



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

**Dated: 15<sup>th</sup> August, 2019**

## **Current Weather Status and Outlook for next two weeks**

### **Highlights of the past week (8<sup>th</sup> – 14<sup>th</sup> August, 2019)**

- The Depression which lay over north Chhattisgarh & neighbourhood in the beginning of the week rapidly moved west-northwestwards, weakened into a Well Marked Low pressure area and lay over southeast Rajasthan & neighbourhood in the evening of 9<sup>th</sup> August 2019. Maintaining its intensity, it lay over northern parts of Gujarat region & adjoining south Rajasthan on 10<sup>th</sup>, over northern parts of Saurashtra & Kutch on 11<sup>th</sup> and over Northeast Arabian Sea & adjoining Northwest Arabian Sea and south Pakistan on 12<sup>th</sup> morning. It weakened into a Low Pressure area and lay over Northwest Arabian Sea & neighbourhood in the evening of 12<sup>th</sup>. Eventhough the Low Pressure area became less marked on 13<sup>th</sup>, its remnant cyclonic circulation extending upto mid tropospheric levels persisted over Northwest Arabian Sea and neighbourhood on 13<sup>th</sup> before getting less marked on 14<sup>th</sup> August 2019.
- This system caused fairly widespread to widespread rainfall along with very intense rainfall activity over Chattisgarh, West Madhya Pradesh, Gujarat State and Madhya Maharashtra during the week. Strengthening of the monsoon current due to this system also caused fairly widespread to widespread and very intense rainfall activity over Kerala, Karnataka, coastal Maharashtra and over Ghat sections of Tamil Nadu.
- Another Low Pressure Area formed over Northwest Bay of Bengal and adjoining West Bengal-Bangladesh coasts on 12<sup>th</sup>; moved inland and lay over southern parts of Gangetic West Bengal & adjoining north Odisha on 13<sup>th</sup> and over northwestern parts of Chhattisgarh & neighbourhood on 14<sup>th</sup> August 2019. This system caused fairly widespread to widespread rainfall along with very intense rainfall activity over Odisha & Chattisgarh towards the end of the week.
- **Heavy to Very heavy rainfall with extremely heavy rainfall** at isolated places had been reported over Kerala and South Interior Karnataka on four days each; over Odisha, Gujarat Region and Coastal Karnataka on three days each; over Saurashtra & Kutch, Madhya Maharashtra, Chhattisgarh and Tamil Nadu on two days each;

over West Madhya Pradesh and North Interior Karnataka on one day each during the week.

- The weekly rainfall averaged over the country as a whole was 45% above the Long Period Average (LPA), mainly owing to the large quantum of rainfall received over central India and south peninsular India. Cumulatively, 84% of the area of the country received above normal rainfall and rest 16 % area received deficient rainfall, so far (1<sup>st</sup> June – 14<sup>th</sup> August 2019) during the current monsoon season.

### Weekly Rainfall Scenario (8<sup>th</sup>-14<sup>th</sup> August 2019)

During the week, rainfall was above its LPA by 45% over the country as a whole. Details are given below:

Regions	Actual Rainfall (mm)	Normal Rainfall (mm)	% Departure from LPA
Country as a whole	89.4	61.6	+45
Northwest India	38.8	49.8	-22
Central India	147.5	72.6	+103
South Peninsula	96.8	46.2	+109
East & northeast India	55.4	80.2	-31

The Meteorological sub-division-wise rainfall for the week is given in **Annexure I**.

### Monsoon Season Rainfall Scenario (1<sup>st</sup> June- 14<sup>th</sup> August 2019)

For the country as a whole, cumulative rainfall of southwest Monsoon season upto 14<sup>th</sup> August has been +01% above LPA. Details of the rainfall distribution over the four broad geographical regions of India are given below:

Regions	Actual Rainfall (mm)	Normal Rainfall (mm)	% Departure from LPA
Country as a whole	582.0	578.0	+01
Northwest India	349.5	388.4	-10
Central India	746.2	644.9	+16
South Peninsula	490.6	469.0	+05
East & northeast India	796.6	937.1	-15

Cumulative seasonal rainfall is given in **Annexure II**.

### Chief synoptic features as on 15<sup>th</sup> August 2019

- A Well Marked Low Pressure Area lies over northwest Madhya Pradesh and adjoining south Uttar Pradesh and east Rajasthan. The associated cyclonic circulation extends upto 7.6 km above mean sea level tilting southwestward with height.

- The monsoon trough at mean sea level passes through Ganganagar, Narnaul, centre of Well Marked Low Pressure Area over northwest Madhya Pradesh and adjoining south Uttar Pradesh & east Rajasthan, Daltongang, Bankura, Krishnanagar and thence eastwards to Mizoram across Bangladesh.
- A trough between 3.1 & 3.6 km above mean sea level runs from the cyclonic circulation associated with the Well Marked Low Pressure Area to north Gujarat Region across East Rajasthan.
- An off-shore trough at mean sea level from Karnataka coast to Kerala coast.
- A cyclonic circulation lies over south-interior Tamil Nadu & adjoining Kerala at 5.8 km above mean sea level.
- A Western Disturbance as a trough in mid-tropospheric westerlies with its axis at 5.8 km above mean sea level runs roughly along Long 68°E to the north of Lat 30°N.

### Large scale features as on 15<sup>th</sup> August 2019

- Currently, weak El-Nino conditions are prevailing over equatorial Pacific Ocean and the latest Monsoon Mission Coupled Forecast System (MMCFS) indicates that a transition of weak El-Nino conditions to warm ENSO neutral conditions is likely during the remaining part of the monsoon season.
- At present positive IOD conditions are prevailing over equatorial Indian Ocean. MMCFS forecast indicates that positive IOD conditions are likely to continue during the monsoon season.
- The Madden Julian Oscillation (MJO) index currently lies in phase 5 with amplitude more than 1. It is likely to move into phase 1 & 2 respectively in weeks 1 & 2 with reduced amplitude (less than 1). Thus MJO phase is not likely to contribute towards development of convection over north Indian Ocean during weeks 1 & 2.

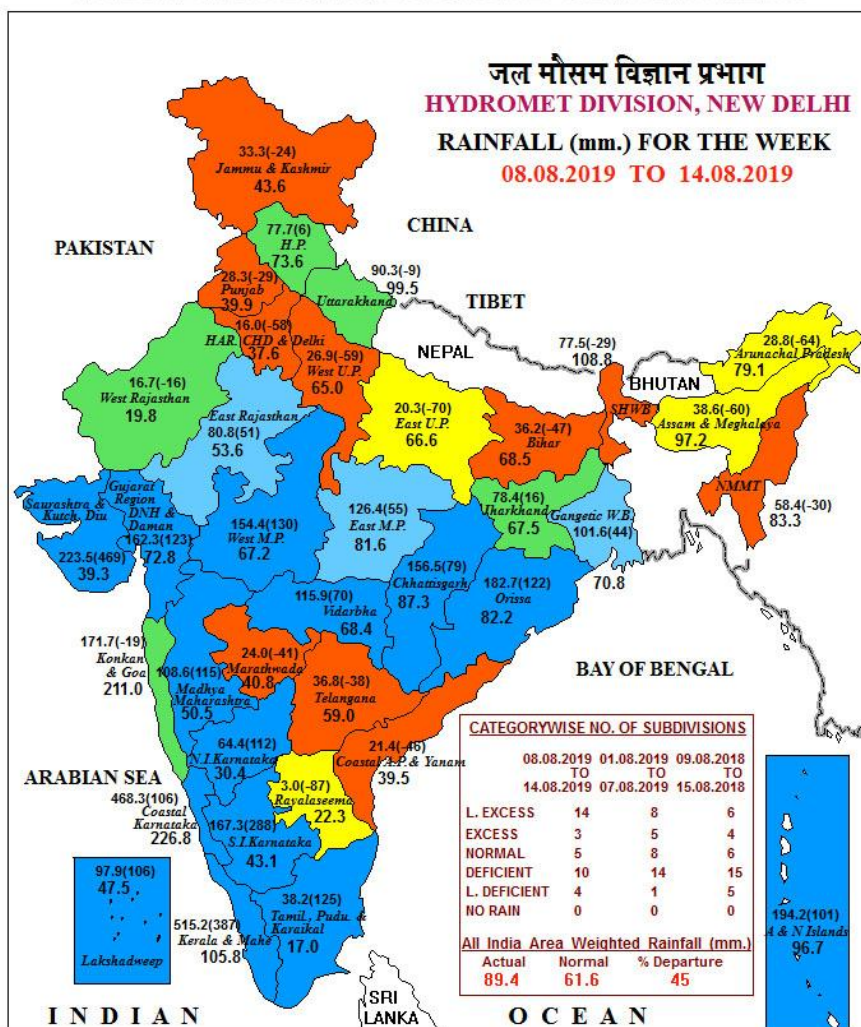
### Outlook for next two weeks [week – 1(16<sup>th</sup> - 22<sup>nd</sup> August) & week – 2 (23<sup>rd</sup> – 29<sup>th</sup> August) ]

- The present well marked low pressure area over northwest Madhya Pradesh and adjoining areas of south Uttar Pradesh and east Rajasthan is likely to move west-northwestwards along the monsoon trough during next 2 days. As a result of a likely constructive interaction of this low pressure area with the westerly trough which is lying to the west of Jammu & Kashmir could cause fairly widespread to widespread rainfall with isolated heavy to very heavy falls over Jammu & Kashmir, Punjab, Himachal Pradesh, Haryana & Chandigarh and west Uttar Pradesh mainly during 16<sup>th</sup> – 18<sup>th</sup> August. Then the low pressure area is likely to move northeastwards and weaken subsequently.

- A fresh cyclonic circulation is likely to develop over west central and adjoining northwest Bay of Bengal towards the end of week – 1 and move west-northwestwards, thereby enhancing the rainfall activity over east & central India during week – 2.
- **During week – 1**, large excess rainfall is very likely over Rajasthan, above normal rainfall over Punjab, Haryana, Chandigarh & Delhi, southern parts of Jammu & Kashmir and Ladakh, Himachal Pradesh, west Madhya Pradesh, west Bengal, Andhra Pradesh, Tamil Nadu, Kerala, Andaman & Nicobar and Lakshadweep Islands, coastal Karnataka and south Konkan & Goa and near normal rainfall over interior Karnataka and Odisha. Interior parts of Maharashtra, northeast Madhya Pradesh, north Chhattisgarh, Jharkhand, Uttar Pradesh, Bihar, Uttarakhand, Sikkim, Arunachal Pradesh, Assam, Meghalaya, Nagaland, Manipur and Mizoram are likely to receive below normal rainfall. **(Annexure III & IV)**
- **During week – 2**, further reduction in rainfall likely over major parts of the country as compared to week – 1. However, above normal rainfall likely over Madhya Pradesh, Uttar Pradesh, north Chhattisgarh, Jharkhand, Bihar, Nagaland, Manipur, Mizoram, Tripura, Kerala and Lakshadweep and near normal over Tamil Nadu, Rajasthan, Gangetic west Bengal and Odisha. Rest of the country is likely to receive below normal rainfall. **(Annexure IV)**
- Probability for genesis of monsoon Depression during next 2 weeks is low.

**Next weekly update will be issued on Thursday i.e. 22<sup>nd</sup> August, 2019.**

## भारत मौसम विज्ञान विभाग INDIA METEOROLOGICAL DEPARTMENT

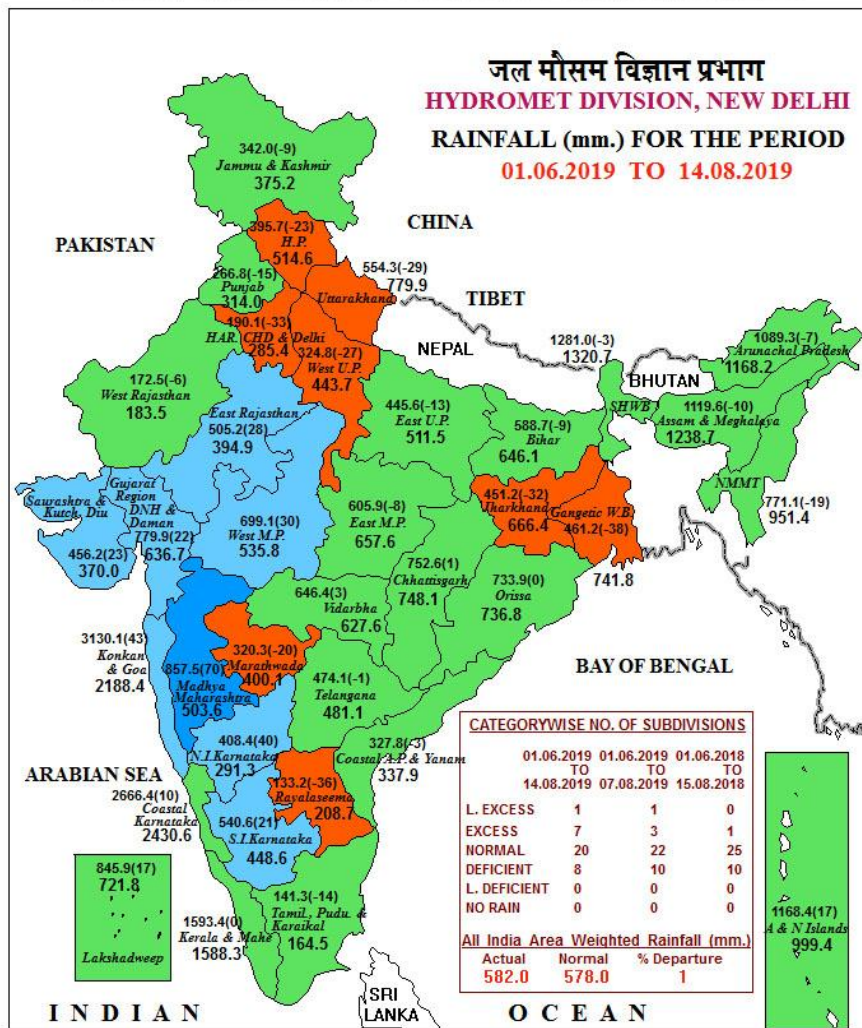


**LEGEND:** ■ L. EXCESS (+60% OR MORE) ■ EXCESS (+20% TO +59%) ■ NORMAL (+19% TO -19%)  
 ■ DEFICIENT (-20% TO -59%) ■ L. DEFICIENT [-60% TO -99%] ■ NO RAIN (-100%) ■ NO DATA

**NOTES:**  
 [a] Rainfall figures are based on operational data.  
 [b] Small figures indicate actual rainfall [mm.], while bold figures indicate Normal rainfall [mm.]  
 Percentage Departures of Rainfall are shown in Brackets.



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## Annexure-III

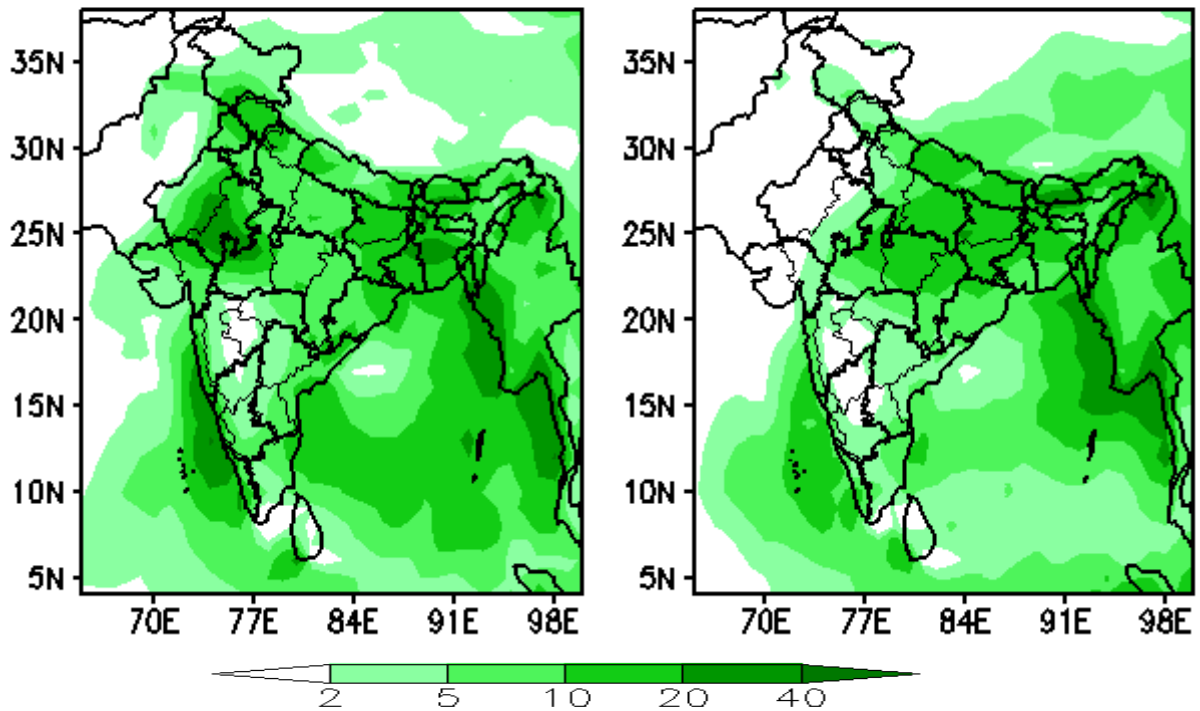
Forecast & Warnings (15<sup>th</sup> -21<sup>st</sup> August 2019)

Sr. No	MET.SUB-DIVISIONS	15 AUG	16 AUG	17 AUG	18 AUG	19 AUG	20 AUG	21 AUG
1	ANDAMAN & NICO.ISLANDS	WS	WS <sup>•</sup>	WS <sup>•</sup>	FWS	FWS	SCT	SCT
2	ARUNACHAL PRADESH	WS <sup>•</sup>	FWS	FWS	FWS <sup>•</sup>	WS <sup>•</sup>	FWS	SCT
3	ASSAM & MEGHALAYA	WS <sup>***</sup>	FWS	FWS	FWS <sup>•</sup>	FWS <sup>•</sup>	FWS <sup>•</sup>	FWS <sup>•</sup>
4	NAGA.MANI.MIZO.& TRIPURA	FWS	FWS	FWS	SCT <sup>•</sup>	SCT	SCT	FWS
5	SUB-HIM.W. BENG. & SIKKIM	WS <sup>•</sup>	WS <sup>•</sup>	WS <sup>**</sup>	WS <sup>**</sup>	WS <sup>•</sup>	WS <sup>•</sup>	WS <sup>•</sup>
6	GANGETIC WEST BENGAL	FWS	FWS <sup>TS</sup>	FWS <sup>TS</sup>	FWS	FWS <sup>•</sup>	FWS	FWS <sup>•</sup>
7	ODISHA	SCT	SCT <sup>TS</sup>	FWS <sup>*TS</sup>	FWS <sup>*TS</sup>	FWS <sup>•</sup>	FWS <sup>•</sup>	WS <sup>•</sup>
8	JHARKHAND	SCT	SCT	FWS <sup>TS</sup>	FWS <sup>TS</sup>	FWS <sup>•</sup>	FWS <sup>•</sup>	WS <sup>•</sup>
9	BIHAR	SCT <sup>*TS</sup>	SCT <sup>TS</sup>	SCT <sup>TS</sup>	FWS	FWS <sup>•</sup>	FWS <sup>•</sup>	FWS <sup>•</sup>
10	EAST UTTAR PRADESH	SCT	SCT	FWS	FWS <sup>•</sup>	FWS	SCT	SCT
11	WEST UTTAR PRADESH	FWS	FWS <sup>•</sup>	FWS <sup>**</sup>	WS <sup>•</sup>	WS <sup>•</sup>	SCT	ISOL
12	UTTARAKHAND	WS <sup>•</sup>	WS <sup>•</sup>	WS <sup>**</sup>	WS <sup>**</sup>	WS <sup>•</sup>	FWS	SCT
13	HARYANA CHD. & DELHI	FWS <sup>•</sup>	WS <sup>•</sup>	WS <sup>**</sup>	WS <sup>**</sup>	FWS <sup>•</sup>	ISOL	ISOL
14	PUNJAB	FWS <sup>•</sup>	FWS <sup>•</sup>	WS <sup>**</sup>	WS <sup>**</sup>	SCT	ISOL	ISOL
15	HIMACHAL PRADESH	WS <sup>•</sup>	WS <sup>•</sup>	WS <sup>**</sup>	WS <sup>**</sup>	WS <sup>•</sup>	SCT	ISOL
16	JAMMU & KASHMIR	FWS	FWS <sup>**</sup>	FWS	FWS	SCT	SCT	ISOL
17	WEST RAJASTHAN	FWS <sup>•</sup>	FWS <sup>•</sup>	SCT <sup>•</sup>	ISOL	ISOL	ISOL	ISOL
18	EAST RAJASTHAN	WS <sup>***</sup>	WS <sup>***</sup>	FWS <sup>•</sup>	FWS	SCT	ISOL	ISOL
19	WEST MADHYA PRADESH	WS <sup>***</sup>	FWS	SCT	SCT	SCT	SCT	SCT
20	EAST MADHYA PRADESH	FWS	SCT	SCT	SCT	SCT	FWS <sup>•</sup>	WS <sup>•</sup>
21	GUJARAT REGION D.D. & N.H.	WS <sup>***</sup>	FWS <sup>•</sup>	SCT	SCT	ISOL	ISOL	ISOL
22	SAURASTRA KUTCH & DIU	FWS <sup>•</sup>	SCT	SCT	ISOL	ISOL	ISOL	ISOL
23	KONKAN & GOA	WS <sup>**</sup>	WS <sup>•</sup>	WS <sup>•</sup>	WS <sup>•</sup>	WS	WS	WS <sup>•</sup>
24	MADHYA MAHARASHTRA	SCT <sup>•</sup>	SCT <sup>•</sup>	SCT	SCT	SCT	SCT	SCT
25	MARATHAWADA	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
26	VIDARBHA	SCT	SCT	SCT	SCT	SCT	ISOL	ISOL
27	CHHATTISGARH	SCT	SCT	SCT	FWS	FWS	WS <sup>•</sup>	WS <sup>•</sup>
28	COASTAL A. PR. & YANAM	SCT	SCT	SCT	FWS <sup>•</sup>	FWS <sup>•</sup>	FWS	SCT
29	TELANGANA	SCT	SCT	SCT	FWS	FWS	FWS	SCT
30	RAYALASEEMA	ISOL	ISOL	ISOL	SCT	SCT	SCT	ISOL
31	TAMIL. PUDU. & KARAICAL	ISOL <sup>•</sup>	SCT <sup>•</sup>	SCT <sup>•</sup>	FWS <sup>•</sup>	SCT	SCT	SCT <sup>•</sup>
32	COASTAL KARNATAKA	WS <sup>***</sup>	WS <sup>•</sup>	WS <sup>•</sup>	WS <sup>•</sup>	WS	WS	WS <sup>•</sup>
33	NORTH INT.KARNATAKA	FWS	SCT	SCT	FWS	FWS	SCT	SCT
34	SOUTH INT.KARNATAKA	WS <sup>•</sup>	FWS <sup>•</sup>	FWS	FWS <sup>•</sup>	FWS	SCT	FWS <sup>•</sup>
35	KERALA & MAHE	WS <sup>•</sup>	WS <sup>•</sup>	FWS	FWS	FWS	FWS	WS <sup>•</sup>
36	LAKSHADWEEP	WS	FWS	SCT	SCT	SCT	SCT	SCT
<b>LEGENDS:</b>								
WS	WIDE SPREAD / MOST PLACES (76-100%)	FWS	FAIRLY WIDE SPREAD / MANY PLACES (51% to 75%)					
SCT	SCATTERED / FEW PLACES (26% to 50%)	ISOL	ISOLATED (up to 25%)			D/DRY	NIL RAINFALL	
• Heavy Rainfall (64.5-115.5 mm)		** Heavy to Very Heavy Rainfall (115.6-204.4 mm)			*** Extremely Heavy Rainfall (204.5 mm or more)			
• FOG	* SNOWFALL	# HAILSTORM			† HEAT WAVE (+4.5 °C to +6.4 °C)		†† SEVERE HEAT WAVE (> +6.4)	
5 THUNDERSTORM WITH SQUALL/GUSTY WIND		DS/TS DUST/THUNDERSTORM			‡ COLD WAVE (-4.5 °C to -6.4 °C)		‡‡ SEVERE COLD WAVE (< -6.4)	

### Forecast Rainfall (mm/day)

(Week1: 16Aug-22Aug)

(Week2: 23Aug-29Aug)



### Forecast Rainfall Anomaly (mm/day)

(Week1: 16Aug-22Aug)

(Week2: 23Aug-29Aug)

