



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

Dated: 2 Sept, 2021

**Subject: Current Weather Status and Extended range Forecast for next two weeks
(2-15 Sept 2021)**

1. Salient Features

- Last week's weak monsoon spell continued to prevail over many parts Northwest and Central and West coast till 28 Aug. It then revived over Peninsular India from 29 Aug and then over adjoining central India, Maharashtra, Gujarat, east Rajasthan, Delhi, Haryana and Uttar Pradesh from 30 Aug. A low pressure area formed over Northwest and adjoining Westcentral Bay of Bengal off south Odisha-north Andhra Pradesh coasts in the morning of 28th August which moved over to south Chhattisgarh & neighborhood on 30th Aug. Though, the low pressure area was weakened over Vidarbha on 31 Aug, its remnant cyclonic circulation moved west northwestwards to Saurashtra during 31 Aug -2 Sept, across north Maharashtra and South Gujarat coast and caused isolated very heavy to extremely heavy rainfall over these areas during the period. It led to increase in rainfall activity over northwest India also due to associated southeasterly winds reaching into the region.
- After the movement of the low to west by 31 Aug, fresh strong southerly/southwesterly winds from Bay of Bengal prevailed over northeast India and Sub-Himalayan West Bengal & Sikkim towards end of the week leading to isolated heavy to extremely heavy rainfall over these areas during 1 and 2 Sept.
- **Weekly cumulative rainfall** for the country as a whole for the week ending on 1st Sept is 1% above its Long Period Average (LPA), while the Seasonal cumulative rainfall during 1st June to 1 Sept, 2021 is 9 % below the LPA. Details of the rainfall distribution over the four broad geographical regions of India are given in **Table 1(refer page 2)** and Met sub-

division-wise rainfall both for week and season are given in Annex I and II.

Table 1: Rainfall status (Week and season)

Region	WEEK			SEASON		
	26.08.2021 TO 01.09.2021			01.06.2021 TO 01.09.2021		
	Actual	Normal	% Dep	Actual	Normal	% Dep
EAST & NORTH-EAST INDIA	93.6	70.0	+34%	1039.4	1134.3	-8%
NORTH-WEST INDIA	23.5	35.6	-34%	428.6	494.9	-13%
CENTRAL INDIA	46.0	59.6	-23%	696.1	807.2	-14%
SOUTH PENINSULA	61.7	36.0	+71%	614.0	571.1	+8%
country as a whole	49.8	49.2	+1%	652.5	716.9	-9%

2. Large scale features as on 2 Sept, 2021

- Currently, neutral El-Nino Southern Oscillation (ENSO) conditions are seen over the equatorial Pacific. The latest global model forecasts indicate that the current neutral ENSO conditions are likely to continue during the month over the equatorial Pacific Ocean. However, sea surface temperatures over central and east equatorial Pacific Ocean is showing cooling tendency and there is an increased possibility of re-emergence of the La Nina condition at the end of the monsoon season or thereafter.
- At present, negative Indian Ocean Dipole (IOD) conditions are prevailing over the Indian Ocean. The latest forecast from the MMCFS and other global models together indicate negative IOD conditions over the Indian Ocean are likely to continue during remaining part of the monsoon season.
- The madden Julian oscillation (MJO) index currently lies in phase 3 with amplitude less

than 1. It is likely to meander in phase 3 with amplitude <1 during week 1. It could start its eastward propagation with gradual increase in amplitude from the beginning of week 2 and enter in phase 4 towards the end of week 2. Hence the phase of MJO would favor the convective activity and hence the formation of low pressure systems over north Indian ocean during weeks 1 & 2.

3. Forecast for next two week

Forecast for next two week

Weather systems & associated Precipitation during Week 1 (02 to 08 September, 2021) and Week 2 (09 to 15 September, 2021)

Rainfall for week 1: (02 to 08 September, 2021)

- The monsoon trough at mean sea level lies to the south of its normal position. It is very likely to shift gradually northwards from tomorrow, the 3rd to 06th September and again shift southwards thereafter.
- A cyclonic circulation lies over Saurashtra & neighbourhood and extends upto middle tropospheric levels. It is likely to move northwestwards across southwest Rajasthan during next 2 days and become less marked thereafter.
- A cyclonic circulation lies over Westcentral & adjoining Southwest Bay of Bengal off south Andhra Pradesh-north Tamil Nadu coasts in lower tropospheric levels. It is likely to become less marked during next 24 hours.
- A shear zone in middle tropospheric levels likely to develop over south Peninsular India from 03rd September, 2021.
- **A low pressure area is likely to form over north & adjoining central Bay of Bengal around 06th September, 2021.**
- Due to above meteorological conditions:
 - ✓ Fairly widespread to widespread rainfall activity with isolated very heavy falls very likely over Saurashtra & Kutch on today, the 02nd September and isolated heavy falls also very likely over Gujarat Region, Uttar Pradesh, Bihar, Rajasthan and Haryana on 02nd and over Saurashtra & Kutch on 03rd September.
 - ✓ Rainfall activity over south peninsular India is very likely to increase from 04th September with fairly widespread to widespread rainfall activity & isolated **heavy**

falls very likely over Konkan & Goa, Coastal Andhra Pradesh, Telangana and Tamil Nadu during 04th to 08th; Karnataka, Kerala & Mahe and Marathwada on 05th to 08th and over Madhya Maharashtra from 06th to 08th September. Isolated heavy to very heavy falls are also likely over Konkan & Goa and Madhya Maharashtra on 07th & 08th September, 2021.

- ✓ Rainfall activity over Central India is very likely to increase from 05th September with fairly widespread rainfall activity & **isolated heavy falls** over Chhattisgarh during 04th to 08th; Vidarbha, East Madhya Pradesh on 05th to 08th and over West Madhya Pradesh from 06th to 08th September.
- ✓ Scattered to widespread rainfall activity likely to continue over East India during next 4-5 days with isolated very heavy falls over Sub-Himalayan West Bengal & Sikkim on 02nd & 03rd and over Assam & Meghalaya on 02nd, 07th & 08th; Isolated heavy falls also very likely over Odisha during 03rd to 08th; Arunachal Pradesh, Nagaland and Bihar on 02nd September.
- ✓ Rainfall activity is very likely to increase with scattered to fairly widespread rainfall over most parts of northwest India with possibility of **heavy rainfall** over Uttarakhand & Himachal Pradesh during 2nd half of the week.
- Overall rainfall activity is very likely to be above normal.

Rainfall for week 2: (09 to 15 September, 2021)

- **The monsoon trough is very likely to be active and near normal/ south of its position during most days of the week.**
- **A low pressure area is likely to form over north Bay of Bengal.**
- **There is likely increase in rainfall activity over northwest & central India and likely to decrease over south Peninsular India as compare to week 1.**
- **Fairly widespread to widespread rainfall activity with isolated heavy falls very likely over northwest, central India during most of the days.**
- **Overall above normal rainfall activity likely over northwest, central & east India, near normal over northeastern states and below normal to near normal over south Peninsular India.**

4. Cyclogenesis forecast for North Indian Ocean during next 2 weeks

Based on Numerical Models guidance, Most of the numerical models including IMD

GFS, GEFS, NCUM, NEPS, NCEP-GFS and MME (CFSV₂) are not indicating any cyclogenesis over NIO during their respective forecast periods. However, majority of them like IMD GFS, GEFS, NCUM, NEPS & ECMWF are indicating development of a low pressure area over north & adjoining central Bay of Bengal (BoB) around 06th September while ECMWF EPS is indicating likely formation of a Depression over west-central BoB around 06th September with 'High' probability (>60%). Further, the models like ECMWF, NCEP-GFS & NCUM are also indicating the formation of another Low pressure area over central & adjoining north BoB around 11th September . There is wide variation in location predicted by individual models in the case of both the Low pressure systems mentioned above. However, there is concurrence in the period of formation and their movement towards north Andhra Pradesh – south Odisha coasts. Also majority of the models indicate the likelihood of the Low pressure area expected around 06th September to become a Well Marked Low before moving inland.

Considering all the above, it may be concluded that there is a 'low' probability of the Low pressure area which is likely to form around 6th September to concentrate into a Depression over northwest & adjoining west-central BoB during the subsequent 24 hours. Formation of another Low pressure area in quick succession over central parts of the BoB is also likely during the first half of Week 2.

Next weekly update will be issued on next Thursday i.e.9 Sept 2021

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 Widespred (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





