India Meteorological Department
Ministry of Earth Sciences
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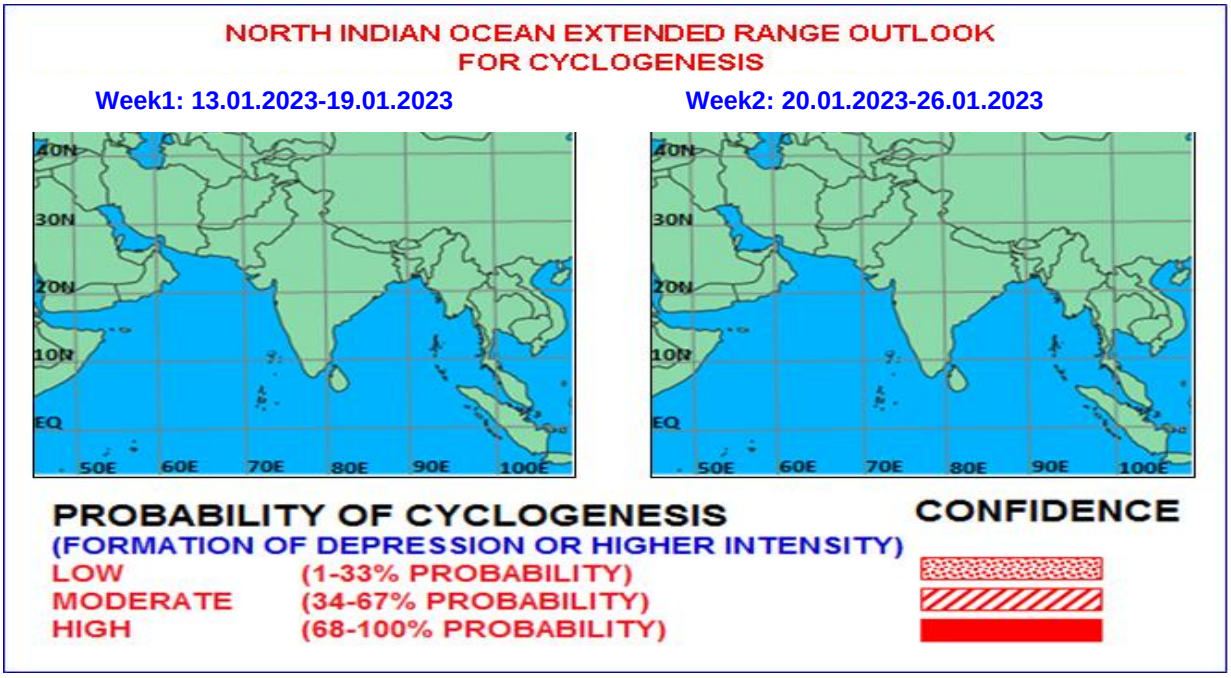

I. Environmental features:

The Madden Julian Oscillation (MJO) Index is currently in Phase 8 with amplitude more than 1. It will continue in same phase during first half of week 1 and move to phase1 during later half of week 1 with same amplitude. Thereafter, it would move to phase 2 and 3 with amplitude more than 1. Thus, MJO will not support enhancement of convective activity over the North Indian Ocean (NIO) during week 1.

II. Model Guidance:

- Based on the guidance from various deterministic models (GFS group, NCUM group, ECMWF, IMD MME) no cyclogenesis is likely over the NIO region during the forecast period.
- Ensemble systems including IMD GEFS, NCMRWF NEPS and genesis potential parameter plots do not indicate any cyclogenesis over the NIO region during the forecast period.
- NCMRWF Coupled Extended Range Model (CNCUM) and IMD MME Coupled Forecast System (MME CFS V-2) Version 2 do not indicate any cyclogenesis over the NIO region during the forecast period.

III. Inference:

Considering the model guidance and various environmental features, it is inferred that no cyclogenesis is likely over the North Indian Ocean during the entire forecast period extending between 13th and 26th January, 2023.

IV. Verification of forecast issued during last two weeks:

The forecast issued on 29th December, 2022 for week 2 (06.01.2023– 12.01.2023) indicated no cyclogenesis over the region. The forecast issued on 5th January, 2023 for week 1 (06.01.2023– 12.01.2023) indicated no cyclogenesis over the region. No cyclogenesis occurred over the region during the period.
Hence, no cyclogenesis was correctly predicted in two weeks forecast.

The realized rainfall during 5th Jan, 2023 – 11th Jan, 2023 from satellite-gauge merged data is presented in Fig.1

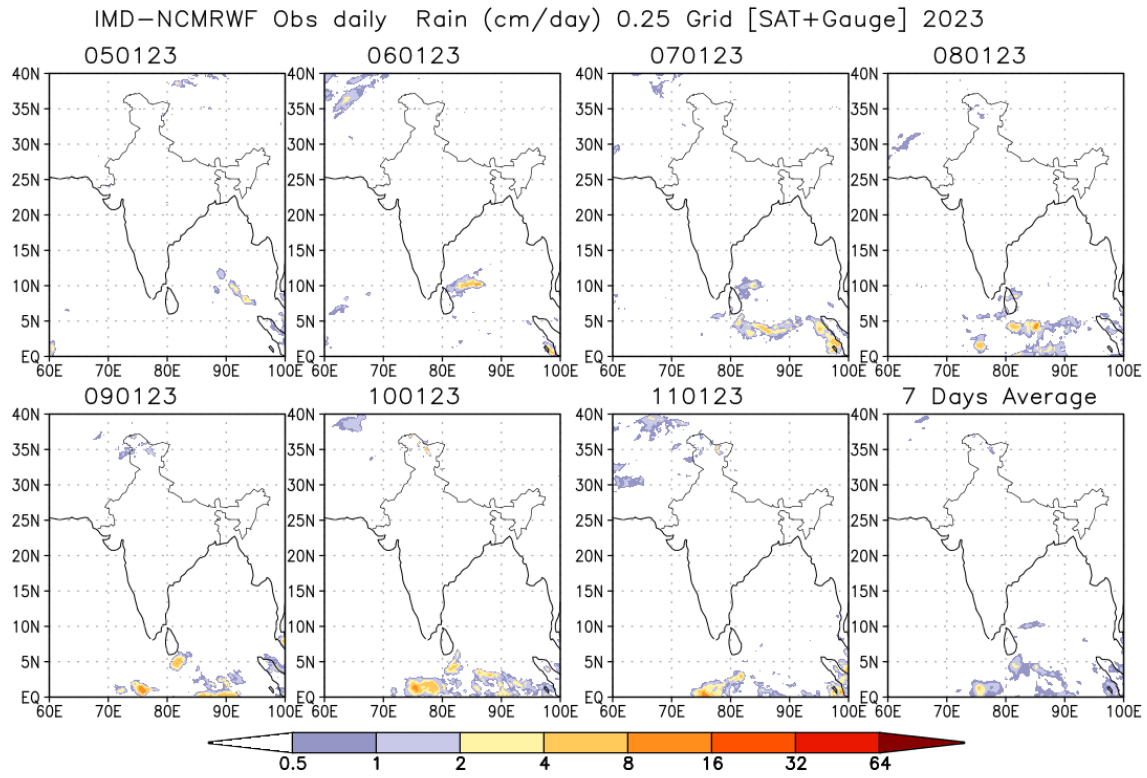

Fig.1: Rain gauge and satellite merged rainfall plots during 5th Jan, 2023 – 11th Jan, 2023

Next update: 19.01.2023