India Meteorological Department
Ministry of Earth Sciences
Mausam Bhawan, Lodhi Road, New Delhi-110003

Issued on 05.03.2026

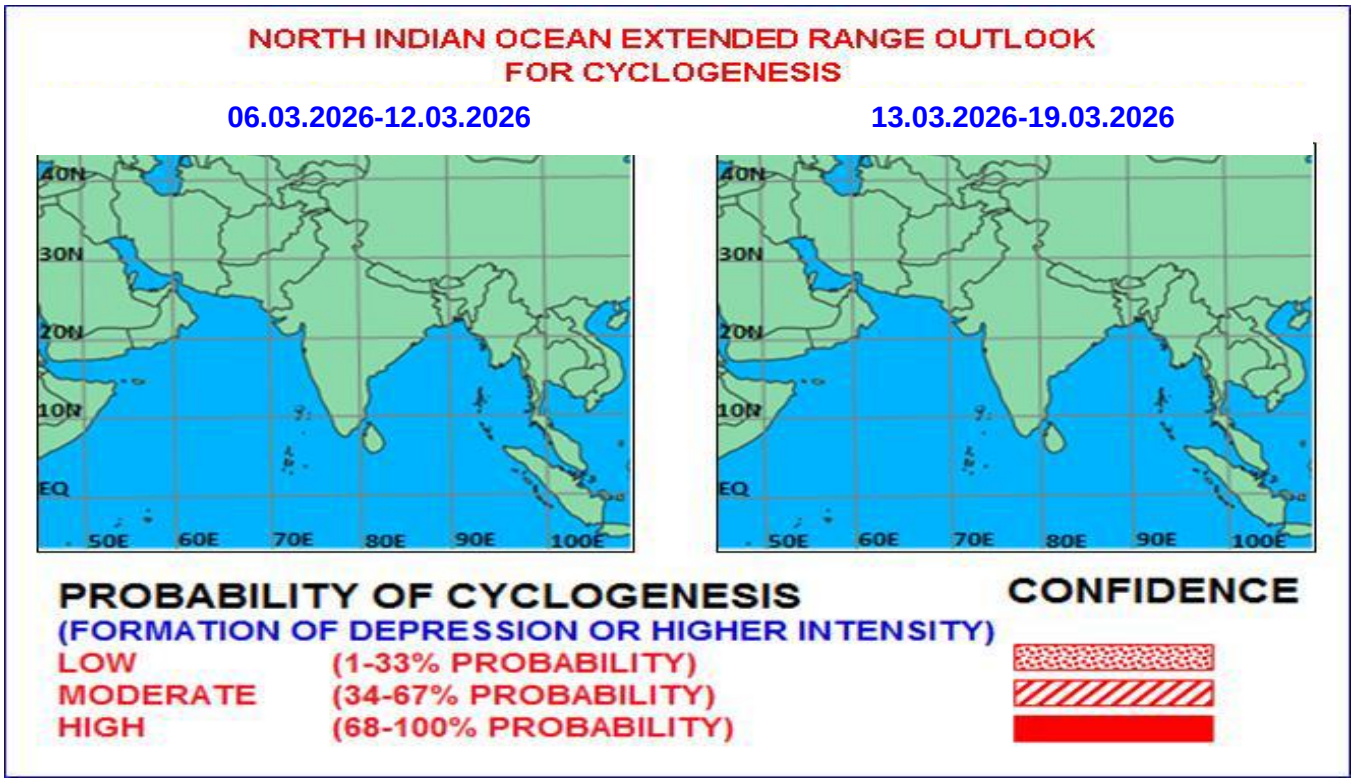

Fig. 1: Graphical Cyclogenesis over the north Indian Ocean during the next two weeks

I. Environmental features and Equatorial waves:

The guidance from various models indicates that the Madden-Julian Oscillation (MJO) index is currently in phase 6 with amplitude close to 1. It is predicted move eastwards in the same phase till the middle of the first week before it enters phase 7 without much variation in amplitude. Thereafter, it is likely to continue to propagate eastwards within phase 7 during the later part of week 1, enter phase 8 in the first half of week 2 and remain in the same phase till the end of week 2. Thus, the MJO is not likely to support the enhancement of convective activity over the Bay of Bengal (BoB) and Arabian Sea (AS) during the entire forecast period.

The guidance from the NCICS model indicates westerly wind anomaly (7-9 mps) over north Equatorial Indian Ocean (EIO) and adjoining (1-3 mps) south BoB & south Andaman Sea, along with the prevalence of MJO and low-frequency background wave (LW) over the same region in the beginning of week 1. At the same time, the equatorial Rossby wave (ERW) is likely to be seen over the Gujarat region and the northern parts of the North AS. The model is also indicating a weak easterly wind anomaly (1-3 mps) over north and adjoining central BoB, central & peninsular India and northeast and central AS during the same period, which is likely to be replaced by a weak westerly wind anomaly thereafter. The westerly wind anomaly over EIO and adjoining south BoB is likely to weaken gradually without any MJO and ERW from the latter part of week 1 till the end of the forecasting period, while a weak easterly wind anomaly (1-3 mps) is likely to appear over the region. Therefore, except at the beginning of week1, the zonal wind characteristics and equatorial wave activities are not likely to contribute to the convective activities over both BoB and AS.

II. Model Guidance:

(a) Guidance for Extended Range models:

The 850 hPa mean wind field forecast of IMD Extended Range model (MME-CFSV2) indicates an east-west trough along 5°N latitude across the south BoB and adjoining EIO with an embedded feeble cyclonic circulation over the southwest BoB during week 1. The easterly winds at 850 hPa are likely to prevail over central and south BoB and AS during week 1. The corresponding wind anomaly field of week 1 forecast indicates an upper-air cyclonic circulation over coastal Odisha and adjoining northwest BoB. The model predicts that the east-west trough at 850 hPa across the south BoB and adjoining EIO is likely to persist during week 2. The week 2 forecast shows one anticyclone over the eastcentral BoB and another over the central parts of AS. The wind anomaly field at 850 hPa in the week 2 forecast of the model indicates one anticyclone over the central parts of the South BoB and neighbourhood and another over coastal Maharashtra. Therefore, IMD ERF model forecasts do not indicate any probable zone for cyclogenesis during both the weeks. Accordingly, there are below normal rainfall activities over south BoB and AS during both weeks.

The NCMRWF ERF suggests westerly winds at 850 hPa over the south & adjoining central BoB and AS, and a ridgeline aligned along 17-18°N latitude during the entire forecast period. The corresponding wind anomaly field in the model forecast indicates one cyclonic circulation over northeast AS and another over the head Bay region during week 1. No significant wind anomaly except strong anomalous westerly over north India and northern parts AS & BoB is indicated during week 2.

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:

The forecasts from various deterministic models indicate a feeble east-west trough nearly along 6-7°N latitudes across the south BoB and adjoining EIO with easterly winds at its north during the next few days of the first week. It is likely to cause squally weather over the southwest BoB and adjoining Comorin area & EIO region during the first half of week 1. There are likely prevalent seasonal anticyclones, mostly over the central parts of AS and another over eastcentral BoB during the next 10 days. Due to anticyclones, no adverse weather is likely over the central & northern parts of AS and BoB. ECMWF, AI model (EC-AIFS), NCEP AI-GFS, NCMRWF AI models (Pangu-Weather, Fourcastnet ML, Graphcast ML) are also indicating similar features.

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. However, a north-south trough is likely to prevail over the south Bay of Bengal & adjoining Equatorial Indian Ocean with a possible development of upper-air cyclonic circulation over the southwest Bay of Bengal during the first week.

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

Forecast issued:

The extended range outlook issued on 19th February for week 2 (27.02.2026-05.03.2026) indicated no probability of cyclogenesis over the entire North Indian Ocean.

The extended range outlook issued on 26th February for week 1 (27.02.2026-05.03.2026) indicated that the existing upper air cyclonic circulation over the southeast Bay of Bengal would become less marked during the next 24 hours. However, a north–south trough was likely to prevail over the southeast Bay of Bengal and adjoining areas of the south Andaman Sea and Equatorial Indian Ocean during the first half of Week-1, and over the southwest Bay of Bengal and adjoining Equatorial Indian Ocean during the latter half of Week-1.

Realised Weather:

Actually, a pre-existing low pressure area over southeast Bay of Bengal became less marked on 25th February, and the associated remnant cyclonic circulation became less marked over the same region on 27th February.

An upper air cyclonic circulation lay over the northeast Arabian Sea and adjoining Saurashtra & Kutch on 24th February, and another over Gulf of Mannar & neighbourhood became less marked on 05th March. Another upper air cyclonic circulation lay over the southeast Bay of Bengal & neighbourhood on 01st March and became less marked over the central parts of the south Bay of Bengal & adjoining Equatorial Indian Ocean on 05th March.

An upper air cyclonic circulation lay over the northeast Arabian Sea & adjoining Gujarat Coast on 01st March and became less marked over the Gujarat region on 05th March.

NCMRWF-IMD satellite gauge merged data plots of 24-hour accumulated rainfall from 25th February- 03rd March, 2026 is presented in **Fig. 2**.

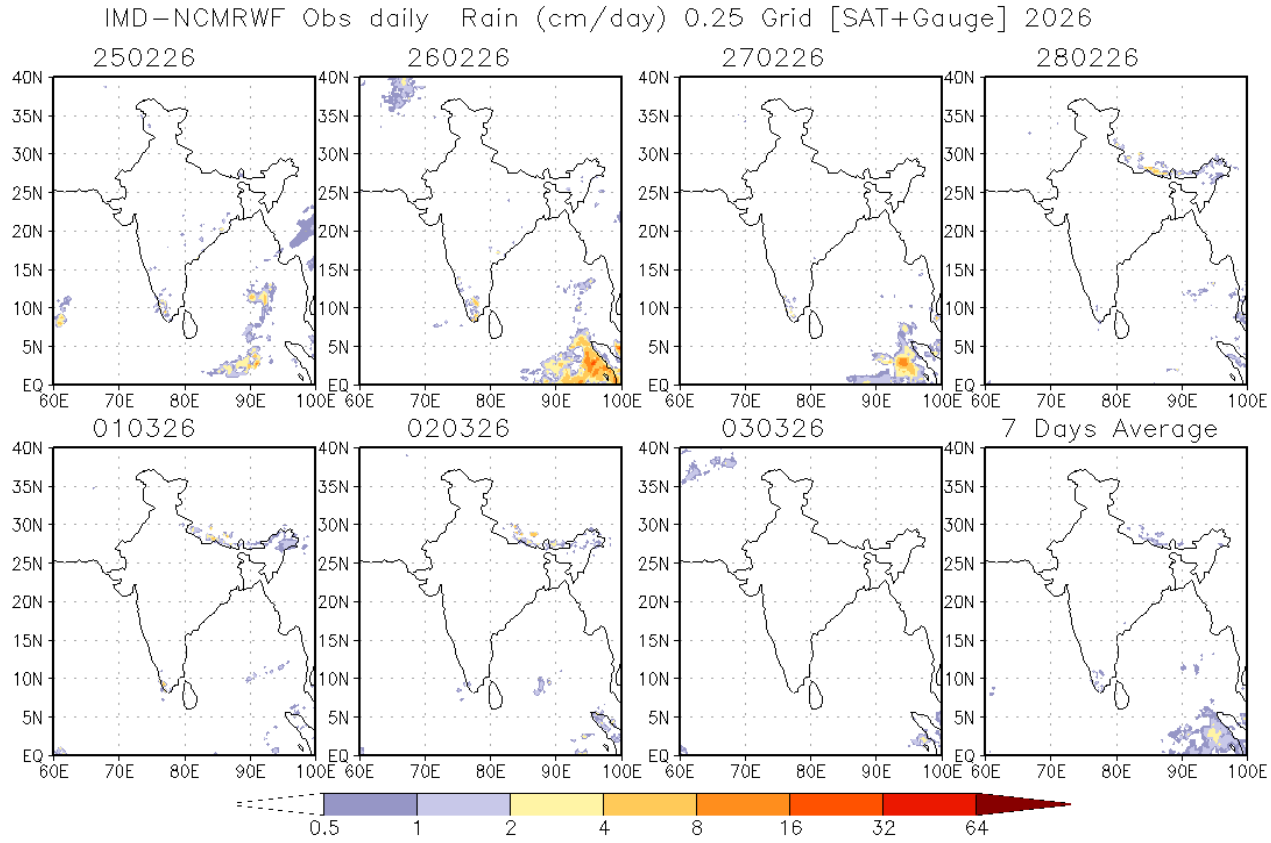

Fig. 2: NCMRWF-IMD satellite gauge merged data plots of 24-hour accumulated rainfall from 25th February- 03rd March, 2026

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: 12.03.2026