



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

DEMS-RSMC TROPICAL CYCLONES NEW DELHI DATED 19.10.2023

TROPICAL WEATHER OUTLOOK FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND THE ARABIAN SEA) VALID FOR NEXT 168 HOURS ISSUED AT 0730 UTC OF 19.10.2023 BASED ON 0300 UTC OF 19.10.2023.

SUB: (A) LOW PRESSURE AREA OVER SOUTHEAST AND ADJOINING SOUTHWEST ARABIAN SEA AND (B) CYCLONIC CIRCULATION OVER SOUTHEAST BAY OF BENGAL

(A) ARABIAN SEA:

YESTERDAY'S LOW PRESSURE AREA OVER SOUTHEAST & ADJOINING EASTCENTRAL ARABIAN SEA MOVED NEARLY WESTWARDS AND LAY OVER SOUTHEAST & ADJOINING SOUTHWEST ARABIAN SEA AT 0300 UTC OF TODAY, THE 19TH OCTOBER, 2023.

IT IS LIKELY TO MOVE NEARLY WEST-NORTHWESTWARDS AND BECOME WELL MARKED LOW PRESSURE AREA OVER SOUTHWEST ARABIAN SEA DURING NEXT 24-HOURS AND INTENSIFY INTO A DEPRESSION OVER SOUTHWEST & ADJOINING WESTCENTRAL ARABIAN SEA AROUND 21ST OCTOBER.

SCATTERED TO BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER CENTRAL ADJOINING SOUTH ARABIAN SEA BETWEEN LATTITUDE 7.0N TO 14.0N AND LONGITUDE 58.5E TO 66.5E. MINIMUM CLOUD TOP TEMPRATURE IS MINUS 78⁰C. SCATTERED LOW AND MEDIUM CLOUDS WITH EMBEDDED MODERATE TO INTENSE CONVENTION LAY OVER COMORIN AREA.

ASSOCIATED MAXIMUM SUSTAINED WIND SPEED IS 10-15 KNOTS GUSTING TO 20 KNOTS. THE ESTIMATED CENTRAL PRESSURE IS 1010 HPA.

PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION) DURING NEXT 168 HRS:

24 HOURS	24-48 HOURS	48-72 HOURS	72-96 HOURS	96-120 HOURS	120-144 HOURS	144-168 HOURS
NIL	LOW	MOD	HIGH	-	-	-

“-“ INDICATE THAT CYCLOGENESIS HAS ALREADY OCCURRED. THE ABOVE TABLE INDICATES PROBABILITY OF CYCLOGENESIS ONLY (FORMATION OF DEPRESSION).

(B) BAY OF BENGAL:

YESTERDAY'S CYCLONIC CIRCULATION OVER SOUTHEAST BAY OF BENGAL IN LOWER TROPOSPHERIC LEVELS PERSISTED OVER THE SAME REGION AT 0300 UTC OF TODAY, THE 19TH OCTOBER, 2023. IT IS LIKELY TO MOVE NORTHWESTWARDS AND UNDER ITS INFLUENCE A LOW PRESSURE AREA IS LIKELY TO FORM OVER CENTRAL PARTS OF BAY OF BENGAL BY 21ST MORNING. THEREAFTER, IT IS LIKELY TO INTENSIFY FURTHER INTO A DEPRESSION OVER WESTCENTRAL BAY OF BENGAL AROUND 23RD OCTOBER.

SCATTERED TO BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER SOUTHBAY OF BENGAL OF BENGAL. SCATTERED LOW AND MEDIUM CLOUDS WITH EMBEDDED MODERATE TO INTENSE CONVECTION LAY OVER CENTRALBAY OF BENGAL OF BENGAL ANDAMAN SEA AND ISOLATED WEAK CONVECTION LAY OVER NORTHWEST BAY OF BENGAL OF BENGAL.

PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION) DURING NEXT 168 HRS:

24 HOURS	24-48 HOURS	48-72 HOURS	72-96 HOURS	96-120 HOURS	120-144 HOURS	144-168 HOURS
NIL	NIL	NIL	LOW	MOD	MOD	-

“-“ indicate that cyclogenesis has already occurred. The above table indicates probability of cyclogenesis only (formation of depression).

Remarks:

ARABIAN SEA:

MADDEN JULIAN OSCILLATION INDEX IS IN PHASE 1 WITH AMPLITUDE LESS THAN 1. SEA SURFACE TEMPERATURE IS 29-30°C OVER SOUTH AND EASTCENTRAL ARABIAN SEA. THE ENVIROMENTAL FEATURES INDICATE POSITIVE LOW LEVEL VORTICITY $50-60 \times 10^{-6} \text{S}^{-1}$ OVER SYSTEM AREA WITH VERTICAL EXTENSION UPTO 500 HPA LEVEL. THE POSITIVE LOW LEVEL CONVERGENCE IS ABOUT $10 \times 10^{-5} \text{S}^{-1}$ TO THE SOUTH OF SYSTEM AREA. POSITIVE UPPER LEVEL DIVERGENCE IS ABOUT $10 \times 10^{-5} \text{S}^{-1}$ TO THE SOUTH OF SYSTEM AREA. EQUATORWARD OUTFLOW IS PROMINENT. WIND SHEAR IS LOW TO MODERATE (5-15) OVER SYSTEM AREA AND ALONG THE EXPECTED TRACK.

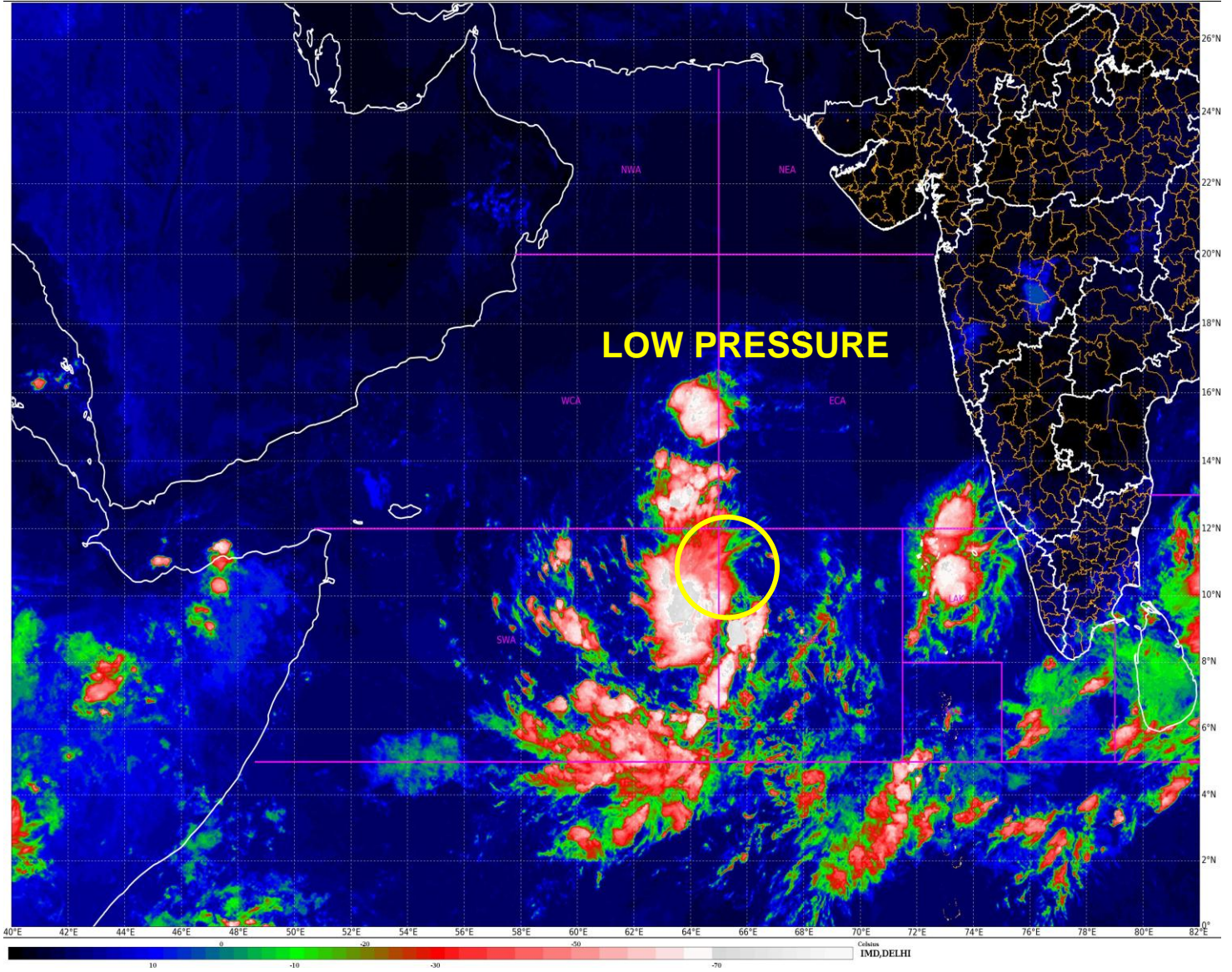
MOST OF THE MODELS ARE INDICATING FURTHER INTENSIFICATION OF THE SYSTEM INTO DEPRESSION AROUND 21ST OCTOBER AND GRADUAL WESTNORTHWESTWARDS MOVEMENT TOWARDS OMAN-YEMEN COASTS.

CONSIDERING ALL THESE, THE LOW PRESSURE AREA OVER SOUTHEAST & ADJOINING SOUTHWEST ARABIAN SEA IS LIKELY TO MOVE NEARLY WEST-NORTHWESTWARDS AND BECOME WELL MARKED LOW PRESSURE AREA OVER SOUTHWEST ARABIAN SEA DURING NEXT 24-HOURS AND INTENSIFY INTO A DEPRESSION OVER SOUTHWEST & ADJOINING WESTCENTRAL ARABIAN SEA AROUND 21ST OCTOBER.

Bay of Bengal:

MJO IS NOT SUPPORTIVE FOR CYCLOGENESIS OVER BOB. HOWEVER, WARM SST AND LOW TO MODERATE VERTICAL WIND SHEAR OVER SOUTH & CENTRAL BOB ARE LIKELY TO SUPPORT THE DEVELOPMENT OF CYCLONIC CIRCULATION OVER SOUTHEAST BOB INTO A DEPRESSION. THE GLOBAL MODELS ARE IN AGREEMENT THAT THE CYCLONIC CIRCULATION OVER SOUTHEAST BAY OF BENGAL IS LIKELY TO INTENSIFY FURTHER INTO A DEPRESSION OVER WESTCENTRAL BAY OF BENGAL AROUND 23RD. HENCE LOW TO MODERATE PROBABILITY OF FORMATION OF DEPRESSION IS ASSIGNED TO FORMATION OF DEPRESSION OVER BOB DURING 22ND – 23RD OCTOBER.

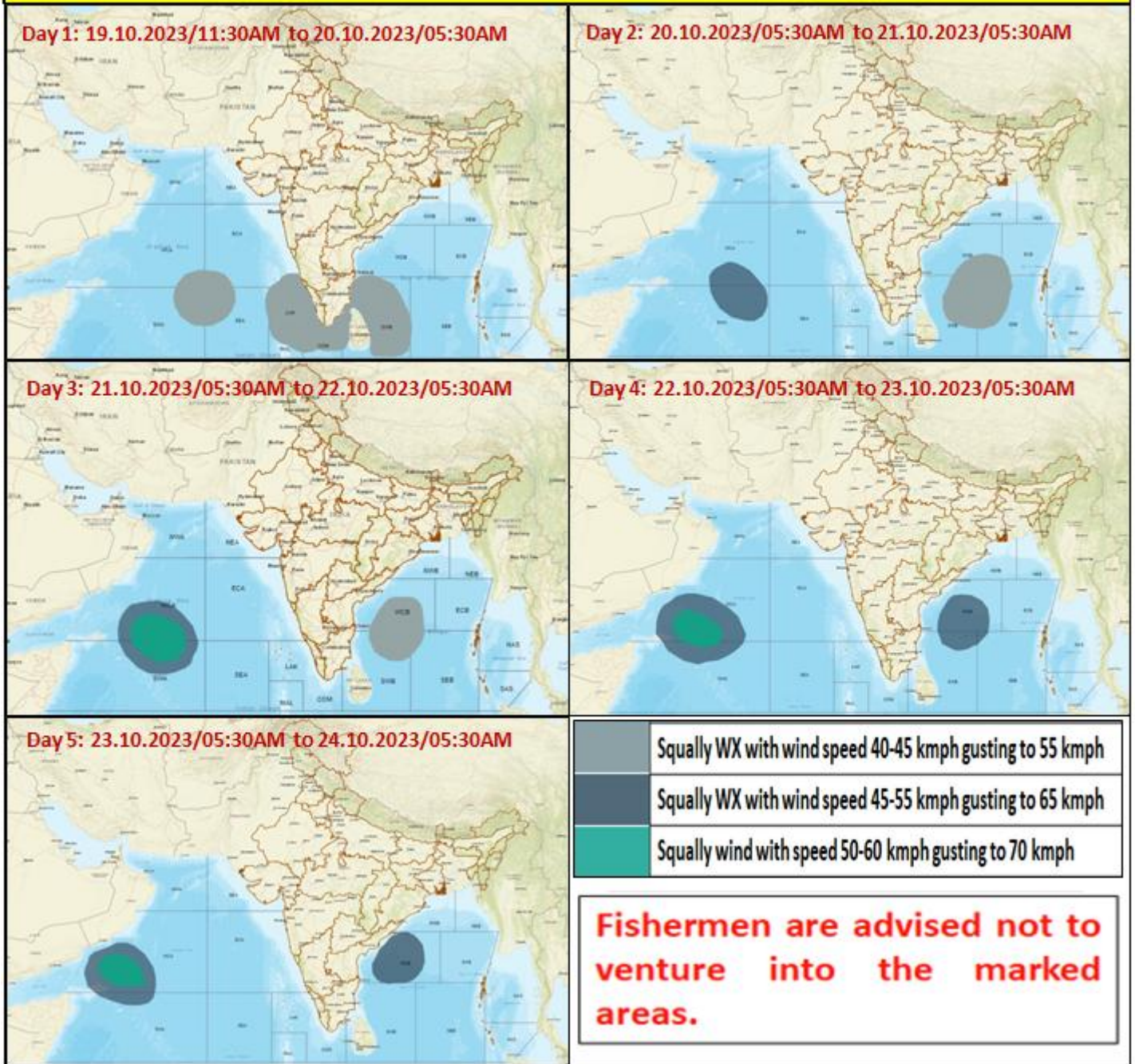
(M SHARMA)
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LPA: LOW PRESSURE AREA

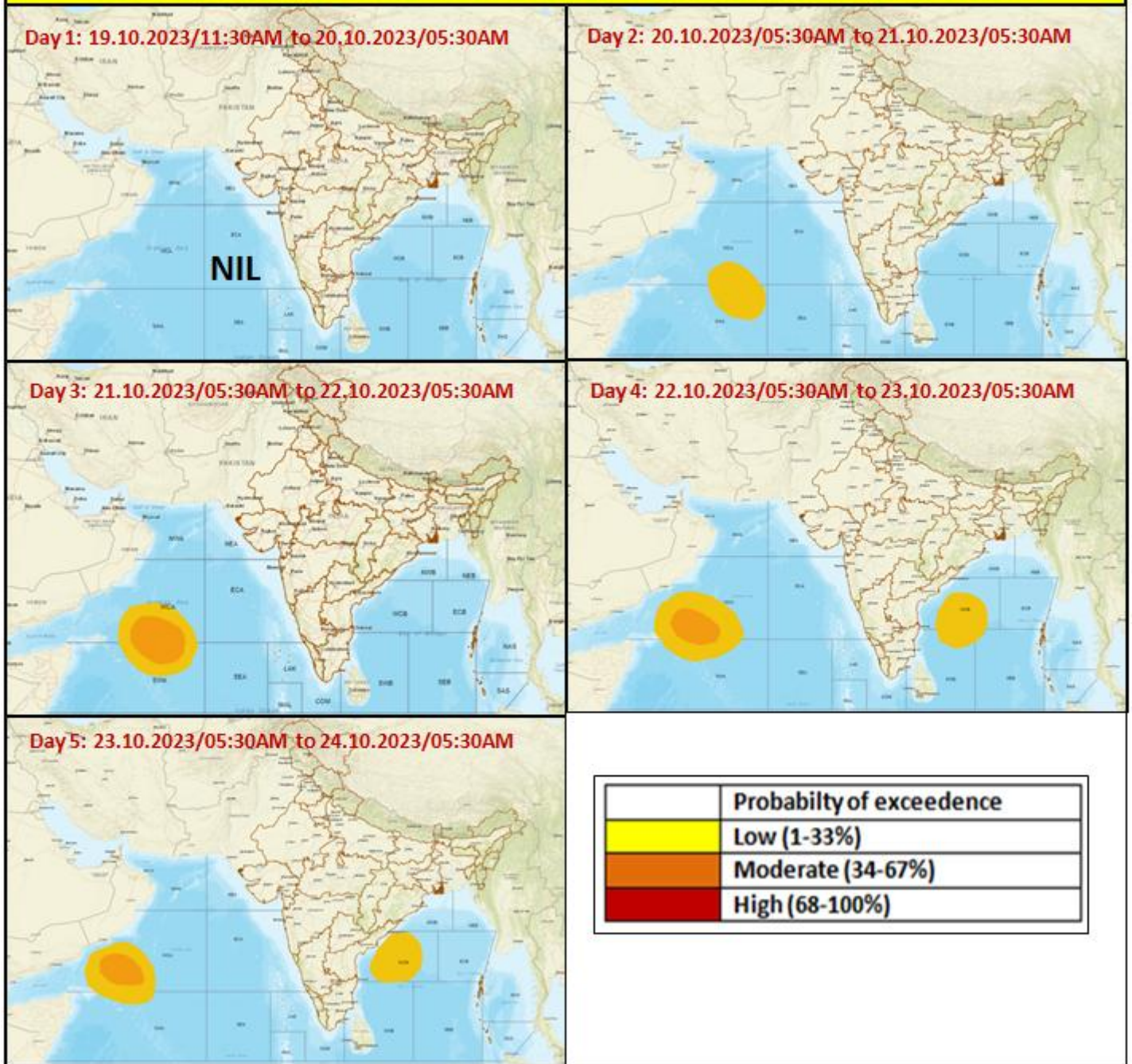
Cloud distribution: (a) Isolated: <25%, Scattered:25-50%, Broken: 51-75%, Solid:>75%, Convection Intensity: (a) Weak: Cloud Top Temperature (CTT) >-25°C, (b) Moderate: CTT: - 25°C to -40°C, (c) Intense: CTT: - 41°C to -70°C and (d) Very Intense: : Less than -70°C
PROBABILITY OF CYCLOGENESIS (FORMATION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



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Probability of exceedance of maximum sustained winds ≥ 45 kmph



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