



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

Press: Dated: 10 August, 2023

**Subject: Current Weather Status and Extended range Forecast for next two weeks
(10-23 August 2023)**

1. Salient Observed Features for week ending 9 August 2023

- Weak monsoon conditions prevailed over the country during 2nd half the week with increase of the rainfall over northeast India and along the foothills of Himalayas and Bihar. The western end of the monsoon trough lay to the north of its normal position throughout the week (along the foot hills only on 8th Aug) while its eastern end had been dipping into Northeast Bay of Bengal till 4th Aug and then shifted northwards and had been passing across Northeast India during 5-10 Aug 2023. Winds were mostly westerly at lower levels over northwest India since 6th Aug. As a result, significant reduction in the rainfall was observed during the period over Peninsular India including Maharashtra, West central India and adjoining northwest plains of India (refer Annex 1).
- **Analysis of Weekly overall Rainfall distribution during the week ending on 9 Aug 2023 and monsoon Season's Rainfall Scenario (1 June-9 Aug 2023):** It shows for the country as a whole, the weekly cumulative All India Rainfall in % departure from its long period average (LPA) till week ending on 9 Aug 2023 was -28%, over south Peninsula, it was -81%, central India as -33% while over northwest India had -34% and east & northeast India had got 37%. All India Seasonal cumulative rainfall % departure during this year's **monsoon Season's Rainfall** during **1 June to 9 Aug 2023** is 0% and over northwest India, it is 18%. 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		
	03.08.2023 TO 09.08.2023			01.06.2023 TO 09.08.2023		
	Actual	Normal	% Dep	Actual	Normal	% Dep
EAST & NORTH-EAST INDIA	95.4	69.7	37%	685.4	843.8	-19%
NORTH-WEST INDIA	32.5	49.3	-34%	414.5	351.8	+18%
CENTRAL INDIA	55.6	83.2	-33%	636.4	596.2	+7%
SOUTH PENINSULA	8.9	45.9	-81%	396.8	425.1	-7%
Country as a whole	45.7	63.3	-28%	528.9	526.9	0%

2. Large scale features

- Currently, weak El Niño conditions are prevailing over the equatorial Pacific region. The latest MMCFS and other climate forecasts indicate that the El Niño conditions are likely to further intensify and continue up to early next year. In addition to ENSO conditions over the Pacific, other factors such as the Indian Ocean Sea Surface Temperatures (SSTs) also influence the Indian monsoon. At present neutral Indian Ocean Dipole (IOD) conditions are prevailing over the Indian Ocean and the latest climate model forecast indicates that positive IOD conditions are likely to develop during the remaining part of the monsoon season.
- The Madden–Julian Oscillation (MJO) Index is currently in Phase 8 with amplitude less than 1. It would continue in the same phase during the first half of week 1. Thereafter, it is likely to move to phase 8 with amplitude remaining less than 1. Hence MJO is not likely to support any cyclogenesis over the North Indian Ocean during the entire forecast period.

3. Forecast for next two week

Forecast for next two week

Weather systems & associated Precipitation during Week 1 (10 to 16 August, 2023) and Week 2 (17 to 23 August, 2023)

Weather systems & associated Precipitation during Week 1 (10 to 16 August, 2023)

Significant Weather features:

- ❖ The monsoon trough at mean sea level is north of its normal position, it is likely to be north of its normal position or along the foothills of the Himalayas during the week.
- ❖ A cyclonic circulation lies over northeast Uttar Pradesh & adjoining northwest Bihar in lower tropospheric levels.

Weather Forecast and Warning for remaining parts of the country:

Northwest India: Light/moderate scattered to fairly widespread rainfall with isolated **heavy to very heavy rainfall** activity very likely to continue over Uttarakhand, northern parts of East Uttar Pradesh during 10th-14th August and isolated **heavy rainfall** likely over Himachal Pradesh during 10th-14th; Punjab, Haryana on 10th & 13th; West Uttar Pradesh and Jammu on 10th August, 2023.

Isolated **extremely heavy rainfall** is also likely over Uttarakhand during 10th-13th August. Light to moderate isolated/scattered rainfall is likely over rest parts of northwest India during the week.

East India: Light/moderate fairly widespread to widespread rainfall with **isolated heavy rainfall** activity very likely over northern parts of Bihar, Sub-Himalayan West Bengal & Sikkim during 10th-16th August and Gangetic West Bengal on 12th August. Isolated **very heavy rainfall** is likely over northern parts of Bihar during 10th-13th and over Sikkim on 11th & 12th August.

Light to moderate scattered/fairly widespread rainfall is likely over rest parts of northwest India during the week.

Northeast India: Light/moderate fairly widespread to widespread rainfall with isolated **heavy to very heavy rainfall** activity very likely over Arunachal Pradesh, Assam, Meghalaya and Nagaland, Manipur, Mizoram & Tripura during 1st half of the week and with isolated heavy falls during 2nd half of the week.

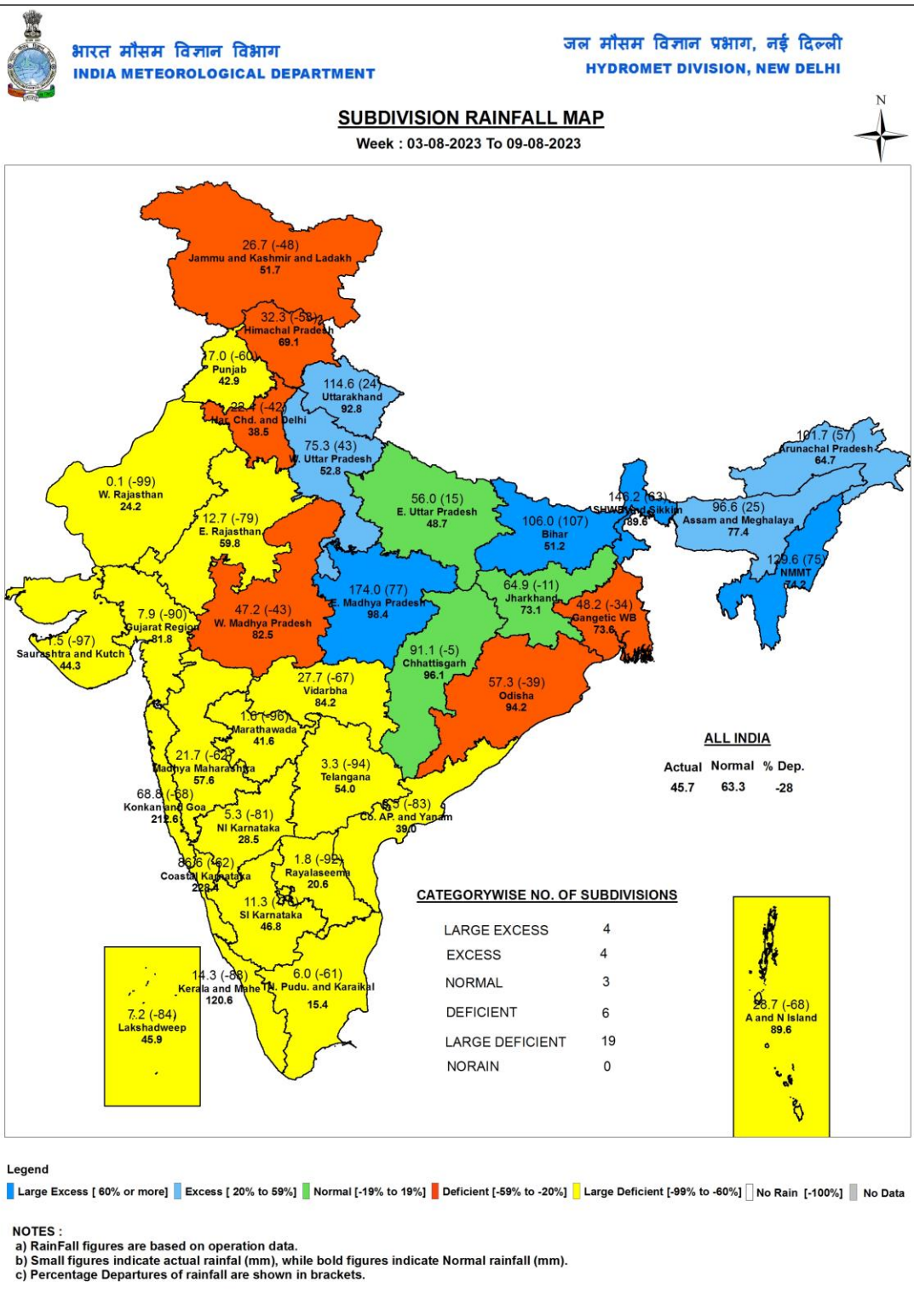
Central, West & South Peninsular India: **Subdued rainfall activity likely over these regions with** light/moderate isolated/scattered rainfall very likely over these regions during the week.

Weather Systems and Rainfall for week 2 (17 to 23 August, 2023):

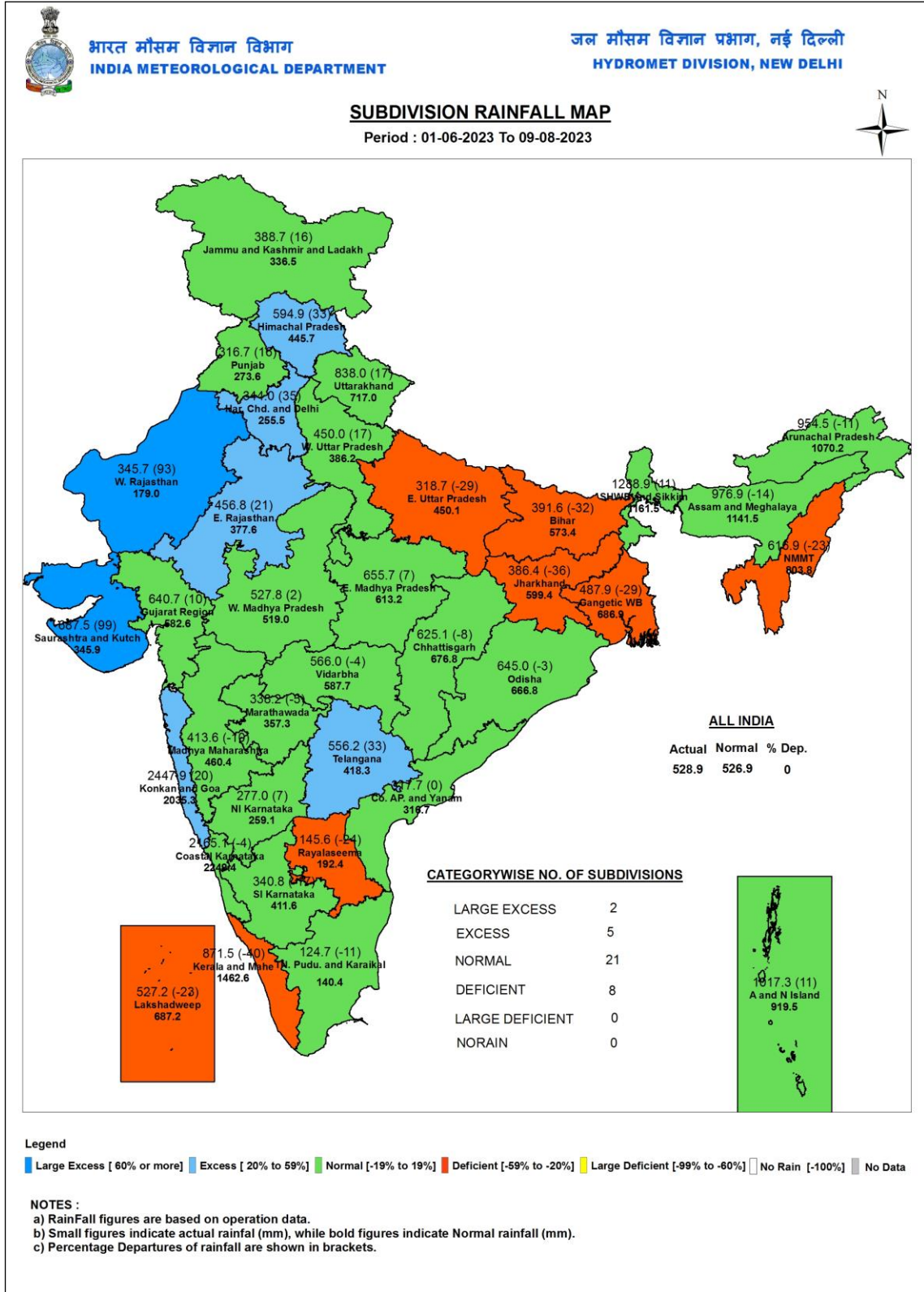
- Considering the environmental features and model guidance during the week 2, it is inferred that:
 - ✓ Monsoon trough is likely to be near normal or south of its north of its normal position during most days of the week due to formation of cyclonic circulation over northwest Bay of Bengal in 1st half of the week2 .
 - ✓ (i) There is moderate probability of formation of a fresh cyclonic circulation over Northwest Bay of Bengal off Gangetic West Bengal & Bangladesh during end of week 1/ beginning of week 2 (around 18th August) with west-northwestwards movement across Gangetic West Bengal and Jharkhand during subsequent 2-3 days.(ii) Another cyclonic circulation is likely to develop over northwest Bay of Bengal towards end of week 2. Refer https://rsmcnewdelhi.imd.gov.in/uploads/archive/24/24_85bcbf_Extended%20Range%20Outlook_10August%202023.pdf for details on cyclogenesis:
- Under above scenario
 - Light to moderate fairly widespread to widespread rainfall activity with isolated heavy falls are likely over most parts of central, east, northeast and north Peninsular India during most days of the week.
 - **Overall, rainfall activity is likely to be above normal over Central India; normal to above normal over most parts of east, northeast and south Peninsular India; below normal over northwest India during the week.**

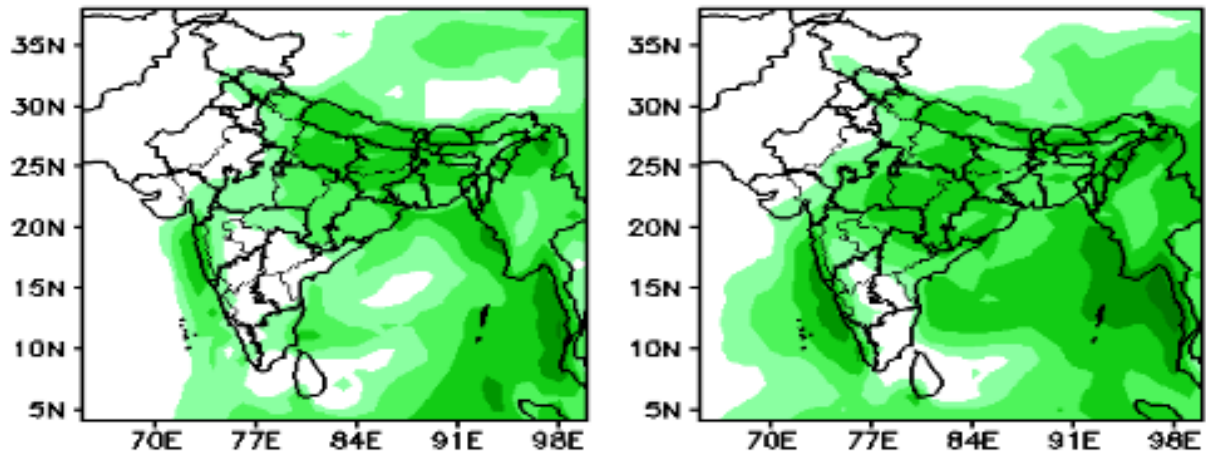
Legends: Heavy Rain: 64.5 to 115.5 mm Very Heavy Rain: 115.6 to 204.4 mm, Extremely Heavy Rain> 204.4 mm

Annex: I



Annex II



Forecast Rainfall (mm/day)**(Week1: 11Aug–17Aug)****(Week2: 18Aug–24Aug)****Forecast Rainfall Anomaly (mm/day)****(Week1: 11Aug–17Aug)****(Week2: 18Aug–24Aug)**