



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

**DEMS-RSMC SPECIAL TROPICAL CYCLONES NEW DELHI DATED 18.12.2021**

**TROPICAL WEATHER OUTLOOK FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND ARABIAN SEA) VALID FOR NEXT 120 HOURS ISSUED AT 0600 UTC OF 18.12.2021 BASED ON 0300 UTC OF 18.12.2021.**

**BAY OF BENGAL:**

YESTERDAY'S CYCLONIC CIRCULATION OVER EQUATORIAL INDIAN OCEAN (EIO) AND ADJOINING CENTRAL PARTS OF SOUTH BAY OF BENGAL (BOB). AT 0900 UTC OF YESTERDAY THE 17<sup>TH</sup> DECEMBER, 2021 A LOW PRESSURE AREA FORMED OVER SOUTHEAST BAY OF BENGAL & ADJOINING EQUATORIAL INDIAN OCEAN WITH THE ASSOCIATED CYCLONIC CIRCULATION EXTENDING UPTO 5.8 KM ABOVE MEAN SEA LEVEL. AT 0300 UTC TODAY, 18<sup>TH</sup> DECEMBER, 2021 IT PERSISTED OVER THE SAME REGION. IT IS LIKELY TO MOVE EAST-NORTHEASTWARDS AND BECOME MORE MARKED DURING NEXT 48 HOURS.

SCATTERED TO BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION OVER SOUTHEAST BAY OF BENGAL AND ADJOINING EQUATORIAL INDIAN OCEAN IN ASSOCIATION WITH LOW PRESSURE AREA OVER THE AREA. MINIMUM CLOUD TOP TEMPERATURE MINUS 82 DEG C.

SCATTERED TO BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION OVER SOUTHEAST BAY OF BENGAL AND ADJOINING EQUATORIAL INDIAN OCEAN & SOUTH ANDAMAN SEA. SCATTERED LOW AND MEDIUM CLOUDS WITH EMBEDDED MODERATE TO INTENSE CONVECTION OVER SOUTHWEST BAY OF BENGAL, NORTH ANDAMAN SEA AND ISOLATED WEAK CONVECTION OVER CENTRAL 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	NIL	LOW	NIL	NIL

**ARABIAN SEA:**

SCATTERED LOW AND MEDIUM CLOUDS WITH EMBEDDED MODERATE TO INTENSE CONVECTION OVER NORTHWEST & SOUTHWEST ARABIAN SEA AND WEAK TO MODERATE CONVECTION OVER COMORIN REGION.

**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:**

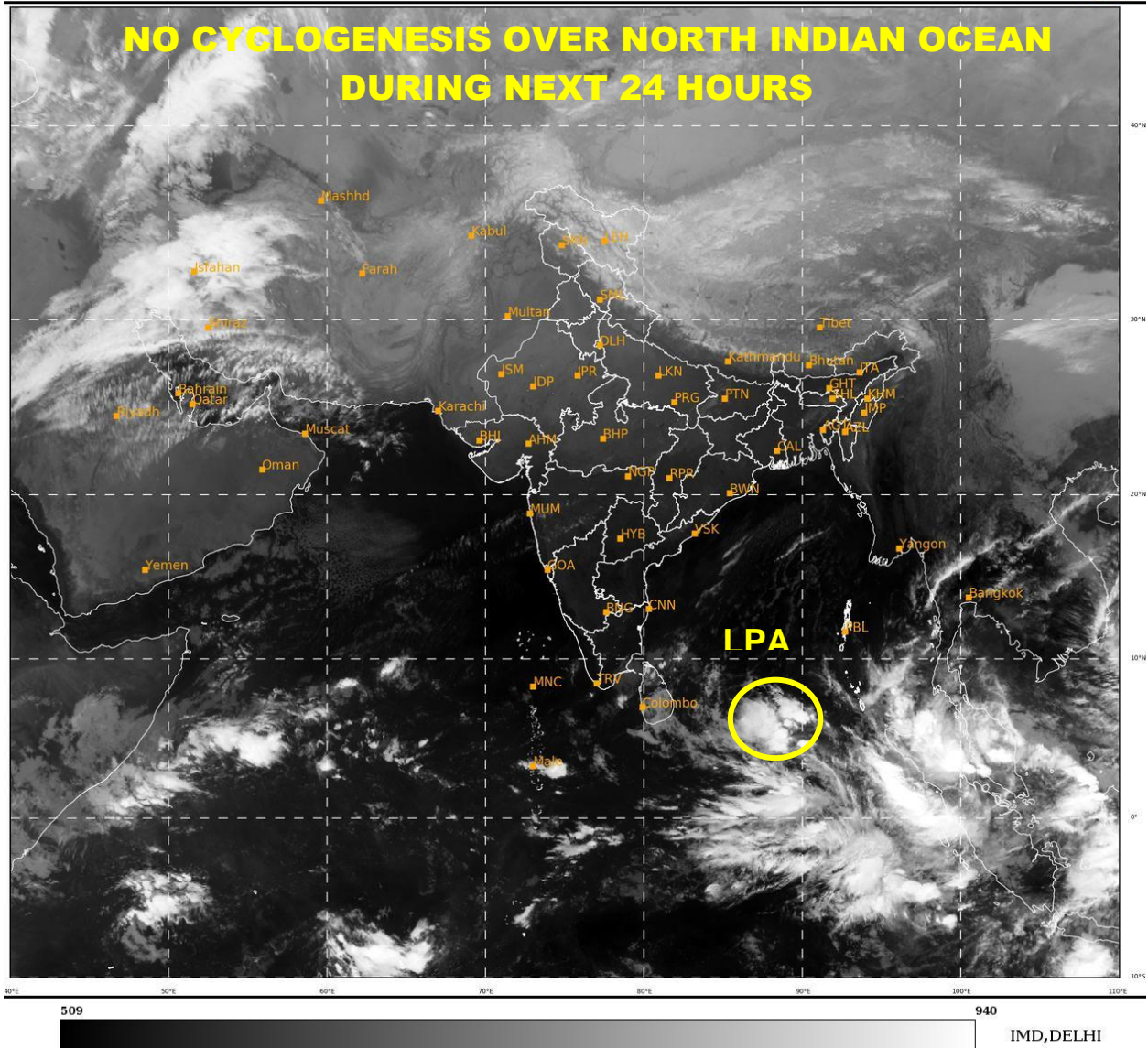
MOST OF THE NUMERICAL MODELS ARE INDICATING A LOW PRESSURE AREA OVER SOUTHEAST BOB AND ADJOINING EQUATORIAL INDIAN OCEAN (EIO) WITH EAST-NORTHEASTWARDS MOVEMENT TOWARDS NORTH ANDAMAN SEA. IMD GPP IS INDICATING A POTENTIAL ZONE FOR CYCLOGENESIS OVER THE SOUTH BOB & ADJOINING EIO DURING NEXT 3-4 DAYS WITH EAST-NORTHEASTWARDS MOVEMENT TOWARDS NORTH ANDAMAN SEA.

CURRENT SEA CONDITIONS INCLUDING SEA SURFACE TEMPERATURE ( $>28^{\circ}\text{C}$ ), TROPICAL CYCLONE HEAT POTENTIAL ( $>100\text{ KJ}/\text{CM}^2$ ), DEPTH OF  $26^{\circ}\text{C}$  ISOTHERM (100-120 M) ARE INDICATING FAVOURABLE ENVIRONMENT FOR CYCLOGENESIS OVER SOUTH BOB AND ADJOINING EIO .

CURRENT ENVIRONMENTAL CONDITIONS ARE INDICATING WEAK SUPPORT TOWARDS DEVELOPMENT OF DEPRESSION OVER THE REGION. POITIVE LOW LEVEL VORTICITY IS  $40-60 \times 10^{-6}\text{S}^{-1}$ , POSITIVE LOW LEVEL CONVERGENCE IS  $05 \times 10^{-5}\text{S}^{-1}$  (DECREASED IN PAST 24 HOURS), POSITIVE UPPER LEVEL DIVERGENCE IS  $05-10 \times 10^{-5}\text{S}^{-1}$  (DECREASED IN PAST 24 HOURS), HIGH WIND SHEAR (25-30 KTS) OVER SOUTHEAST BOB AND ADJOINING EIO.

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 SOUTHEAST BOB AND ADJOINING EIO ON DAY 3 (DURING 20<sup>TH</sup> -21<sup>ST</sup> DECEMBER).



- **LPA STANDS FOR LOW PRESSURE AREA**