, **it may be concluded that no cyclogenesis is likely over the north Indian Ocean during the forecast period. However, a low pressure area is very likely to develop over north BoB and neighbourhood during the end of week 1 and beginning of week 2.**

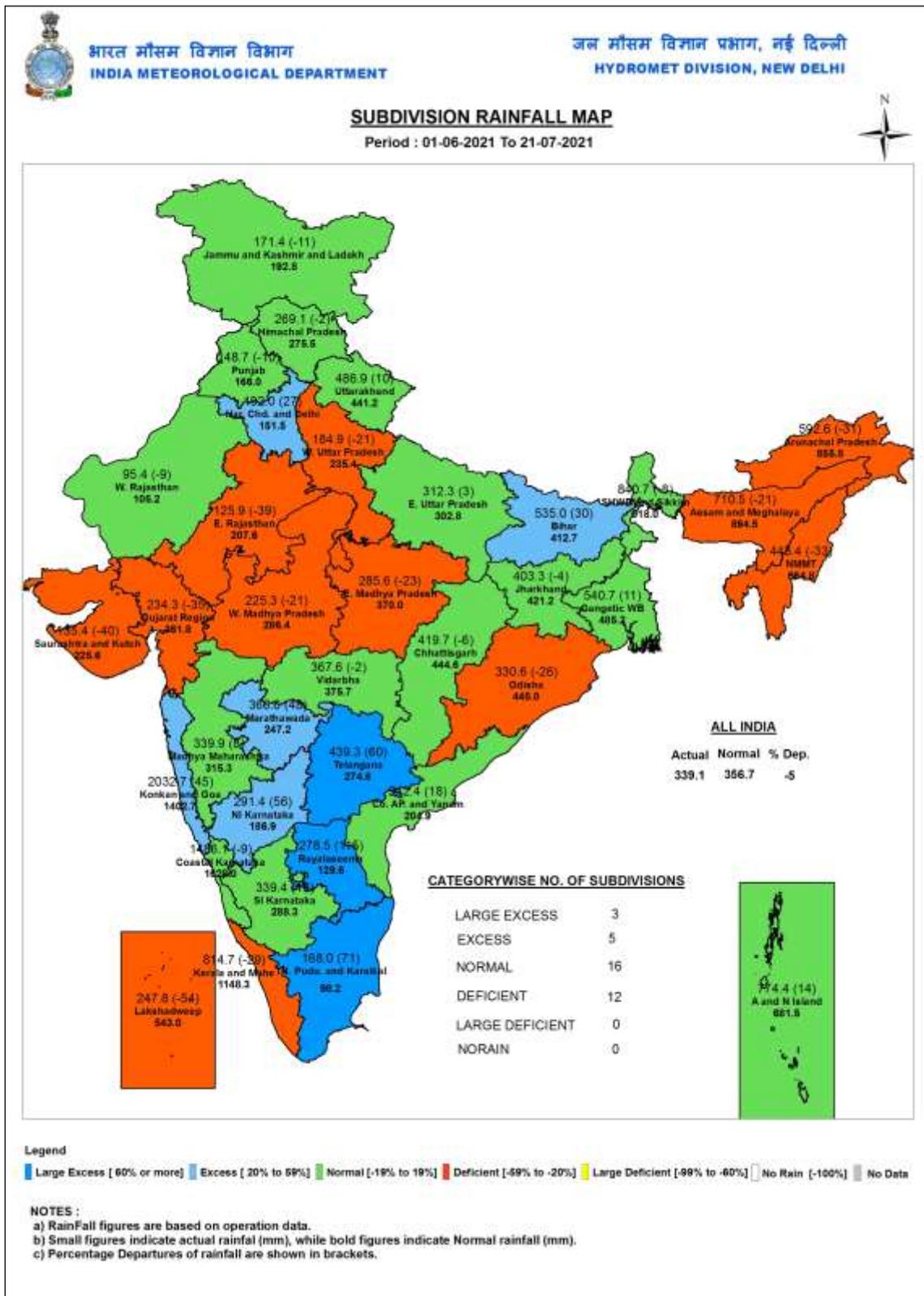
https://rsmcnewdelhi.imd.gov.in/uploads/archive/24/24_2b1c7f_Extended%20Range%20Outlook_22072021.pdf

Next weekly update will be issued on next Thursday i.e. 29 July 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)

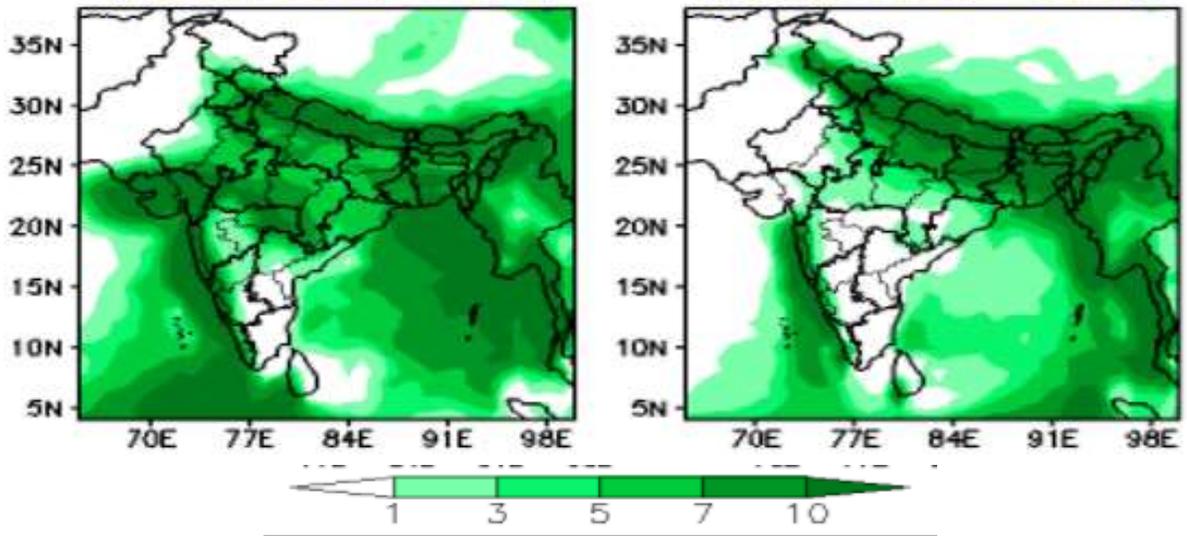
Probabilistic Forecast	
Terms	Probability of Occurrence (%)
Unlikely	< 25
Likely	25 - 50
Very Likely	50 - 75
Most Likely	> 75



Forecast Rainfall (mm/day)

(Week1: 23Jul–29Jul)

(Week2: 30Jul–05Aug)



Forecast Rainfall Anomaly (mm/day)

(Week1: 23Jul–29Jul)

(Week2: 30Jul–05Aug)

