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

DEMS-RSMC SPECIAL TROPICAL CYCLONES NEW DELHI DATED 14.12.2022

SPECIAL TROPICAL WEATHER OUTLOOK FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND THE ARABIAN SEA) VALID FOR NEXT 120 HOURS ISSUED AT 1500 UTC OF 14.12.2022 BASED ON 1200 UTC OF 14.12.2022.

ARABIAN SEA:

(A) DEPRESSION OVER EASTCENTRAL AND ADJOINING SOUTHEAST ARABIAN SEA

DEPRESSION OVER EASTCENTRAL AND ADJOINING SOUTHEAST ARABIAN SEA MOVED WEST-NORTHWESTWARDS WITH A SPEED OF 16 KMPH DURING PAST 3 HOURS AND LAY CENTERED AT 1200 UTC OF TODAY, THE 14TH DECEMBER 2022 NEAR LATITUDE 13.7^{0}N AND LONGITUDE 69.2^{0}E ABOUT 480 KM NORTHWEST OF AMINIDIVI (43311), ABOUT 540 KM WEST-SOUTHWEST OF PANJIM GOA (43192) AND 1660 KM EAST-SOUTHEAST OF SALALAH (41316).

IT IS VERY LIKELY TO MOVE WEST-NORTHWESTWARDS OVER EASTCENTRAL ARABIAN SEA AWAY FROM INDIA COAST AND INTENSIFY FURTHER INTO A DEEP DEPRESSION BY MORNING (0000 UTC) OF TOMORROW, THE 15TH DECEMBER 2022.

FORECAST TRACK AND INTENSITY ARE GIVEN BELOW:

Date/Time(UTC)	Forecast Lead Period	Position (Lat. ^{0}N/ long. ^{0}E)	Maximum sustained surface wind speed (kmph)	Category of cyclonic disturbance
14.12.22/1200	00	13.7/69.2	45-55 gusting to 65	Depression
15.12.22/0000	12	14.0/67.6	50-60 gusting to 70	Deep Depression
15.12.22/1200	24	14.2/66.3	55-65 gusting to 75	Deep Depression
16.12.22/0000	36	14.3/64.9	55-65 gusting to 75	Deep Depression
16.12.22/1200	48	14.4/63.5	45-55 gusting to 65	Depression
17.12.22/0000	60	14.4/61.9	40-50 gusting to 60	Depression
17.12.22/1200	72	14.3/60.2	30-40 gusting to 50	Well Marked Low

AS PER INSAT 3D IMAGERY, THE CLOUDS ARE ORGANIZED IN SHAER PATTERN. INTENSITY OF THE SYSTEM IS T 1.5. ASSOCIATED SCATTERED TO BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER EASTCENTRAL ARABIAN SEA ADJOINING SOUTHEAST ARABIAN SEA & LAKHSDWEEP ISLANDS AREA. MINIMUM CLOUD TOP TEMPERATURE IS MINUS 93 DEG C.

ASSOCIATED MAXIMUM SUSTAINED WIND SPEED IS 25 KNOTS. THE ESTIMATED CENTRAL PRESSURE IS 1002 HPA. SEA CONDITION IS LIKELY TO BE ROUGH TO VERY ROUGH OVER EASTCENTRAL & ADJOINING SOUTHEAST ARABIAN SEA AND LAKSHADWEEP AREA.

BAY OF BENGAL:

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

THE LOW PRESSURE AREA OVER EQUATORIAL INDIAN OCEAN AND ADJOINING AREAS OF SOUTH ANDAMAN SEA & SOUTHEAST BAY OF BENGAL MOVED NORTHWESTWARDS AND LAY OVER SOUTHEAST BAY OF BENGAL & ADJOINING AREAS OF EAST EQUATORIAL INDIAN OCEAN AND SOUTH ANDAMAN SEA AT 1200 UTC OF TODAY, 14TH DECEMBER, 2022.

IT IS LIKELY TO MOVE GRADUALLY WESTWARDS AND BECOME WELL MARKED LOW PRESSURE AREA OVER SOUTHEAST BAY OF BENGAL AND ADJOINING EQUATORIAL INDIAN OCEAN BY 15TH DECEMBER. THEREAFTER, IT WOULD CONTINUE TO MOVE WESTWARDS AND MAINTAIN ITS INTENSITY OVER SOUTH BAY OF BENGAL TILL MORNING (0000 UTC) OF 17TH DECEMBER 2022

SCATTERED TO BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER SOUTHEAST BAY OF BENGAL AND ADJOINING SOUTH ANDAMAN SEA BETWEEN . SCATTERED LOW AND MEDIUM CLOUDS WITH EMBEDDED MODERATE TO INTENSE CONVECTION LAY OVER SOUTHEAST BAY OF BENGAL AND ADJOINING SOUTH ANDAMAN SEA BETWEEN LATITUDE 2.0N & 12N AND EAST OF LONG 83.0E. MINIMUM CLOUD TOP TEMPERATURE IS MINUS 93 DEG C.

ASSOCIATED MAXIMUM SUSTAINED WIND SPEED IS 15 KNOTS. THE ESTIMATED CENTRAL PRESSURE IS 1008 HPA. SEA CONDITION IS LIKELY TO BE ROUGH OVER SOUTHEAST BAY OF BENGAL AND ADJOINING AREAS OF EQUATORIAL INDIAN OCEAN AND SOUTH 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	LOW	LOW	NIL	NIL

REMARKS:

ARABIAN SEA:

SEA SURFACE TEMPERATURE IS ABOUT 28-29°C OVER EASTCENTRAL AND ADJOINING SOUTHEAST ARABIAN SEA BECOMING 27°C TO THE WEST OF 67°E . LOW LEVEL RELATIVE VORTICITY HAS INCREASED DURING PAST 06 HOURS AND IS AROUND 100X10^{-6} S^{-1} TO THE SOUTH OF SYSTEM CENTRE. LOW LEVEL CONVERGENCE HAS INCREASED AND IS ABOUT 10X10^{-5} S^{-1} TO THE SOUTHEAST OF SYSTEM CENTRE. UPPER LEVEL DIVERGENCE IS ABOUT 20X10^{-5} S^{-1} TO THE NORTHEAST OF THE SYSTEM CENTRE AND IS NORTH-SOUTH ORIENTED. MODERAT VERTICAL WIND SHEAR OF ABOUT 15-20 KNOTS IS PREVAILING AROUND SYSTEM AREA AND IS INCREASING TOWARDS WEST AND NORTHWEST ARABIAN SEA. MULTI-SATELLITE WINDS ARE INDICATING STRONGER WINDS IN THE NORTHEAST SECTOR. TOTAL PRECIPITABLE WATER VAPOUR IMAGERY INDICATES WARM MOIST AIR ADVECTION FROM SOUTHERN SECTOR AND DRY COLD WIND INCURSION IS SEEN UPTO SOUTHERN SECTOR IN THE OUTER REGION. THE SYSTEM IS CURRENTLY MOVING NORTHWESTWARDS UNDER THE INFLUENCE OF SOUTHEASTERLY WINDS PREVAILING IN THE PERIPHERY OF THE RIDGE NEAR 14°N IN THE MIDDLE AND UPPER TROPOSPHERIC LEVELS. ALL THESE FEATURES INDICATE THAT CURRENTLY THE SYSTEM IS IN A FAVOURABLE ENVIRONMENT AND IS LIKELY TO MOVE NORTHWESTWARDS AND INTENSIFY FURTHER.

VARIOUS MODELS INDICATE THAT THE SYSTEM IS LIKELY TO MOVE WEST-NORTHWESTWARDS TILL 17TH/18TH DECEMBER. MODELS ARE ALSO INDICATING THAT THE

SYSTEM WOULD INTENSIFY INTO A DEEP DEPRESSION BY 15TH DECEMBER, MAINTAIN IT'S INTENSITY TILL 16TH DECEMBER AND WEAKEN SLOWLY THEREAFTER WHILE MOVING OVER COLDER SEA AND REGION OF HIGH VERTICAL WIND SHEAR.

IN VIEW OF ABOVE, THE DEPRESSION OVER EASTCENTRAL AND ADJOINING SOUTHEAST ARABIAN SEA IS VERY LIKELY TO MOVE WEST-NORTHWESTWARDS OVER EASTCENTRAL ARABIAN SEA AWAY FROM INDIA COAST AND INTENSIFY FURTHER INTO A DEEP DEPRESSION BY MORNING (0000 UTC) OF TOMORROW, THE 15TH DECEMBER 2022.

.

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 60X10^{-6} S^{-1} OVER SOUTH ANDAMAN SEA AND ADJOINING EQUATORIAL INDIAN OCEAN. LOW LEVEL CONVERGENCE IS ABOUT 15X10^{-5} S^{-1} OVER SOUTHEAST BOB AND ADJOINING AREAS. UPPER LEVEL DIVERGENCE IS ABOUT 20X10^{-5} S^{-1} OVER SOUTH BOB AND ADJOINING EQUTORIAL INDIAN OCEAN. MODERATE VERTICAL WIND SHEAR OF ABOUT 15-20 KNOTS IS PREVAILING AROUND SYSTEM AREA OVER SOUTHEAST BOB & ADJOINING AREAS. UPPER TROPOSPHERIC RIDGE IS SEEN NEAR 10.5N.

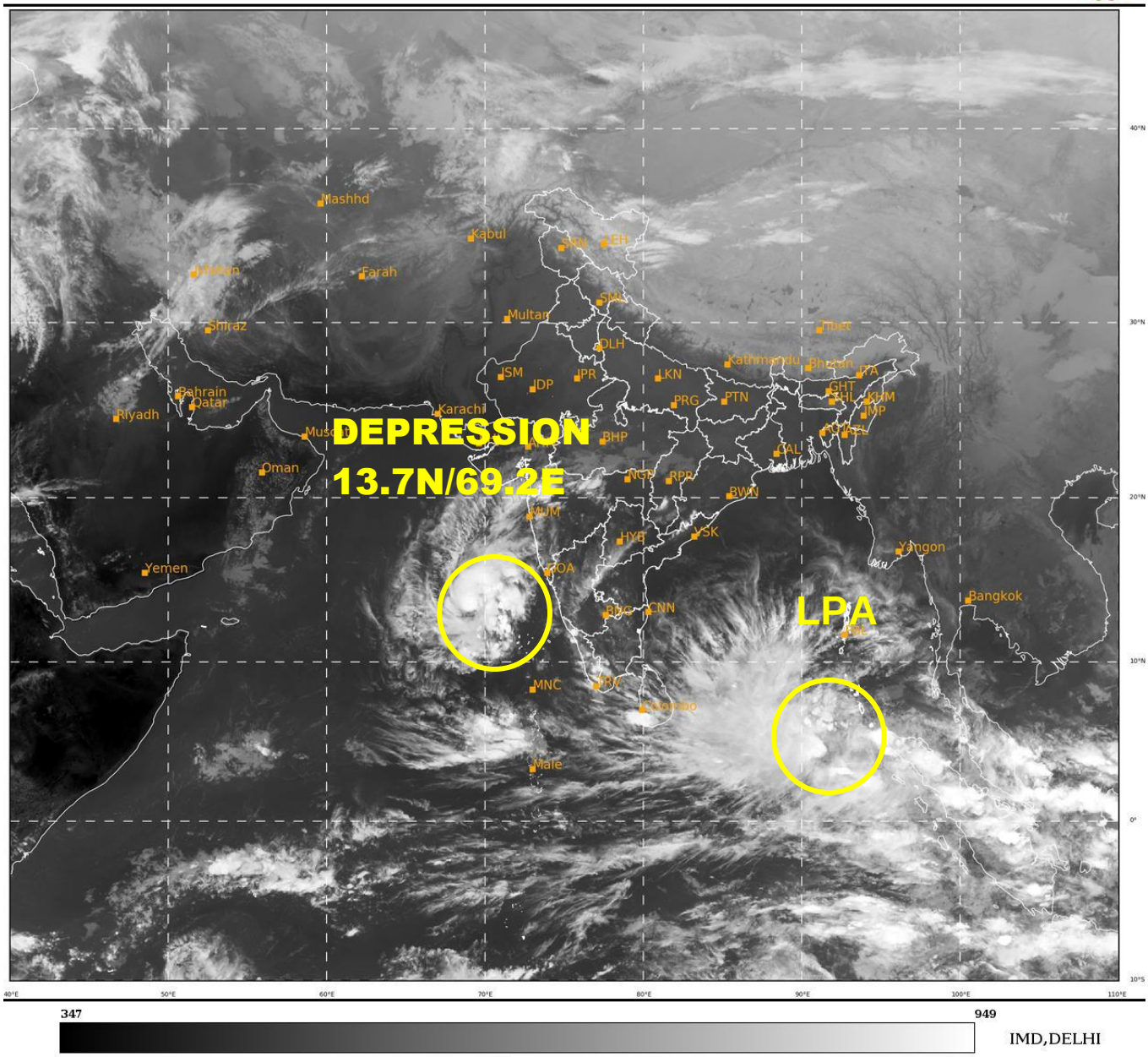
MOST OF THE MODELS ARE INDICATING EXISTING LOW PRESSURE AREA OVER SOUTHEAST BOB AND ADJOINING EIO TO MOVE WESTWARDS TOWARDS SRI LANKA COAST WITH SLIGHT INTENSIFICATION TILL 17TH MORNING AND WEAKEN THEREAFTER.

IN VIEW OF ABOVE, THE LOW PRESSURE AREA OVER EAST EQUATORIAL INDIAN OCEAN AND SOUTH ANDAMAN SEA IS LIKELY TO MOVE GRADUALLY WESTWARDS AND BECOME WELL MARKED LOW PRESSURE AREA OVER SOUTHEAST BAY OF BENGAL AND ADJOINING EQUATORIAL INDIAN OCEAN BY 15TH DECEMBER. THEREAFTER, IT WOULD CONTINUE TO MOVE WESTWARDS AND MAINTAIN ITS INTENSITY OVER SOUTH BAY OF BENGAL TILL MORNING (0000 UTC) OF 17TH DECEMBER 2022

M. SHARMA
SCIENTIST-D
RSMC NEW DELHI

SAT : INSAT-3DR IMG
IMG_TIR1 10.8 um
L1C Mercator

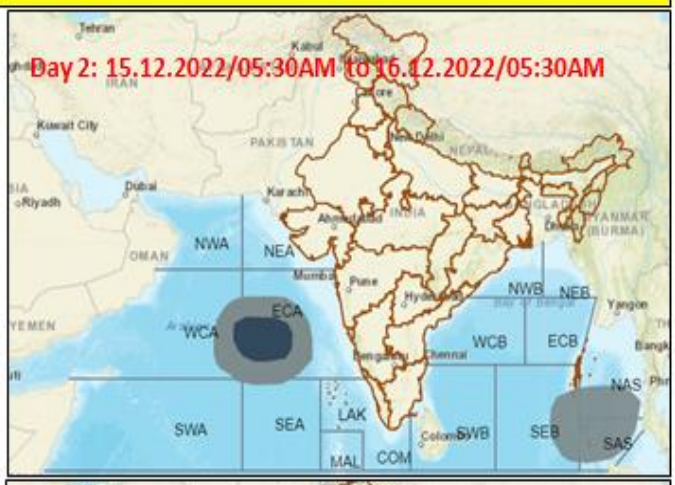
14-12-2022/(1145 to 1212) GMT
14-12-2022/(1715 to 1742) IST

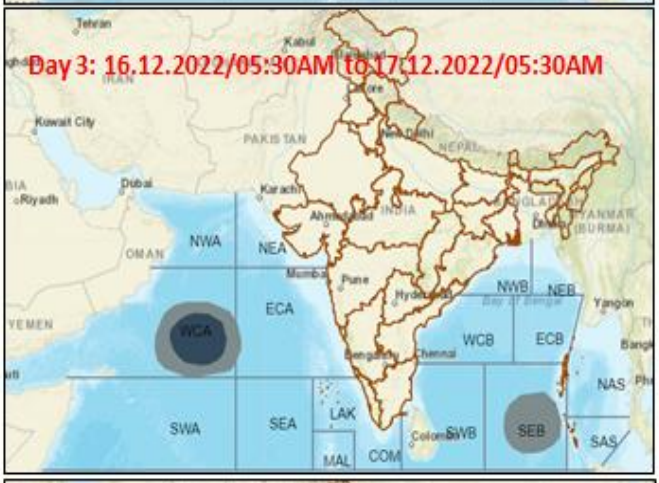


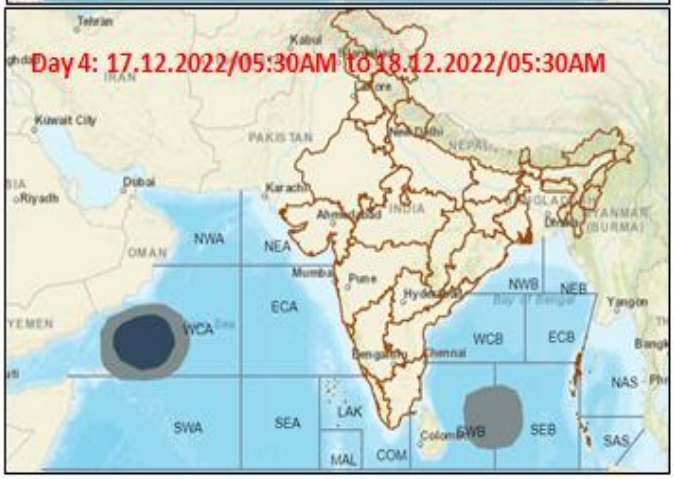
LPA – Low Pressure Area

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%
This is a guidance Bulletin for WMO/ESCAP Panel Member countries. Visit respective National websites for Country specific Bulletins

Fishermen warning graphics





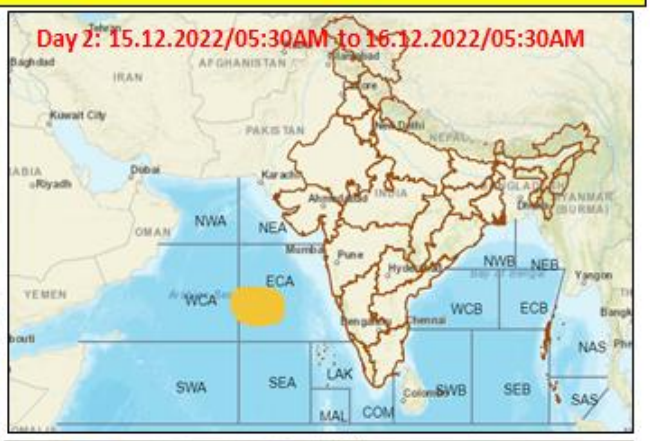


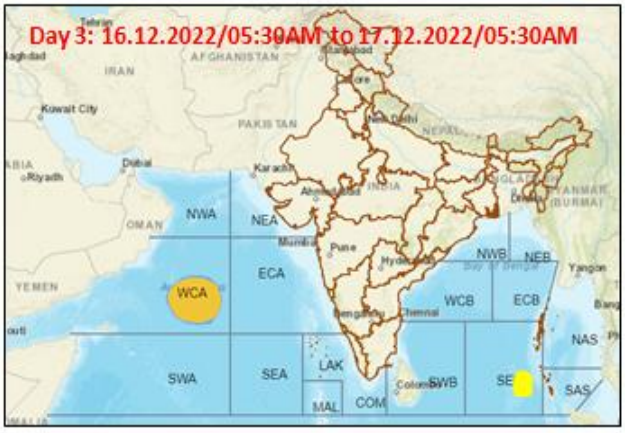
	Squally WX with wind speed 35-45 kmph gusting to 55 kmph
	Squally WX with wind speed 45-55 kmph gusting to 65 kmph
	Squally wind speed 45-55 kmph gusting to 65 kmph

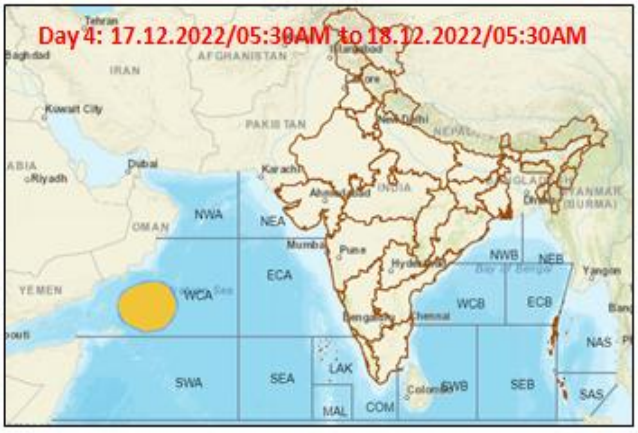
Fishermen are advised not to venture into the marked areas.

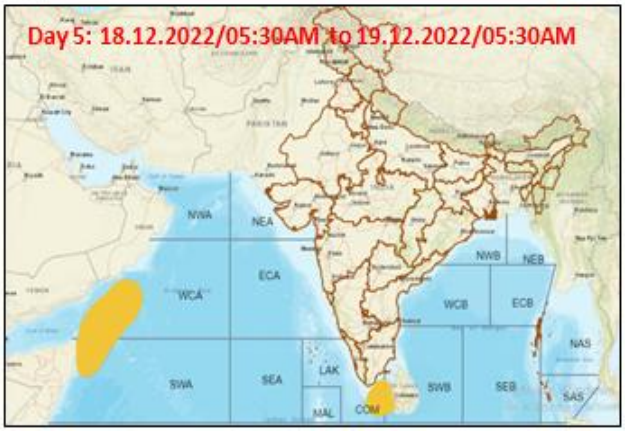
Cloud distribution: (a) Isolated: <25%, Scattered:25-50%, Broken: 51-75%, Solid:>75%, Convection Intensity: (a) Weak: Cloud Top Temperature (CTT) >-25°C, (b) Moderate: CTT: - 25°C to -40°C, (c) Intense: CTT: - 41°C to -70°C and (d) Very Intense: : Less than -70°C
PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION): NIL: 0%, LOW: 1-33%, , MODERATE: 34-66% AND HIGH: 67-100%
This is a guidance Bulletin for WMO/ESCAP Panel Member countries. Visit respective National websites for Country specific Bulletins

Probability of exceedance of maximum sustained winds ≥ 45 kmph









	Probabilty of exceedence
	Low (1-33%)
	Moderate (34-67%)
	High (68-100%)

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%
This is a guidance Bulletin for WMO/ESCAP Panel Member countries. Visit respective National websites for Country specific Bulletins