



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

Press Release: Dated: 22nd Aug, 2024

Subject: Current Weather Status and Extended range Forecast for next two weeks (22 Aug-4 Sept, 2024)

1. Salient Observed Features for week ending 21st August, 2024

- Active monsoon conditions prevailed over some parts of Northeast India and adjoining eastern parts of India, some parts of northwest India and many parts of South east Peninsula during the week.
- Weak monsoon conditions prevailed over west coast of India and most parts of central India except Rajasthan during most dates in the week.
- Main reasons are: 1) Formation of a Low-pressure area over Northwest Bay of Bengal and adjoining areas of West Bengal and Bangladesh on the morning of 16th August, which moved very slowly northwards over to Central Bangladesh & neighbourhood on 20th Aug, and then to North Bangladesh & neighbourhood on 21st Aug; 2) The western end of the monsoon trough remained near its normal position through the week while the eastern end was at north of its normal position during 2nd half of the week; 3) A cyclonic circulation persisted over Rajasthan during the start of the week resulting in the advection of moisture-laden winds to Northwest; 4) A cyclonic circulation persisted during most days of the week in lower tropospheric levels over peninsular India and a trough from this cyclonic circulation to Comorin area remained active during most days of the week.
- Extreme Heavy Rainfall over Meghalaya during 20th to 21st August; East Rajasthan on 16th August and Tripura on 20th August.
- Very Heavy Rainfall over Himachal Pradesh on 15th & 19th August; Uttarakhand on 15th & 19th to 21st August; East Rajasthan on 15th & 20th August; West Uttar Pradesh, Tamil Nadu,

Puducherry & Karaikal on 15th August; West Madhya Pradesh during 15th to 16th August; West Rajasthan during 16th to 17th August; Haryana on 16th August; Odisha on 16th & 21st August; Assam & Meghalaya and Telangana on 17th & 20th August; Rayalaseema on 17th & during 20th to 21st August; Kerala & Mahe on 17th & 21st August; Lakshadweep & East Uttar Pradesh on 17th August; Bihar, Andaman & Nicobar Islands on 18th August; Punjab on 19th August; Jammu & Kashmir, Nagaland and Jharkhand on 20th August; Tripura and Gujarat Region on 21st August.

Analysis of weekly overall rainfall distribution during the week ending on 14th August and monsoon Season's Rainfall Scenario (01 June-14 Aug, 2024): The country as a whole, the weekly cumulative All India Rainfall (for 1st to 14th Aug 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 June to 14th Aug 2024) 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 Annexure I & II respectively.

Temperature Scenario: The highest maximum temperature of **39.2°C** had been recorded at **Cuddapah (Rayalaseema)** on **21st August 2024** and the lowest minimum temperature of **18.8°C** had been recorded at **Valsad (Gujarat Region)** on **17th, 19th & 21st August 2024** over the plains of the country during the week.

Table 1: Rainfall status (Week and season)

Region	WEEK			SEASON		
	15.08.2024 TO 21.08.2024			01.06.2024 TO 21.08.2024		
	Actual	Normal	% Dep	Actual	Normal	% Dep
East & northeast India	68.7	77.6	-12%	868.2	981.9	-12%
Northwest India	55.3	44.9	+23%	432.7	432.3	+0%
Central India	44.4	66.1	-33%	772.7	711.9	+9%
South Peninsula	49.1	42.1	+17%	606.8	500.3	+21%
Country as a whole	52.5	56.7	-7%	650.8	627.4	4%

2. Large scale features

- Currently, neutral El Niño-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 La Niña is likely to develop in the second half of the monsoon season towards end of August.
- 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 currently entered phase 3 with an amplitude greater than 1. The ensemble members of GEFS indicate large spread and incoherency in their eastward propagation of MJO index. Contrary to that the member's forecasts of ECMWF ensemble show more agreement about the eastward progress of the MJO. However, the MJO signal is likely to move eastward within phase 3 and then in phase 4 while the amplitude is likely to decrease gradually to less than 1 during the first week. The further eastward progress in phase 5 over the Maritime continent during the second week, the models do not show consensus. While the GEFS indicates looping within phase 4, the ECMWF predicts slow eastward movement in phase 5. Though the ensemble prediction systems portray limited spread with synchronous propagation in the forecast duration. Therefore, the MJO index is likely to enhance the convective activity over eastern part of Arabian Sea (AS) during first half the week 1 and over the Bay of Bengal (BoB) during the whole week. The MJO is likely to continue its support to convective activity over BoB during first half of the second week and it will subside gradually thereafter.

3. Forecast for next two week

Weather systems & associated Precipitation during Week 1 (22 to 28 August, 2024) and Week 2 (29 August to 04 September, 2024)

Weather systems & associated Precipitation during Week 1 (22 to 28 August, 2024)

Weather Systems:

- ✓ A **low pressure area** lies over north Bangladesh. It is likely to move nearly westwards across West Bengal during next 48 hours.

- ✓ The western end of **monsoon trough** lies near its normal position and its eastern end to the north of its normal position at mean sea level. It is very likely to shift gradually southward during the week.
- ✓ Another **low pressure area** lies over eastcentral Arabian Sea off Karnataka-Goa coasts. It is likely to move gradually northwards during next 24 hours.
- ✓ A **cyclonic circulation** likely to form over North Bay of Bengal & neighbourhood around 24th August.

Forecast & Warnings:

❖ Northwest India

- ✓ Fairly widespread to widespread light/moderate rainfall very likely over Uttarakhand, East Rajasthan; scattered to fairly widespread rainfall over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttar Pradesh; isolated to scattered rainfall over Punjab, Haryana-Chandigarh-Delhi, West Rajasthan during the week.
- ✓ Isolated **heavy rainfall** very likely over Uttarakhand during next 7 days, East Uttar Pradesh during 22nd – 26th; East Rajasthan during 22nd – 27th August; West Uttar Pradesh, West Rajasthan during 23rd – 25th and over Jammu Division during 26th – 28th.
- ✓ Isolated **very heavy rainfall** also very likely over Uttarakhand on 22nd & 23rd; East Rajasthan on 25th August.

❖ West & Central India

- ✓ Fairly widespread to widespread light/moderate rainfall very likely over central India, Konkan & Goa, Madhya Maharashtra, Gujarat State; scattered to fairly widespread rainfall over Marathwada during the week.
- ✓ Isolated Heavy rainfall very likely over Konkan & Goa during next 7 days; Madhya Pradesh during 22nd – 26th; Chhattisgarh during 22nd – 25th; Madhya Maharashtra during 23rd – 26th; Gujarat State during 24th – 28th August and over Vidarbha and Marathwada on 24th & 25th.
- ✓ Isolated **very heavy rainfall** also very likely over East Madhya Pradesh on 24th & 25th; Konkan & Goa during 23rd – 26th; Chhattisgarh on 24th; West Madhya Pradesh on 24th & 26th; Madhya Maharashtra during 24th – 26th; Gujarat Region on 27th August.

- ✓ Isolated **extremely heavy rainfall very likely** over Gujarat Region during 24th - 26th; West Madhya Pradesh on 25th& 26th; Saurashtra & Kutch on 26th& 27th August.

❖ **East & Northeast India**

- ✓ Fairly widespread to widespread light/moderate rainfall very likely over East & Northeast India, during the week.
- ✓ Isolated **heavy rainfall** very likely over Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura during next 7 days; Arunachal Pradesh on 22nd, 23rd& 28th; Bihar during 22nd – 24th; Gangetic West Bengal, Odisha during 22nd – 25th; Sub-Himalayan West Bengal & Sikkim, Jharkhand during 22nd – 26th; Andaman & Nicobar Islands on 24th August.
- ✓ Isolated **very heavy rainfall** also very likely over Meghalaya on 22nd, 24th& 25th; Nagaland, Manipur, Mizoram & Tripura on 23rd& 24th; Odisha during 23rd – 25th; Assam on 24th& 25th August.
- ✓ Isolated **extremely heavy rainfall very likely** over Mizoram, Tripura on 22nd; Nagaland, Manipur, Mizoram & Tripura on 25th August.

❖ **South Peninsular India:**

- ✓ Fairly widespread to widespread light/moderate rainfall very likely over Kerala & Mahe, Coastal Karnataka; scattered to fairly widespread rainfall likely over Lakshadweep, Coastal Andhra Pradesh & Yanam, Interior Karnataka; isolated to scattered rainfall over Tamil Nadu, Puducherry & Karaikal, Rayalaseema during the week.
- ✓ Isolated **heavy rainfall** very likely over cap on 22nd; Telangana during 22nd -24th; North Interior Karnataka during 22nd – 26th; Coastal Karnataka during 22nd – 27th; Kerala & Mahe during 24th – 26th; South Interior Karnataka on 25th& 26th August.
- ✓ Isolated **very heavy rainfall** also very likely over Coastal Karnataka on 25th& 26th August.
- ✓ **Strong surface winds** speed reaching 50-60 kmph gusting upto 70 kmph likely to prevail over Kerala and Lakshadweep Islands during next 24 hours.

- ❖ **Overall, rainfall is likely to be above normal over most parts of central & adjoining northwest India, east India and parts of northeastern states during most days of the**

week; normal to above normal over many parts of south Peninsular India and below normal over Western Himalayan region during the week.

Rainfall for week 2 (29 August to 04 September, 2024):

- ❖ A low pressure area is likely to form over north Bay of Bengal during 1st half of the week.
- ❖ Monsoon trough is likely to be active and near or south its normal position during the week.
- ❖ Off-shore trough along the west coast is likely to prevail during most days of the week.
- ❖ Due to above meteorological features, fairly widespread to widespread rainfall with heavy to very heavy falls are likely over most parts of northwest & central India and north Peninsular India (specially over Gujarat and ghats areas of Maharashtra, where isolated extremely heavy rainfall may also occur on some days).with isolated heavy falls over remaining parts of Coast states(Kerala, Coastal Karnataka, Konkan & Goa, ghat areas of Karnataka & Maharashtra and Gujarat), east & northeast India and rest parts of south Peninsular India during most days of the week.
- ❖ Overall, rainfall is likely to be above normal over northwest & central India; normal to above normal over most parts of south Peninsular India and near normal over East & Northeast India.

Week 1(22-28 Aug, 2024): Impact likely and suggested action due to likely heavy rainfall

Impact due to

- **Isolated extremely heavy rainfall very likely over** Mizoram, Tripura on 22nd; Gujarat Region during 24th-26th; Nagaland, Manipur, Mizoram & Tripura on 25th; West Madhya Pradesh on 25th & 26th; Saurashtra & Kutch on 26th & 27th August.
- **Very heavy rainfall** at isolated over Uttarakhand on 22nd & 23rd; Meghalaya on 22nd, 24th & 25th; Nagaland, Manipur, Mizoram & Tripura on 23rd & 24th; East Rajasthan on 25th; Coastal Karnataka on 25th & 26th; Odisha during 23rd – 25th; Assam on 24th & 25th; East Madhya Pradesh on 24th & 25th; Konkan & Goa during 23rd – 26th; Chhattisgarh on 24th; West Madhya Pradesh on 24th & 26th; Madhya Maharashtra during 24th – 26th; East Rajasthan on 25th; Coastal Karnataka on 25th & 26th; Gujarat Region on 27th August.
- ✓ **Moderate flash flood risk** likely over few watersheds & neighbourhoods of Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura; **Low to Moderate flash flood risk** likely over Uttarakhand on 21th August. **(ANNEXURE IV)**
- ✓ 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 kutchha 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.

Agromet advisories for Heavy Rainfall likely over various parts of the country

- Drain out excess water from field crops and horticultural crops in Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Uttarakhand, East Uttar Pradesh, East Rajasthan, Madhya Pradesh, Chhattisgarh, Gujrat region, Odisha, Jharkhand, Bihar, Coastal Andhra Pradesh and Telangana.
- Make provision for draining out excess water from standing crop fields and fruit orchards to avoid water stagnation in West Bengal, Coastal and North Interior Karnataka, Konkan & Goa, Madhya Maharashtra, Saurashtra & Kutch.
- Postpone sowing of black gram and green gram in Assam.
- Due to continuous heavy rain transplanted rice and vegetables are submerged in low lying areas , recovery of young rice seedlings is unlikely, farmers are advised to collect short duration rice varieties after cessation of rain otherwise can wait a bit and prepare in advance for winter vegetables in Tripura.
- Drain out excess water from kharif rice, groundnut, sesame, soyabean, ginger, turmeric and vegetables to prevent the water logging in Mizoram.
- Provide mechanical support to horticultural crops & staking to vegetables

Week 2(29 Aug-04 Sept 2024: Impact likely and suggested action due to likely heavy rainfall

Impact due to

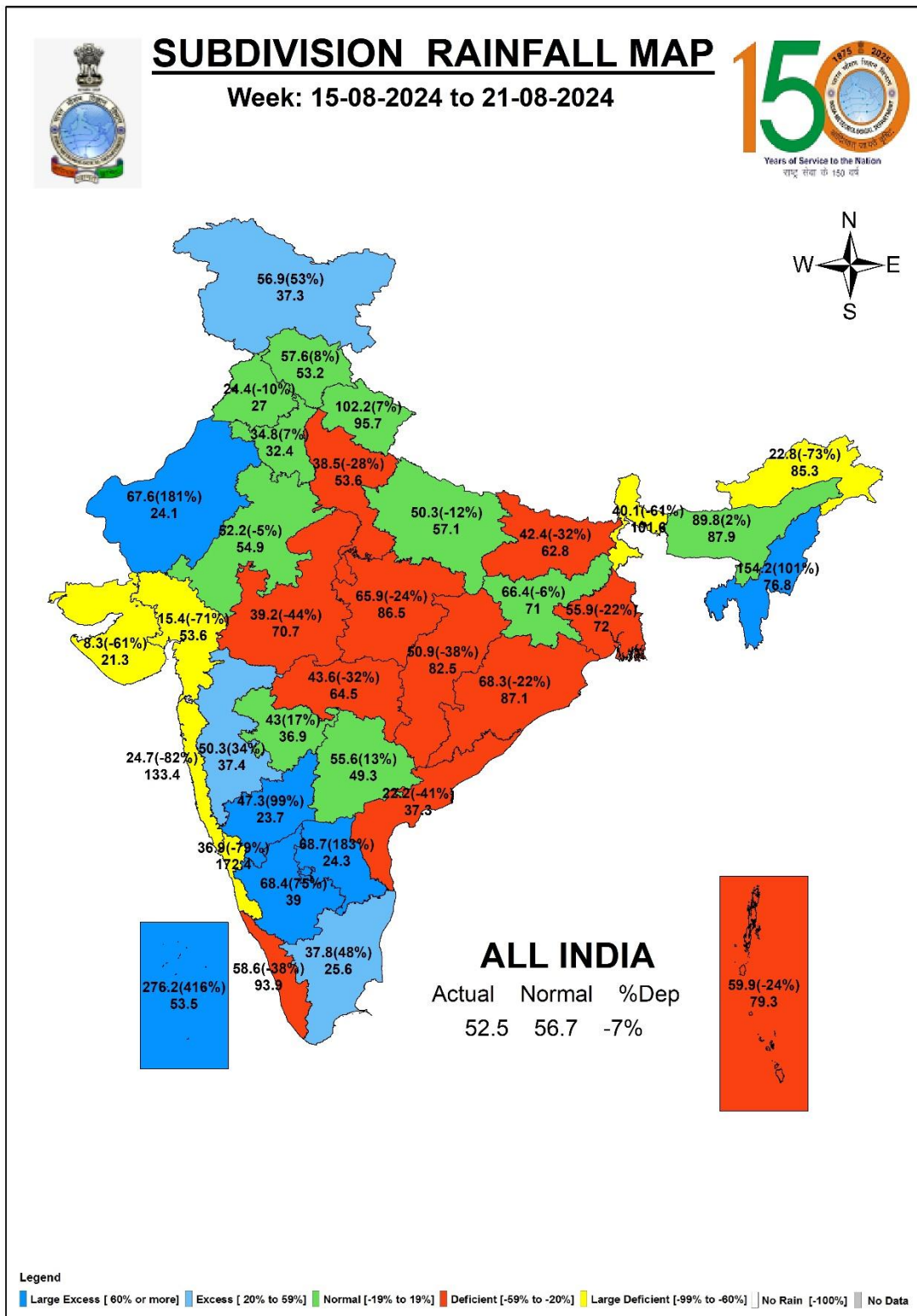
- ❖ Heavy to very heavy falls are likely over most parts of northwest & central India and north Peninsular India (specially over Gujarat and Ghats areas of Maharashtra, where isolated extremely heavy rainfall may also occur on some days).with isolated heavy falls over remaining parts of Coast states(Kerala, Coastal Karnataka, Konkan & Goa, Ghat areas of Karnataka & Maharashtra and Gujarat), east & northeast India and rest parts of south Peninsular India during most days of the week.

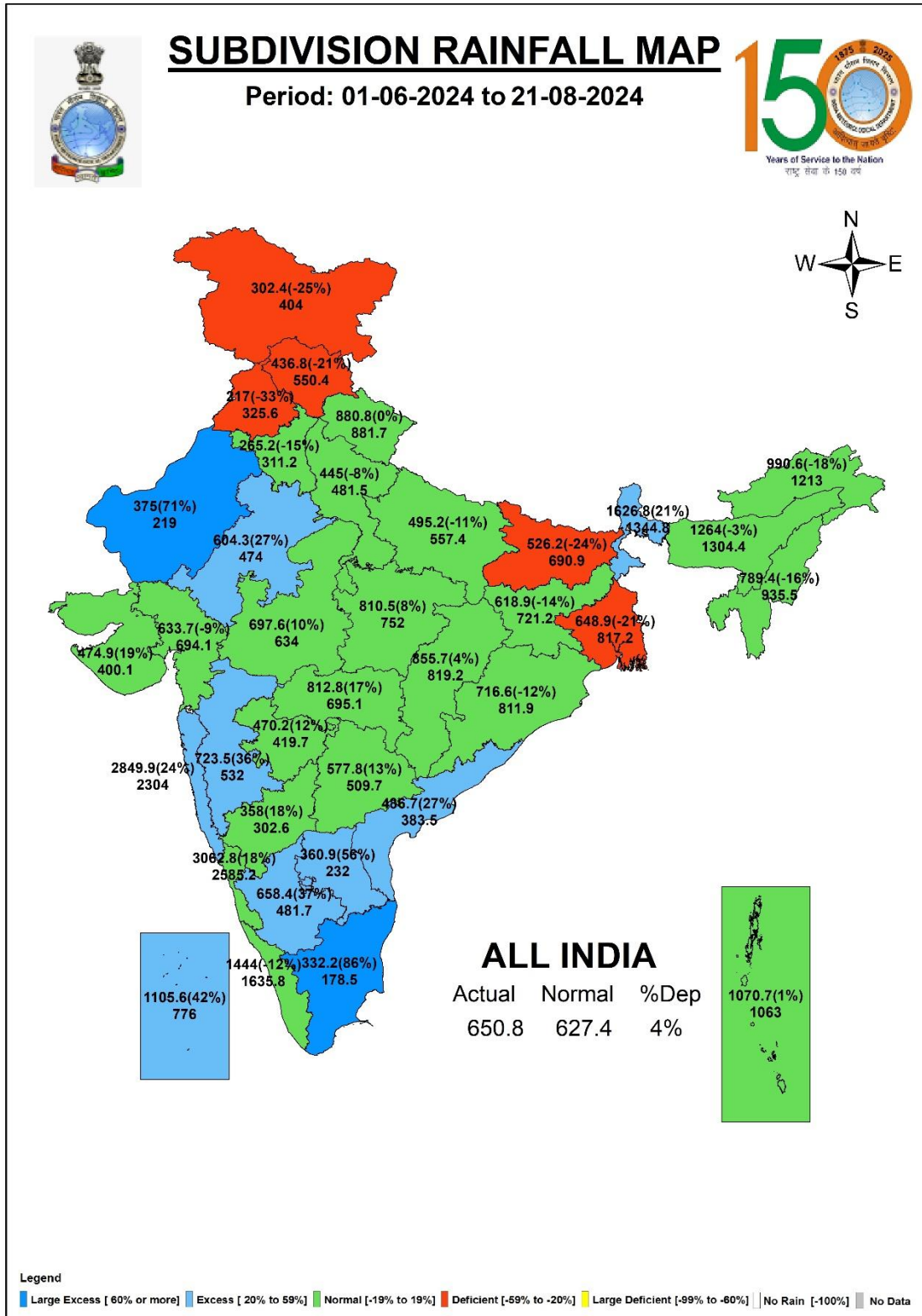
- ✓ **Moderate flash flood risk** likely over some of these areas
- ✓ Localized Flooding of roads, water logging in low lying areas and closure of underpasses mainly in urban areas of the above region.
- ✓ Occasional reduction in visibility due to heavy rainfall.
- ✓ Disruption of traffic in major cities 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.
- ✓ 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.

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



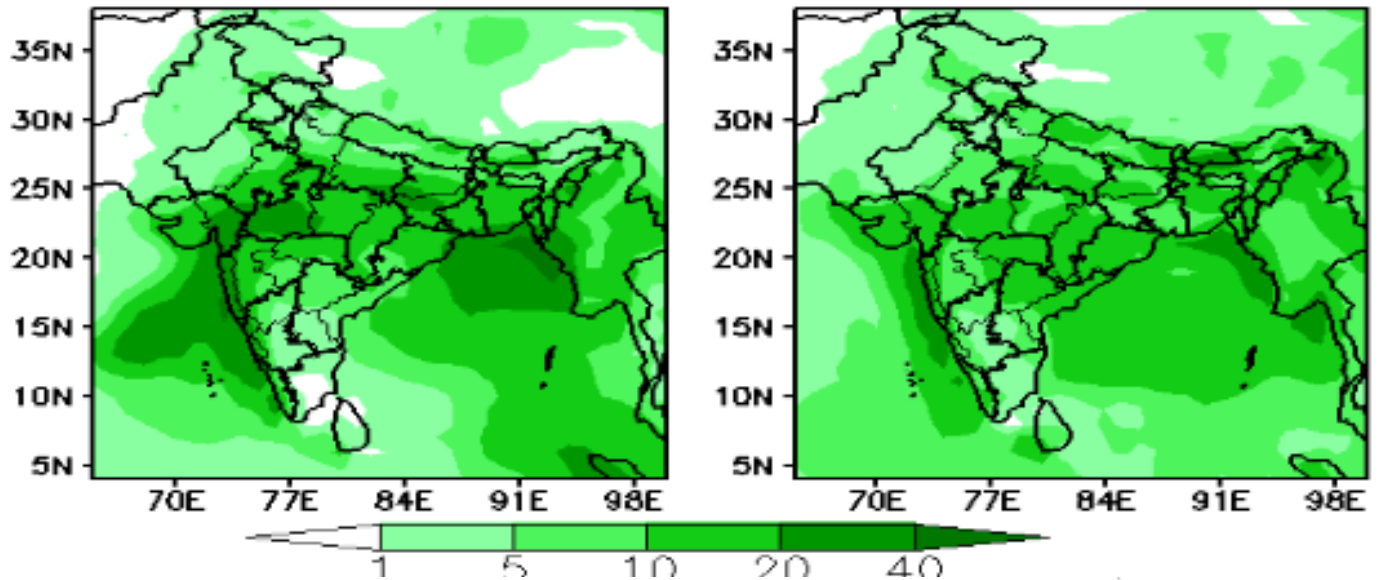


Forecast Rainfall (mm/day)

(00Z=0530 hrs IST)

(Week1:00Z22Aug-00Z29Aug)

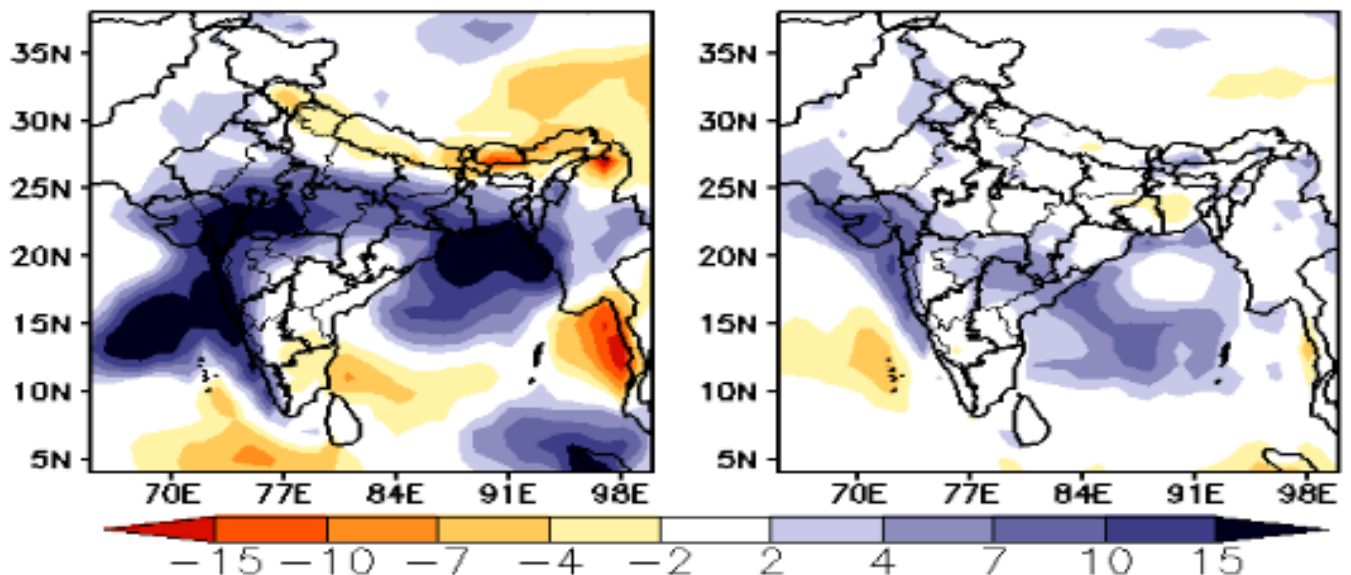
(Week2:00Z29Aug-00Z05Sep)



Forecast Rainfall Anomaly (mm/day) (00Z=0530 hrs IST)

(Week1:00Z22Aug-00Z29Aug)

(Week2:00Z29Aug-00Z05Sep)



Extended range forecast of weekly distribution of rainfall in mm per day (top panel) and anomalies(lower panes!) from IMD MME