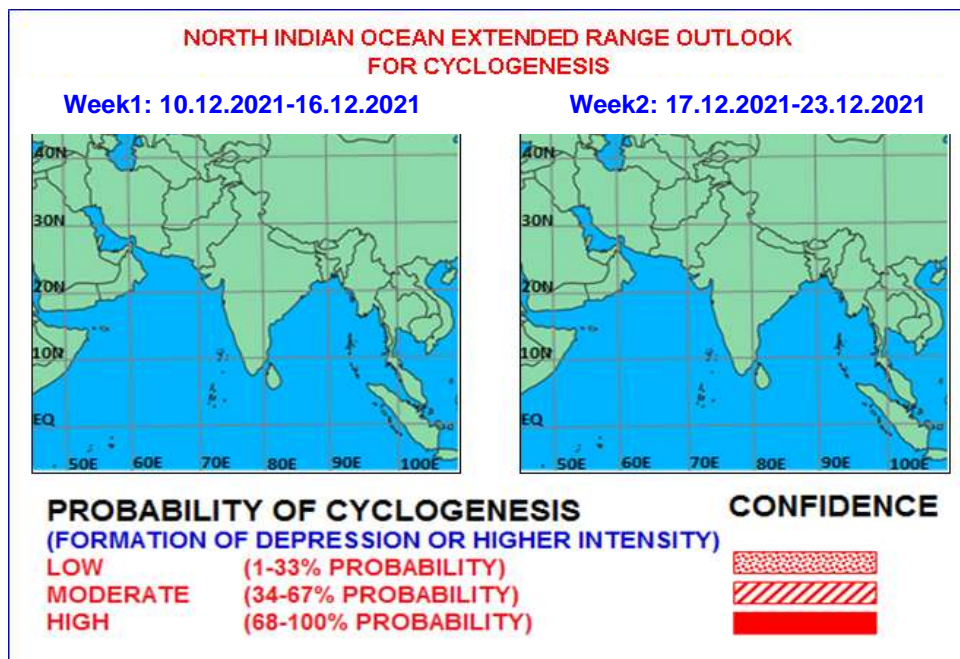




Issued on 09.12.2021



The Madden Julian Oscillation (MJO) index currently lies in Phase 6 with amplitude more than 1. It is likely to continue in Phase 6 during week 1 and enter phase 7 with amplitude remaining more than 1 during week 2. Thus, MJO phase is not conducive for enhancement of convective activity and hence cyclogenesis over the Bay of Bengal (BoB) and the Arabian Sea (AS) during entire forecast period.

Most of the models including IMD GFS, GEFS, NCEP GFS, NCUM, NEPS and ECMWF are not indicating any cyclogenesis over the north Indian Ocean (both Bay of Bengal & the Arabian Sea) during their respective forecast periods. IMD Genesis Potential Parameter (GPP) is also not indicating any potential zone for genesis over the BoB & AS during next 7 days. The extended range predictions by CFSV₂ as well as by the coupled NCUM are also do not suggest any fresh development over the region during next 2 weeks. However most of them indicate that the near equatorial trough could become convectively active over the eastern north Indian Ocean to the south of Lat. 5°N during 16th – 22nd December. In the same belt, NCEP GFS indicates a feeble Low Pressure Area forming over south Andaman Sea towards the later part of week 2 with gradual westward movement without any further intensification.

In view of the above, it may be concluded that no cyclogenesis (formation of Depression and above intensity systems) likely over the north Indian Ocean during next 2 weeks.

Verification of forecast issued during last two weeks:

The forecast issued on 25th November for week 2 (03.12.2021-09.12.2021) indicated that the depression over southeast BoB would intensify further and move northward/north-northeastwards towards central & adjoining north BoB during the first half of week-2. Accordingly 'moderate' probability was assigned for cyclogenesis over central parts of the BoB during the initial half of week 2. The forecast issued on 2nd December for week 1 (03.12.2021-09.12.2021) indicated the well marked low pressure area would intensify into a depression by 1200 UTC of 2nd December and further into a cyclonic storm on 3rd December. The system was forecast to reach west-central BoB off north Andhra Pradesh – south Odisha coasts around 4th December morning and re-curve north-northeastwards thereafter.

Actually, the Well Marked Low concentrated into a Depression in the same evening over southeast Bay of Bengal and moved north-northwestwards and intensified into a deep depression over

westcentral & adjoining south BoB in the morning (0530 hours IST/0000 UTC) and into the Cyclonic Storm "**JAWAD**" over westcentral BoB in the forenoon (1130 hours IST/0600 UTC) of 3rd December. It moved north-northeastwards till morning (0530 hours IST/0000 UTC) of 4th December. Thereafter, the system it recurved along the western periphery of the anticyclone over Myanmar region. It weakened into a deep depression over westcentral BoB at 1730 hours IST of 4th December, a depression over northwest BoB at 1730 hours IST/1200 UTC of 5th December and into a well marked low pressure area over northwest BoB and adjoining West Bengal & Bangladesh coasts in the morning (0530 hours IST/0000 UTC) 6th December, 2021.

Thus, the genesis, intensification and movement of system was correctly predicted about 7 days in advance.

Next update: 16.12.2021