



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

Press: Dated: 8 Sept, 2022

**Subject: Current Weather Status and Extended range Forecast for next two weeks
(8-21 Sept 2022)**

1. Salient Observed Features for week ending on 7 Sept 2022

- Under the influence of cyclonic circulations in the lower/middle tropospheric levels over South Peninsula and adjoining areas with north-south trough towards central India, extreme South Peninsula, covering mainly Kerala & Mahe and Lakshdweep Islands and parts of Karnataka and Tamil Nadu reported isolated heavy to very heavy rainfall during most of the date in the week. **The city Bangalore also reported intense urban flooding during 4-7 Sept, affecting normal lives, due isolated heavy to very heavy rainfall reported in the city during the period.**
- Monsoon trough was north of its normal position and fluctuated significantly on day to day from its location towards foot hills of Himalayas, and hence there were sub-dued rainfall activities over plains of northwest India and adjoining parts of central India in most dates during the week.
- Positioning of the eastern end of the monsoon trough close to the foot hills of Himalayas / to the north of its normal position supported by moisture incursion over to the areas had caused fairly widespread to widespread rainfall/thunderstorm activity over parts of Northeast India and over Sub Himalayan West Bengal & Sikkim on most of the days and over Gangetic West Bengal and Jharkhand on three to four days. Isolated Heavy to very heavy rainfall with extremely heavy rainfall at isolated places had also occurred over Arunachal Pradesh, Assam & Meghalaya and Sub Himalayan West Bengal & Sikkim on two day each during the week.
- Positioning of the western end of the monsoon trough to the north of its normal position during the first half of the week and passage of Western Disturbances in the second half of the week had caused scattered to fairly widespread rainfall/thunderstorm activity over Uttarakhand and isolated to scattered rainfall/thunderstorm activity over remaining parts of Western Himalayan Region on most of the days

during the week; it had also caused isolated rainfall/thunderstorm activity over Punjab on most of the days and over Haryana, Chandigarh & Delhi on many days; under their influence, heavy rainfall had occurred over Western Himalayan Region and adjoining areas of Punjab on one or two days along with isolated very heavy rainfall reported over Uttarakhand during the same period.

➤ **Analysis of Weekly overall Rainfall distribution during the current week ending on 8 Sept 2022 and Monsoon Season’s Rainfall Scenario (01 June-7 Sept, 2022):** It shows for the country as a whole, the weekly cumulative All India Rainfall departure till week ending on 7 Sept 2022, from its long period average (LPA) was -13 %, with **over east and northeast India as +9%** while all India Seasonal cumulative rainfall % departure during this year’s **monsoon Season Rainfall during 01 June till 7 Sept 2022** is +5%. 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		
	01.09.2022 TO 07.09.2022			01.06.2022 TO 07.09.2022		
	Actual	Normal	% Dep	Actual	Normal	% Dep
EAST & NORTH-EAST INDIA	75.7	69.2	+9%	955.3	1153.7	-17%
NORTH-WEST INDIA	15.8	35.6	-56%	493.6	520.5	-5%
CENTRAL INDIA	37.6	55.5	-32%	980.1	855.9	+15%
SOUTH PENINSULA	58.9	35.7	+65%	768.2	591.9	+30%
Country as a whole	41.2	47.6	-13%	784.9	748.3	+5%

2. Large scale features

➤ Currently, the sea surface temperatures (SSTs) as well as the atmospheric conditions over Equatorial Pacific Ocean indicate La Niña conditions. The latest forecasts from MMCFS and

other global models indicate that La Niña conditions are likely to continue during remaining part of the monsoon season. 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. Currently, the SST conditions over Equatorial Indian Ocean are very close to the threshold level for negative Indian Ocean Dipole (IOD) conditions. The latest forecasts from MMCFS and other global models indicate negative IOD conditions are likely to develop during remaining part of the monsoon season.

- The Madden Julian Oscillation Index (MJO) currently lies in phase 5 with amplitude less than 1 and would continue in same phase during first half of week 1. Thereafter, it will move across phases 6, 7, 8 & 1 with amplitude remaining less than 1 during remaining part of the forecast period. Thus, MJO would support cyclogenesis over the Bay of Bengal (BoB) during first half of the forecast period.

3. Forecast for next two week

Weather systems & associated Precipitation during Week 1 (08 to 14 September, 2022) and Week 2 (15 to 21 September, 2022)

Forecast for week 1 (08 to 14 September, 2022):

- ✓ **Under the influence of yesterday's cyclonic circulation over Eastcentral Bay of Bengal, a Low Pressure Area has formed over Westcentral & adjoining Eastcentral Bay of Bengal. It is very likely to become more marked over Westcentral and adjoining Northwest Bay of Bengal off north Andhra Pradesh-south Odisha coasts during next 48 hours.**
- ✓ The monsoon trough runs south of its normal position. It is likely to be south of its normal position during most days of the week.
- ✓ A shear zone runs roughly along Lat.12°N over south Peninsular India in middle tropospheric Levels. It is likely to persist during 1st half of the week
- ✓ A cyclonic circulation lies over Coastal Karnataka & neighbourhood in lower tropospheric Levels.
- ✓ Under the influence of the above systems:
 - Fairly widespread/widespread rainfall with isolated heavy falls and thunderstorm/lightning very likely over Coastal Karnataka and Kerala & Mahe during the week, over Tamil Nadu Puducherry & Karaikal on 08th & 09th; Rayalaseema & South Interior Karnataka during

- 08th-10th; Coastal Andhra Pradesh & Yanam, Telangana and North Interior Karnataka during 08th-11th. Isolated very heavy rainfall also likely over Rayalaseema on 08th; Coastal Karnataka on 08th & 09th; North Interior Karnataka on 09th and over Coastal Andhra Pradesh & Yanam & Telangana during 08th-10th September, 2022. Isolated extremely heavy rainfall also likely over Coastal Andhra Pradesh & Yanam on 09th September, 2022.
- Fairly widespread/widespread rainfall with isolated heavy falls & thunderstorm/lightning very likely Odisha, Konkan & Goa and Madhya Maharashtra during the week; Andaman & Nicobar Islands on 08th; Marathwada during 08th-11th; Chhattisgarh & Gujarat Region during 09th-14th; Vidarbha during 09th-11th; Gangetic West Bengal and Saurashtra & Kutch during 10th-12th; Bihar & East Madhya Pradesh on 12th to 14th; Jharkhand & Sub-Himalayan West Bengal on 11th to 13th. Isolated very heavy rainfall also likely over Odisha during 09th-11th; Chhattisgarh, Gangetic West Bengal and Gujarat Region on 12th & 13th and over Madhya Maharashtra and Konkan & Goa during the week.
 - Fairly widespread/widespread rainfall with isolated heavy falls and thunderstorm/lightning very likely over Nagaland, Manipur, Mizoram & Tripura during the week; Arunachal Pradesh on 08th and Assam & Meghalaya during 10th-14th September, 2022.
 - Fairly widespread to widespread light/moderate rainfall with isolated heavy falls and thunderstorm/lightning very likely over Uttarakhand on 10th & 11th September, 2022.
 - Subdued rainfall activity likely to continue over most parts of Northwest India during next 5 days and isolated to scattered rainfall for subsequent 2 days. Isolated to scattered rainfall with thunderstorm likely to occur over rest parts of the country during the week.

Rainfall for week 2 (15 to 21 September, 2022):

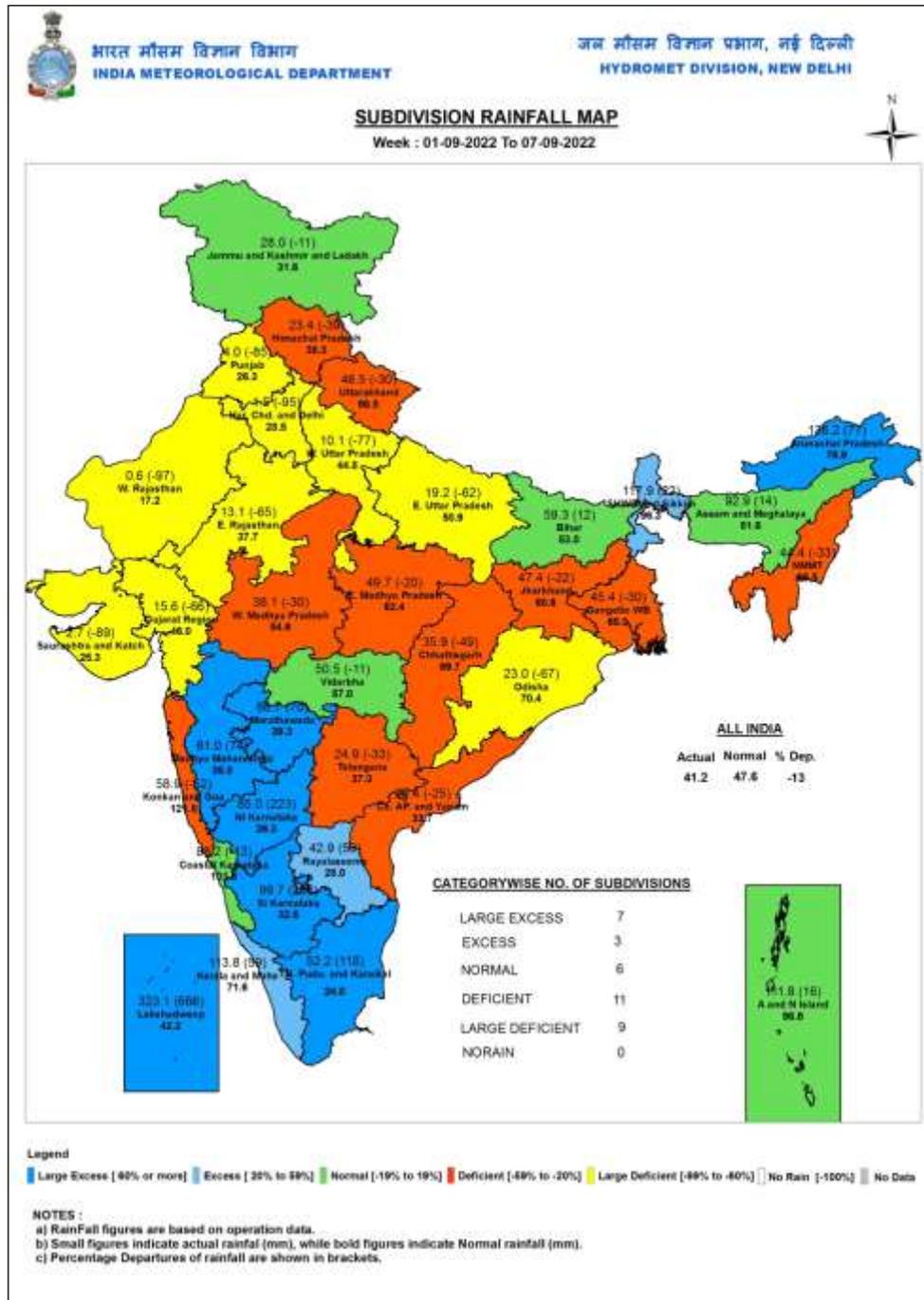
- Scattered to fairly widespread rainfall likely over northwest, central and east India during most days of the week. **Isolated heavy is also likely over northwest & central India during some days of the week.**
- **Rainfall activity is likely to be above normal over northwest, central & east India and near normal over northeast India.**
- **Rainfall activity is likely to be below normal over south Peninsular India.**

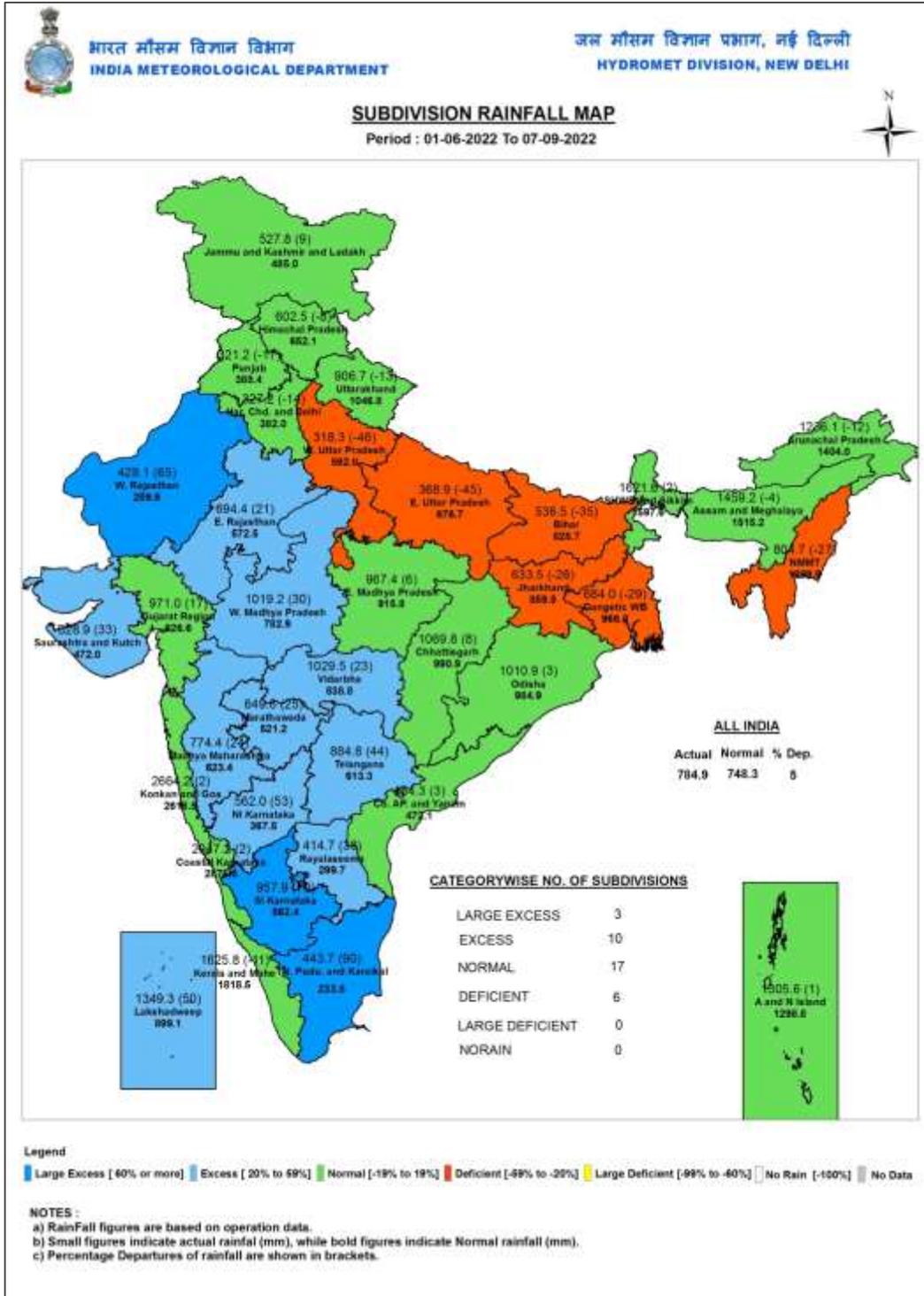
Legends: Heavy Rain: 64.5 to 115.5 mm Very Heavy Rain: 115.6 to 204.4 mm, Extremely Heavy Rain > 204.4 mm

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

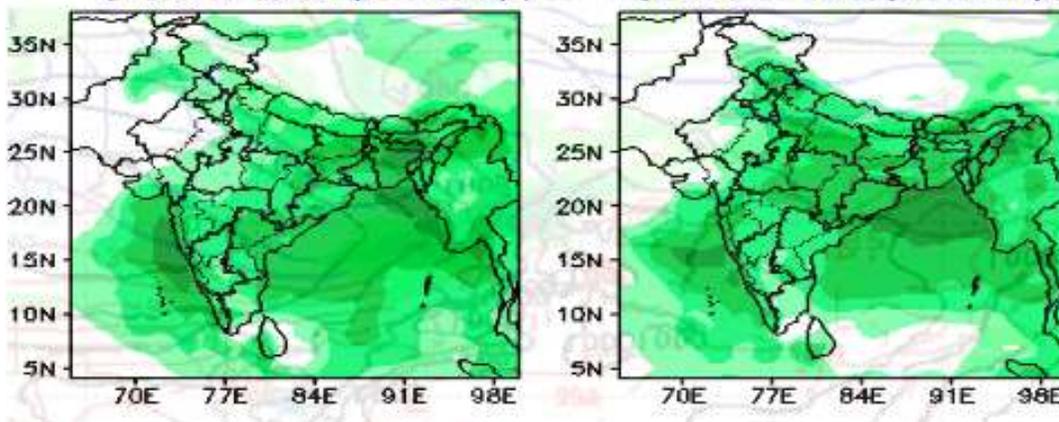
Annex 1





Forecast Rainfall (mm/day)

(Week1: 09Sep-15Sep) (Week2: 16Sep-22Sep)



Forecast Rainfall Anomaly (mm/day)

(Week1: 09Sep-15Sep) (Week2: 16Sep-22Sep)

