



**REGIONAL SPECIALISED METEOROLOGICAL CENTRE-TROPICAL CYCLONES, NEW DELHI
TROPICAL WEATHER OUTLOOK**

DEMS-RSMC SPECIAL TROPICAL CYCLONES NEW DELHI DATED 19.12.2021

TROPICAL WEATHER OUTLOOK FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL OF BENGAL AND ARABIAN SEA) VALID FOR NEXT 120 HOURS ISSUED AT 0600 UTC OF 19.12.2021 BASED ON 0300 UTC OF 19.12.2021.

BAY OF BENGAL:

YESTERDAY'S LOW PRESSURE AREA FORMED OVER SOUTHEAST BAY OF BENGAL (BOB) & ADJOINING EQUATORIAL INDIAN OCEAN (EIO) LAY OVER THE SAME REGION AT 0300 UTC OF TODAY, THE 19TH DECEMBER, 2021. THE ASSOCIATED CYCLONIC CIRCULATION EXTENDED UPTO 5.8 KM ABOVE MEAN SEA LEVEL. IT IS LIKELY TO MOVE EAST-NORTHEASTWARDS.

AS PER SATELLITE IMAGERY, SCATTERED TO BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER SOUTHEAST BAY OF BENGAL & ADJOINING EQUATORIAL INDIAN OCEAN AND SOUTH ANDAMAN SEA IN ASSOCIATION WITH LOW PRESSURE AREA. MINIMUM CLOUD TOP TEMPERATURE IS MINUS 80°C.

SCATTERED LOW AND MEDIUM CLOUDS WITH EMBEDDED MODERATE TO INTENSE CONVECTION LAY OVER NORTH ANDAMAN SEA AND WEAK TO MODERATE CONVECTION LAY OVER EASTCENTRAL & EXTREME SOUTHWEST BAY OF BENGAL.

PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION) DURING NEXT 120 HRS:

24 HOURS	24-48 HOURS	48-72 HOURS	72-96 HOURS	96-120 HOURS
NIL	LOW	LOW	NIL	NIL

ARABIAN SEA:

SCATTERED LOW AND MEDIUM CLOUDS WITH EMBEDDED MODERATE TO INTENSE CONVECTION LAY OVER SOUTHWEST ARABIAN SEA AND ISOLATED WEAK CONVECTION LAY OVER NORTHWEST ARABIAN SEA.

PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION) DURING NEXT 120 HRS:

24 HOURS	24-48 HOURS	48-72 HOURS	72-96 HOURS	96-120 HOURS
NIL	NIL	NIL	NIL	NIL

REMARKS:

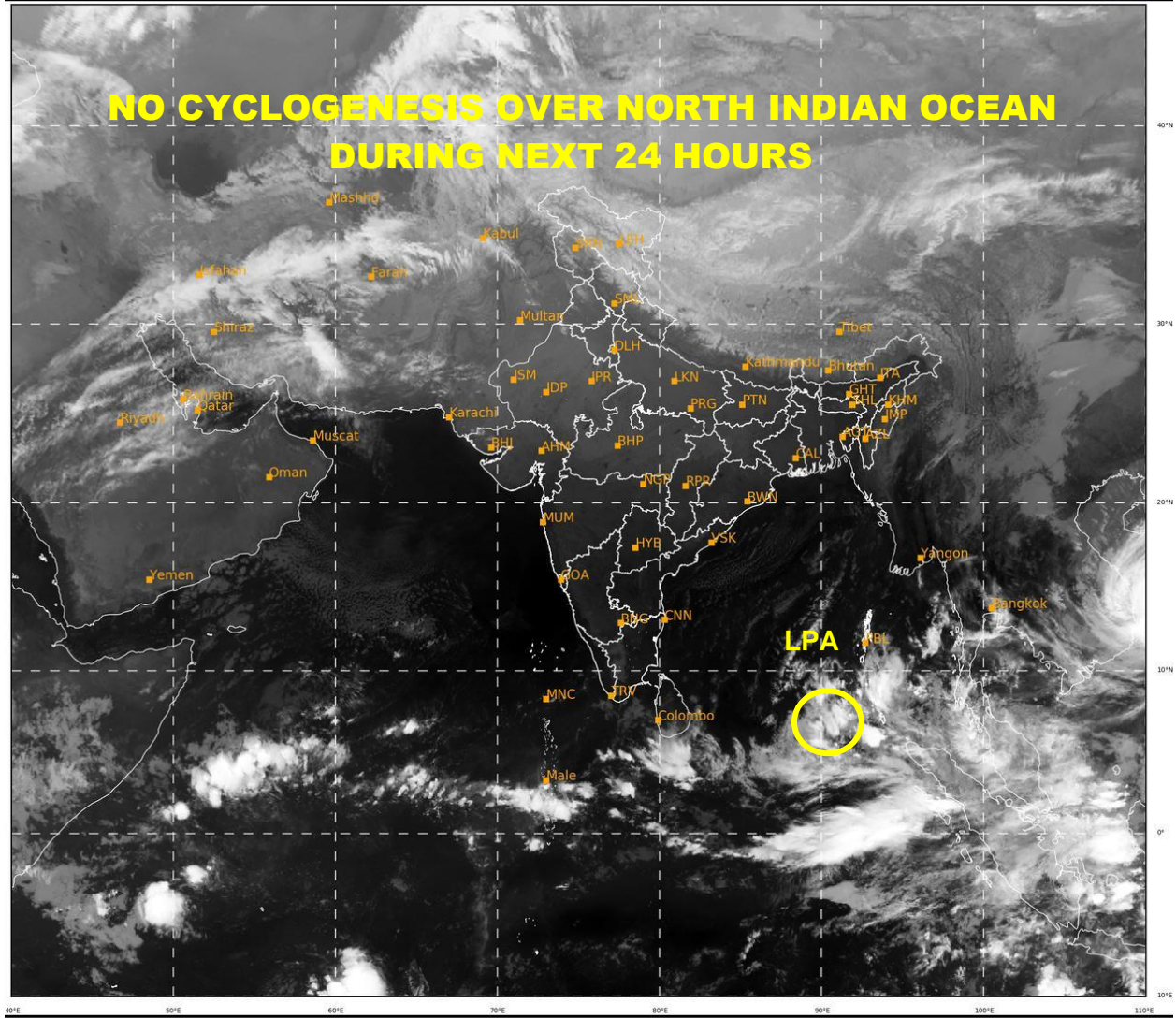
NUMERICAL MODELS ARE INDICATING A LOW PRESSURE AREA OVER SOUTHEAST BOB AND ADJOINING EQUATORIAL INDIAN OCEAN (EIO) WITH EAST-NORTHEASTWARDS MOVEMENT TOWARDS NORTH ANDAMAN SEA. HOWEVER, ECMWF IS INDICATING FORMATION OF DEPRESSION OVER EIO AND ADJOINING SOUTHEAST BOB ON 20TH WITH FURTHER INTENSIFICATION AND EAST-NORTHEASTWARDS MOVEMENT TOWARDS NORTH ANDAMAN SEA. IMD GPP IS INDICATING A POTENTIAL ZONE FOR CYCLOGENESIS OVER THE EIO & ADJOINING SOUTHEAST BOB DURING NEXT 2-3 DAYS WITH EAST-NORTHEASTWARDS MOVEMENT TOWARDS NORTH ANDAMAN SEA.

CURRENT SEA CONDITIONS INCLUDING SEA SURFACE TEMPERATURE (>28⁰C), TROPICAL CYCLONE HEAT POTENTIAL (>100 KJ/CM²), DEPTH OF 26⁰C ISOTHERM (100-120 M) ARE INDICATING FAVOURABLE ENVIRONMENT FOR CYCLOGENESIS OVER SOUTH BOB AND ADJOINING EIO .

TODAY'S ENVIRONMENTAL CONDITIONS INDICATE SLIGHT STRENGTHENING OF ENVIRONMENTAL FEATURES OVER EIO AND ADJOINING SOUTH ANDAMAN SEA REGION. POITIVE LOW LEVEL VORTICITY HAS INCREASED AND IS $100 \times 10^{-6} \text{S}^{-1}$, POSITIVE LOW LEVEL CONVERGENCE IS $15-20 \times 10^{-5} \text{S}^{-1}$ (INCREASED IN PAST 24 HOURS), POSITIVE UPPER LEVEL DIVERGENCE IS $10-20 \times 10^{-5} \text{S}^{-1}$ (INCREASED IN PAST 24 HOURS), LOW TO MODERATE WIND SHEAR (15-20 KTS).

LARGE SCALE FEATURES ARE STILL CONDUCIVE OVER THE REGION WITH PRESENCE OF EQUATORIAL ROSSBY WAVES, STRONG CROSS EQUATORIAL WESTERLY FLOW, ENHANCED EASTERLY FLOW OVER CENTRAL ANDAMAN SEA AND ACTIVE ITCZ.

IN VIEW OF ABOVE FAVOURABLE SEA CONDITIONS AND MODEL GUIDANCE, LOW PROBABILITY IS ASSIGNED TO FORMATION OF DEPRESSION OVER EIO AND ADJOINING SOUTHEAST BOB ON DAY 2 & 3 (DURING 20TH -22ND DECEMBER).



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IMD, DELHI

- LPA STANDS FOR LOW PRESSURE AREA