



The Index of Madden Julian Oscillation (MJO) currently lies in Phase 7 with amplitude less than 1. It is likely to move into Phase 1 across Phase 8 with amplitude close to 1 by the first half of Week 1 and further propagate eastwards into Phase 2, maintaining the amplitude, during Week 2. Hence the Phase of MJO will not support convective activity over the north Indian Ocean (NIO) during Weeks 1 & 2.

Currently southwest monsoon is active over major parts of the Arabian Sea (AS) and northern parts of the Bay of Bengal (BoB). Strong surface winds of the order of 15-25 knots are prevailing over the NIO. Most of the numerical models indicate a gradual reduction in the north-south pressure gradient over the NIO from 8<sup>th</sup> August. This could imply a likely weakening of the monsoon winds at Sea level over both the AS & the BoB from the middle part of Week 2.

Most of the numerical models including IMD GFS, GEFS, NCUM & NEPS are not indicating any fresh cyclogenesis over NIO during their respective forecast periods. ECMWF and NCEP GFS are indicating the development of a fresh low pressure area over northwest BoB and adjoining coastal areas of West Bengal towards the later part of Week 1. The cyclogenesis and evolution probability based on MME (CFSV<sub>2</sub>) is indicating a genesis potential of >90 % for the present well marked Low Pressure area located over Gangetic west Bengal & adjoining Bangladesh, across eastern parts of the Indo Gangetic Plains till 1<sup>st</sup> August and not much probability for fresh genesis during the subsequent forecast period.

**Considering all the above, it may be concluded that no cyclogenesis is likely over the north Indian Ocean during the forecast period.**

**Verification of forecast issued during last two weeks:**

The forecast issued on 15th July for week 2 (23.07.2021- 29.07.2021) and the forecast issued on 22nd July for week 1(23.07.2021- 29.07.2021) indicated no cyclogenesis over the north Indian Ocean during the period. The outlook issued on 22nd July also forecast the likely formation of a low pressure area over north BoB and neighbourhood during the end of week 1 and beginning of week 2. A low area formed over north Bay of Bengal (BoB) and neighbourhood in the early morning (0000 UTC) of 27th July 2021 and became well marked low pressure area over coastal Bangladesh and adjoining West Bengal at 03 UTC of 28<sup>th</sup> July. Hence, the non- formation of a depression could be predicted correctly two weeks in advance. Also the formation of a Low pressure area could be correctly predicted 1 week in advance.

**Next update: 05.08.2021**