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

Issued on 26.03.2026

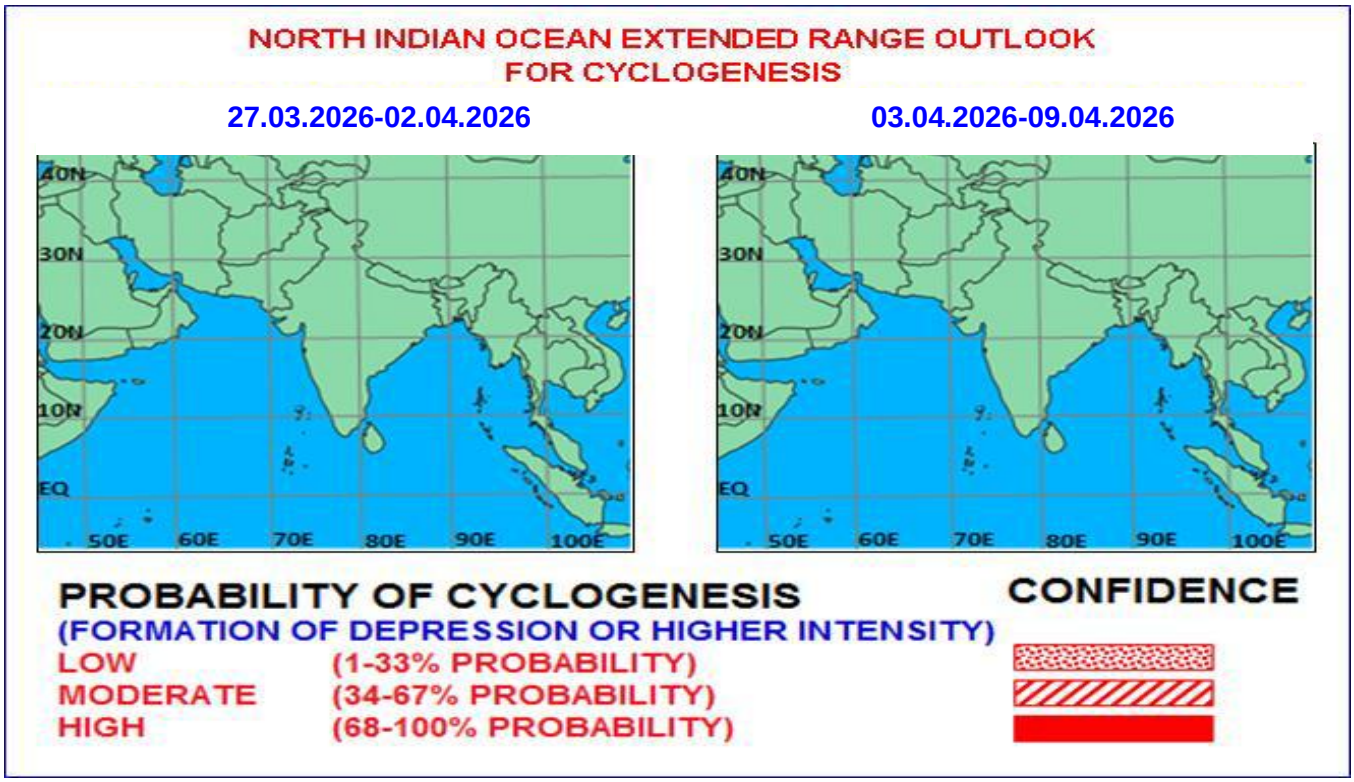

Fig. 1: Graphical Cyclogenesis over the north Indian Ocean during the next two weeks

I. Environmental features and Equatorial waves:

The guidance from various models indicates that the Madden-Julian Oscillation (MJO) index is currently in phase 8 with amplitude close to 1. Most of the models suggest that the MJO is not likely to move further eastward but portray looping movement within phase 8 or back to phase 7 with a slight strengthening of the amplitude during week 1 before it enters into phase 1 at the end of the week. Thereafter, it is not likely to progress eastwards, but rather portray slow loop-back movement within phase 1 during week 2. However, a few models predict slightly faster eastward movement of the MJO to enter into phase 1 during week 1 and propagate across phase 2 and 3 during week 2. Thus, the MJO is not favourable for the cyclogenesis over Bay of Bengal (BoB) during the entire forecast period, but may become a bit favourable for Arabian Sea (AS) during the second week.

The guidance from the NCICS model does not indicate any significant zonal wind anomaly over Nio region during the first half of week 1. There is an indication of a weak westerly wind anomaly (1-5 mps) over the entire AS and south BoB, during the second half of week 1, which is likely to prevail over the region more prominently (3-5 mps) over south BoB during week 2. The weak easterly wind anomaly is likely to prevail over the northern parts of BoB during the second week. Eastward-moving MJO is likely to move across north AS and central India during week 1. Equatorial Rossby Wave (ERW) is likely to move westwards across the South Andaman Sea and south BoB during the second half of week 1 and gradually reach over southeast AS during the second half of week 2. Thus, the zonal wind anomaly characteristics and Equatorial waves are not likely to cause any cyclogenesis and significant enhancement of the convective activity over the BoB and AS during the next two weeks. However, there is a probability for the convective activity over northern part of AS during week 1.

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 and adjoining central parts of BoB with a prominent upper-air anticyclonic circulation over central AS during week 1. The anomaly wind at 850 hPa indicates anticyclonic flow pattern over eastcentral AS during week 1. There is an anomalous weak north-south trough extending upto north BoB at the same pressure level during the first week, which is likely to persist during week 2. There is a likely development of an anticyclonic circulation over the Andaman Sea, and a feeble upper-air cyclonic circulation over southwest BoB off south Sri Lanka coast during week 2. The anomaly wind field of week 2 shows a north-south trough reaching up to the central parts of north BoB. The IMD-ERF does not indicate any significant zone with a probability of cyclogenesis during the entire forecast period.

Precipitation field indicates below normal rainfall activity over the south BoB during week 1 and 2, and slightly above normal rainfall over southeast AS and Lakshadweep Islands during week 1. The model also indicates above normal rainfall activity over northwest BoB during week 1 and over northeast BoB during week 2. Similar features are indicated by the NCMRWF ERF model, except that the features remain nearly the same 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:

Most of the NWP models (IMD-GFS, GFS, ECMWF, NCUM and NCMRWF) are indicating that the seasonal anticyclonic circulations, one over central AS and another over north and central BoB are likely to persist during most days of week 1. However, the trough in the easterly winds along with embedded cyclonic circulations is likely to move westwards across the south BoB and adjoining Equatorial India Ocean (EIO) and reach up to the south Tamil Nadu coast during the next 5 days. The wind discontinuity along the east coast of India is also likely to persist throughout week 1. No model indicates any cyclogenesis over the NIO region during next 10 days.

The AI models (Pangu, GraphCast and FourCastNet) of NCMRWF are also not indicating any significant weather systems over BoB and AS, except for a more prevalent 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 12th March for week 2 (20.03.2026-26.03.2026) indicated no probability of cyclogenesis over the North Indian Ocean during week 2.

The extended range outlook issued on 19th March for week 1 (20.03.2026-26.03.2026) indicated no probability of cyclogenesis over the North Indian Ocean during the entire forecast period.

Realised Weather

Actually, an upper air cyclonic circulation formed over Coastal Andhra Pradesh & Yanam & neighbourhood at 1200 UTC of 19th March 2026 and it lay over westcentral Bay of Bengal off north Coastal Andhra Pradesh at 3.1 km above mean sea level at 0300 UTC of 20th March, 2026. It became less marked over westcentral Bay of Bengal off north Coastal Andhra Pradesh at 0300 UTC of 21st March, 2026.

Another upper air cyclonic circulation formed Lakshadweep & neighbourhood at 3.1 km above mean sea

level at 0300 UTC of 20th March, 2026 and became less marked over the same region at 0300 UTC of 21st March, 2026. Subsequently, a fresh upper air cyclonic circulation formed over Lakshadweep & neighbourhood at 0.9 km above mean sea level at 1200 UTC of 24th March, 2026. It became less marked at 0300 UTC of 25th 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 19th – 25th March, 2026 is presented in **Fig. 2**.

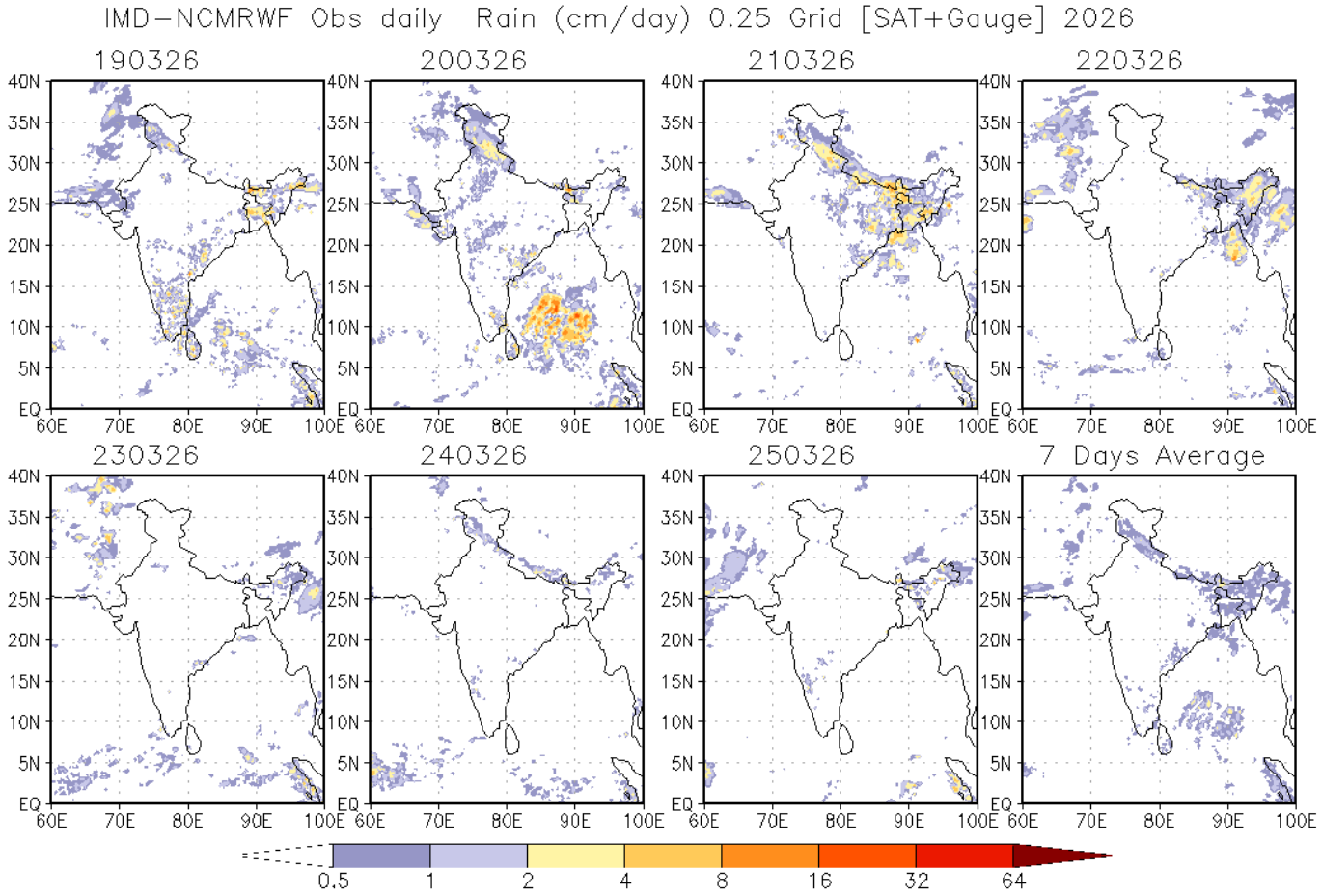

Fig. 2: NCMRWF-IMD satellite gauge merged data plots of 24-hour accumulated rainfall from 19th - 25th March, 2026

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: 02.04.2026