



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

Press: Dated: 24 August, 2023

**Subject: Current Weather Status and Extended range Forecast for next two weeks
(24 August-6 Sept 2023)**

1. Salient Observed Features for week ending 23 August 2023

- **Formation of a low pressure area** over Northwest Bay of Bengal & neighbourhood **and its west-northwestward movement to central India during 17-21 Aug 2023 with increase of the rainfall activities over central and parts of northwest India:** A Low Pressure Area formed over Northwest Bay of Bengal & neighbourhood in the evening of 17th; it moved nearly west-northwestwards and laid over Northwest Bay of Bengal & adjoining areas of West Bengal-north Odisha coasts 18th; over north Chhattisgarh & neighbourhood on 19th; over central parts of north Madhya Pradesh on 20th August 2023. The low pressure become less marked on 21 Aug, but then its remnant moved as a cyclonic circulation northwards towards, west Uttar Pradesh during 21-23 Sept 2023. As a result, the Monsoon Trough at mean sea level shifted southward and it was south of the normal position during 19-21 Aug 2023. Thereafter, western end was seen north of the normal position and eastern end was seen along normal or north of the normal position during 22-23 Aug.
- **Subdued rainfall activities** observed over extreme south Peninsular India, most parts of Maharashtra except Vidarbha, and Gujarat (see weekly cumulative rainfall map in Annex 1).
- During 22-23 Aug, 2023, Himachal Pradesh and Uttarakhand over western Himalayan region, experienced isolated very heavy to extremely heavy rainfall event, due to passage

of a WD during the period and incursion of fresh lower level moistures from Arabian Sea form a highly supported wind pattern at lower levels to this region, during the same period. This has severely impacted these states.

- **Analysis of Weekly overall Rainfall distribution during the week ending on 23 Aug 2023 and monsoon Season's Rainfall Scenario (1 June-23 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 23 Aug 2023 was -22%, over south Peninsula, it was -48%, central India as -19% while over northwest India had -12% and east & northeast India had got -18%. All India Seasonal cumulative rainfall % departure during this year's **monsoon Season's Rainfall** during **1 June to 23 Aug 2023** is -7% and over northwest India, it is 08%. 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		
	17.08.2023 TO 23.08.2023			01.06.2023 TO 23.08.2023		
	Actual	Normal	% Dep	Actual	Normal	% Dep
EAST & NORTH-EAST INDIA	63.6	77.3	-18%	809.8	1004.9	-19%
NORTH-WEST INDIA	36.4	41.5	-12%	479.3	444	+8%
CENTRAL INDIA	52.3	64.6	-19%	699.3	729.8	-4%
SOUTH PENINSULA	21.6	41.7	-48%	437.2	512.3	-15%
Country as a whole	43.2	55	-22%	597.8	643	-7%

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 1 with amplitude less than 1. It would move across phases 2, 3 and 4 during by the end of the week 1 with decreasing amplitude. Thereafter, it is likely to remain in phase 4 or 5 with gradually increasing amplitude but less than 1 during week 2. Hence MJO phase is supportive for enhancement of convective activity over the North Indian Ocean during the entire period of forecast. While the amplitude is not favourable during week 1 and likely to become gradually favourable during week 2.

3. Forecast for next two week

Weather systems & associated Precipitation during Week 1 (24 to 30 August, 2023) and Week 2 (31 August to 06 September, 2023)

Weather systems & associated Precipitation during Week 1 (24 to 30 August, 2023)

Significant features:

- ❖ The western end of the Monsoon Trough lies to the north of its normal position and it is likely to remain so during next 6-7 days. However, the eastern end of the monsoon trough is likely to oscillate north to south of its normal position.
- ❖ An east-west trough runs from northeast Uttar Pradesh to east Assam in lower tropospheric levels.
- ❖ A Western Disturbance as a trough in middle tropospheric westerlies runs roughly along Long. 69°E to the north of Lat. 28°N.
- ❖ **Overall rainfall activity is likely to be above normal over northeast India, near normal over east India and subdued rainfall activity likely over rest parts of the country.**

Weather Forecast and Warning for remaining parts of the country:

Northwest India: Light/moderate fairly widespread to widespread rainfall with isolated

heavy rainfall likely over Himachal Pradesh, Uttarakhand, East Uttar Pradesh on 24th & 25th August, 2023. 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/thunderstorm & lightning with isolated **heavy rainfall** activity very likely over West Bengal & Sikkim, Bihar, Odisha during 24th - 26th and Jharkhand on 24th & 25th August, 2023.

Isolated **very heavy rainfall** is also likely over Sub-Himalayan West Bengal & Sikkim and Bihar on 24th & 25th and over Odisha on 24th August, 2023.

Isolated **extremely heavy rainfall** is likely over Sub-Himalayan West Bengal-Sikkim on 24th August, 2023. Light to moderate scattered/fairly widespread rainfall is likely over rest parts of east India during the week.

Northeast India: Light/moderate fairly widespread to widespread rainfall/thunderstorm & lightning with isolated **heavy rainfall** activity very likely over the region during most days of the week.

Isolated **very heavy rainfall** is also likely over Assam & Meghalaya during 24th -26th and over Arunachal Pradesh on 24th & 25th August, 2023.

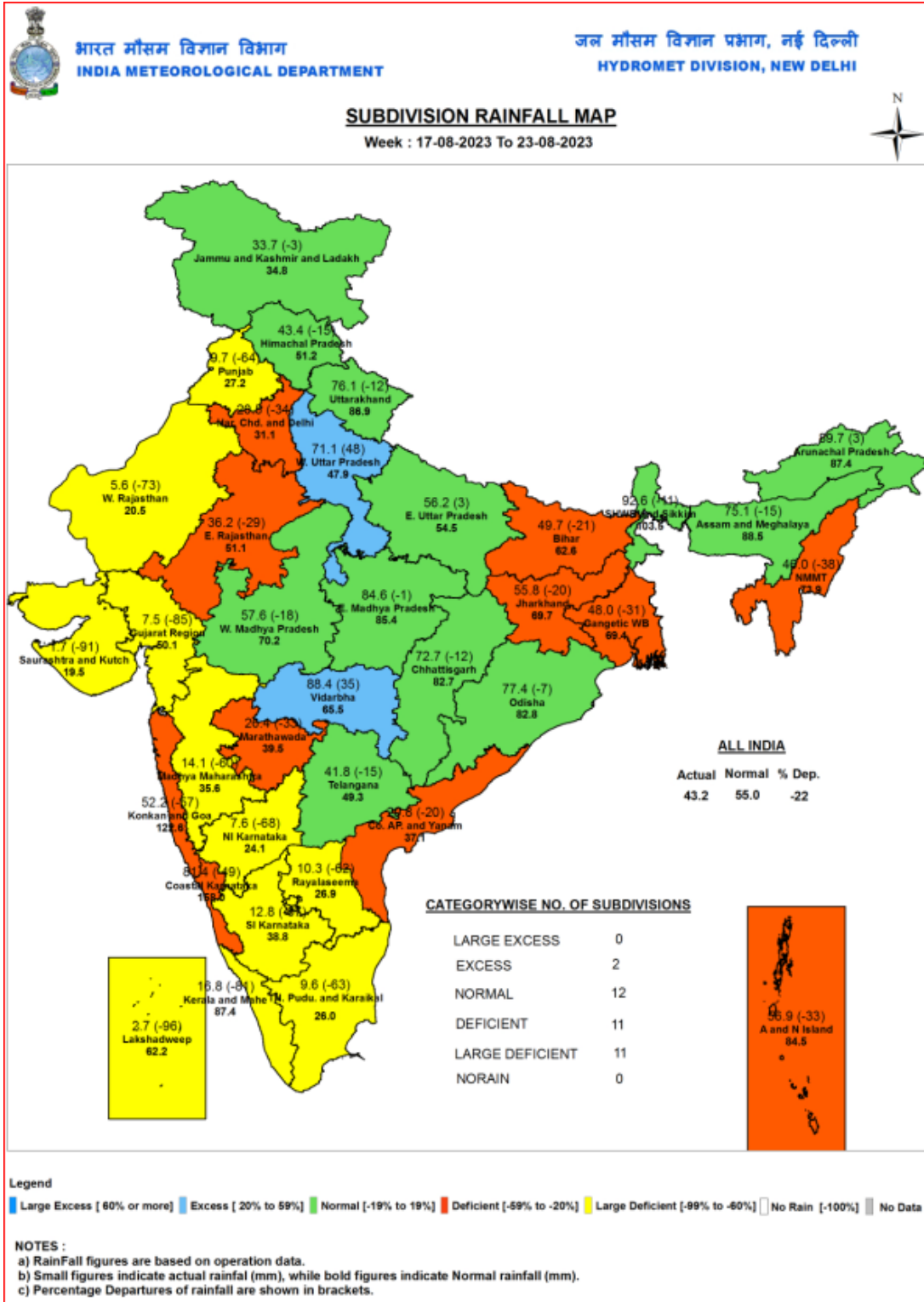
Central and South Peninsular India: Light to moderate isolates/scattered rainfall is likely over rest parts of South Peninsular India during the week.

Rainfall for week 2 (31 August to 06 September, 2023):

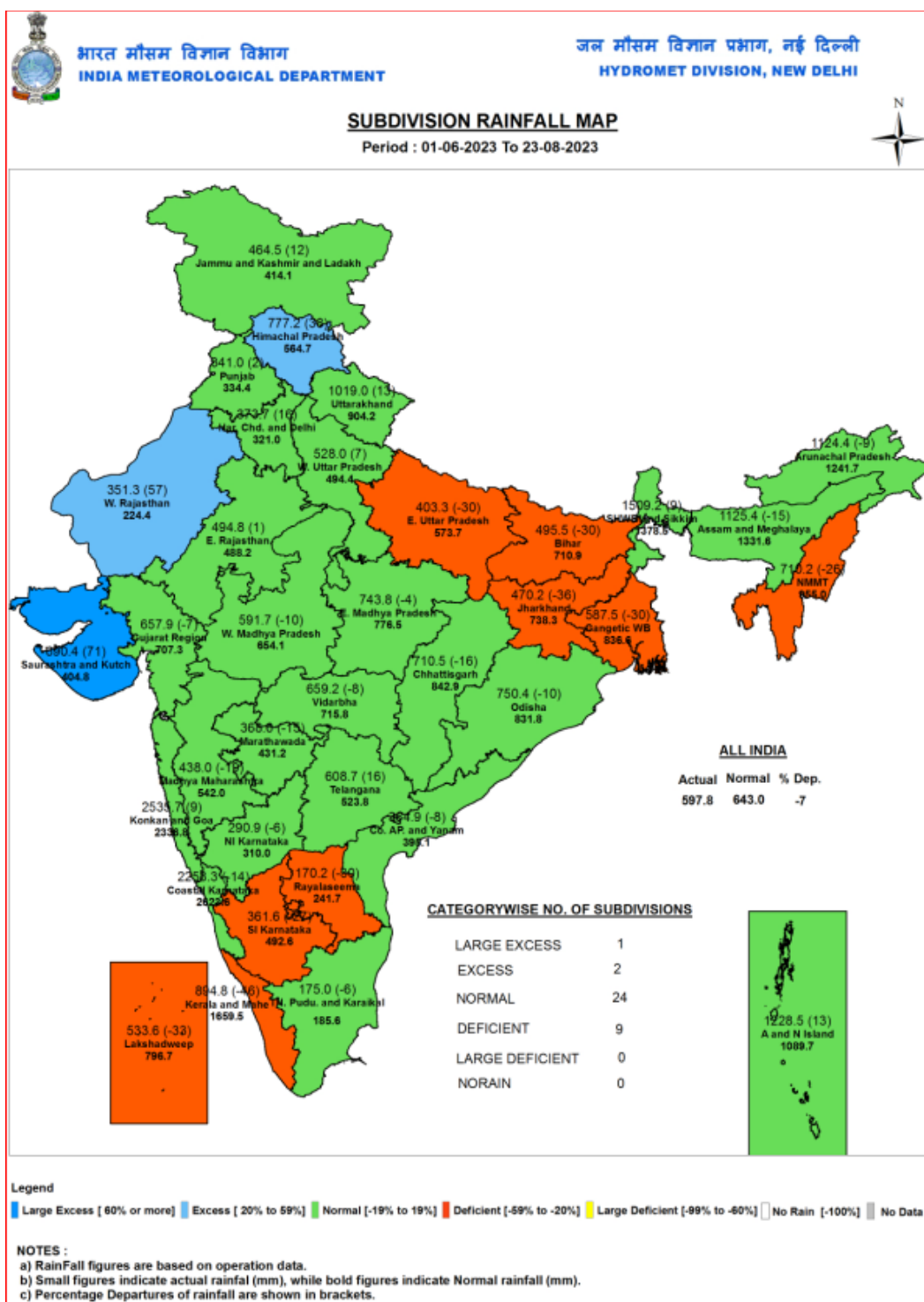
- The western end of monsoon trough is likely to be north of its normal position and its eastern end is likely to the south of its normal position during most days of the week.
- ✓ Light to moderate fairly widespread to widespread rainfall activity with isolated heavy to very heavy falls are likely over most parts of east & northeast India. Scattered to fairly wide spread rainfall with isolated heavy falls is also likely over some parts of south Peninsular India during the week.
- ✓ **Overall, rainfall activity is likely to be normal to above normal over northeast, East & adjoining Central India; near normal over most parts of south Peninsular India (except Maharashtra) and below normal over rest parts of the country during the week.**

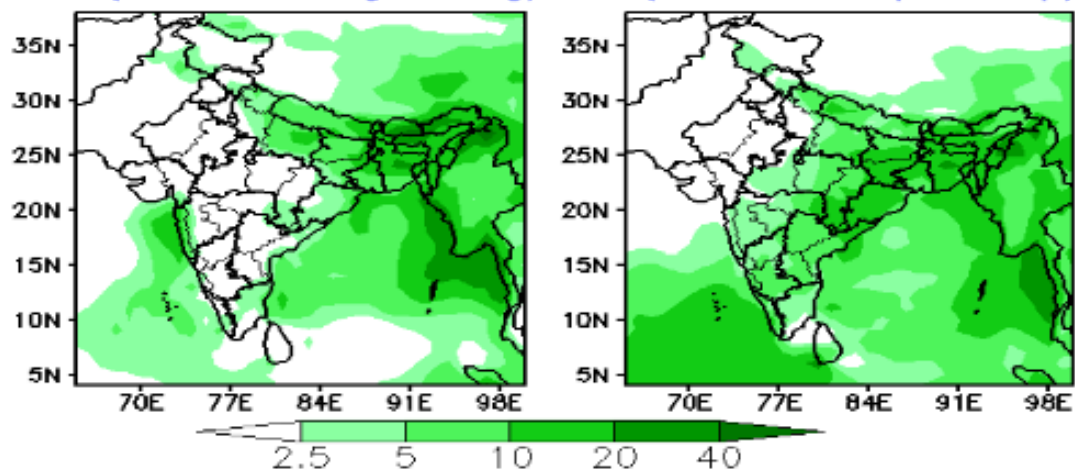
Legends: Heavy Rain: 64.5 to 115.5 mm Very Heavy Rain: 115.6 to 204.4 mm, Extremely Heavy Rain> 204.4 mm

Annex: I



Annex II



Forecast Rainfall (mm/day)**(Week1: 25Aug–31Aug)****(Week2: 01Sep–07Sep)****Forecast Rainfall Anomaly (mm/day)****(Week1: 25Aug–31Aug)****(Week2: 01Sep–07Sep)**