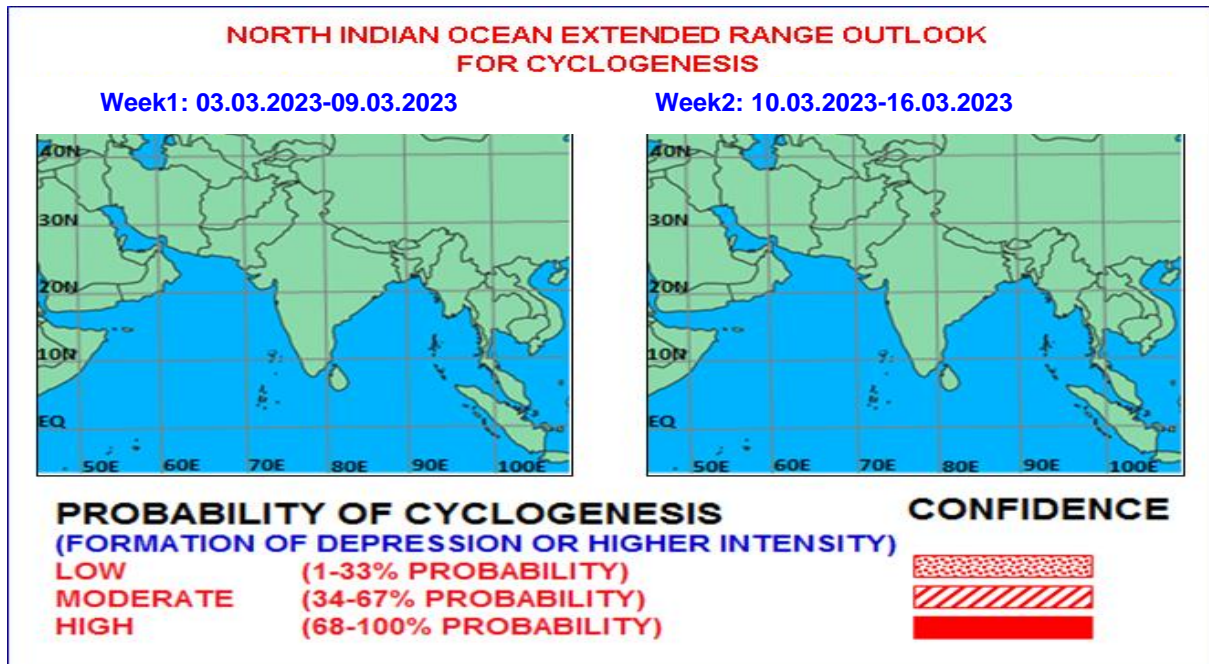




Issued on 02.03.2023



### I. Environmental features:

The Madden Julian Oscillation (MJO) Index is currently in Phase 7 with amplitude more than 1. It will move across phases 7 and 8 with increased amplitude during entire forecast period. Hence, MJO would not support any convective activity over the region.

During week 1 and 2, very strong westerly winds are indicated over the East Equatorial Indian Ocean. Over the Bay of Bengal (BoB) and Arabian Sea (AS) no significant equatorial waves are likely during the entire forecast period. Thus, equatorial waves are not likely to contribute towards enhancement of convective activity over the region.

### II. Model Guidance:

Various models including IMD GFS, NCUM, ECMWF, ECMM, NEPS, GEFS and GPP are not indicating any cyclogenesis over the region during next 7-10 days,

Extended range model viz. Coupled NCMRWF Unified Model (CNCUM) and IMD's Coupled Forecast System Version 2 (IMD CFS V2) are also not indicating development of any cyclonic disturbance over the region during next 2 weeks.

(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 multi model, GEFS: GFS ensemble, NEPS: NCUM ensemble prediction system)

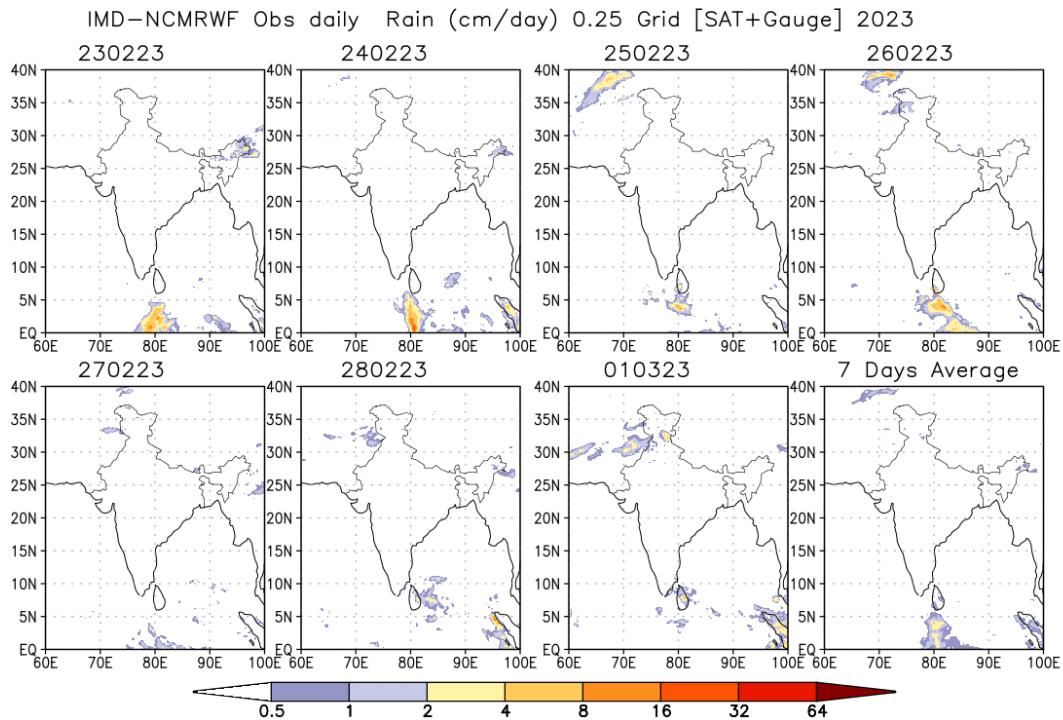
### III. Inference:

Considering the environmental features and model guidance, it is inferred that no cyclogenesis (formation of depression) is likely over the North Indian Ocean region during next 2 weeks.

**IV. Verification of forecast issued during last two weeks:**

The forecast issued on 16<sup>th</sup> February, 2023 for week 2 (24.02.2023 – 02.03.2023) indicated no cyclogenesis over the North Indian Ocean. The forecast issued on 23<sup>rd</sup> February, 2023 for week 1 (24.02.2023 – 02.03.2023) indicated no cyclogenesis over the North Indian Ocean. Hence, nil cyclogenesis was correctly predicted in two weeks forecast.

The realized rainfall during 23<sup>rd</sup> Feb, 2023 – 1<sup>st</sup> March, 2023 from satellite-gauge merged data is presented in Fig.1



**Fig.1: Rain gauge and satellite merged rainfall plots during 23<sup>rd</sup> Feb, 2023 – 1<sup>st</sup> March, 2023**

**Next update: 09.03.2023**