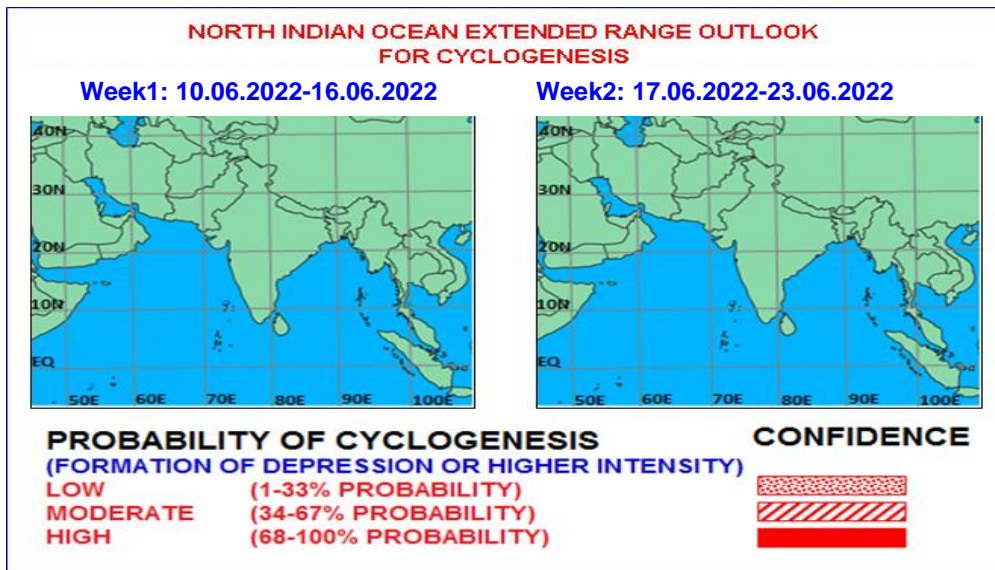




Issued on 09.06.2022



The Madden Julian Oscillation Index (MJO) currently lies in phase 1 with amplitude close to 1. It would continue in same phase with decreasing amplitude during remaining part of the forecast period. Hence, MJO will not support cyclogenesis over the North Indian Ocean (NIO) including the Bay of Bengal (BoB) and the Arabian Sea (AS) during the entire forecast period.

Based on CFS forecast, during first half of week 1, weak easterly winds (1-3 mps) over central BoB, weak westerly winds (1-3 mps) over southeast BoB and Equatorial Rossby Waves (ERW) over south BoB are likely to prevail. During later part of week 1, stronger westerly winds (3-5 mps) with ERW over central AS and increased areal expansion of easterly winds (1-3 mps) with ERW over south BoB are likely to prevail. Thus, equatorial waves are not likely to contribute towards cyclogenesis over the NIO region during week 1. However, the equatorial waves would favour gradual revival of monsoonal flow over south and central AS during week 1. During week 2, stronger westerly winds (5-7 mps) alongwith Kelvin Waves (KW) are likely to prevail over the south AS and weak westerly winds (1-3 mps) are likely over south BoB. Almost similar trends would continue during later part of week 2. Thus, even during week 2, equatorial waves are not likely to contribute towards cyclogenesis over the NIO region. However, monsoonal flow over south and central AS will be strengthened.

The sea surface temperature (SST) is around 30-31^oC over entire BoB with higher values over eastcentral & adjoining northeastern parts of BoB. Over the AS, the SST is 31-32^oC over central parts of AS and adjoining south AS. The ocean heat content (OHC) is >100 KJ/cm² over eastcentral & south BoB. Over the AS, OHC is >100 KJ/cm² over eastcentral.

The guidance from various deterministic & ensemble numerical models including IMD GFS, NCEP GFS, ECMWF, NCUM, NEPS, GEFS and IMD MME CFS (V2) etc. indicate no cyclogenesis over the region during next 2 weeks.

Hence, considering the model guidance and environmental features, no cyclogenesis is likely over the region during next two weeks.

Verification of forecast issued during last two weeks:

The forecast issued on 26th May for week 2 (03.06.2022-09.06.2022) indicated no probability of cyclogenesis over the NIO region during week 2. The forecast issued on 2nd June for week 1 (03.06.2022-09.06.2022) also indicated no probability of cyclogenesis over the region during week 1. Hence non occurrence of cyclogenesis was correctly predicted 2 weeks in advance.

The realised rainfall during 2nd June, 2022 to 8th June 2022 from satellite-gauge merged data is presented in Fig.1.

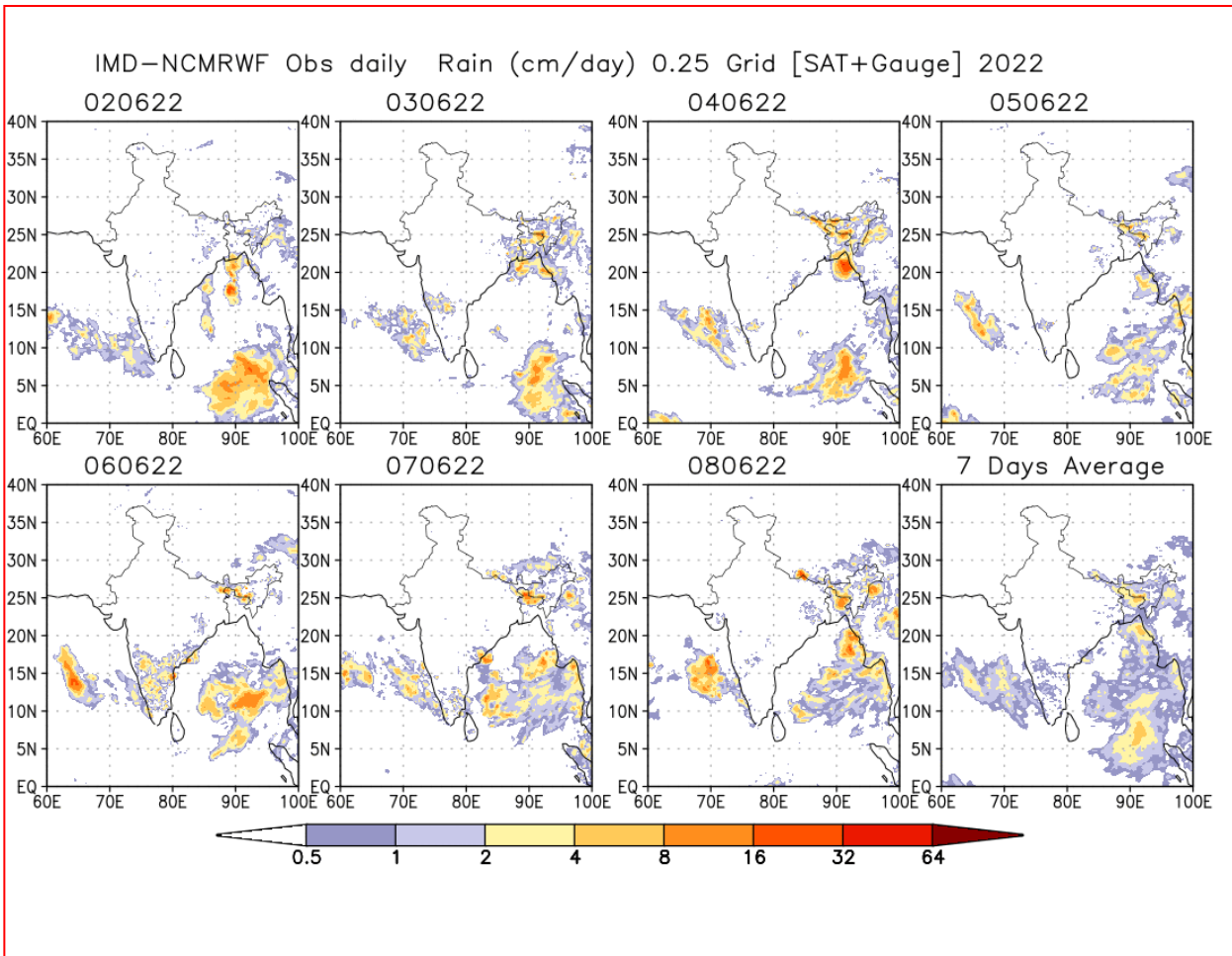


Fig.1: Rain gauge and satellite merged rainfall plots during 2nd June, 2022 to 8th June 2022

Next update: 16.06.2022