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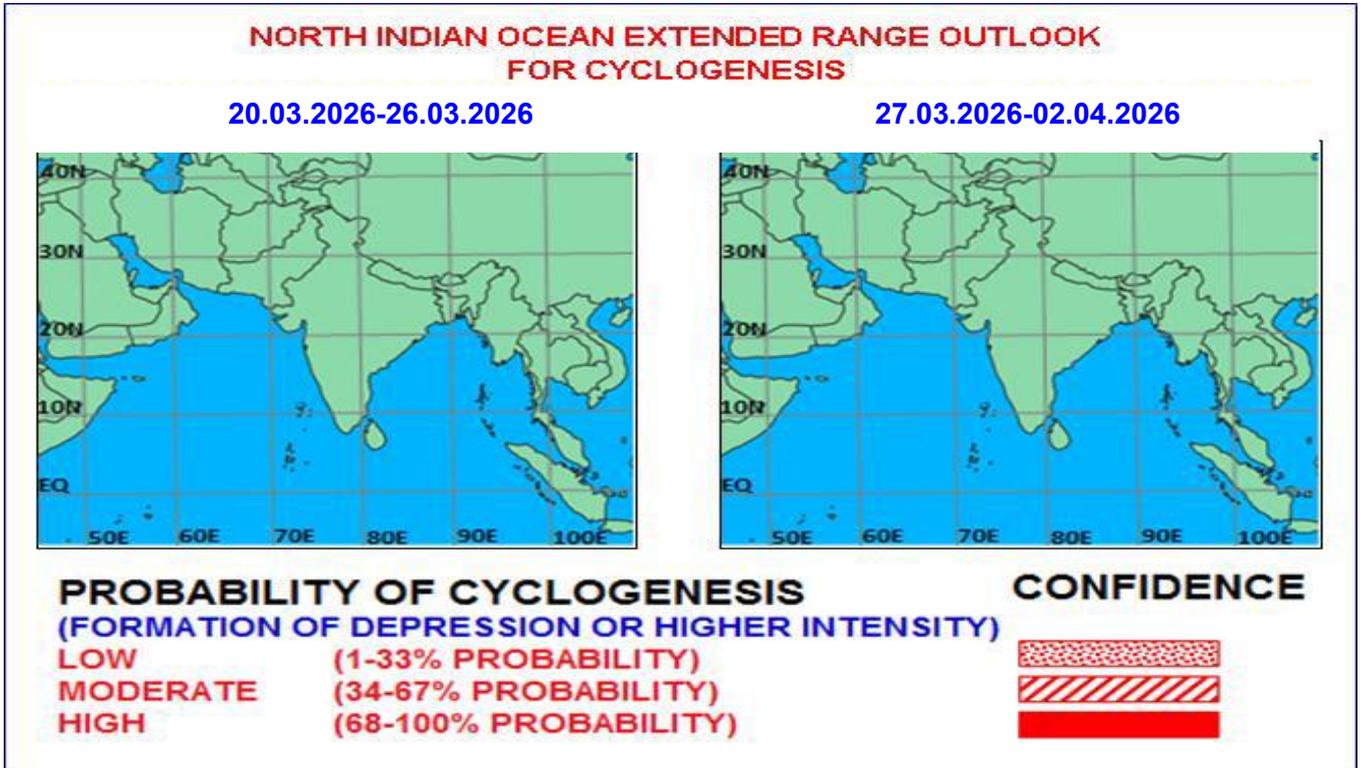


Fig. 1: Graphical Cyclogenesis over the north Indian Ocean during the next two weeks

I. Environmental features and Equatorial waves:

The guidance from various models indicates that the Madden-Julian Oscillation (MJO) index is currently in phase 8 with amplitude close to 1. As per the model consensus, the MJO is not likely to move further eastward but portray looping movement within phase 8 (back to phase 7 by a few models) with slight weakening in the amplitude during week 1 and first half of the second week. However, a few models predict slight faster eastward movement of the MJO to enter into phase 1 during the second half of the week 2. Thus, the MJO is not favorable for the cyclogenesis over the entire North Indian Ocean (NIO) region including both Bay of Bengal (BoB) and Arabian Sea (AS) during the entire forecast period.

The guidance from the NCICS model indicates easterly wind anomaly (3-5 mps) over the south BoB, and southeast AS along with prevalence of weak westerly wind anomaly (1-3mps) over central BoB during the first half of the week 1. During the same period central parts of AS is also likely to experience easterly wind anomaly (1-3 mps) along with eastward moving Kelvin wave. Thereafter, the easterly wind anomaly is likely to prevail over the entire NIO as westerly anomaly gradually disappears from the region. Thus, the zonal wind anomaly characteristics and Equatorial waves are not likely to contribute to enhancement of any convective activity and cyclogenesis over the BoB and AS during next two weeks.

II. Model Guidance:

(a) Guidance for Extended Range models:

The 850 hPa mean wind field forecast of IMD Extended Range model (MME-CFSV2) is indicating prevalence of easterly wind over south & central parts of BoB during week 1 with a development of anticyclonic circulation over south & adjoining central parts of BoB during week 2. The corresponding anomaly field is indicating an anomalous weak cyclonic circulation over northwest BoB during week 1

which is likely to become less marked during week 2. The upper-air anticyclonic circulation is likely to prevail over northern parts of AS during week 1 and over central AS during week 2. The wind anomaly field indicates, southerly is likely to prevail over most parts of the AS during week 1. However, the westerly wind anomaly is likely to prevail over entire AS with a feeble north-south trough across the north & central AS.

Precipitation field is indicating below normal rainfall activity over south BoB and southeast during week 1. During week 2, below normal rainfall activity is indicated over south BoB, Andaman Sea and adjoining eastcentral BoB. The model also indicates above normal rainfall activity over north and adjoining westcentral BoB during week 2. The IMD WRF model does not indicate any zone of cyclogenesis with significant probability over NIO. Similar features are indicated by the NCMRWF ERF model.

The ECMWF ERF model (ensemble and sub-seasonal) forecast is also not indicating any probable zone for cyclogenesis during the entire forecast period.

(b) Guidance from Medium-Range NWP models:

Most of the NWP models (IMD-GFS, GFS, ECMWF, NCUM and NCMRWF) are not indicating any prominent upper-air cyclonic circulation/ low pressure systems over the NIO region during the entire forecast period. The model are indicating an anticyclonic circulation over the central parts of north BoB during the week 1 which is likely to shift towards the central parts of BoB in the week 2. This would lead to below-normal rainfall activity without any significant convections over the BoB and adjoining AS during both week 1 and 2. The models also indicate another anti-cyclonic circulation over the eastcentral Arabian Sea during week 1, which is likely to gradually move westwards over the central AS during week 2. Therefore, no significant weather is expected over Arabian Sea as well during the entire forecast period.

The AI models (Pangu, GraphCast and FourCastNet) of NCMRWF are also not indicating any significant weather systems over BoB and AS except the prevalence of seasonal anticyclonic circulations over both the sub-basins. The EC-AIFS and NCEP GFSAI models are not predicting any cyclogenesis over the entire NIO during the forecast period.

III. Inference:

Considering various large-scale environmental features, climatology and model guidance, it is inferred that there is no probability of cyclogenesis over the North Indian Ocean during the entire forecast period.

IV. Verification of forecast issued during the previous two weeks:

Forecast issued

The extended range outlook issued on 5th March for week 2 (13.03.2026-19.03.2026) indicated no probability of cyclogenesis over the North Indian Ocean during week 2.

The extended range outlook issued on 12th March for week 1 (13.03.2026-19.03.2026) indicated no probability of cyclogenesis over the North Indian Ocean during the entire forecast period.

Realised Weather

Actually, an upper air cyclonic circulation lay over the Comorin area and neighbourhood, extending over Lakshadweep and adjoining Comorin region at 0.9 km above mean sea level, formed at 0300 UTC of 12th March 2026 and became less marked at 0300 UTC of 14th March 2026. Another fresh upper air cyclonic circulation developed over the Gulf of Mannar and neighbourhood at 0000 UTC of 13th March 2026 and became less marked at 0300 UTC of 14th March 2026. Another upper air cyclonic circulation formed over Lakshadweep and adjoining Comorin area at 0.9 km above mean sea level at 0300 UTC of 13th March 2026 and became less marked at 0300 UTC of 14th March 2026. Further, an upper air cyclonic circulation formed over the southeast Arabian Sea along and off Lakshadweep area between 3.1 and 5.8 km above mean sea level at 0000 UTC of 15th March 2026 and became less marked at 0000 UTC of 16th March 2026. Thus, the non-occurrence of cyclogenesis was correctly predicted two weeks in advance.

NCMRWF-IMD satellite gauge merged data plots of 24-hour accumulated rainfall from 12th – 18th March, 2026 is presented in **Fig. 2**.

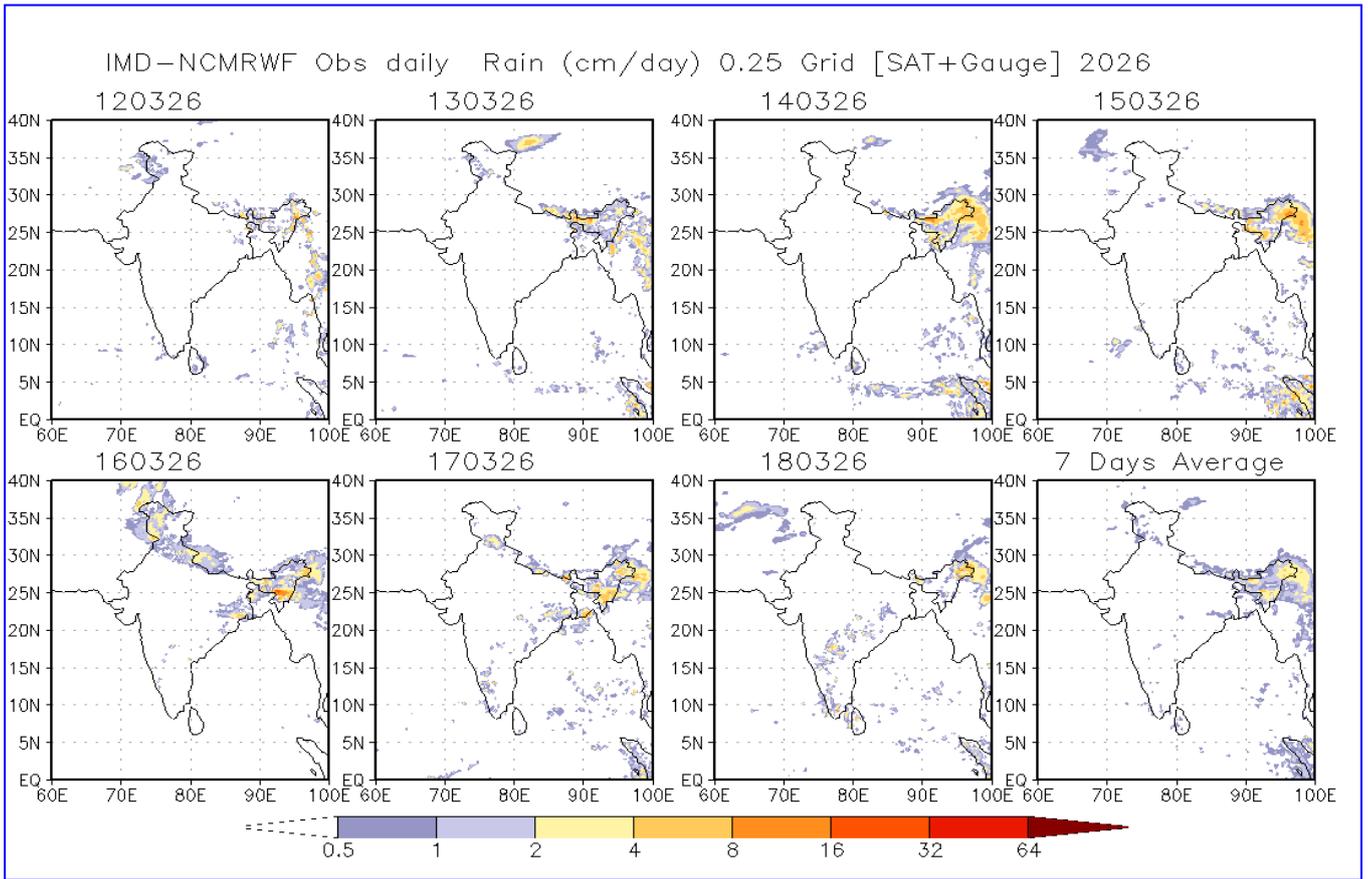


Fig. 2: NCMRWF-IMD satellite gauge merged data plots of 24-hour accumulated rainfall from 12th - 18th March, 2026

Legends: MJO: Madden Julian Oscillation, ERW: Equatorial Rossby Waves, KW: Kelvin Waves, NCICS: North Carolina Institute for Climate Studies (for Equatorial waves Forecast), IMD GFS: India Meteorological Department Global Forecast System, NCUM: National Centre for Medium-Range Weather Forecasting Centre (NCMRWF) Unified Model, ECMWF: European Centre for Medium-Range Weather Forecasting, BOMM: Bureau of Meteorology, Australia, EC-AIFS: ECMWF Artificial Intelligence Forecasting System, ECMM: ECMWF-Ensemble System Bias Corrected, BFS: Bharat Forecast System, GPP: Genesis Potential Parameter, NCEP GFS/GEFS/CFS: National Centre for Environment Prediction GFS/GEFSv12/CFSv2, CPC: Climate Prediction Center (for MJO update), IMD-GEFS: GFS ensemble forecast system of IMD, NEPS: NCUM ensemble prediction system, CNCUM: Coupled NCUM, CPC: Climate Prediction Centre, NWS: National Weather Service, INCOIS: Indian National Centre for Ocean Information Services.

Next update: 26.03.2026