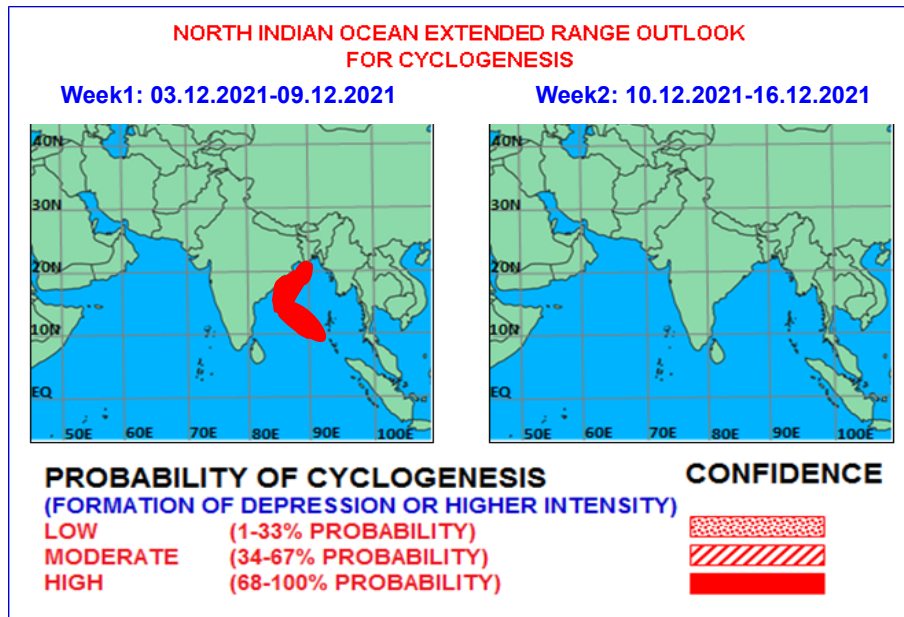




Issued on 02.12.2021



The Madden Julian Oscillation (MJO) index currently lies in Phase 6 with amplitude more than 1 during entire forecast period. Thus, MJO phase is not conducive for enhancement of convective activity and hence cyclogenesis over the Bay of Bengal (BoB) and the Arabian Sea (AS) during next 2 weeks.

Most of the models are indicating that the current well marked low pressure area over southeast BoB would intensify into a depression by today evening (1200 UTC of 2nd December) and into a cyclonic storm on 3rd December. However, there is some divergence among various models w.r.t. track of this system. Models including IMD GFS, IMD MME, NCEP GFS, NCUM and NEPS are indicating the system to move west-northwestwards initially, with gradual change in movement to northwest/north-northwest till 4th evening (1200 UTC). Thereafter, the system will re-curve north-northeastwards. However, ECMWF deterministic & ensemble and GEFS are indicating that the system would cross north Andhra Pradesh-south Odisha coasts in the late night of 4th December. MME CFS V-2 is indicating 70-80% probability of cyclogenesis over west-central BoB during week 1. The Genesis Potential Parameter (GPP) of IMD is also indicating potential zone of cyclogenesis during 2nd to 5th over westcentral and northwest BoB. Though all these models are in agreement with the potential genesis and intensification over the BoB, as on today, there is large un-certainty with respect to the likely movement and crossing location of this system.

Models including NCEP GFS and MME CFS V-2 are also indicating emergence of a fresh low pressure area into Andaman Sea around 13th December and it's westward movement towards south Tamil Nadu coast across south Bay of Bengal during the subsequent 3 days with no significant intensification.

In view of the above, it may be concluded that:

- (a) the current well marked low pressure area is likely to intensify into a depression by today evening (1200 UTC) and further into a cyclonic storm on 3rd December. The system is likely to reach west-central Bay of Bengal off north Andhra Pradesh – south Odisha coasts around 4th December morning. Thereafter it is likely to re-curve north-northeastwards gradually.
- (b) A fresh low pressure area is likely to emerge into Andaman Sea during later part of week 2. It is likely to move westwards towards south Tamil Nadu coast with no significant intensification.

EXPECTED IMPACT & ACTION SUGGESTED

A. Impact Expected

- Localized Flooding of roads, inundation and water logging in low lying areas and closure of underpasses mainly in urban areas of the affected region.
- Occasional reduction in visibility due to heavy rainfall.
- Disruption of traffic in major cities due to water logging in roads leading to increased travel time.
- Minor damage to kutcha roads.
- Possibilities of damage to vulnerable structure.
- Localized Landslides/Mudslides
- Damage to horticulture and standing crops in some areas due to inundation.
- It may lead to riverine flooding in some river catchments (for riverine flooding please visit Web page of CWC)

B. Action Suggested

- The off-shore & alongshore operations along north Andhra Pradesh, Odisha & West Bengal coasts are advised to be judiciously regulated on 3rd December and to be suspended on 4th December 2021, to ensure safety of life & property.
- Check for traffic congestion on your route before leaving for your destination.
- Follow any traffic advisories that are issued in this regard.
- Avoid going to areas that face the water logging problems often.
- Avoid staying in vulnerable structure.
- Harvest the ripen crops like Paddy & Horticultural crops and also secure the harvested crops securely from the damage due to rain and strong winds.

Verification of forecast issued during last two weeks:

The forecast issued on 18th November for week 2 (26.11.2021-02.12.2021) indicated low probability of formation of depression over southeast BoB during later part of week. The forecast issued on 25th November for week 1 (26.11.2021-02.12.2021) indicated moderate probability of formation of depression over southeast BoB during end of week 1 (around 2nd December) with northward/north-northeastwards movement towards central & north Bay of Bengal during first half of week-2.

Current environmental conditions and model guidance indicate intensification of well marked low pressure area over southeast BoB into a depression by today evening (1200 UTC) and further into a cyclonic storm on 3rd December. It is also indicated that the system would reach west-central Bay of Bengal off north Andhra Pradesh – south Odisha coasts around 4th December morning. Thereafter it is likely to recurve north-northeastwards gradually.

Thus, genesis and movement of system could be correctly captured correctly two weeks (15 days) in advance.

Next update: 09.12.2021