



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

DEMS-RSMC SPECIAL TROPICAL CYCLONES NEW DELHI DATED 17.12.2022

SPECIAL TROPICAL WEATHER OUTLOOK FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND THE ARABIAN SEA) VALID FOR NEXT 120 HOURS ISSUED AT 0600 UTC OF 17.12.2022 BASED ON 0300 UTC OF 17.12.2022.

ARABIAN SEA:

(A) DEPRESSION OVER WESTCENTRAL ARABIAN SEA

THE DEPRESSION OVER WESTCENTRAL ARABIAN SEA MOVED WEST-SOUTHWESTWARDS WITH A SPEED OF 13 KMPH DURING PAST 06 HOURS AND LAY CENTERED AT 0300 UTC OF TODAY, THE 17TH DECEMBER 2022 OVER THE SAME REGION NEAR LATITUDE 14.0°N AND LONGITUDE 61.9°E ABOUT 1220 KM WEST-NORTHWEST OF AMINIDIVI (43311), 1300 KM WEST-SOUTHWEST OF PANJIM (43192) AND 900 KM EAST-SOUTHEAST OF SALALAH (41316).

IT IS VERY LIKELY TO MOVE NEARLY WESTWARDS AND WEAKEN INTO A WELL MARKED LOW PRESSURE AREA DURING NEXT 12 HOURS.

AS PER INSAT 3D IMAGERY, INTENSITY OF THE SYSTEM IS T1.5/1.5. THE ASSOCIATED SCATTERED TO BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER CENTRAL PARTS OF ARABIAN SEA. MINIMUM CLOUD TOP TEMPERATURE IS MINUS 80°CELCIUS.

ASSOCIATED MAXIMUM SUSTAINED WIND SPEED IS 25 KNOTS GUSTING TO 35KTS. THE ESTIMATED CENTRAL PRESSURE IS 1002 HPA. SEA CONDITION IS LIKELY TO BE ROUGH OVER WESTCENTRAL & SOUTHWEST ARABIAN SEA.

BAY OF BENGAL:

(B) LOW PRESSURE AREA OVER SOUTHEAST BAY OF BENGAL AND ADJOINING AREAS OF EAST EQUATORIAL INDIAN OCEAN

THE **LOW PRESSURE AREA** OVER SOUTHEAST BAY OF BENGAL & ADJOINING EAST EQUATORIAL INDIAN OCEAN PERSISTS OVER THE SAME REGION AT 0300UTC OF TODAY, THE 17TH DECEMBER. IT IS LIKELY TO MOVE WESTWARDS SLOWLY OVER SOUTH BAY OF BENGAL DURING NEXT 48 HOURS (TILL 0000UTC OF 19TH DEC).

SCATTERED TO BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER SOUTHEAST BAY OF BENGAL AND ADJOINING EQUATORIAL INDIAN OCEAN BETWEEN LATITUDE 3.5°N & 11.0°N AND LONG 85.0°E & 93.0°E. MINIMUM CLOUD TOP TEMPERATURE IS MINUS 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	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:

ARABIAN SEA:

SEA SURFACE TEMPERATURE IS ABOUT 25-26°C OVER WESTCENTRAL ARABIAN SEA. LOW LEVEL RELATIVE VORTICITY IS AROUND $100 \times 10^{-6} \text{ S}^{-1}$ TO THE SOUTHEAST OF SYSTEM CENTRE. LOW LEVEL CONVERGENCE IS ABOUT $05 \times 10^{-5} \text{ S}^{-1}$ TO THE SOUTHEAST AND ANOTHER ZONE TO THE NORTHEAST OF SYSTEM CENTRE. UPPER LEVEL DIVERGENCE IS ABOUT $10 \times 10^{-5} \text{ S}^{-1}$ TO THE NORTHEAST OF THE SYSTEM CENTRE. HIGH VERTICAL WIND SHEAR OF ABOUT 20-25 KNOTS IS PREVAILING AROUND THE SYSTEM CENTRE. MULTI-SATELLITE WINDS ARE INDICATING STRONGER WINDS IN THE NORTHEAST SECTOR AND THUS, THE SHEARING OF CONVECTIVE CLOUD MASS TO THE NORTHEAST IS PERSISTING FROM LAST 12-HOURS.

THE ENVIRONMENTAL FEATURES (COLDER SEA, DRY COLD AIR INTRUSION, HIGH VERTICAL WIND SHEAR, DECREASE IN MOISTURE IN MIDDLE LEVELS) INDICATE THAT THE SYSTEM IS MOVING IN UNFAVOURABLE ENVIRONMENT LEADING TO FURTHER WEAKENING OF THE SYSTEM INTO A WELL MARKED LOW PRESSURE AREA BY 1200 UTC OF 17TH DECEMBER.

VARIOUS MODELS INDICATE THAT IS VERY LIKELY TO MOVE NEARLY WESTWARDS AND WEAKEN GRADUALLY INTO A WELL MARKED LOW PRESSURE AREA BY 17TH DECEMBER EVENING (1200UTC OF 17TH).

IN VIEW OF ABOVE, THE DEPRESSION OVER WESTCENTRAL ARABIAN SEA IS VERY LIKELY TO MOVE NEARLY WESTWARDS AND WEAKEN INTO A WELL MARKED LOW PRESSURE AREA DURING NEXT 12 HOURS.

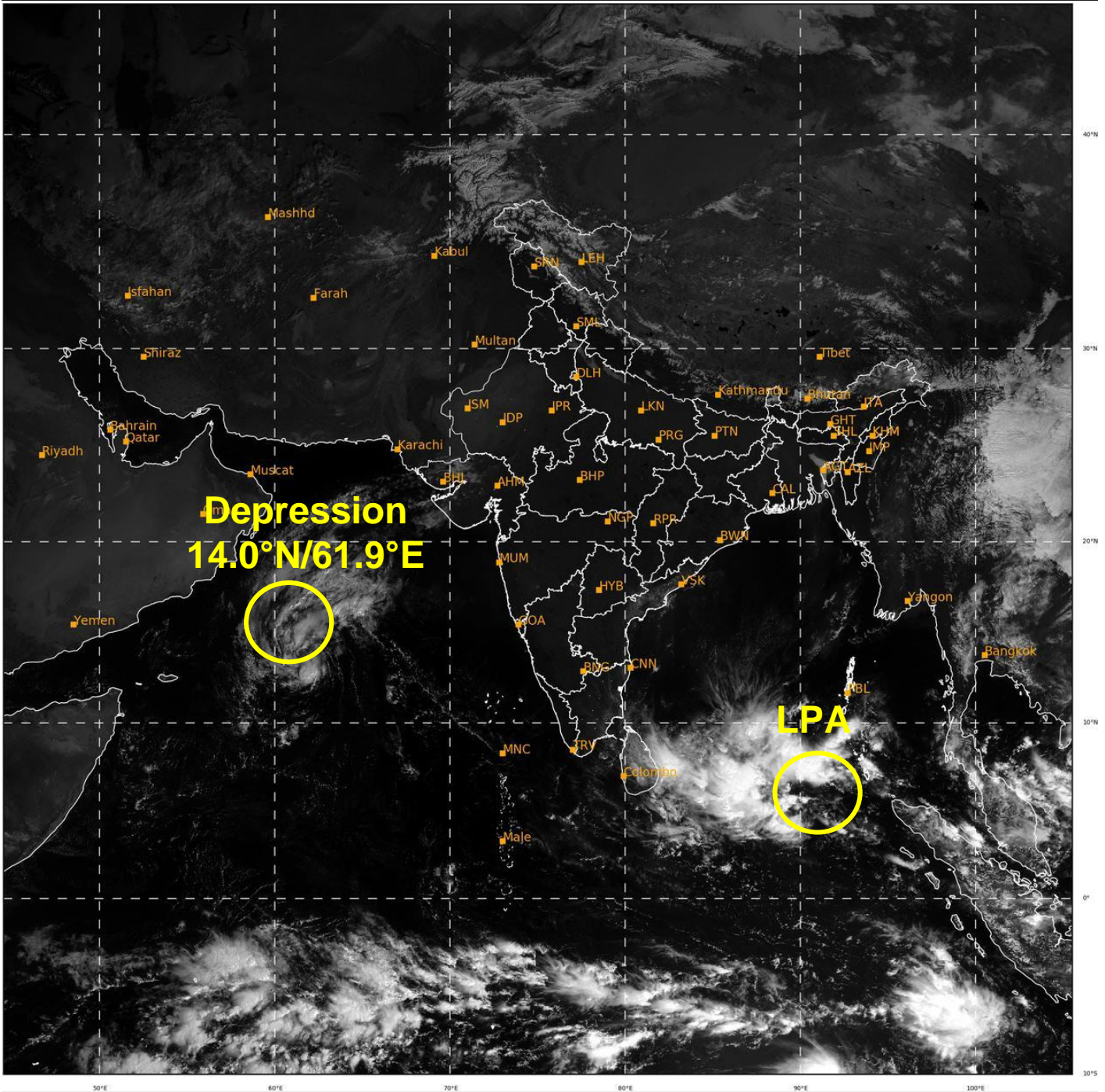
BAY OF BENGAL:

SEA SURFACE TEMPERATURE IS ABOUT 28-29°C OVER SOUTH BOB AND ADJOINING EQUATORIAL INDIAN OCEAN. LOW LEVEL RELATIVE VORTICITY IS AROUND $50 \times 10^{-6} \text{ S}^{-1}$ OVER SOUTH EAST BAY OF BENGAL AND ADJOINING EQUATORIAL INDIAN OCEAN. LOW LEVEL CONVERGENCE IS ABOUT $20 \times 10^{-5} \text{ S}^{-1}$ OVER SOUTHEAST BOB AND ADJOINING AREAS. UPPER LEVEL DIVERGENCE HAS INCREASED TO $40 \times 10^{-5} \text{ S}^{-1}$ OVER SOUTHEAST BOB AND ADJOINING EQUATORIAL INDIAN OCEAN. MODERATE VERTICAL WIND SHEAR OF ABOUT 15-20 KNOTS IS PREVAILING AROUND SYSTEM AREA OVER SOUTHEAST BOB & ADJOINING AREAS. THE EASTERLY WINDS IN THE LOWER TROPOSPHERIC LEVELS ARE LIKELY TO STEER THE SYSTEM NEARLY WESTWARDS.

MOST OF THE MODELS ARE INDICATING EXISTING LOW PRESSURE AREA LIKELY TO MOVE WESTWARDS SLOWLY OVER SOUTH BAY OF BENGAL DURING NEXT 48 HOURS.

IN VIEW OF ABOVE, THE LOW PRESSURE AREA OVER SOUTHEAST BAY OF BENGAL & ADJOINING AREAS OF EAST EQUATORIAL INDIAN OCEAN IS LIKELY TO MOVE SLOWLY WESTWARDS OVER SOUTH BAY OF BENGAL DURING NEXT 48-HOURS (TILL 0000UTC OF 19TH DEC).

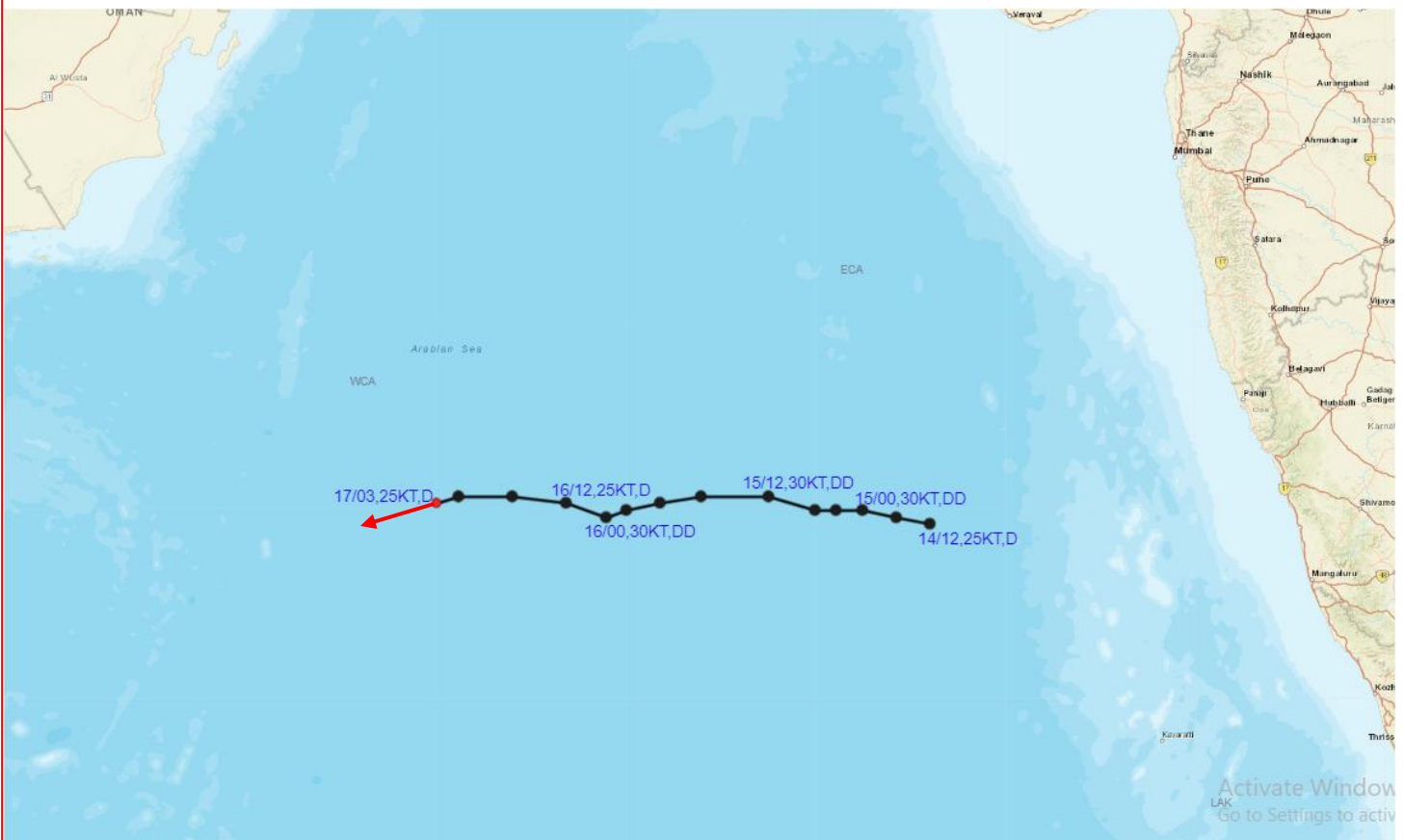
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LPA: Low Pressure Area

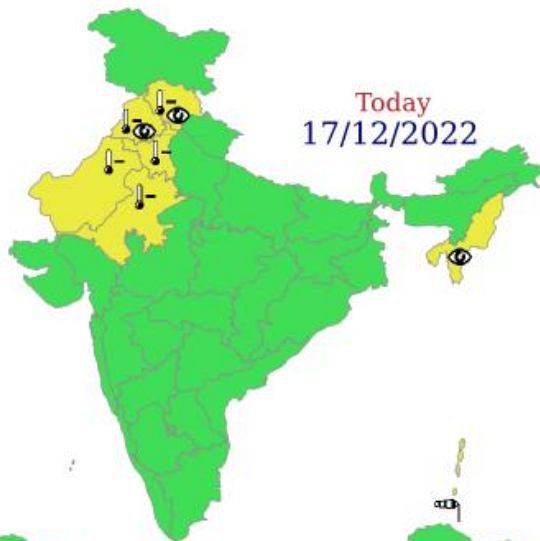


OBSERVED AND FORECAST TRACK OF DEPRESSION OVER WESTCENTRAL ARABIAN SEA BASED ON 0300 UTC OF 17TH DECEMBER, 2022



DATE/TIME IN UTC
IST=UTC + 0530
L: LOW PRESSURE AREA
WML: WELL MARKED LOW PRESSURE AREA
D: DEPRESSION (17-27 KT)
DD: DEEP DEPRESSION (28-33 KT)
CS: CYCLONIC STORM (34-47 KT)
SCS: SEVERE CYCLONIC STORM (48-63KT)
VSCS: VERY SEVERE CYCLONIC STORM (64-89 KT)
ESCS: EXTREMELY SEVERE CYCLONIC STORM (90-119 KT)
SuCS: SUPER CYCLONIC STORM (≥20 KT)

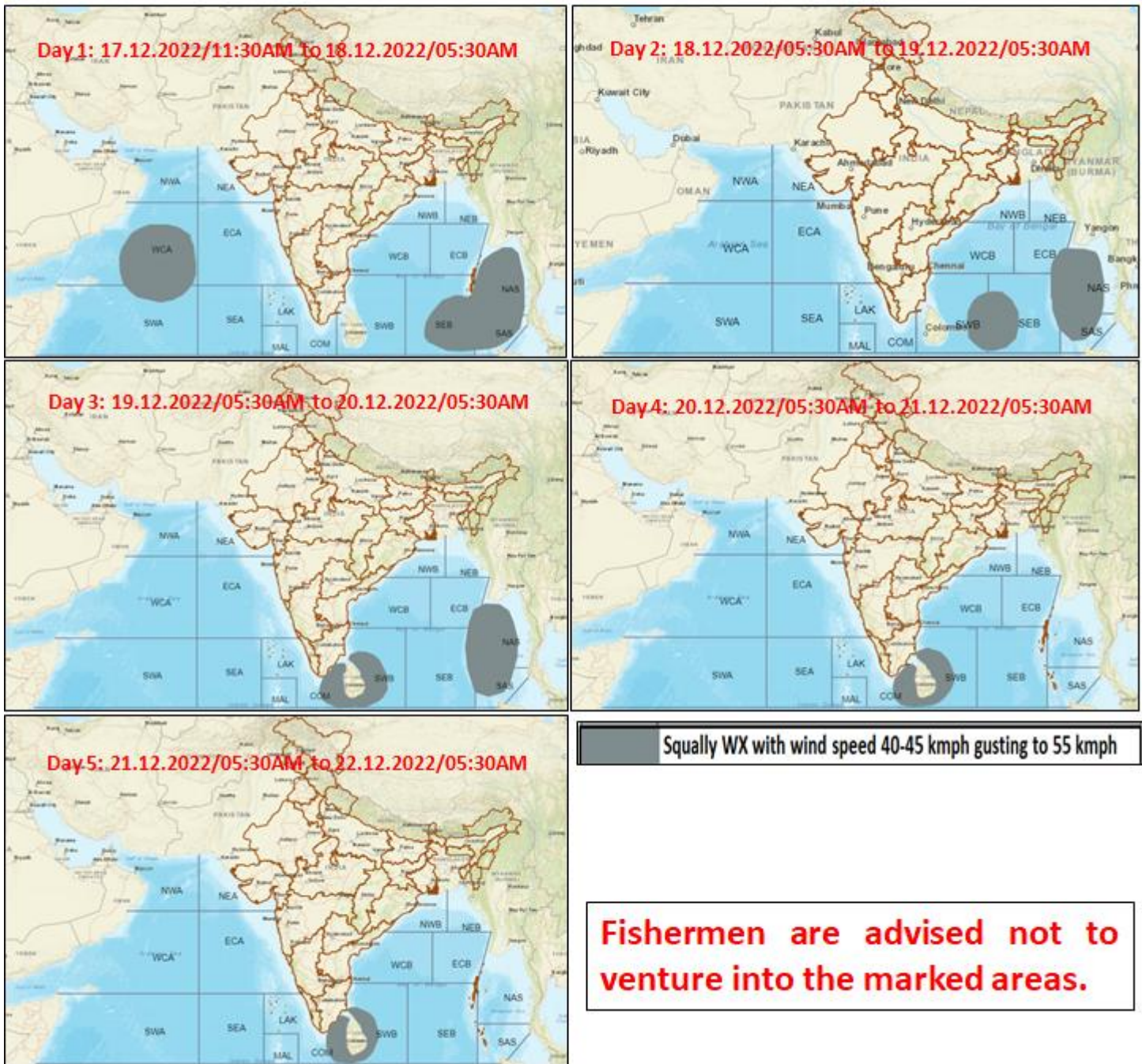
-  LESS THAN 34 KT
-  34-47 KT
-  ≥ 48 KT
-  OBSERVED TRACK
-  FORECAST TRACK
-  CONE OF UNCERTAINTY



- | | | | | | | | |
|--|--------------|--|------------|--|--------------|--|--------------|
| | Heavy Rain | | Heavy Snow | | Thunderstorm | | Dust Storm |
| | Strong Winds | | Visibility | | Cyclone | | Squall/ Hail |
| | Frost | | Cold Wave | | Heat Wave | | Sea State |

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Fishermen warning graphics



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