



REGIONAL SPECIALISED METEOROLOGICAL CENTRE-TROPICAL CYCLONES, NEW

DELHI TROPICAL CYCLONE ADVISORY No. 11

FROM: RSMC –TROPICAL CYCLONES, NEW DELHI

**TO: STORM WARNING CENTRE, NAYPYI TAW (MYANMAR)
STORM WARNING CENTRE, BANGKOK (THAILAND)
STORM WARNING CENTRE, COLOMBO (SRILANKA)
STORM WARNING CENTRE, DHAKA (BANGLADESH)
STORM WARNING CENTRE, KARACHI (PAKISTAN)
METEOROLOGICAL OFFICE, MALE (MALDIVES)
OMAN METEOROLOGICAL DEPARTMENT, MUSCAT (THROUGH RTH JEDDAH)
YEMEN METEOROLOGICAL SERVICES, REPUBLIC OF YEMEN (THROUGH RTH JEDDAH)
NATIONAL CENTRE FOR METEOROLOGY, UAE (THROUGH RTH JEDDAH)
PRESIDENCY OF METEOROLOGY AND ENVIRONMENT, SAUDI ARABIA (THROUGH RTH JEDDAH)
IRAN METEOROLOGICAL ORGANISATION, (THROUGH RTH JEDDAH)
QATAR METEOROLOGICAL DEPARTMENT (THROUGH RTH JEDDAH)**

TROPICAL CYCLONE ADVISORY NO. 11 FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND ARABIAN SEA) VALID FOR NEXT 120 HOURS ISSUED AT 2100 UTC OF 24.10.2022 BASED ON 1800 UTC OF 24.10.2022

SUBJECT: CYCLONIC STORM “SITRANG” (PRONOUNCED AS “SI-TRANG”) CROSSED BANGLADESH COAST BETWEEN TINKONA AND SANDWIP CLOSE TO BARISAL

THE CYCLONIC STORM “SITRANG” PRONOUNCED AS “SI-TRANG” OVER NORTH BAY OF BENGAL MOVED RAPIDLY NORTH-NORTHEASTWARDS WITH A SPEED OF 56 KMPH DURING PAST 06 HOURS AND CROSSED BANGLADESH COAST BETWEEN TINKONA AND SANDWIP (41964) CLOSE TO BARISAL (41950) DURING 1600 UTC AND 1800 UTC OF 24TH OCTOBER WITH MAXIMUM SUSTAINED WIND SPEED OF 80-90 KMPH GUSTING TO 100 KMPH. IT LAY CENTERED AT 1800 UTC OF 24TH OCTOBER OVER COASTAL BANGLADESH NEAR LATITUDE 23.7°N AND LONGITUDE 90.8°E, ABOUT 40 KM EAST OF DHAKA (41923), 50 KM WEST-SOUTHWEST OF AGARTALA (42724) AND 120 KM NORTH-NORTHEAST OF BARISAL (41950).

IT IS VERY LIKELY TO CONTINUE TO MOVE NORTH-NORTHEASTWARDS AND WEAKEN INTO A DEPRESSION DURING NEXT 6 HOURS AND FURTHER INTO A WELL MARKED LOW PRESSURE AREA DURING SUBSEQUENT 6 HOURS.

FORECAST TRACK AND INTENSITY ARE GIVEN BELOW:

DATE/TIME(UTC)	POSITION (LAT. °N/ LONG. °E)	MAXIMUM SUSTAINED SURFACE WIND SPEED (KMPH)	CATEGORY OF CYCLONIC DISTURBANCE
24.10.22/1800	23.7/90.8	65-75 GUSTING TO 85	CYCLONIC STORM
25.10.22/0000	25.1/91.4	50-60 GUSTING TO 70	DEPRESSION
25.10.22/0600	26.5/92.2	25-35 GUSTING TO 45	WEL MARKED 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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THE CLOUDS ARE ORGANIZED IN SHEAR PATTERN. CLOUD MASS IS SHEARED TO THE NORTH OF THE SYSTEM CENTRE, OUTFLOW CLOUD BANDS WITH EMBEDDED ISOLATED INTENSE CONVECTION ARE SEEN OVER NORTH BANGLADESH AND NORTHEASTERN STATES OF INDIA. ASSOCIATED BROKEN LOW/MEDIUM CLOUD. WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTIVE CLOUD OBSERVED BETWEEN LATITUDE 23.0°N & 27.0°N AND LONGITUDE 89.0°E & 93.0°E, BANGLADESH, GANGETIC WEST BENGAL, ASSAM, TRIPURA, MIZORAM AND MEGHALAYA, BHUTAN. MINIMUM CLOUD TOP TEMPERATURE IS MINUS 93 DEGREE CELSIUS.

ASSOCIATED MAXIMUM SUSTAINED WIND SPEED (MSW) IS ABOUT 35 KNOTS GUSTING TO 45 KNOTS AROUND SYSTEM CENTER. ESTIMATED CENTRAL PRESSURE IS 996 HPA. PREVAILING HIGH SEA CONDITION OVER NORTH BAY OF BENGAL IS LIKELY TO BECOME ROUGH TO VERY ROUGH DURING NEXT 6 HOURS AND IMPROVE THEREAFTER.

STORM SURGE WARNING:

TIDAL WAVE OF ABOUT 1.0 M HEIGHT ABOVE ASTRONOMICAL TIDE IS LIKELY TO INUNDATE LOW LYING AREAS OF BANGLADESH COAST DURING NEXT 03 HOURS AND GRADUALLY DECREASE THEREAFTER.

REMARKS:

THE MADDEN JULIAN OSCILLATION INDEX (MJO) CURRENTLY LIES IN PHASE 6 WITH AMPLITUDE GREATER THAN 1. IT WOULD CONTINUE IN SAME PHASE DURING NEXT 5 DAYS WITH GRADUALLY INCREASING AMPLITUDE.

SEA SURFACE TEMPERATURE (SST) IS AROUND 30°C OVER NORTH CENTRAL & BAY OF BENGAL. THE OCEAN HEAT CONTENT (OHC) IS AROUND 70-80 KJ/CM² OVER THE SAME REGION. LOW LEVEL VORTICITY IS ABOUT 150 X10⁻⁶ S⁻¹ TO THE NORTH-NORTHEAST OF SYSTEM CENTRE. VERTICALLY IT IS EXTENDING UPTO 200 HPA LEVEL. LOW LEVEL CONVERGENCE IS AROUND 30 X10⁻⁵ S⁻¹ TO THE NORTHEAST OF SYSTEM CENTRE. UPPER LEVEL DIVERGENCE IS AROUND 30 X10⁻⁵ S⁻¹ TO THE NORTHEAST OF SYSTEM CENTRE. STRONG POLEWARD AND EQUATORWARD OUTFLOW IS SEEN IN UPPER LEVELS AS EXHIBITED IN SATELLITE IMAGERY. TOTAL PRECIPITABLE WATER IMAGERY INDICATES WARM MOIST AIR INCURSION INTO THE CORE OF THE SYSTEM. WIND SHEAR IS MODERATE (15-20 KNOTS) AROUND THE SYSTEM CENTER AND IS HIGH (20-30 KNOT) TO THE NORTH OF THE SYSTEM ALONG THE PREDICTED TRACK.

A TROUGH IN MID-LATITUDE WESTERLIES IS ROUGHLY RUNNING ALONG 85°E UPTO 20°N. THE SYSTEM CONTINUED TO MOVE NORTH-NORTHEASTWARDS UNDER THE INFLUENCE OF THE TROUGH IN MID-LATITUDE WESTERLIES IN MIDDLE AND UPPER TROPOSPHERIC LEVELS, THE ANTI CYCLONE TO THE EAST OF THE SYSTEM CENTRE OVER MYANMAR AND THE SOUTH-SOUTHWESTERLY WINDS TO THE NORTH OF RIDGE ALONG 19°N.

THE SYSTEM CAME UNDER THE INFLUENCE OF TROUGH IN WESTERLIES AND HIGH SHEAR ZONE NORTH OF 20°N. DUE TO THAT SYSTEM MOVED VERY RAPIDLY NORTH-NORTHEASTWARD AND WEAKEN OVER BANGLADESH. UNDER THE SAME ENVIRONMENTAL CONDITIONS ALONG WITH OROGRAPHIC INFLUENCE THE SYSTEM WOULD WEAKEN FURTHER.

THE ENVIRONMENTAL CONDITIONS AS WELL AS ALL NWP MODELS SUGGEST THAT THE SYSTEM IS VERY LIKELY TO CONTINUE TO MOVE NORTH-NORTHEASTWARDS AND WEAKEN INTO A DEPRESSION DURING NEXT 6 HOURS AND FURTHER INTO A WELL MARKED LOW PRESSURE AREA DURING SUBSEQUENT 6 HOURS. NEXT BULLETIN WILL BE ISSUED AT 0000 UTC OF 25TH OCTOBER 2022.

(DR. SHRAVAN MUPPA)
SCIENTIST-E, RSMC, NEW DELHI



OBSERVED AND FORECAST TRACK ALONGWITH CONE OF UNCERTAINTY OF CYCLONIC STORM SITRANG OVER COASTAL BANGLADESH BASED ON 1800 UTC OF 24th OCTOBER, 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

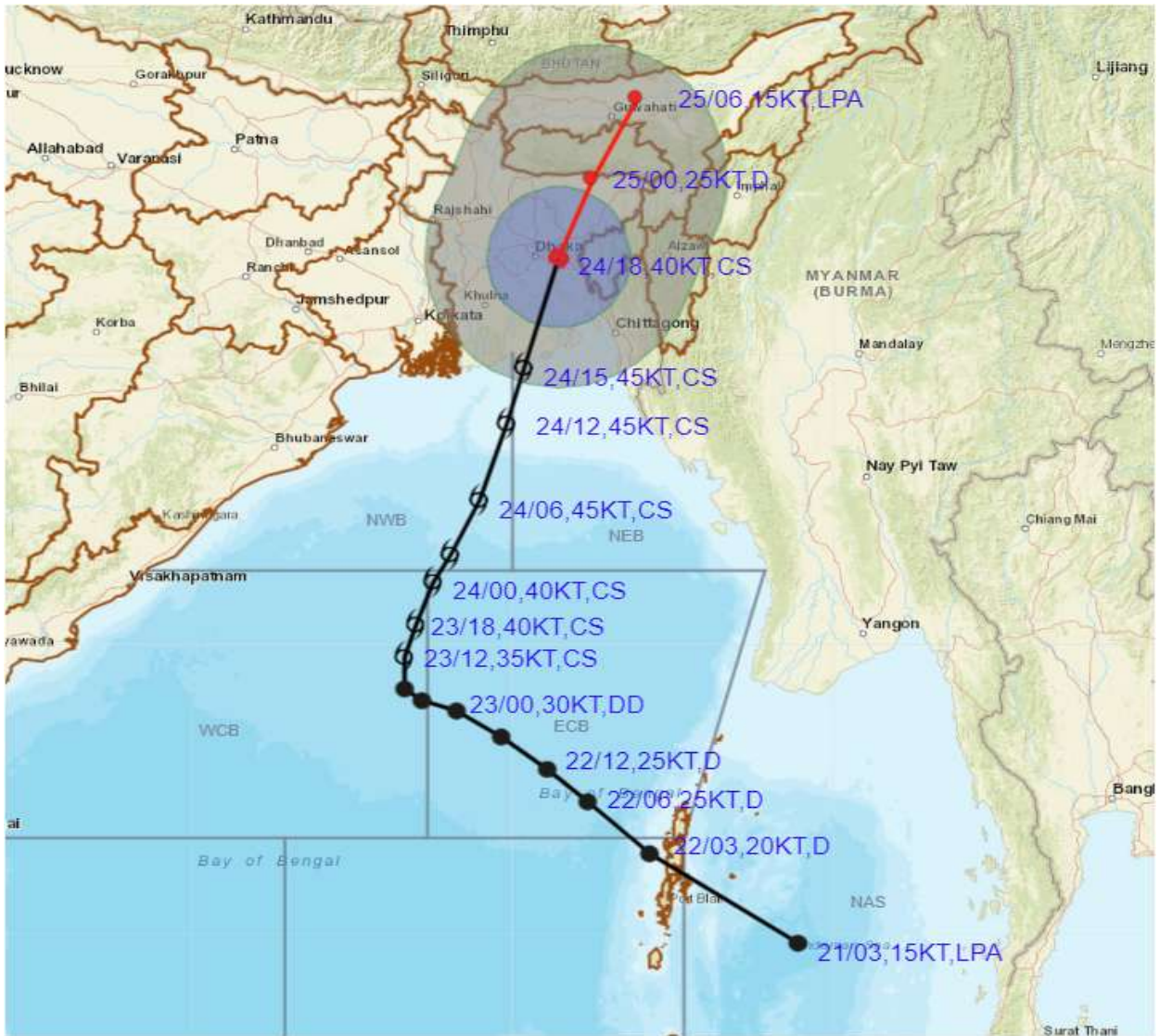
— OBSERVED TRACK

— FORECAST TRACK

▲ CONE OF UNCERTAINTY



OBSERVED AND FORECAST TRACK ALONGWITH QUADRANT WIND DISTRIBUTION OF CYCLONIC STORM SITRANG OVER COASTAL BANGLADESH BASED ON 1800 UTC OF 24th OCTOBER, 2022



DATE/TIME IN UTC

IST=UTC + 0530

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SuCS: SUPER CYCLONIC STORM (≥20 KT)

● LESS THAN 34 KT

○ 34-47 KT

● ≥ 48 KT

— OBSERVED TRACK

— FORECAST TRACK

▲ CONE OF UNCERTAINTY

AREA OF MAXIMUM SUSTAINED WIND SPEED:

■ 28-33 KT (52-61 KMPH)

■ 34-49 KT (62-91 KMPH)

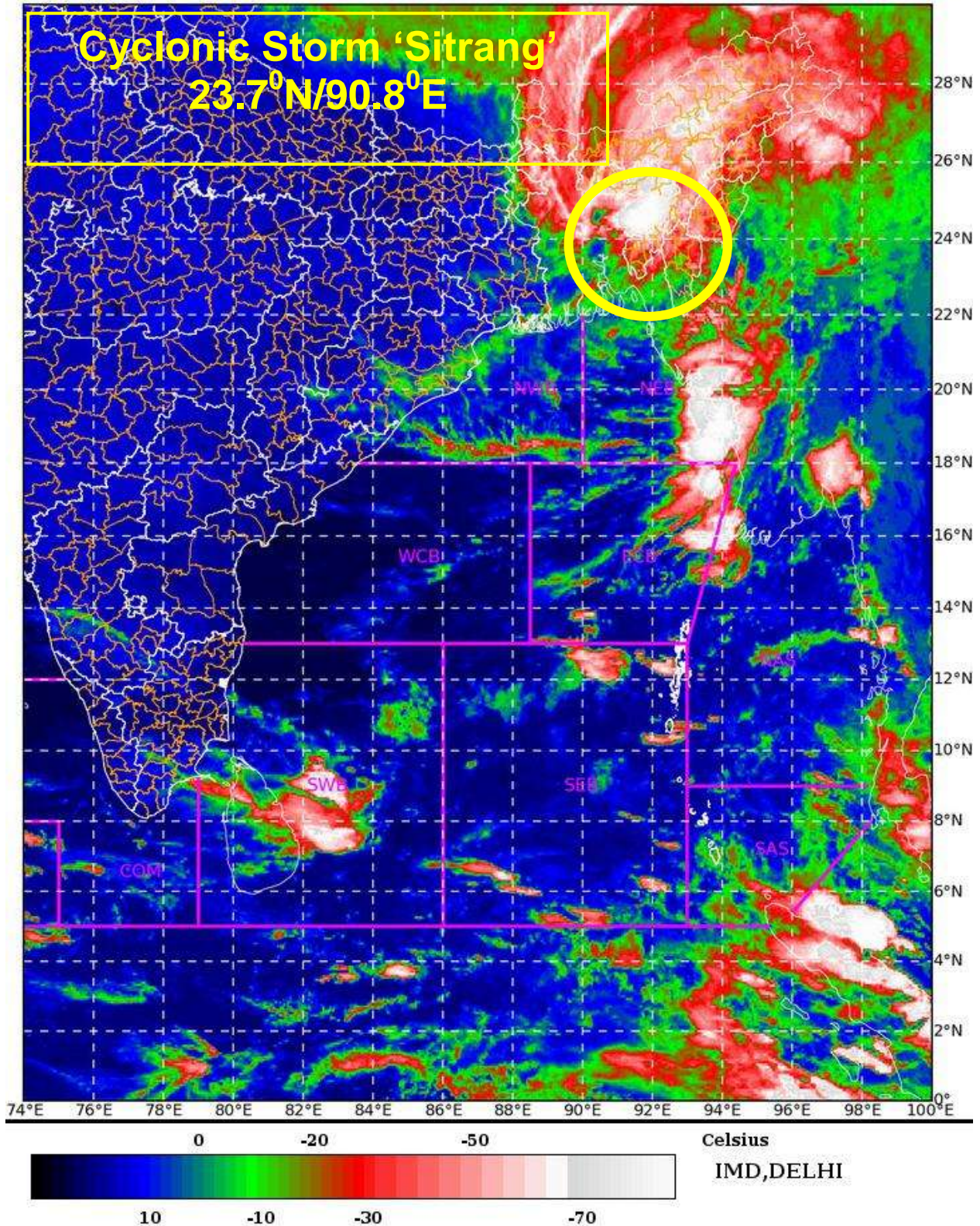
■ 50-63 KT (92-117 KMPH)

■ ≥ 64 (≥118 KMPH)

IMPACT OVER THE SEA

MSW (knot/kmph)	Impact	Action
28-33 (52-61)	Very rough seas	Total suspension of fishing operations
34-49 (62-91)	High to very high seas	Total suspension of fishing operations
50-63 (92-117)	Very high seas	Total suspension of fishing operations
≥ 64 (≥118)	Phenomenal	Total suspension of fishing operations

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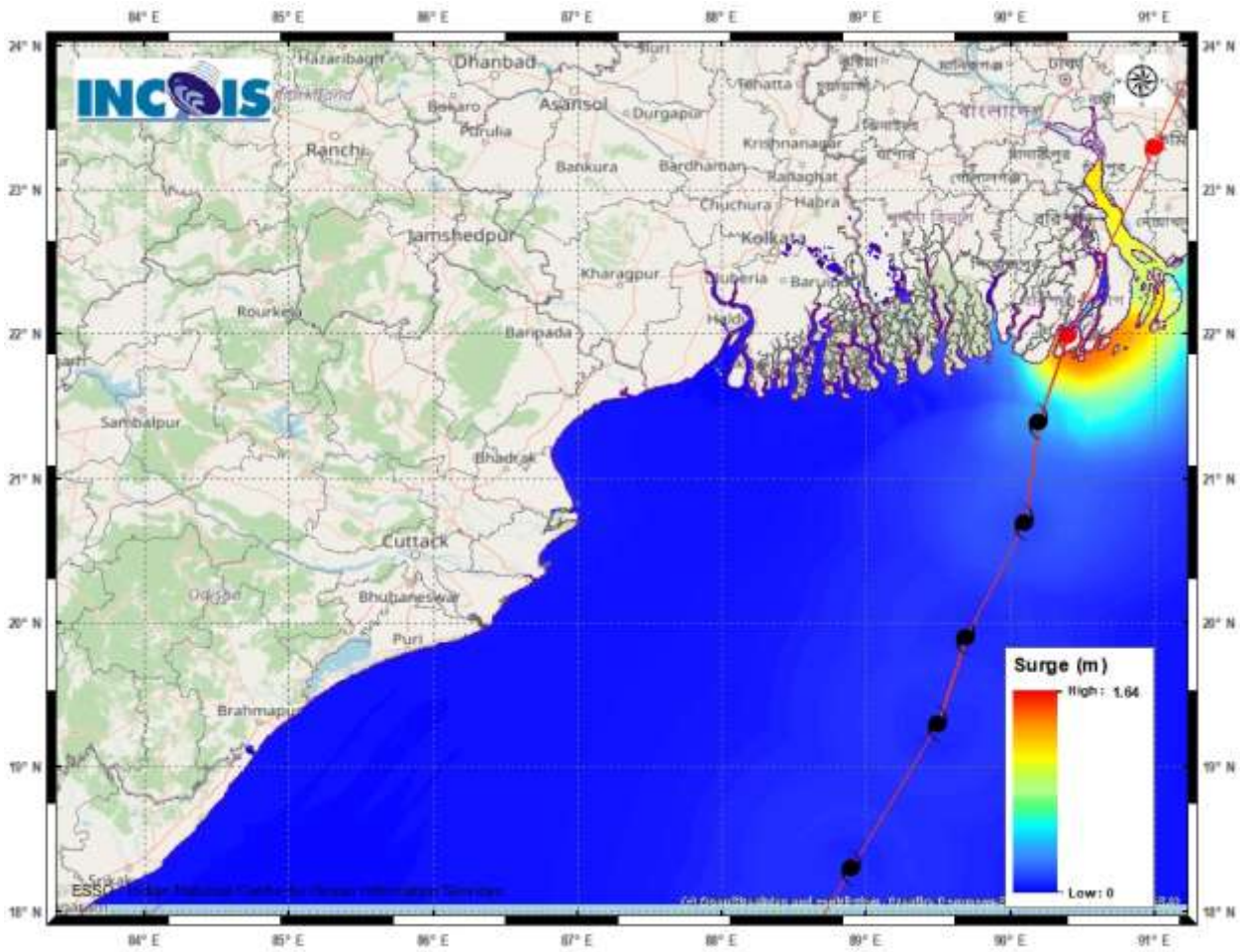
Fishermen warning graphics



	Squally WX with wind speed 40-45 kmph gusting to 55 kmph
	Squally WX with wind speed 45-55 kmph gusting to 65 kmph
	Squally wind speed with wind speed 45-55 kmph gusting to 65 kmph
	Squally wind speed with wind speed 55-65 kmph gusting to 75 kmph
	Gale wind speed with wind speed 65-75 kmph gusting to 85 kmph
	Gale wind speed with wind speed 80-90 kmph gusting to 100 kmph
	Gale wind speed with wind speed 90-100 kmph gusting to 110 kmph

Fishermen are advised not to venture into the marked areas.

Storm Surge Warning Graphics



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