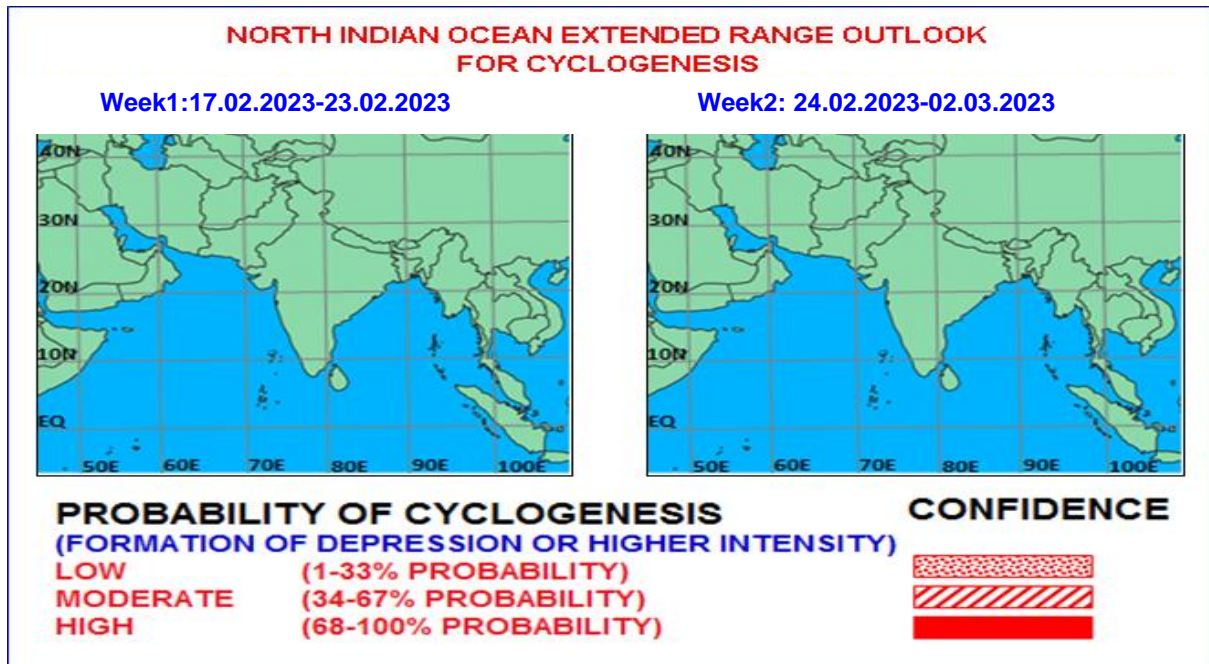




Issued on 16.02.2023



I. Environmental features:

The Madden Julian Oscillation (MJO) Index is currently in Phase 7 with amplitude close to 1. It will move across phases 7, 8 and 1 during week 1 with amplitude becoming negligibly small. Thereafter, it will move eastwards across phases 2,3, 4,5,6 with amplitude remaining negligibly small during week 2. Thus, MJO will support enhancement of convective activity over the Bay of Bengal (BoB) during first half of week 2 only.

During week 1, weak easterly winds (1-3 mps) over south BoB and central Arabian Sea (AS) are likely to prevail. During week 2, weak easterly winds (1-3 mps) over BoB and southeast AS are likely. As such equatorial waves are not likely to contribute towards enhancement of convective activity over the region.

II. Model Guidance:

Various deterministic models (IMD GFS, NCUM, ECMWF, NCEP GFS) and ensemble models (NEPS, GEFS, ECMM) are indicating no cyclogenesis over the region during next two weeks. Extended range models including Coupled NCMRWF Unified Model (CNCUM), IMD Coupled Forecast System Version 2 (IMD CFS V2) and IMD genesis potential parameter (GPP) are also not indicating any cyclogenesis over the region during the forecast period.

(Legends: IMD GFS: India Meteorological Department Global Forecast System, NCUM: National Centre for Medium Range Weather Forecasting Centre Unified Model, European Centre for Medium Range Weather Forecasting, National Centre for Environment Prediction GFS, ECMM: ECMWF ensemble)

III. Inference:

Considering the model guidance and various environmental features, it is inferred that no cyclogenesis is likely over the NIO region during next 2 weeks.

IV. Verification of forecast issued during last two weeks:

The forecast issued on 2nd February, 2023 for week 2 (10.02.2023 – 16.02.2023) indicated no cyclogenesis over the North Indian Ocean. The forecast issued on 9th February, 2023 for week 1 (10.02.2023 – 16.02.2023) indicated no cyclogenesis over the North Indian Ocean. Hence, nil cyclogenesis was correctly predicted in two weeks forecast.

The realized rainfall during 8th Feb, 2023 – 14th Feb, 2023 from satellite-gauge merged data is presented in Fig.1

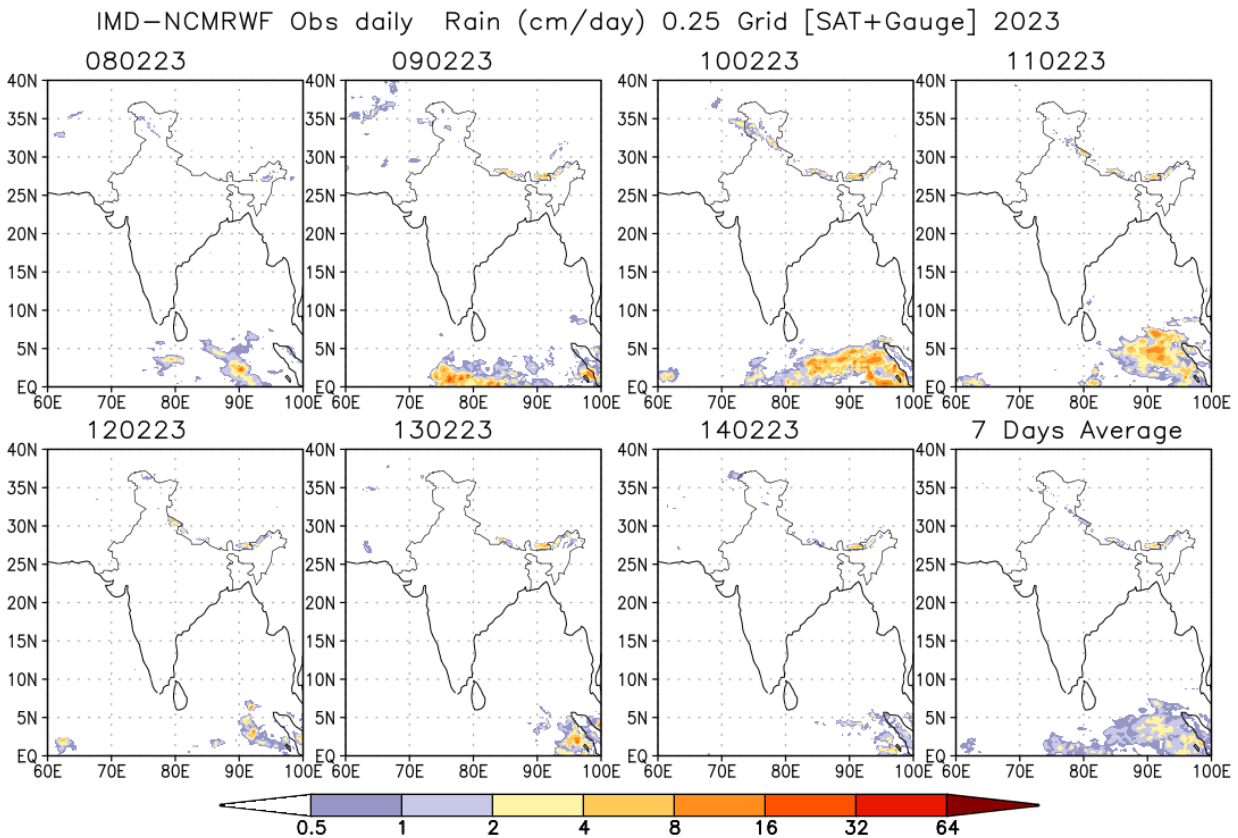


Fig.1: Rain gauge and satellite merged rainfall plots during 8th Feb, 2023 – 14th Feb, 2023

Next update: 23.02.2023