

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

Press Release: Dated: 12th Sept, 2024

Subject: Current Weather Status and Extended range Forecast for next two weeks (12-26 Sept, 2024)

# 1. Salient Observed Features for week ending 11th Sept, 2024

- Deep Depression over Westcentral and adjoining Northwest Bay of Bengal (8<sup>th</sup>-10<sup>th</sup> Sept 2024) moved to Northeast Madhya Pradesh till 11<sup>th</sup> Sept. Monsoon trough at mean sea level remained active and south of its normal position during the week. Under influence of these systems, Monsoon remained active across central India and parts of west coast of India in most dates in the week and Extreme Heavy Rainfall reported over Chhattisgarh & Odisha on 9<sup>th</sup> & 10<sup>th</sup>, Madhya Pradesh on the 11<sup>th</sup>, and East Rajasthan on the 9<sup>th</sup> of September; Very Heavy Rainfall over Gujarat Region on 10<sup>th</sup> to 11<sup>th</sup> September; East Madhya Pradesh & Madhya Maharashtra on 10<sup>th</sup> September and over Chhattisgarh on 11<sup>th</sup> September.
- Analysis of weekly overall rainfall distribution during the week ending on 11<sup>th</sup> September and monsoon Season's Rainfall Scenario (01<sup>st</sup> June 11<sup>th</sup> Sep, 2024): The country as a whole, the weekly cumulative All India Rainfall (for 05<sup>th</sup> to 11<sup>th</sup> Sept 2024) in % departure from its long period average (LPA) is +14%. All India Seasonal cumulative rainfall % departure during this year's monsoon Season's Rainfall (01<sup>st</sup> June to 12<sup>th</sup> Sep 2024) is +8%. 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 Annexure I & II respectively.

Table 1: Rainfall status (Week and season)

	WEEK			SEASON		
Region	05.09.2024 TO 11.09.2024			01.06.2024 TO 11.09.2024		
	Actual	Normal	% Dep	Actual	Normal	% Dep
East & northeast India	33.5	69.8	-52%	1007.1	1192.6	-16%
Northwest India	37.6	32.7	+15%	560.1	538.1	+4%
Central India	79.2	49.7	+59%	1051.7	882.0	+19%
South Peninsula	37.5	34.2	+10%	763.1	611.1	+25%
Country as a whole	50.9	44.6	+14%	836.7	772.5	+8%

### 2. Large scale features

- ➤ Currently, neutral El Nino-Southern Oscillation (ENSO) conditions are prevailing in the equatorial Pacific region. The latest forecasts from the Monsoon Mission Climate Forecasting System (MMCFS) and other climate models suggest that neutral ENSO conditions likely to continue until the end of the monsoon season.
- ➤ Presently, neutral Indian Ocean Dipole (IOD) conditions are prevailing over the Indian Ocean. The climate models forecast indicates that these neutral IOD conditions are likely to continue until the end of the monsoon season.
- The Madden Julian Oscillation (MJO) index is currently in Phase 5 with an amplitude close to 1. It is likely to continue to move in phase 5 during first half of week 1 with a gradual increase in amplitude becoming more than 1. All the models indicate a fair agreement about its eastward propagation thereafter to enter into phase 6 and propagate across phase 6 with amplitude remaining more than 1 during later part of the first week. The ECMWF model predicted very systematic eastward progress of the MJO index in the phase diagram keeping amplitude intact during second week across phase 7 to reach phase 8. But GEFS model indicates asynchronous eastward movement within phase 6 only with amplitude increasing during second half first week and decreasing thereafter during second week.

3. Forecast for next two week

Weather systems & associated Precipitation during Week 1 (12 to 18 September, 2024) and Week 2 (19 to 25 September, 2024)

Weather systems & associated Precipitation during Week 1 (12 to 18 September, 2024)

# **Weather Systems:**

- ✓ The depression over Northwest Madhya Pradesh and neighbourhood moved north-northeastwards with a speed of 10 kmph during past 6 hours and lay centred at 0830 hours IST of today, the 12th September over Southwest Uttar Pradesh and neighbourhood near latitude 27.0°N and longitude 78.5°E, about 50 km east-southeast of Agra (Uttar Pradesh). It further moved north-northeastwards with a speed of 13 kmph during past 6 hours and lay centred at 1130 hours IST of today, the 12th September over the same region near latitude 27.3°N and longitude 78.7°E, about 70 km east-northeast of Agra (Uttar Pradesh), 90 km southeast of Aligarh (Uttar Pradesh), 130 km north-northeast of Gwalior (Madhya Pradesh), and 140 km south-southwest of Bareilly (Uttar Pradesh). It is likely to move north-northeastwards and maintain its intensity today, the 12th September and weaken gradually thereafter from tomorrow, the 13th September. The system is under continuous surveillance of Doppler Weather Radars at Delhi and Lucknow
- ✓ An upper air cyclonic circulation lies over southeast Bangladesh & neighbourhood in lower & middle tropospheric levels. Under its influence, a low pressure area is likely to form over coastal Bangladesh & adjoining north Bay of Bengal during next 24 hours. Thereafter, it is likely to move slowly west-northwestwards and concentrate into a depression over coastal west Bengal and adjoining northwest Bay of Bengal during subsequent 48 hours.
- ✓ The **monsoon trough** is near normal position at mean sea level.

# Forecast & Warnings:

### **Northwest India**

- ✓ Fairly widespread to widespread light/moderate rainfall very likely over Uttarakhand, West Uttar Pradesh; Scattered to Fairly widespread light/moderate rainfall very likely over Haryana-Chandigarh-Delhi, East Uttar Pradesh, East Rajasthan, Himachal Pradesh; Isolated to scattered rainfall over the remaining region during the week.
- ✓ Isolated **extremely heavy rainfall** very likely over Uttarakhand on 12<sup>th</sup> & 13<sup>th</sup>; West Uttar Pradesh on 12<sup>th</sup> September.
- ✓ Isolated **very heavy rainfall** very likely over Haryana-Chandigarh-Delhi, East Uttar Pradesh & East Rajasthan on 12<sup>th</sup>; West Uttar Pradesh on 12<sup>th</sup> & 13<sup>th</sup> September.

✓ Isolated **heavy rainfall** very likely over Himachal Pradesh, Haryana-Chandigarh-Delhi, West Uttar Pradesh & East Rajasthan on 12<sup>th</sup> & 13<sup>th</sup>; Uttarakhand during 12<sup>th</sup>-14<sup>th</sup> and East Uttar Pradesh during 12<sup>th</sup>-17<sup>th</sup> September, 2024.

### West & Central India:

- ✓ Fairly widespread to widespread light/moderate rainfall very likely over Madhya Pradesh, Konkan & Goa; Scattered to Fairly widespread light/moderate rainfall very likely over Vidarbha, Chhattisgarh; Isolated to Scattered light/moderate rainfall very likely over Madhya Maharashtra, Marathwada, Gujarat State during the week.
- ✓ **Isolated very heavy rainfall very likely over** West Madhya Pradesh on 12<sup>th</sup>; East Madhya Pradesh & Chhattisgarh on 16<sup>th</sup> & 17<sup>th</sup>September.
- ✓ Isolated **heavy rainfall** very likely over West Madhya Pradesh during 12<sup>th</sup>, 13<sup>th</sup>, 17<sup>th</sup> & 18<sup>th</sup>; East Madhya Pradesh during 12<sup>th</sup>, 13<sup>th</sup> & 15<sup>th</sup> -18<sup>th</sup>; Chhattisgarh during 15<sup>th</sup> -17<sup>th</sup>; Madhya Maharashtra, Konkan & Goa on 12<sup>th</sup> September, 2024.

### **East & Northeast India**

- ✓ Fairly widespread to widespread light/moderate rainfall very likely over Nagaland, Manipur, Mizoram & Tripura, Jharkhand, Odisha, Gangetic West Bengal, Andaman & Nicobar Islands; Scattered to Fairly widespread light/moderate rainfall very likely over Assam & Meghalaya, Arunachal Pradesh, Bihar, Sub-Himalayan West Bengal & Sikkim during the week.
- ✓ Isolated **very heavy rainfall** very likely over Assam & Meghalaya on 14<sup>th</sup> & 15<sup>th</sup>; Nagaland, Manipur, Mizoram & Tripura on 12<sup>th</sup> & 13<sup>th</sup>; Gangetic West Bengal & Odisha on 13<sup>th</sup> & 14<sup>th</sup>; Jharkhand on 14<sup>th</sup> & 15<sup>th</sup> September, 2024.
- ✓ Isolated **heavy rainfall** very likely over Assam & Meghalaya during the week; Arunachal Pradesh during 14<sup>th</sup> -16<sup>th</sup>; Nagaland, Manipur, Mizoram & Tripura during 12<sup>th</sup> -17<sup>th</sup>; Gangetic West Bengal during 12<sup>th</sup> -15<sup>th</sup>; Bihar during 12<sup>th</sup> -16<sup>th</sup>; Jharkhand 13<sup>th</sup> -16<sup>th</sup>; Odisha during 13<sup>th</sup>-15<sup>th</sup> September, 2024.

#### **South Peninsular India:**

✓ Fairly widespread to widespread light/moderate rainfall very likely over Coastal Karnataka, Coastal Andhra Pradesh & Yanam; Scattered to Fairly widespread light/moderate rainfall over Lakshadweep, Kerala & Mahe; isolated to scattered rainfall over Tamil Nadu, Puducherry & Karaikal, Rayalaseema, Telangana & Interior Karnataka during the week.

### Wind warning

✓ Strong wind speed reaching 35-45 kmph gusting to 55 kmph is likely to prevail over southwest Uttar Pradesh adjoining areas of Northwest Madhya Pradesh, northeast Rajasthan and south Haryana during next 24 hours.

❖ Overall, rainfall is likely to be above normal over most parts of northwest India; normal to above normal over most parts of East India: below normal over rest parts of the country except Madhya Pradesh, where above normal rainfall activity likely during the week.

## Rainfall for week 2 (19 to 25 September, 2024):

- ❖ No significant weather system is likely to affect any part of the country during the week.
- Scattered to fairly widespread to widespread rainfall with isolated heavy falls are likely over South Peninsular India (specifically over Karnataka and Tamilnadu) during some days of the week. No significant rainfall activity likely over rest parts of the country during the week.
- Overall, rainfall is likely to be normal to above normal over south Peninsular India and below normal over rest parts of the country.
- **❖** Conditions are likely to become favourable for withdrawal of Southwest Monsoon from some parts of northwest India during 2<sup>nd</sup> half of the week.

# Week 1 (12 to 18 September, 2024): Impact likely and suggested action due to likely heavy rainfall

# Impact due to

Isolated extremely heavy rainfall very likely over Uttarakhand on 12th & 13th; West Uttar Pradesh on 12th September. Very heavy rainfall at isolated places over Haryana-Chandigarh-Delhi, East Uttar Pradesh, West Madhya Pradesh & East Rajasthan on 12th; West Uttar Pradesh on 13th; East Madhya Pradesh, Chhattisgarh on 16th & 17th; Gangetic West Bengal on 13th & 14th; Jharkhand, Assam & Meghalaya on 14th & 15th; Odisha on 13th & 14th; Nagaland, Manipur, Mizoram & Tripura on 12th & 13th September. Moderate to High flash flood risk likely over Uttarakhand, Himachal Pradesh, West Uttar Pradesh, East Uttar Pradesh, Madhya Pradesh, East Rajasthan September.

# **Impact Expected**

- ✓ Localized Flooding of roads, water logging in low lying areas and closure of underpasses mainly in urban areas of the above region.
- ✓ Occasional reduction in visibility due to heavy rainfall.
- ✓ Disruption of traffic in major cities due to water logging in roads leading to increased travel time.
- ✓ Minor damage to kutcha roads.
- ✓ Possibilities of damage to vulnerable structure.
- ✓ Localized Landslides/Mudslides/landslips/mud slips/land sinks/mud sinks.
- ✓ Damage to horticulture and standing crops in some areas due to inundation.
- ✓ It may lead to riverine flooding in some river catchments (for riverine flooding please visit Web page of CWC)

# **Action Suggested**

- ✓ Check for traffic congestion on your route before leaving for your destination.
- ✓ Follow any traffic advisories that are issued in this regard.
- ✓ Avoid going to areas that face the water logging problems often.
- ✓ Avoid staying in vulnerable structure.

## Week 2 (19 to 25 September, 2024):

## Impact due to

Isolated heavy to very heavy rain falls over coastal and south interior Karnataka and Ghat areas of Tamilnadu during some days of the week.

# **Impact Expected**

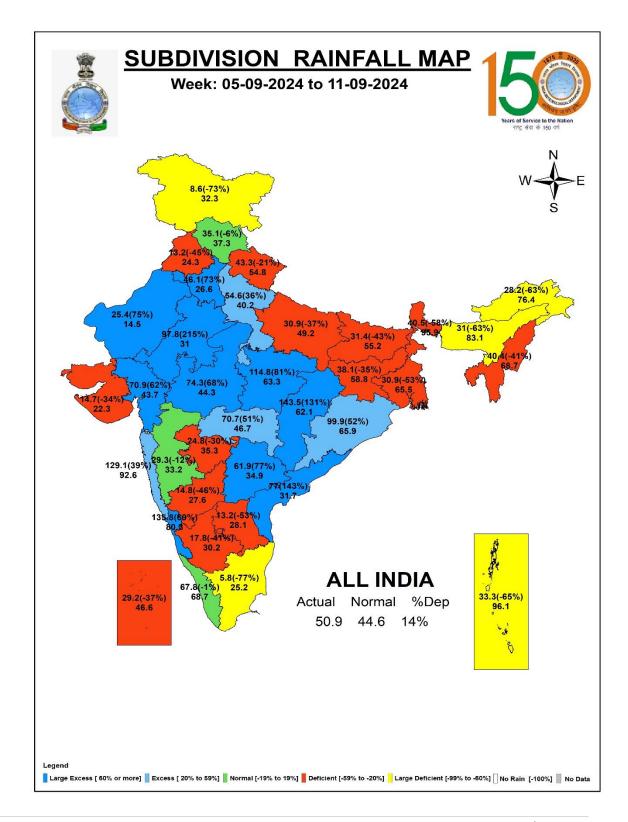
- ✓ Moderate flash flood risk likely over some of these areas
- ✓ Localized Flooding of roads, water logging in low lying areas and closure of underpasses mainly in urban areas of the above region.
- ✓ Occasional reduction in visibility due to heavy rainfall.
- ✓ Disruption of traffic in major cities due to water logging in roads leading to increased travel time.
- ✓ Minor damage to kutcha roads.
- ✓ Possibilities of damage to vulnerable structure.
- ✓ Localized Landslides/Mudslides/landslips/mud slips/land sinks/mud sinks.
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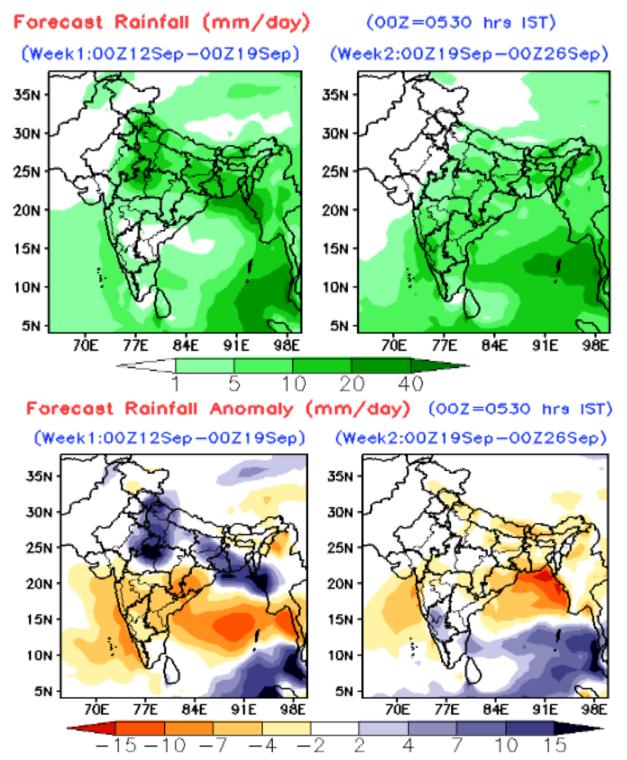
**Legends:** Heavy Rain: 64.5 to 115.5 mm Very Heavy Rain: 115.6 to 204.4 mm, Extremely Heavy Rain> 204.4 mm

### **Annexure I**



### **Annexure II**





Extended range froecast of weekly dsitirubtion of rainfall in mm per day (top panel) and anomalies(lower panesl) from IMD MME