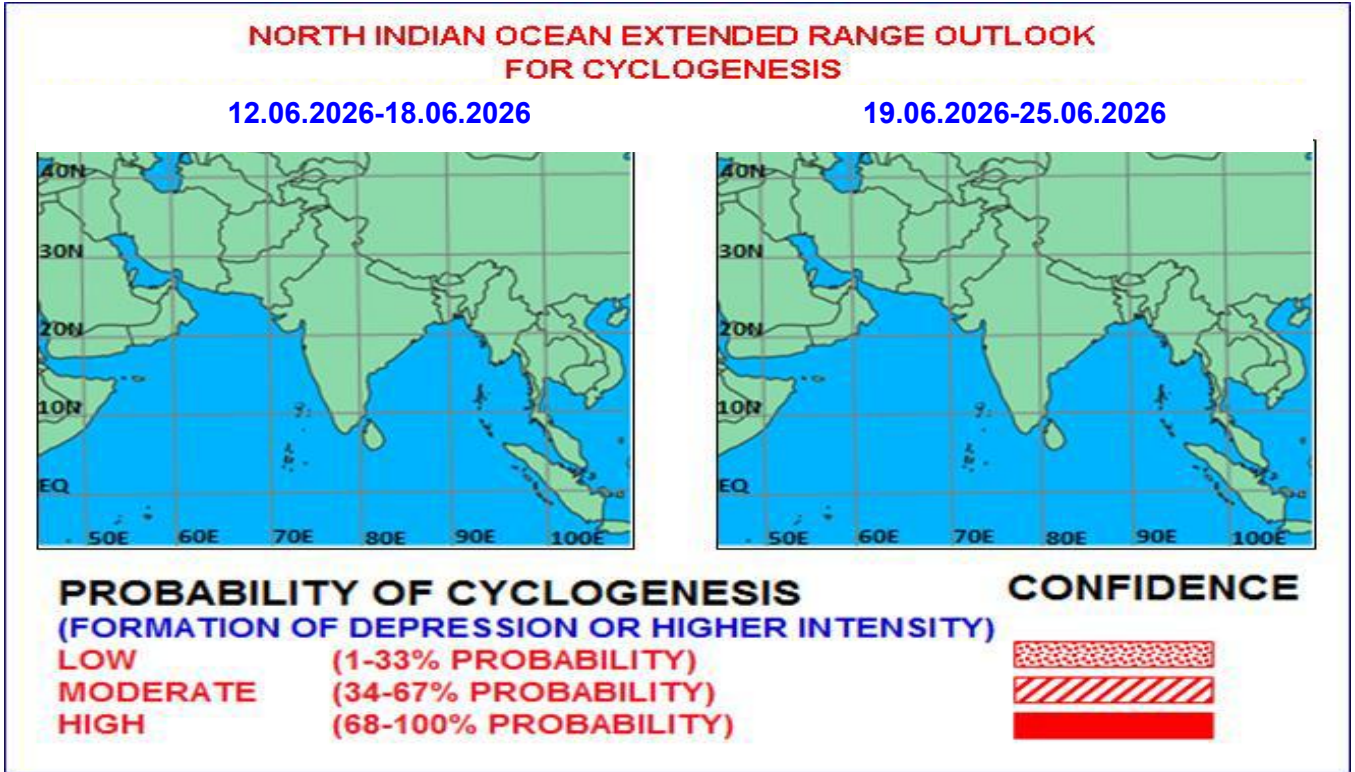




Issued on 11.06.2026



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

**I. Environmental features and Equatorial waves:**

The guidance from ECMM model indicates that the Madden-Julian Oscillation (MJO) index is currently in phase 1 with amplitude more than 1. It is likely to continue to move slowly eastwards within the same phase with amplitude becoming less than 1 towards the end of week 1. It is likely to remain in same phase till the middle of week 2 with decreasing amplitude. Thereafter, very weak MJO (with amplitude close to 0) is likely to enter phase 2 during end of week 2. Thus, as per ECMM, MJO presence in phase 1 may lead to strengthening of westerlies over the Arabian Sea (AS) till middle of week 2 and over the Bay of Bengal (BoB) thereafter.

The guidance from the NCICS model indicates the prevalence of westerly wind anomaly (7-9 mps) alongwith Equatorial Rossby wave (ERW) over southeast & adjoining eastcentral AS and easterly wind anomaly (3-5 mps) to its north over eastcentral AS and along & off Konkan & Goa coasts during first half of week 1, indicating a favourable environment for development of cyclonic circulation over eastcentral AS during first half of week 1. Thereafter, during later half of week 1 westerly wind anomaly (3-5 mps) is seen over south AS and easterly wind anomaly (5-7 mps) is seen over northeast AS adjoining Gujarat region. However, during week 1, the easterly wind anomaly (3-5 mps) is indicated over most parts of BoB. The wind anomaly features indicate weakening of south westerly winds over BoB region during week 1. During week 2, no significant changes are seen over both the basins except over Andaman Sea with

prevalence of westerly wind anomaly (1-3 mps) and over the AS with weak westerly wind anomaly over some parts of central AS and easterly wind anomaly (1-3 mps) over north AS.

### **Model Guidance:**

#### **(a) Guidance for Extended Range models:**

During week 1, the 850 hPa mean wind field forecast of IMD Extended Range model (MME CFS-V2) indicates predominantly west-southwesterly winds covering south & central AS and over the BoB predominantly southwesterly winds are seen upto head Bay. During week 2, strengthening of west-southwesterly winds over south & central AS is indicated. Over the BoB, similar intensity winds as were prevalent during week 1 are seen during week 2 also.

Corresponding anomaly field during week 1 is indicating easterly wind anomaly over most parts of BoB. Similarly, over the AS northeasterly to northerly wind anomaly is seen over most parts, indicating weaker cross-equatorial flow over both the basins. However, during week 2 southerly to south-southwesterly wind anomaly is seen over south and central BoB, indicating the revival of southwesterly wind flow. Over the AS, cyclonic wind anomaly is seen over south AS and adjoining Equatorial Indian ocean (EIO), indicating the revival of southwesterly winds over southern parts of AS only.

Above normal precipitation anomaly is indicated over some parts of eastcentral BoB and some parts of southwest & adjoining westcentral BoB during week 1. Over the AS, above normal precipitation is indicated off Kerala coast during week 1. During week 2, above normal precipitation anomaly is indicated over most parts of south BoB, central BoB and northeast BoB. Similarly, above normal precipitation anomaly is indicated over eastcentral and adjoining northeast AS.

The 850 hPa mean wind field of NCMRWF extended range model (CNCUM) is indicating west-southwesterlies covering most parts of south & central AS and southwesterly winds over South BoB and Andaman Sea during week 1. During week 2, strengthening of these winds is indicated over both the BoB and AS. Corresponding anomaly field is indicating, above normal precipitation anomaly over North Andaman Sea & adjoining eastcentral BoB during week 1. During week2, above normal precipitation anomaly is seen over southeast AS & adjoining Lakshadeep, Maldives area and over Andaman Sea, but with weaker intensity.

With respect to cyclogenesis, IMD MME-CFSV2 model is indicating a zone with low (20-30%) probability of cyclogenesis over the northeast & central BoB during week 1. Very low (5-10%) probability of cyclogenesis is indicated over eastcentral AS during week 1 and over northeast AS during week 2.

The sub-seasonal ECMWF model is indicating very low (05-10%) probability of cyclogenesis over north BoB during week 2.

Climatologically, there is 8-10% probability of cyclogenesis over the North Indian Ocean region during the forecast period.

#### **(b) Guidance from Medium-Range NWP models:**

Most of the deterministic models are not indicating any low pressure area or depression over the BoB and AS region. However, some models (IMD GFS, NCEP GFS, Mithuna, Fourcast) are indicating likely formation of an upper air cyclonic circulation over eastcentral and adjoining northeast AS off Konkan-Goa coasts towards the end of week 1 (around 16<sup>th</sup> June). Some models (NCEP GFS and Graphcast) are indicating likely formation of another cyclonic circulation over

northeast BoB towards end of week 1 (around 16<sup>th</sup> June) with westwards movement towards northwest and adjoining westcentral BoB.

#### **Operational extended forecast for next two weeks:**

Considering various large-scale environmental features, climatology and model guidance, it is inferred that there is no likelihood of cyclogenesis (formation of depression) during the entire forecast period. However, there is likelihood of:

- (a) existing upper air cyclonic circulation over westcentral Bay of Bengal and adjoining north coastal Andhra Pradesh in lower tropospheric levels to persist during next 1-2 days with possible westwards movement.
- (b) development of another fresh upper air cyclonic circulation over eastcentral Arabian Sea off Karnataka coast during the later half of week 1.
- (c) development of a fresh upper air cyclonic circulation / low pressure area over North BoB towards end of week 2.

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

##### **Forecast issued:**

The extended range outlook issued on 28<sup>th</sup> May for week 2 (05.06.2026-11.06.2026) indicated development of:

- (i) an upper air cyclonic circulation over eastcentral AS off Karnataka and adjoining Konkan coasts during first half of week 2.

The extended range outlook issued on 04<sup>th</sup> June for week 1(05.06.2026-11.06.2026) indicated:

- i) the upper air cyclonic circulation over Goa & adjoining eastcentral Arabian Sea to move north-northwestwards during next 4-5 days towards northeast AS off South Gujarat-North Konkan coasts with no further intensification.
- ii) the upper air cyclonic circulation over North Andaman Sea to move north-northwestwards along Myanmar-South Bangladesh coasts during next 3 days with no further intensification.

##### **Realized weather:**

- 1) Actually, an upper air cyclonic circulation formed over north Andaman Sea & neighbourhood on 3<sup>rd</sup> June 2026 and became less marked over Myanmar & adjoining Andaman Sea on 08<sup>th</sup> June 2026.
- 2) Another upper air cyclonic circulation formed over the Southeast Arabian Sea & neighborhood on 26<sup>th</sup> May. It lay over Goa & adjoining eastcentral Arabian Sea on 4<sup>th</sup> June then it moved across coastal Karnataka, north Kerala & neighbourhood and then merged with the east-west trough running roughly along Lat. 13°N from coastal Karnataka & neighbourhood to coastal Andhra Pradesh between 3.1 & 4.6 km above mean sea on 07<sup>th</sup> June 2026.
- 3) Another upper air cyclonic circulation formed over eastcentral Arabian Sea off south Konkan coast on 07<sup>th</sup> June 2026 and became less marked over the same region on 09<sup>th</sup> June 2026.
- 4) Another upper air cyclonic circulation lay over westcentral Bay of Bengal and adjoining north coastal Andhra Pradesh at 1.5 km above mean sea level on 11<sup>th</sup> June 2026.

Thus, the formation of upper air cyclonic circulations over AS and BoB was predicted well in extended range forecast with some spatio-temporal errors.

**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: 18.06.2026**