



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

DEMS-RSMC TROPICAL CYCLONES NEW DELHI DATED 06.05.2023

TROPICAL WEATHER OUTLOOK FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND THE ARABIAN SEA) VALID FOR NEXT 120 HOURS ISSUED AT 0700 UTC OF 06.05.2023 BASED ON 0300 UTC OF 06.05.2023.

BAY OF BENGAL:

A CYCLONIC CIRCULATION HAS FORMED AND LAY OVER SOUTHEAST BAY OF BENGAL (BOB) AND NEIGHBOURHOOD EXTENDING UPTO MIDDLE TROPOSPHERIC LEVEL AT 0300 UTC OF TODAY THE 6TH MAY, 2023.

UNDER ITS INFLUENCE A LOW PRESSURE AREA IS LIKELY TO FORM OVER THE SAME REGION BY 8TH MAY, MORNING. IT IS LIKELY TO CONCENTRATE INTO A DEPRESSION OVER SOUTHEAST BOB AROUND 9TH MAY. THEREAFTER, IT IS LIKELY TO INTENSIFY INTO A CYCLONIC STORM WHILE MOVING NEARLY NORTHWARDS TOWARDS CENTRAL BOB. THE DETAILS OF ITS PATH AND INTENSIFICATION WILL BE PROVIDED AFTER THE FORMATION OF THE LOW PRESSURE AREA. THE SYSTEM IS UNDER CONSTANT WATCH AND BEING MONITORED REGULARLY.

SCATTERED TO BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER SOUTH BAY OF BENGAL. SCATTERED LOW AND MEDIUM CLOUDS WITH EMBEDDED MODERATE TO INTENSE CONVECTION LAY OVER WESTCENTRAL BAY OF BENGAL & SOUTH ANDAMAN SEA AND WEAK TO MODERATE CONVECTION LAY OVER NORTH & EASTCENTRAL BAY OF BENGAL AND NORTH ANDAMAN 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	LOW	HIGH	HIGH

ARABIAN SEA:

SCATTERED LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER EXTREAM SOUTHWEST ARABIAN SEA AND ADJOINING SOMALIA COAST. SCATTERED LOW AND MEDIUM CLOUDS WITH EMBEDDED MODERATE TO INTENSE CONVECTION LAY OVER REST SOUTH ARABIAN SEA & COMORIN AREA AND ISOLATED WEAK TO MODERATE CONVECTION LAY OVER CENTRAL 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

Cloud distribution: (a) Isolated: <25%, Scattered:25-50%, Broken: 51-75%, Solid:>75%, Convection Intensity: (a) Weak: Cloud Top Temperature (CTT) >-25°C, (b) Moderate: CTT: - 25°C to -40°C, (c) Intense: CTT: - 41°C to -70°C and (d) Very Intense: : Less than -70°C
PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION): NIL: 0%, LOW: 1-33%, , MODERATE: 34-66% AND HIGH: 67-100%
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REMARKS:

THE MADDEN JULIAN INDEX (MJO) CURRENTLY LIES IN PHASE 5 WITH AMPLITUDE MORE THAN 1. IT WILL CONTINUE IN SAME PHASE DURING NEXT 4 DAYS. THUS, MJO PHASE IS HIGHLY CONDUCTIVE FOR ENHANCED CONVECTION OVER THE BAY OF BENGAL (BOB) DURING NEXT 4-5 DAYS. EASTERLY WINDS (1-3 MPS) ARE LIKELY TO PREVAIL OVER SOUTH ANDAMAN SEA AND SOUTH BOB IN THE LOWER TROPOSPHERIC LEVELS DURING NEXT 2 DAYS. THEREAFTER, THE WESTERLY WINDS ARE LIKELY TO PREVAIL OVER THE SOUTH BOB AND SOUTH ANDAMAN SEA WITH EASTERLY WINDS OVER CENTRAL & NORTH BOB FROM 8TH MAY ONWARDS. THUS, THE EQUATORIAL WAVES AND MJO ARE LIKELY TO COLLECTIVELY CONTRIBUTE TOWARDS ENHANCEMENT OF CONVECTIVE ACTIVITY AND HENCE CYCLOGENESIS OVER SOUTH BOB AROUND 9TH MAY ONWARDS.

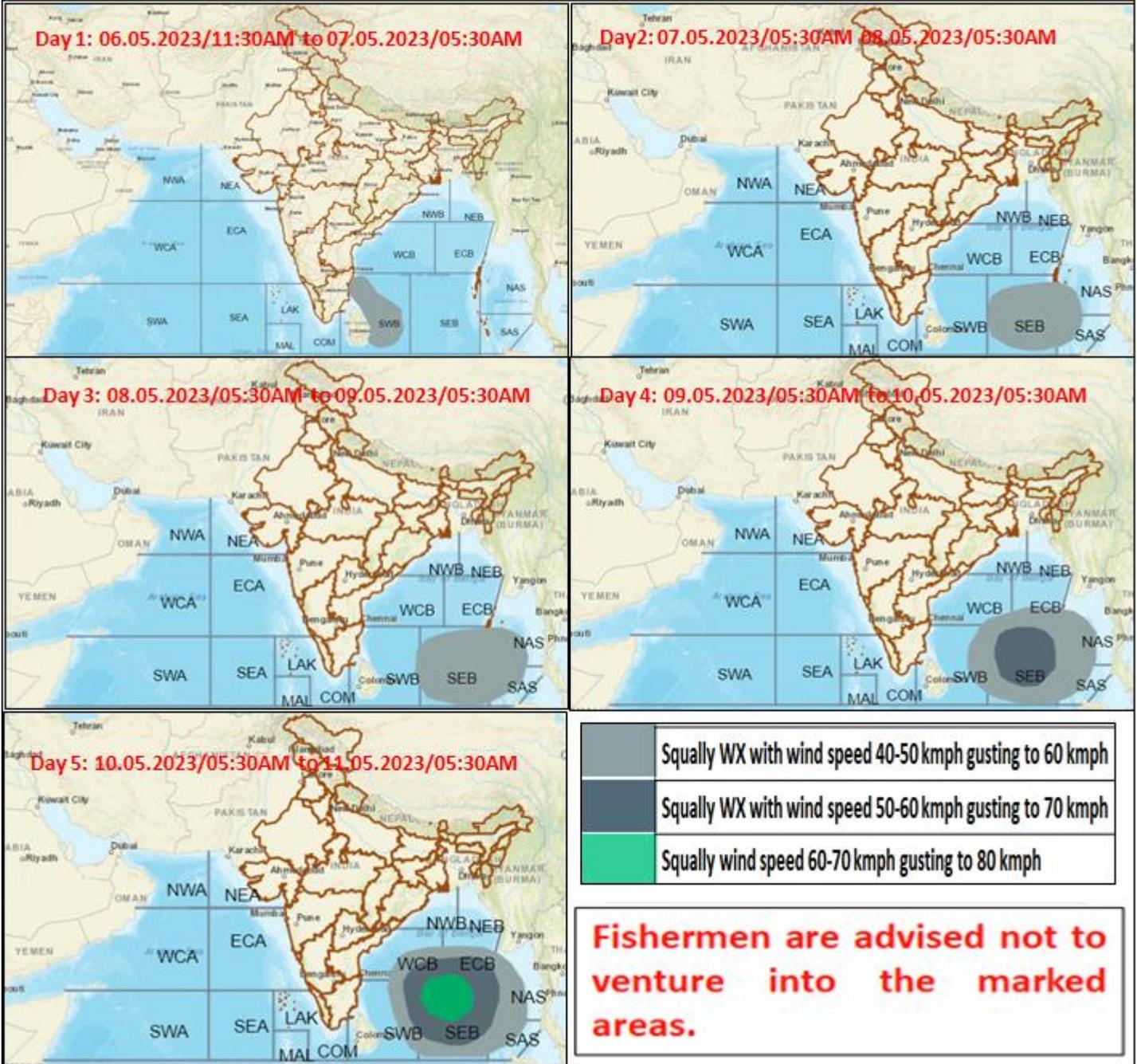
THE TROPICAL CYCLONE HEAT POTENTIAL (TCHP) IS MORE THAN 100 KJ/CM² OVER MAJOR PARTS OF SOUTH ANDAMAN SEA & ADJOINING SOUTHEAST BOB AND CENTRAL BOB. IT IS INDICATING DECREASING TENDENCY ABOUT 60-70 KJ/CM² ALONG THE EAST COAST OF INDIA & ALONG MYANMAR COAST. SEA SURFACE TEMPERATURE (SST) IS AROUND 30-32°C OVER ENTIRE BOB. THE SEA CONDITIONS OVER BOB ARE ALSO CONDUCTIVE FOR CYCLOGENESIS.

CONSIDERING THE ENVIRONMENTAL CONDITIONS, LOW LEVEL VORTICITY IS ABOUT $50-60 \times 10^{-6} \text{S}^{-1}$ OVER SOUTHEAST BAY OF BENGAL WITH VERTICAL EXTENSION UPTO 500 HPA LEVELS. LOW LEVEL CONVERGENCE IS $20 \times 10^{-5} \text{S}^{-1}$ OVER SOUTHEAST BOB AND UPPER LEVEL DIVERGENCE IS $20-30 \times 10^{-5} \text{S}^{-1}$ OVER SOUTH BOB. THE UPPER TROPOSPHERIC RIDGE AT 200 HPA IS LOCATED NEAR 18.5N.

CONSIDERING THE MODEL GUIDANCE, THERE IS LARGE VARIATION AMONG VARIOUS MODELS WRT TIME OF GENESIS WITH IMD GFS INDICATING DEPRESSION AROUND 8TH, NCEP GFS ON 9TH & ECMWF ON 10TH. THESE MODELS ARE INDICATING INTENSIFICATION OF THIS SYSTEM INTO A SEVERE CYCLONIC STORM. WRT TRACK, THERE IS LARGE VARIATION AMONG THESE MODELS WITH LANDFALL POINT VARYING FROM SOUTH TO NORTHEAST MYANMAR BETWEEN 13TH-14TH MAY. NCUM IS GIVING ABSOLUTELY DIFFERENT GUIDANCE. IT IS INDICATING NO SIGNIFICANT INTENSIFICATION OF THE SYSTEM AND WEST-NORTHWESTWARDS MOVEMENT TOWARDS TAMILNADU COAST & EMERGENCE INTO SOUTHEAST ARABIAN SEA. CURRENT INFERENCE IS BASED ON SYNOPTIC ANALYSIS, ENVIRONMENTAL FEATURES AND GUIDANCE FROM GFS GROUP OF MODELS & ECMWF MODEL.

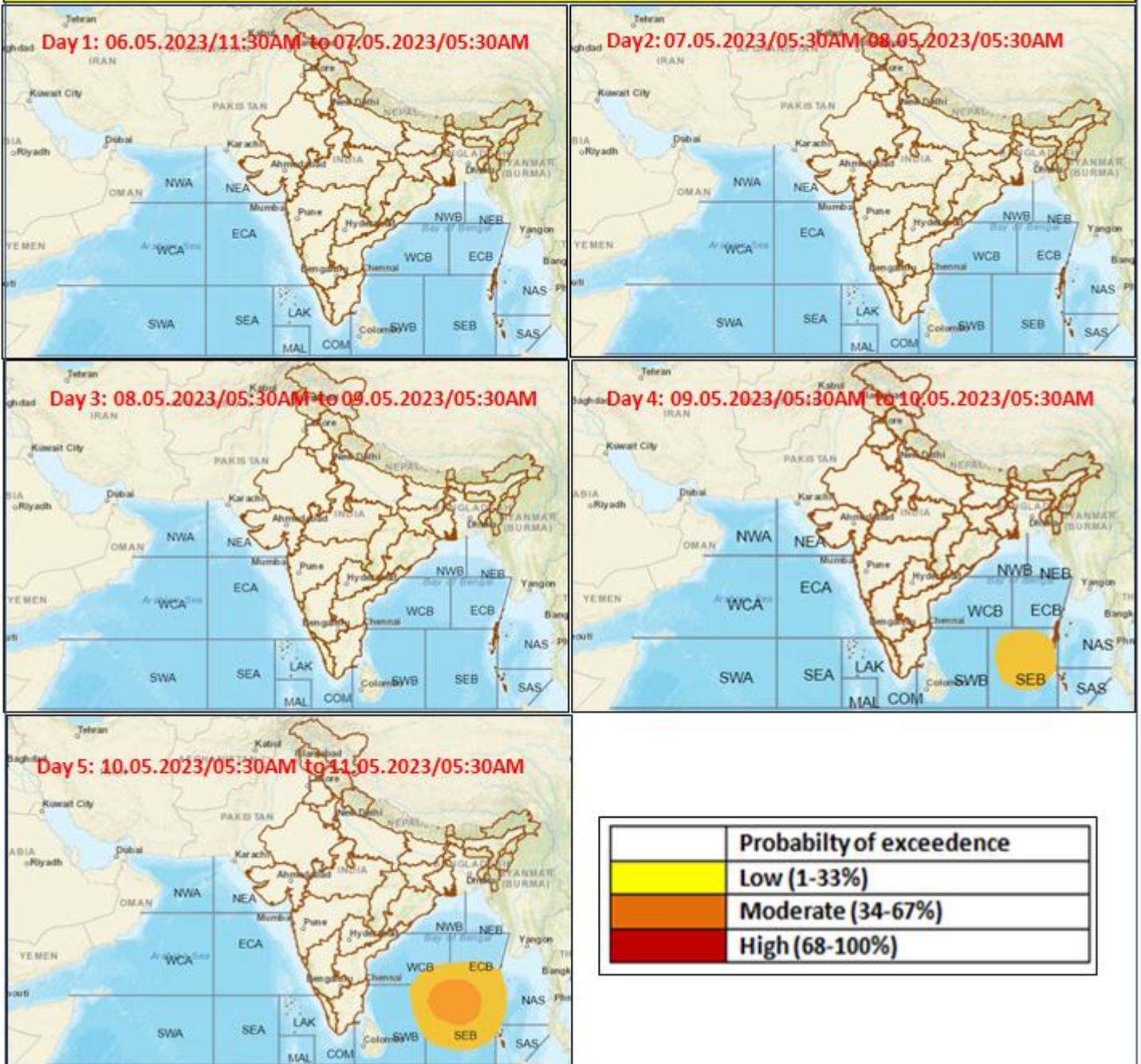
HENCE TO CONCLUDE, A LOW PRESSURE AREA IS LIKELY TO FORM OVER THE SOUTHEAST BAY OF BENGAL BY 8TH MAY, MORNING. IT IS LIKELY TO CONCENTRATE INTO A DEPRESSION OVER THE SAME REGION AROUND 9TH MAY. THEREAFTER, IT IS LIKELY TO INTENSIFY INTO A CYCLONIC STORM WHILE MOVING NEARLY NORTHWARDS TOWARDS CENTRAL BOB. THE DETAILS OF ITS PATH AND INTENSIFICATION WILL BE PROVIDED AFTER THE FORMATION OF THE LOW PRESSURE AREA. THE SYSTEM IS UNDER CONSTANT WATCH AND BEING MONITORED REGULARLY. HIGH PROBABILITY HAS BEEN ASSIGNED TO GENESIS (FORMATION OF DEPRESSION) OVER SOUTHEAST BAY OF BENGAL ON DAY 4 & 5 DURING 9TH-11TH MAY, 2023. THE SYSTEM IS UNDER CONSTANT SURVEILLANCE AND BEING MONITORED CONTINUOUSLY. THE DETAILS OF ITS PATH AND INTENSIFICATION WILL BE PROVIDED AFTER THE FORMATION OF LOW PRESSURE AREA.

Fishermen warning graphics



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Probability of exceedance of maximum sustained winds ≥ 45 kmph



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