

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

Press: Dated: 18 Aug, 2022

Subject: Current Weather Status and Extended range Forecast for next two weeks (18-31 August 2022)

1. Salient Observed Features for week ending on 18 Aug 2022

- Active monsoon spell over central India with isolated heavy to very heavy and isolated extremely heavy rainfall observed over central India during the week which caused floods across the region and thus severely impacted lives of people especially over Odisha and Chhattisgarh. The periods of such intense rainfall were: Odisha during 12-15 Aug, Chhattisgarh and Madhya Pradesh during 14-16 and Gujarat and South Rajasthan during 15-17 Aug. It was mainly due to formation of a fresh Low Pressure Area over North Bay of Bengal on 13 Aug, which then concentrated into a Depression over northwest Bay of Bengal and adjoining coastal areas of West Bengal- North Odisha, at evening of 13th Aug, and then moved over to West Madhya Pradesh across Odisha and Chhattisgarh and east Madhya Pradesh during 13-16 Aug and then weaken and reached over southeast Pakistan as well marked low pressure area till 18th Aug. The Monsoon trough was also remained active and south of the normal position during all days of the week and only on 18 Aug, part of western end was seen to north of the normal position.
- Subdued rainfall over southern parts of Peninsula and northeastern states, Bihar and Uttar Pradesh, Punjab and Haryana Delhi, in most of the dates during the week
 - Analysis of Weekly overall Rainfall distribution during the current week ending on 17 Aug 2022 and Monsoon Season's Rainfall Scenario (01 June-17 Aug, 2022) shows rainfall status have further improved: It shows for the country as a whole, the weekly cumulative All India Rainfall departure till week ending on 17 Aug 2022, from its long period

average (LPA) was +26 %, with over east and northeast India as -39% while all India Seasonal cumulative rainfall % departure during this year's monsoon Season Rainfall during 01 June till 17 Aug 2022 is +10%. 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.

Region	WEEK 04.08.2022 TO 10.08.2022			SEASON 01.06.2022 TO 10.08.2022			
EAST & NORTH-EAST INDIA	51.4	84.7	-39%	770	938.7	-18%	
NORTH-WEST INDIA	57.8	50.2	+15%	414.6	408.7	+1%	
CENTRAL INDIA	138	68	+103%	838.5	674.7	+24%	
SOUTH PENINSULA	19.9	44.7	-55%	612.7	477.1	+28%	
Country as a whole	76.3	60.6	+26%	652.9	596.2	+10%	

Table 1: Rainfall status (Week and season)

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 1 with amplitude less than

1. It would continue to stay there till end of the week 1 and with amplitude become >1. It would likely to move westwards to phase 2 around 24 Aug and stay in Phase 2 during 1^{st} half of the week 2 with amplitude > 1. Then it is likely to move further westwards into Phase 3 during start of the 2^{nd} half of the week 2 and stay there till end of the week 2 with gradually decreasing amplitude.

3. Forecast for next two week

Forecast for next two week

Weather systems & associated Precipitation during Week 1 (18 to 24 August, 2022) and Week 2 (25 to 31 August, 2022)

Forecast for week 1 (18 to 24 August, 2022):

- o The Low Pressure Area over northeast and adjoining areas of Eastcentral Bay of Bengal, Bangladesh-Myanmar coasts moved northwestwards lay as a Well Marked Low Pressure Area over Northeast Bay of Bengal and adjoining southeast Bangladesh coast as on today afternoon of 18 Aug. It is very likely to continue to move northwestwards and concentrate into a Depression by tomorrow morning, the 19th August over North Bay of Bengal and adjoining West Bengal-Bangladesh coasts. Thereafter, it is likely to move west-northwestwards across Gangetic West Bengal, North Odisha, Jharkhand and North Chhattisgarh.
- The other Well Marked Low Pressure Area lies over Southeast Pakistan and adjoining southwest Rajasthan with the associated cyclonic circulation extending upto 7.6 km above mean sea level. It is very likely to continue to move west-northwestwards and weaken gradually during next 24 hours.
- The monsoon trough at mean sea level passes through Well Marked Low Pressure area over southeast Pakistan and adjoining southwest Rajasthan, Churu, Delhi, Bareilly, along the foothills of Himalayas, Malda, Kolkata and thence southeastwards to the centre of Well Marked Low Pressure Area over Northeast Bay of Bengal and adjoining southeast Bangladesh coast. The western end of the monsoon trough is likely to shift to north of the normal position from 19th August and remain so during next 2-3 days

> Under the influence of the above systems:

Fairly widespread/widespread light/moderate rainfall with isolated heavy falls and thunderstorm/lightning very likely over Odisha during 18th-20th; Gangetic West Bengal on 18th & 19th; Jharkhand on 19th & 20th; Vidarbha on 20th & 21st; Chhattisgarh & East Madhya Pradesh during 19th-21st and over West Madhya Pradesh during 20th-22nd August, 2022. Rainfall likely to be reduced to scattered over Odisha, Chhattisgarh,

Vidarbha and Madhya Pradesh during 22-24 Aug while it is likely to be fairly widespread during the same period over Gangetic West Bengal and Jharkhand during 21-24 Aug

- ✓ Isolated heavy to very heavy rainfall likely over West Bengal & Sikkim on 19th; Vidarbha, Jharkhand & Odisha on 20th; East Madhya Pradesh on 21st and over West Madhya Pradesh on 22nd August, 2022.
- ✓ Isolated extremely heavy rainfall also likely over north Odisha on 19th; north Chhattisgarh & East Madhya Pradesh on 20th and over West Madhya Pradesh on 21st August, 2022.
- Fairly widespread/widespread light/moderate rainfall with isolated heavy falls and thunderstorm/lightning very likely over West Rajasthan & Gujarat State on 18th & 22nd; East Rajasthan and Konkan & Goa during 20th-22nd and over Ghat areas of Madhya Maharashtra on 21st & 22nd August, 2022.
- ✓ Isolated very heavy rainfall over East Rajasthan on 21st & 22nd August, 2022.
- Fairly widespread/widespread light/moderate rainfall with isolated heavy falls and thunderstorm/lightning very likely over Jammu & Kashmir and Punjab on 20th; Uttarakhand on 19th & 20th; Himachal Pradesh and West Uttar Pradesh during 19th-21st; south Haryana on 21st and over East Uttar Pradesh on 19th & 20th August, 2022.
- Fairly widespread/widespread light/moderate rainfall with isolated heavy falls and thunderstorm/lightning very likely over Assam & Meghalaya on 19th & 20th and over Nagaland, Manipur, Mizoram & Tripura during 18th-20th August, 2022.
- Scattered to isolated light/moderate rainfall with isolated heavy falls and thunderstorm/lightning very likely over Tamil Nadu on 18th August, 2022.
- Fairly widespread/widespread light/moderate rainfall with isolated heavy falls and thunderstorm/lightning very likely over Rajasthan during 23 and 24 Aug
- Scattered to Fairly widespread light/moderate rainfall likely to continue over Uttar east Pradesh and Bihar during 21-24 Aug.
- Isolated to scattered rainfall with thunderstorm likely to occur over rest parts of the country during the week.

Rainfall for week 2 (25 to 31 August, 2022):

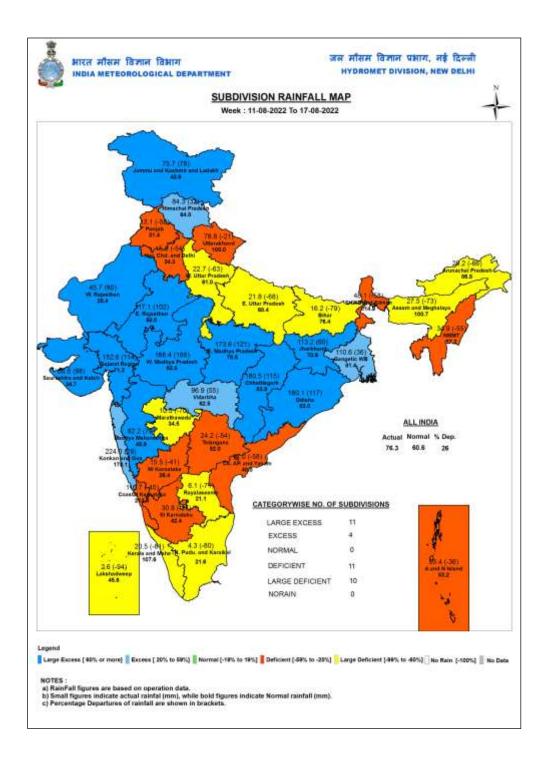
- $_{\odot}$ The monsoon trough is very likely to north of its normal position during 1st half of the week. The eastern end shift gradually southwards during 2nd half of the week 2
- Fairly widespread/ widespread rainfall with isolated heavy falls likely over east central, west Bengal and Sikkim, Jharkhand during 1st half of the week.

- Increase in rainfall activity over southern Peninsula India with isolated heavy to very heavy rainfall over Kerala, Tamil Nadu, Andhra Pradesh and Karnataka during 1st half of the week.
- Rainfall activity is likely to be normal to above normal over Peninsular India, parts of east central India, Jharkhand, Bihar and East Uttar Pradesh. It is likely to be near normal over rest parts of the country outside Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Odisha, some parts of Maharashtra and Gujarat, west Madhya Pradesh and northwest India where it is likely to be below normal.

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

				Probabilistic Forecast		
	SPATIAL DISTRIBUT	Terms	Probability of Occurrence (%)			
% Stations	Category	% Stations Category		Unlikely	< 25	
76-100	Widespread (WS/Most Places)	26-50 Scattered (SGT/ A Few Places)		Likely Very Likely	25 - 50 50 - 75	
51-75	Fairly Widespred (FWS/ Many Places)	1-25	Isolated (ISOL)	Most Likely	> 75	

Annex 1



Annex: II

