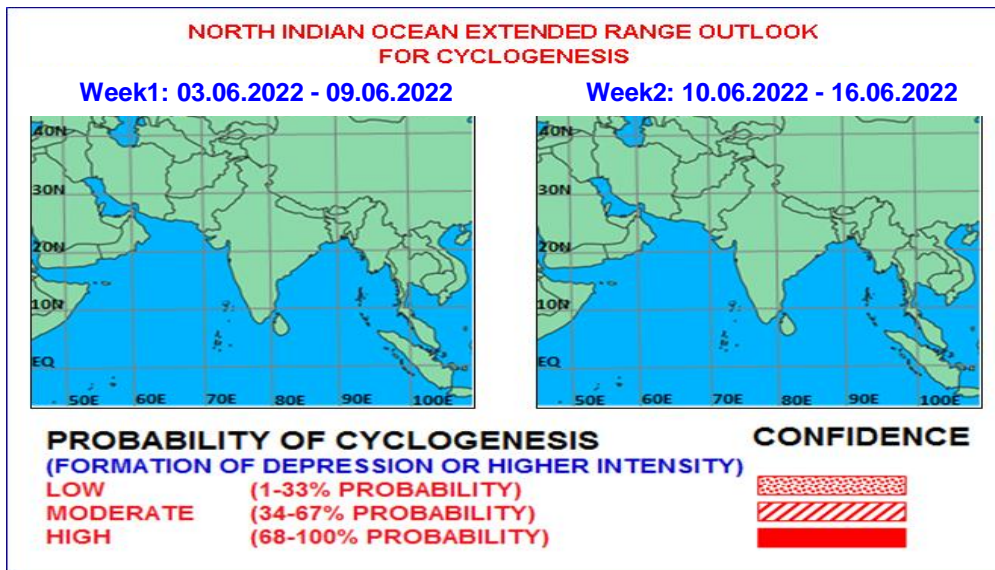




Issued on 02.06.2022



The Madden Julian Oscillation Index (MJO) currently lies in phase 7 with amplitude more than 1. It would move to phase 8 with amplitude remaining more than 1 from 3rd June and would continue in same phase during remaining part of the forecast period. Hence, MJO will not support any convective activity 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, westerly winds (5-7 mps) with Kelvin waves (KW) are likely to prevail over south BoB, intervening Southern Peninsular region of India and adjoining southeast AS. In addition, Equatorial Rossby Waves (ERW) are also likely to prevail over southwest BoB, intervening southern Peninsular region and adjoining southeast AS. During later part of week 1, decreased westerly winds (1-3 mps) over the south BoB & AS with eastwards moving KW over eastcentral BoB & Gulf of Thailand and westwards moving ERW over eastcentral AS would prevail. Thus, during later part of week 1, the equatorial waves will not support enhancement of monsoonal flow over the NIO region. Similar trends are likely to continue during first half of week 2. However, during later part of week 2, strengthening of westerly winds (3-5 mps) alongwith emergence of ERW is likely over southeast AS and adjoining southwest BoB. Thus, equatorial waves would contribute towards strengthening of southwest monsoonal flow over south BoB during beginning of week 1 and later part of week 2.

Considering the sea conditions, sea surface temperature (SST) is around 30-31^oC over eastern parts of BoB with higher values over Gulf of Martaban and also over southwest BoB off Sri Lanka-Tamil Nadu coasts. SST is comparatively less 28-30^oC over remaining parts of BoB. Over the AS, the SST is higher 30-31^oC over central parts of AS & adjoining south AS and also along & off adjoining west coast of India. The ocean heat content (OHC) is >100 KJ/cm² over major parts of BoB except over small regions over southwest BoB and along & off east coast of India. Over the AS, OHC is >100 KJ/cm² over eastcentral and adjoining south AS and less over remaining parts of AS.

Considering the model guidance, most of the models including IMD GFS, NCEP GFS, ECMWF, NCUM, NEPS, GEFS and IMD MME CFS (V2) etc. are indicating no cyclogenesis over the region.

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 19th May for week 2 (27.05.2022-02.06.2022) indicated no cyclogenesis over the NIO region. The forecast issued on 26th May for week 1 (27.05.2022-02.06.2022) indicated no cyclogenesis over the NIO region. Hence non occurrence of cyclogenesis was correctly predicted 2 weeks in advance. The realised rainfall during 26th May to 1st June, 2022 from satellite-gauge merged data is presented in Fig.1.

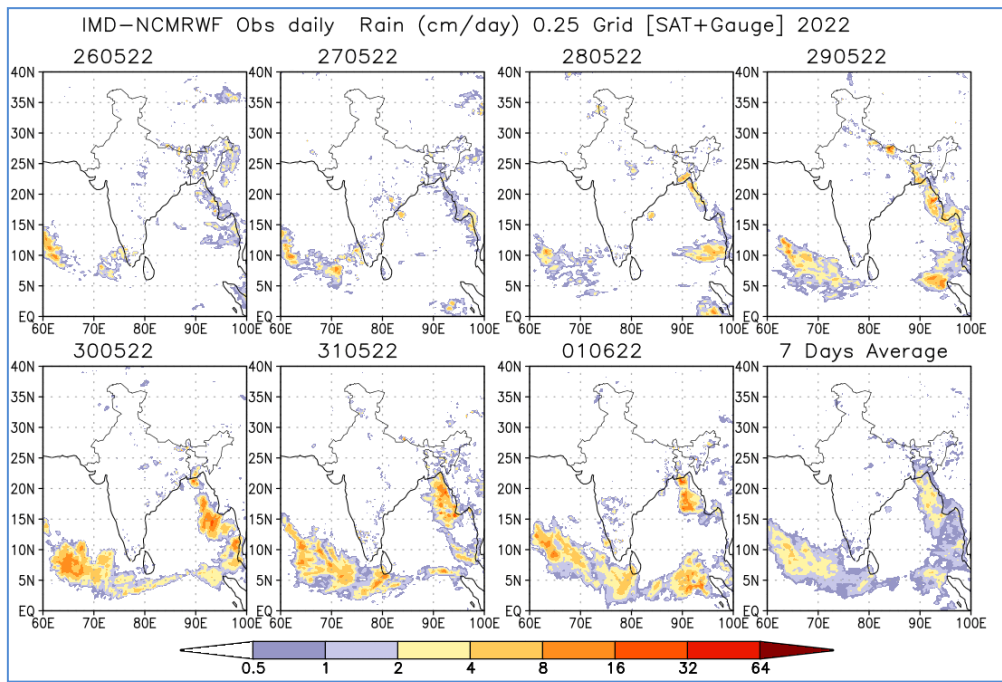


Fig.1: Rain gauge and satellite merged rainfall plots during 26th May to 01st June, 2022

Next update: 09.06.2022