



The Index of Madden Julian Oscillation (MJO) currently lies in Phase 2 with amplitude more than 1. It will continue in same phase during first half of week 1 with amplitude becoming less than 1. Thereafter, it is likely to move to Phase 1 across phases 3 & 2 during later part of Week 1 with amplitude remaining less than 1. It will continue in phase 1 during first half of week 2. Thereafter, it will move to phase 2 during later part of Week 2 with amplitude remaining less than 1. Hence the phase of MJO would be favorable for enhancement of convective activity over the North Indian Ocean (NIO) during first half of Week 1 and second half of week 2.

Most of the numerical models including IMD GFS, GEFS, NCUM, ECMWF & NCEP-GFS models are not indicating any cyclogenesis over NIO during their respective forecast periods. However, NEPS is indicating development of a low pressure area over northwest & adjoining westcentral BoB off Andhra Pradesh-Odisha coasts during first half of week 2. ECMWF EPS is also indicating likely formation of low pressure area over northwest BoB during first half of week 2. The Genesis Potential Parameter (GPP) based on IMD GFS is not indicating any potential zone for cyclogenesis over the north Indian Ocean during the forecast period. The cyclogenesis and evolution probability based on MME (CFSV<sub>2</sub>) is not indicating any significant genesis potential zones over the NIO for the forecast period.

Considering all the above, it may be concluded that no cyclogenesis is likely over the north Indian Ocean during the forecast period. However, a Low Pressure Area is likely to form over northwest & adjoining westcentral BoB off north Andhra Pradesh – south Odisha coasts during the first half of Week 2.

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

The forecast issued on 05<sup>th</sup> August for week 2 (13.08.2021- 19.08.202) and the forecast issued on 12<sup>th</sup> August for week 1(13.08.2021- 19.08.2021) indicated no cyclogenesis over the north Indian Ocean. Hence no cyclogenesis could be predicted correctly two weeks in advance. The forecast issued on 12<sup>th</sup> August also indicated development of a low pressure area over westcentral & adjoining northwest BoB off north Andhra Pradesh & south Odisha coasts during later half of week 2 (i.e. during 16<sup>th</sup>-19<sup>th</sup> August). As predicted a low pressure area formed over westcentral & adjoining northwest BoB off north Andhra Pradesh & south Odisha coasts on 16<sup>th</sup> and it became less marked on 18<sup>th</sup> over north Odisha and adjoining areas.

**Next update: 26.08.2021**