

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

Press: Dated: 7 Sept, 2023

Subject: Current Weather Status and Extended range Forecast for next two weeks (7-20 Sept 2023)

- 1. Salient Observed Features for week ending 6 Sept 2023
- As predicted by IMD, monsoon was revived over east Central India and adjoining areas of Peninsular India on 4th Sept, as eastern end of the monsoon trough was shifted southwards and was seen along Gorakhpur, Patna, Hazaribagh, Bankura, Digha and thence southeastwards to eastcentral Bay of Bengal. On 6th Sept, it was seen south of its normal position and passed through Bikaner, Guna, Mandla, Raipur, Kalingapattanam and thence southeastwards to West central Bay of Bengal and extended upto 2.1 km above mean sea level.
- The monsoon revival during the week, was mainly due to the formation and westnorthwestwards movement of a Low Pressure Area and its remnant, from Northwest &
 adjoining Westcentral Bay of Bengal off south Odisha-north Andhra Pradesh coasts, to
 south interior Odisha & neighbourhood. As a result of these systems, isolated heavy to
 very heavy rainfall also observed over eastcentral India and adjoining Peninsular India
 during 4-6 Sept 2023. However, Sub-dued rainfall was still continued over northwest India
 and west central India and Gujarat during most dates in the week. (see cumulative rainfall
 map of the week ending on 6 Sept given in Annex 1).
- Analysis of Weekly overall Rainfall distribution during the week ending on 6 Sept 2023 and monsoon Season's Rainfall Scenario (1 June-6 Sept 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 6 Sept 2023 was -39%, over south Peninsula, it was +85%, central India as -49% while over northwest India had -84% and east & northeast India had got -58%. All India Seasonal cumulative rainfall % departure during this year's **monsoon Season's Rainfall** during **1 June to 6 Sept 2023** is -11% and over northwest India, it is -2%. Details of the rainfall distribution over the four broad geographical regions of India are given in Table 1 and Meteorological sub-divisionwise rainfall both for week and season are given in Annex I and II respectively.

Table 1: Rainfall status (Week and season)

Region	WEEK 31.08.2023 TO 06.09.2023			SEASON 01.06.2023 TO 06.09.2023		
	EAST & NORTH-EAST INDIA	28.8	68.6	-58%	931.3	1144.3
NORTH- WEST INDIA	5.6	35.2	-84%	505.8	515.6	-2%
CENTRAL INDIA	28.6	56.1	-49%	744.9	847.8	-12%
SOUTH PENINSULA	66.4	36	85%	523.6	586.6	-11%
Country as a whole	29	47.7	-39%	657.6	741.6	-11%

2. Large scale features

- ➤ Currently, weak El Niño conditions are prevailing over the equatorial Pacific region. The latest forecast of MMCFS and other global model forecasts indicate that the El Niño conditions are likely to further intensity and continue up to early next year.
- In addition to ENSO conditions over Pacific, other factors such as the Indian Ocean Sea Surface Temperatures (SSTs) also have some influence on Indian monsoon. At present the border line positive IOD conditions are prevailing over the Indian Ocean and the latest MMCFS and other global model forecast indicate positive IOD conditions are likely to strengthen during the upcoming months.
- As per ECMWF and NCEP forecast the Madden-Julian Oscillation (MJO) Index is currently in

Phase 3 with amplitude more than 1. It would move across phases 4 with gradually decreasing amplitude in week 1 and then to phase 5 during 1st half of the week 2. It indicates that MJO would support enhancement of convective activity over the during the period.

3. Forecast for next two week

Weather systems & associated Precipitation during Week 1 (07 to 13 September, 2023) and Week 2 (14 to 20 September, 2023)

<u>Weather systems & associated Precipitation during Week 1 (07 to 13 September, 2023)</u>

Significant features:

- ❖ A cyclonic circulation lies over central parts of interior Odisha & adjoining Chhattisgarh and extends upto middle tropospheric levels.
- ❖ The Monsoon Trough is active and lies to the south of its normal position and passes through Jaisalmer, Udaipur, Indore, Betul, Gondia, Raipur, Gopalpur and thence east-southeastwards to Westcentral Bay of Bengal. It is likely to remain so or near normal during 1st half of the week, thereafter its western end shift gradually towards foothills of Himalayas during 2nd half of the week.
- Overall monsoon rainfall is likely to be near normal over India as a whole except many parts of northwest and south Peninsular India during the week.

Weather Forecast and Warning for remaining parts of the country:

Northeast India: Light/moderate scattered to fairly widespread rainfall/thunderstorm with isolated **heavy rainfall activity** very likely over Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura during 07th- 12th and Arunachal Pradesh on 10th September. Light to moderate scattered to fairly widespread rainfall is very likely over the region during rest days of the week.

East India: Light/moderate fairly widespread to widespread rainfall/thunderstorm & lightning with **isolated heavy rainfall** activity very likely over Odisha on 07^{th} , 08^{th} , 12^{th} & 13^{th} , Jharkhand on 07^{th} & 08^{th} ; Bihar on 08^{th} ; Gangetic West Bengal on 07^{th} and over Andaman & Nicobar Islands during 10^{th} -11th September. Isolated **very heavy rainfall** is very likely over Odisha on 07^{th} September.

Light to moderate scattered to fairly widespread rainfall is very likely over the region during rest days of the week.

Central India: Light/moderate fairly widespread to widespread rainfall/thunderstorm & lightning with **isolated heavy rainfall** very likely over Madhya Pradesh during $07^{th} - 9^{th}$; Vidarbha on 07^{th} & 08^{th} and over Chhattisgarh on 07^{th} , 12^{th} & 13^{th} September.

Isolated very heavy rainfall is very likely over West Madhya Pradesh on 07th; over East Madhya Pradesh on 08th September.

Light to moderate isolated/scattered rainfall is very likely over the region during rest days

of the week.

South India: Light/moderate fairly widespread to widespread rainfall with **isolated heavy rainfall** very likely over Coastal Andhra Pradesh & Yanam, Telangana and North Interior Karnataka on 07th; over Coastal Karnataka during 08th-10th; over South Interior Karnataka on 07th, 09th & 10th; over Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe during 07th -11th September.

Light to moderate scattered/fairly widespread rainfall is very likely over the region during rest days of the week.

West India: Light/moderate fairly widespread to widespread rainfall/thunderstorm & lightning with **isolated heavy rainfall** very likely over Marathawada on 07th & 08th; over Konkan & Goa during 07th & 11th; over Madhya Maharashtra during 07th- 09th September and over Gujarat Region on 07th, 08th & 09th September. Light to moderate scattered/fairly widespread rainfall is very likely over the region during rest days of the week.

Northwest India: Light/moderate isolated to scattered rainfall/thunderstorm with **isolated heavy rainfall** activity very likely over Uttar Pradesh and East Rajasthan on 07th & 08th September. No significant rainfall likely over the region during rest days of the week.

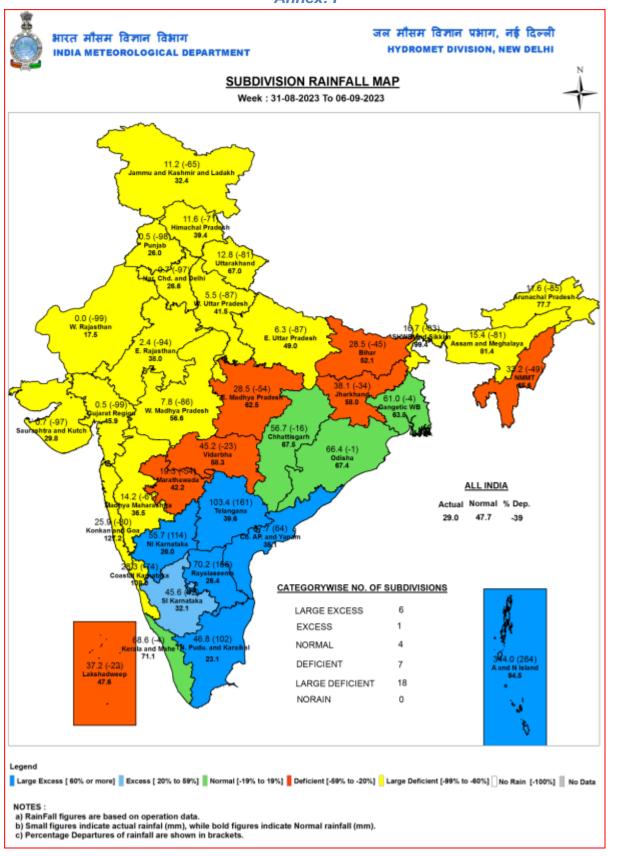
Rainfall for week 2 (14 to 20 September, 2023):

- ✓ The Monsoon Trough is likely to be near normal or 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 central, east & northeast India during the week.
- ✓ Rainfall activity is likely to be **above normal** over east & northeast India; normal to above normal over central India and near normal over many parts of northwest and south Peninsular India during the week.

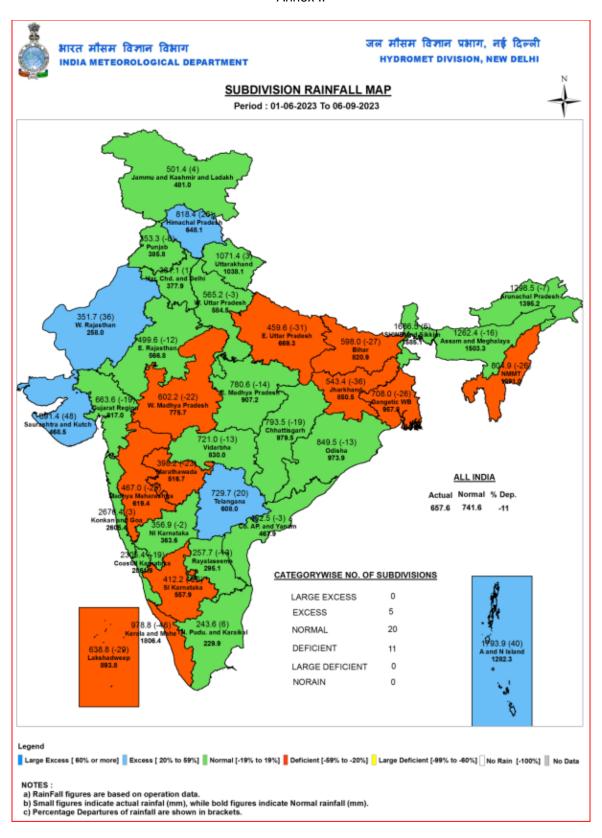
Overall, near normal rainfall activity is likely over country as a whole during next 2 weeks.

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

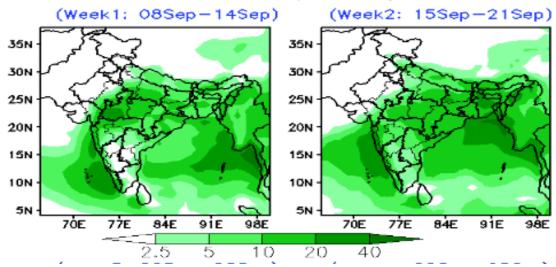


Annex II



Annexure III

Forecast Rainfall (mm/day)



Forecast Rainfall Anomaly (mm/day)

