India Meteorological Department
Ministry of Earth Sciences
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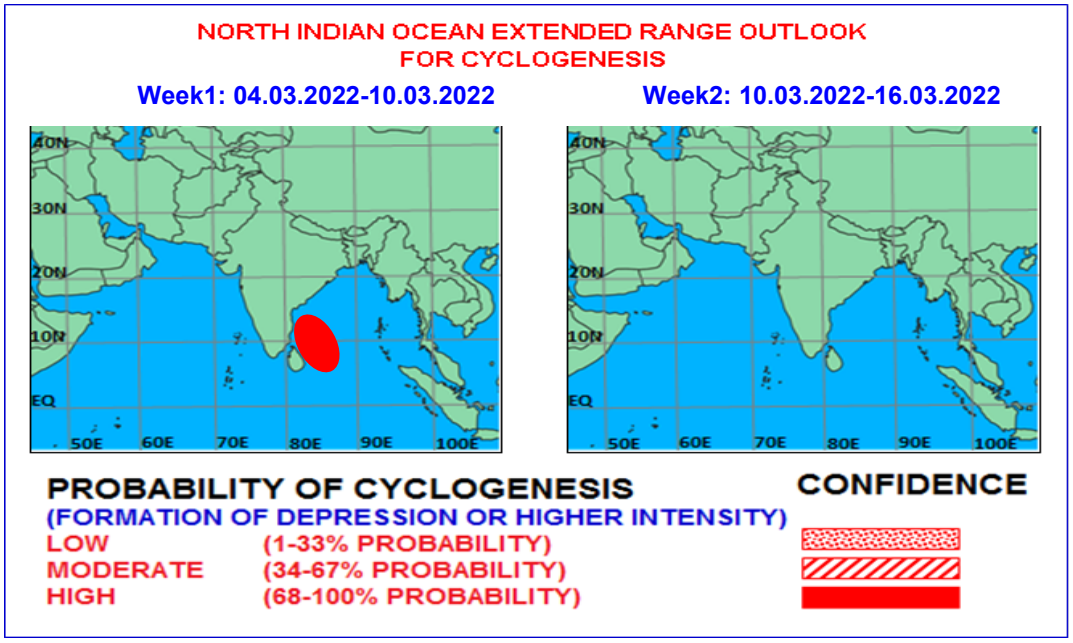
Issued on 03.03.2022



The Madden Julian Oscillation (MJO) Index currently lies in Phase 5 with amplitude less than 1 and will continue in same phase during week 1. Thereafter, it will propagate to phase 6 with amplitude remaining less than 1. MJO phase is thus favourable for enhancement of convective activity over Bay of Bengal (BoB) during week 1.

Based on CFS forecast, weak westerlies are likely to prevail over parts of eastcentral Arabian Sea during week 1. During week 2, strengthening of westerlies is predicted over eastcentral Arabian Sea and major parts of BoB. No other equatorial wave is likely over the North Indian Ocean (NIO) region during the entire forecast period. Considering the sea conditions, sea surface temperatures (SST) is around 28-29^{0}C over southern parts of NIO. The ocean heat content is more 60-80 KJ/cm^2 over south BoB and more than 100 KJ/cm^2 over southeast Arabian Sea. It is less than 50 KJ/cm^2 over remaining parts of NIO.

The pressure and wind fields of various models like IMD GFS, GEFS, ECMWF, NCEP GFS and IMD MME are indicating the current depression over southwest BoB to intensify marginally during next 24 hours and move northwestwards off east coast of Sri Lanka coast towards North Tamil Nadu coast during next 48 hours. Considering climatological guidance, 8 cyclonic disturbances developed over NIO with 2 over Arabian Sea and 6 over BoB during 1891-2020. Out of these 1 crossed north Tamil Nadu as a cyclonic storm & other crossed Sri Lanka as a severe cyclonic storm and 6 weakened over sea.

Hence to conclude, various broad scale features, sea conditions and model guidance indicate that the current depression over southwest BoB would intensify marginally during next 24 hours and move northwestwards off east coast of Sri Lanka towards North Tamil Nadu coast during next 48 hours.

Verification of forecast issued during last two weeks:

The forecast issued on 17th February for week 2 (25.02.2022-03.03.2022) and on 24th February for week 1 (25.02.2022-03.03.2022) indicated no cyclogenesis over the region during the forecast period. However, on 24th February, enhanced convective activity leading to formation of cyclonic

circulation or a low pressure area was predicted over south Andaman Sea and adjoining southeast Bay of Bengal around 28th February with westwards movement towards Sri Lanka during later half of the week. Actually, a low pressure area formed over southeast Bay of Bengal (BoB) and adjoining areas of south Andaman Sea & Equatorial Indian Ocean (EIO) on 28th and it concentrated into a depression over southwest & adjoining EIO on 3rd March. Hence, formation of low pressure area and enhanced convective activity over south Andaman Sea was well predicted one week in advance (Fig.1).

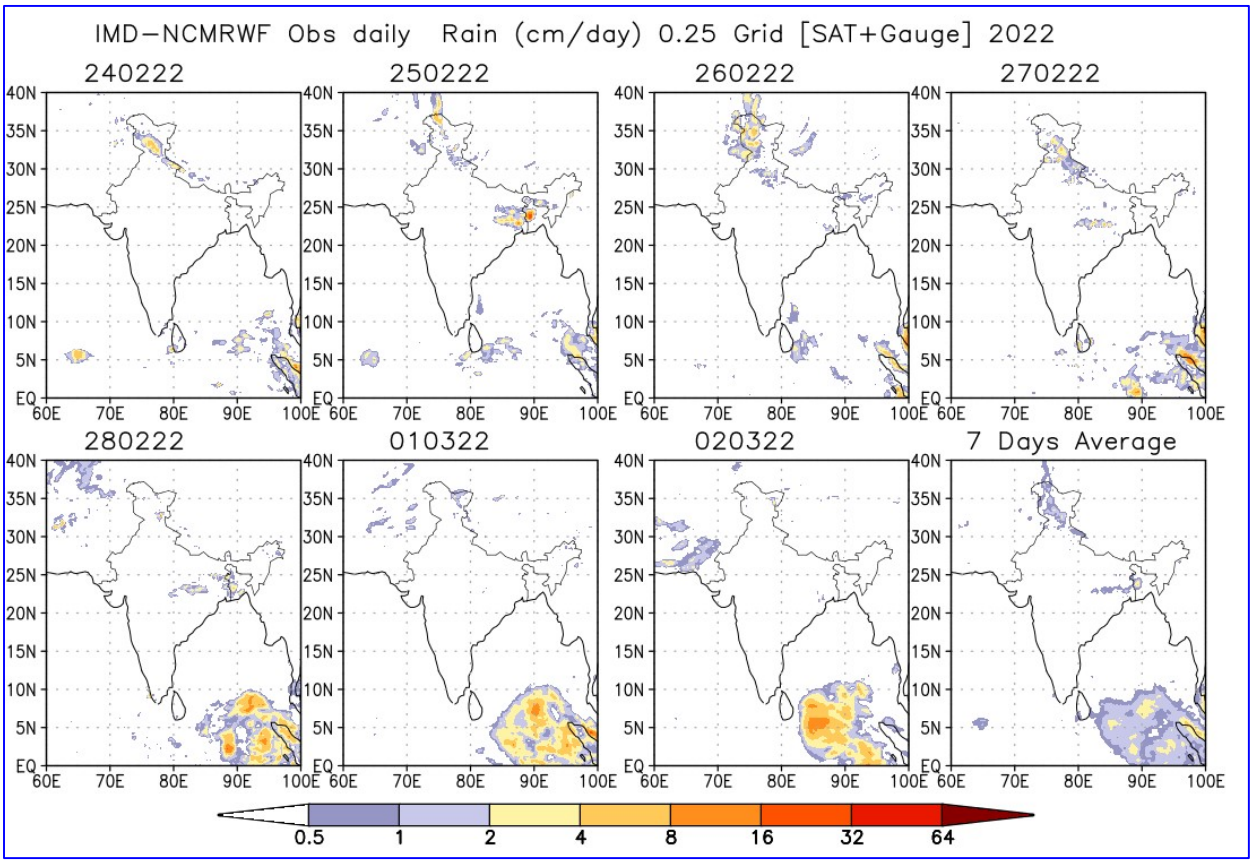


Fig. 1: IMD-NCMRWF merged satellite rain gauge plots during 25th February to 3rd March, 2022

Next update: 10.03.2022