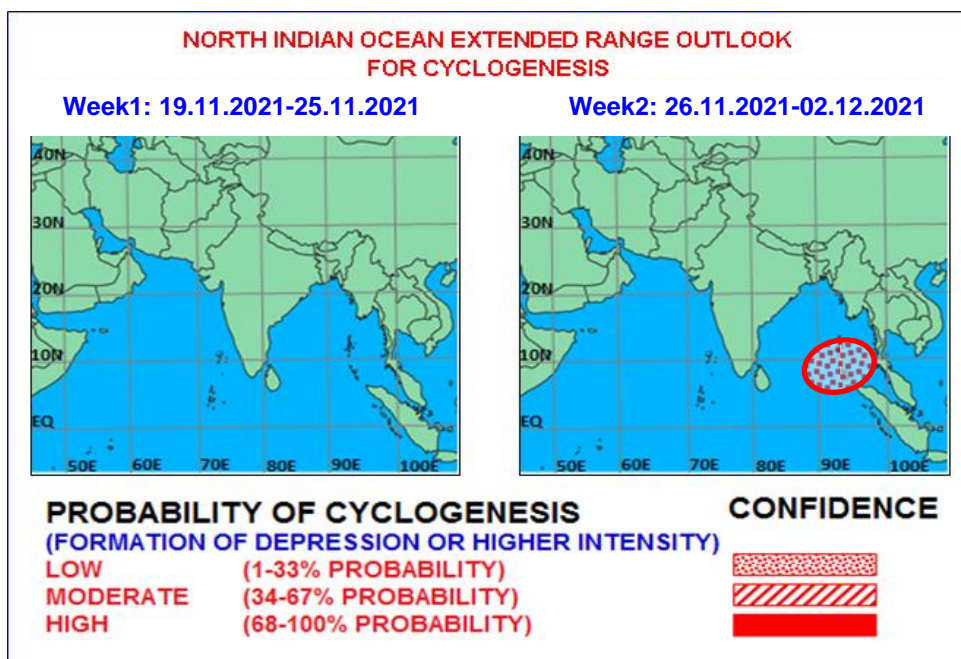




Issued on 18.11.2021



The Madden Julian Oscillation (MJO) index currently lies in Phase 4 with amplitude close to 1. It will continue in same phase till first half of week 2 with amplitude remaining less than 1. Thereafter, it will move eastwards and remain in phase 5 with amplitude less than 1 during rest of week 2. Thus, MJO phase is conducive for enhancement of convective activity and hence cyclogenesis over the Arabian Sea (AS) during week 1 and over the Bay of Bengal (BoB) during entire forecast period.

The low pressure area (LPA) that formed over south Andaman Sea & adjoining Thailand on 13<sup>th</sup> November moved west-northwestwards and intensified into a depression over southwest BoB on 18<sup>th</sup>. It is likely to move further west-northwestwards and cross North Tamil Nadu & adjoining south Andhra Pradesh coasts by 19<sup>th</sup> early morning (0000 UTC). Another LPA formed over east-central AS off Karnataka-Kerala coasts on 16<sup>th</sup> Nov. It moved slowly west-northwestwards and lay over east-central AS on 18<sup>th</sup> November. It is likely to move gradually west-southwestwards and become more marked during next 48 hours.

Most of the numerical models including IMD GFS, GEFS, NCUM, NEPS, ECMWF and ECMWF ensemble are indicating (1) the existing depression over southwest BoB would cross North Tamil Nadu & adjoining south Andhra Pradesh coast by 19<sup>th</sup> morning (0000 UTC), (2) the LPA over eastcentral AS would move west-southwestwards towards southwest AS by middle of week 1 and (3) a fresh LPA would form over equatorial Indian ocean & adjoining south Andaman Sea towards the later part of week 2 and its intensification into a higher category system (Depression or above) over southeast BoB & neighbourhood towards the end of week 2. IMD GPP index is indicating west-southwestwards movement of a Potential Genesis zone corresponding to the existing LPA over east-central AS till 21<sup>st</sup>.

In view of the above, (1) the existing depression over southwest BoB is likely to cross North Tamil Nadu & adjoining south Andhra Pradesh coast by 0000 UTC of 19<sup>th</sup> Nov., (2) the LPA over eastcentral AS would move west-southwestwards towards southwest AS with marginal intensification by middle of week 1 and (3) low probability is assigned for cyclogenesis (formation of a Depression) over southeast BoB towards the end of week 2.

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

The forecast issued on 4<sup>th</sup> November for week 2 (12.11.2021-18.11.2021) indicated no cyclogenesis over the region. The forecast issued on 11<sup>th</sup> November for week 1 (12.11.2021-18.11.2021) indicated (a) moderate probability of cyclogenesis over Andaman Sea and adjoining southeast BoB during first half of week 1 and (b) possibility of formation of a low pressure area (LPA) over east-central Arabian Sea from the remnant of depression over BoB during middle of week 1.

Actually, an LPA formed over South Andaman Sea & adjoining Thailand coast at 0300 UTC of 13<sup>th</sup> November. It intensified into a Well Marked Low Pressure Area at 0000 UTC of 18<sup>th</sup> November and into a Depression over southwest BoB at 0300 UTC of 18<sup>th</sup> November 2021. Another LPA formed over east-central AS off Karnataka Coast at 0000 UTC of 16<sup>th</sup> November 2021. It moved slightly west-northwestwards and lay over east-central AS today. Thus, the cyclogenesis over BoB could be predicted 1 week in advance and the formation of LPA over east-central Arabian Sea could be predicted one week in advance.

Next update: 25.11.2021