



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

DEMS-RSMC SPECIAL TROPICAL CYCLONES NEW DELHI DATED 16.03.2022

TROPICAL WEATHER OUTLOOK FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND ARABIAN SEA) VALID FOR NEXT 120 HOURS ISSUED AT 0600 UTC OF 16.03.2022 BASED ON 0300 UTC OF 16.03.2022.

BAY OF BENGAL:

A LOW PRESSURE AREA FORMED OVER EQUATORIAL INDIAN OCEAN AND ADJOINING SOUTHWEST BAY OF BENGAL (BOB) IN THE EVENING OF 15TH MARCH. IT LAY OVER CENTRAL PARTS OF SOUTH BAY OF BENGAL AT 0300 UTC OF TODAY, THE 16TH MARCH, 2022. IT IS LIKELY TO MOVE EAST-NORTHEASTWARDS AND BECOME A WELL MARKED LOW PRESSURE AREA OVER SOUTHEAST BOB AND ADJOINING SOUTH ANDAMAN SEA AROUND 0000 UTC OF 19TH MARCH. THEREAFTER, IT IS LIKELY TO MOVE NORTH-NORTHWESTWARDS INITIALLY ALONG & OFF ANDAMAN & NICOBAR ISLANDS, INTENSIFY INTO A DEPRESSION AROUND 0000 UTC OF 20TH MARCH AND INTO A CYCLONIC STORM AROUND 21ST MARCH. IT WOULD THEN CONTINUE TO MOVE NORTH-NORTHWESTWARDS TILL 22ND MARCH. THEREAFTER, IT WILL MOVE NORTH-NORTHEASTWARDS AND REACH NEAR BANGLADESH AND ADJOINING NORTH MYANMAR COAST AROUND 0000 UTC OF 23RD MARCH

SCATTERED TO BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION OVER EQUATORIAL INDIAN OCEAN AND ADJOINING CENTRAL PARTS OF SOUTH BOB OVER AREA BETWEEN LATITUDE 2.5N & 9.0N AND LONGITUDE 82.0E & 89.0E IN ASSOCIATION WITH LOW PRESSURE AREA. MINIMUM CLOUD TOP TEMPERATURE IS - 93°C.

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	LOW	MODERATE

ARABIAN SEA:

SCATTERED LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION OVER SOUTHEAST ARABIAN SEA AND MODERATE TO INTENSE CONVECTION OVER COMORIN AREA.

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

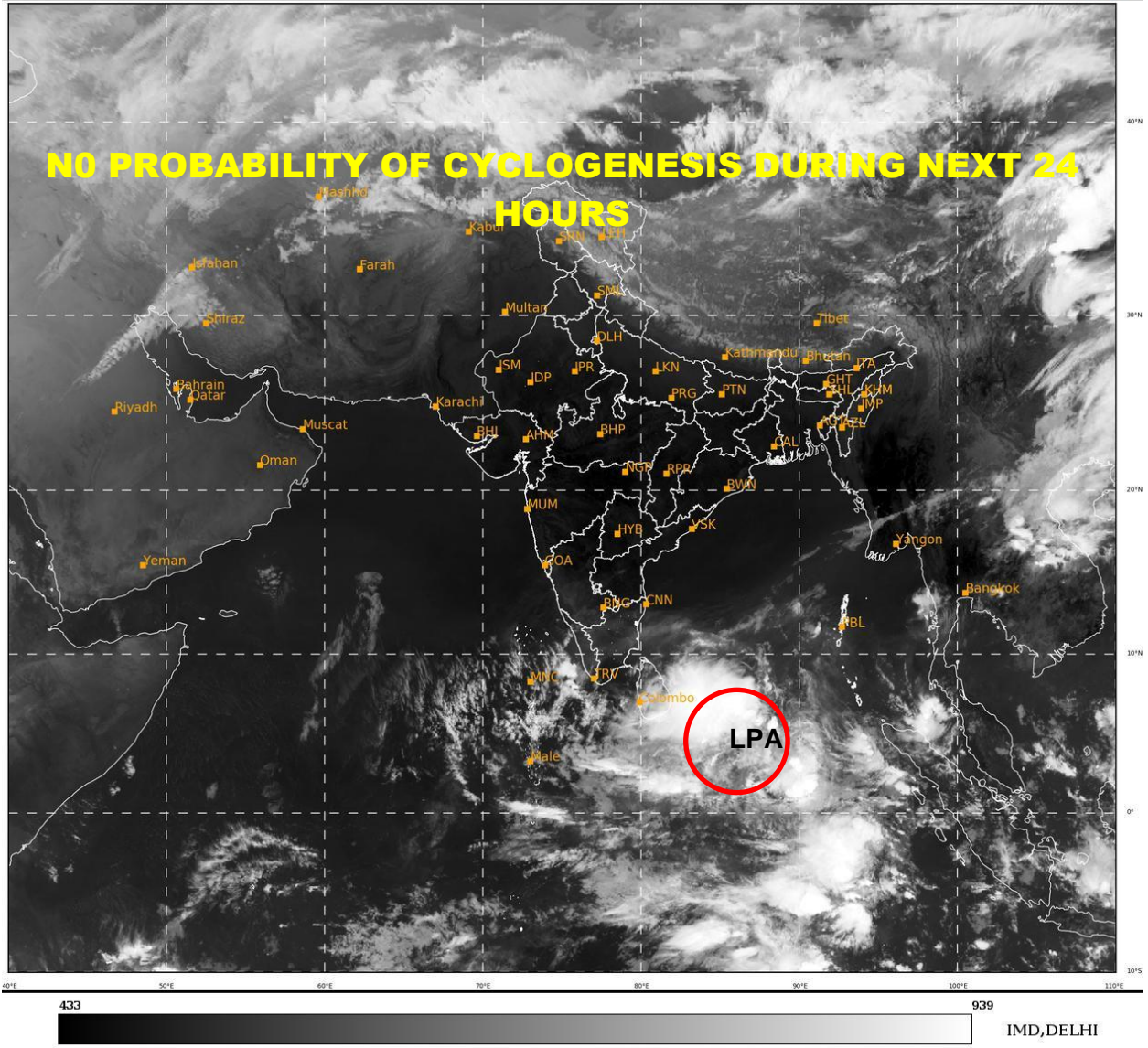
REMARKS:

SEA SURFACE TEMPERATURE IS AROUND 29-30⁰C OVER SOUTHEAST AND ADJOINING EASTCENTRAL BAY OF BENGAL (BOB). TROPICAL CYCLONE HEAT POTENTIAL IS AROUND 60-80 KJ/CM² OVER THE SAME REGION BECOMING LESS THAN 50 KJ/CM² OVER NORTH BOB. THE MADDEN JULIAN INDEX (MJO) CURRENTLY LIES IN PHASE 3 WITH AMPLITUDE MORE THAN 1. IT WILL CONTINUE IN SAME PHASE FOR NEXT 3 DAYS AND MOVE TO PHASE 4 WITH AMPLITUDE REMAINING MORE THAN 1 THEREAFTER. THE PHASE OF MJO IS CONDUCIVE FOR ENHANCED CONVECTION OVER THE BOB DURING NEXT 7 DAYS. FEEBLE WESTERLIES (1-3 MPS) AND EQUATORIAL ROSSBY WAVES ARE LIKELY TO PREVAIL OVER SOUTH BOB DURING NEXT 1 WEEK.

LOW LEVEL VORTICITY IS $50 \times 10^{-6} \text{ S}^{-1}$ AROUND SYSTEM CENTRE. VERTICALLY IT IS EXTENDING UPTO 500 HPA LEVEL. LOW LEVEL CONVERGENCE IS $10 \times 10^{-5} \text{ S}^{-1}$ TO THE NORTHWEST OF SYSTEM CENTRE AND $20 \times 10^{-5} \text{ S}^{-1}$ TO THE SOUTHEAST OF SYSTEM CENTRE. UPPER LEVEL DIVERGENCE IS AROUND $30 \times 10^{-5} \text{ S}^{-1}$ TO THE NORTHWEST OF SYSTEM CENTRE. A LARGE ZONE OF POSITIVE DIVERGENCE $05-20 \times 10^{-5} \text{ S}^{-1}$ IS ALSO PREVAILING OVER SOUTHEAST BOB. WIND SHEAR IS MODERATE (15-20 KNOTS) AROUND THE SYSTEM CENTRE WITH DECREASING TREND (BECOMING 05-10 KNOTS) OVER SOUTH AND ADJOINING CENTRAL BOB.

NUMERICAL MODELS INCLUDING IMD GFS, ECMWF AND ECMWF ENSEMBLE ARE INDICATING LIKELIHOOD OF FORMATION OF DEPRESSION OVER SOUTHEAST BOB & ADJOINING SOUTH ANDAMAN SEA BY 0000 UTC OF 20TH MARCH WITH SUBSEQUENT INTENSIFICATION INTO A CYCLONIC STORM AROUND 21ST MARCH. HOWEVER, THERE IS VARIATION AMONG THESE MODELS W.R.T. PEAK INTENSITY WITH IMD GFS INDICATING HIGHER INTENSITY AND ECMWF INDICATING INTENSIFICATION UPTO MARGINAL CYCLONIC STORM ONLY. THERE IS GOOD CONSENSUS AMONG THESE MODELS W.R.T. MOVEMENT OF SYSTEM TOWARDS THE BANGLADESH & ADJOINING MYANMAR COAST.

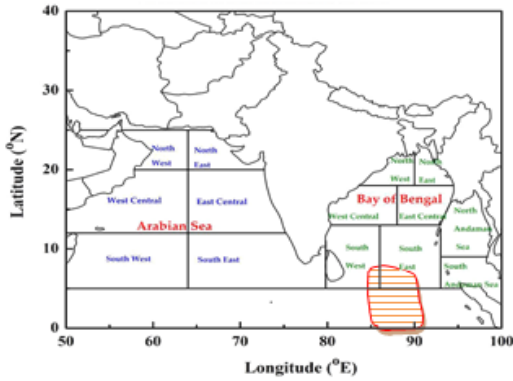
IN VIEW OF ALL THE ABOVE, IT IS INFERRED THAT THE LOW PRESSURE AREA OVER CENTRAL PARTS OF SOUTH BOB IS LIKELY TO MOVE EAST-NORTHEASTWARDS AND BECOME A WELL MARKED LOW PRESSURE AREA ON 19TH. THEREAFTER, IT IS LIKELY TO MOVE NORTH-NORTHWESTWARDS INITIALLY ALONG & OFF ANDAMAN & NICOBAR ISLANDS AND INTENSIFY INTO A DEPRESSION BY 0000 UTC OF 20TH & INTO A CYCLONIC STORM AROUND 21ST MARCH. IT WOULD THEN CONTINUE TO MOVE NORTH-NORTHWESTWARDS TILL 22ND MARCH, GRADUALLY RECURVE NORTH-NORTHEASTWARDS AND REACH NEAR BANGLADESH AND ADJOINING NORTH MYANMAR COAST ON 23RD MARCH.



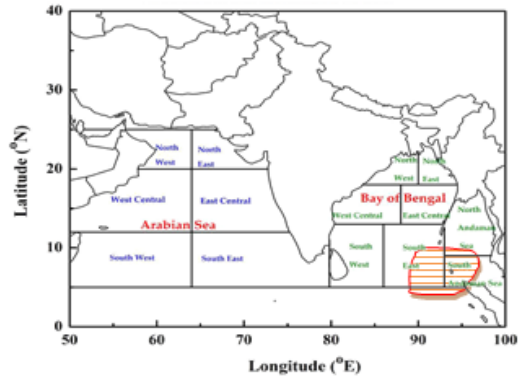
LPA: LOW PRESSURE AREA

**INDIA METEOROLOGICAL DEPARTMENT
FISHERMAN WARNING FOR BAY OF BENGAL AND ARABIAN SEA**

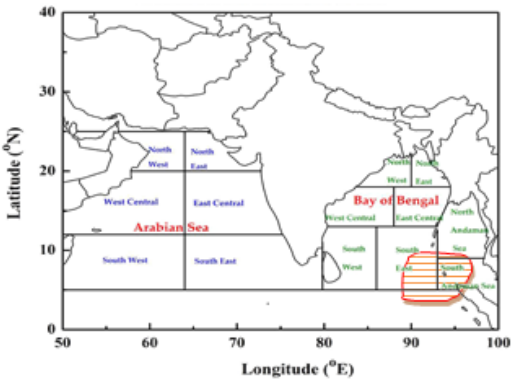
DAY-1: 16.03.2022/0600 UTC TO 17.03.2022/0600 UTC



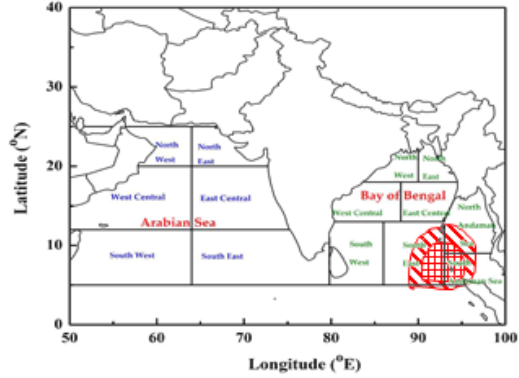
DAY-2: 17.03.2022/0600 UTC TO 18.03.2022/0600 UTC



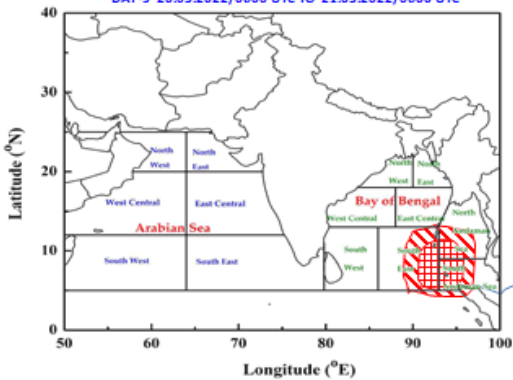
DAY-3: 18.03.2022/0600 UTC TO 19.03.2022/0600 UTC








DAY-4: 19.03.2022/0600 UTC TO 20.03.2022/0600 UTC



DAY-5: 20.03.2022/0600 UTC TO 21.03.2022/0600 UTC



AREA UNDER FISHERMEN WARNING

-  40-50 KMPH GUSTING TO 55 KMPH (SQUALLY WEATHER)
-  40-50 KMPH GUSTING TO 60 KMPH (STRONG WIND)
-  45-55 KMPH GUSTING TO 65 KMPH
-  50-60 KMPH GUSTING TO 70 KMPH
-  55-65 KMPH GUSTING TO 75 KMPH