

REPUBLIC OF KENYA MINISTRY OF ENVIRONMENT & FORESTRY KENYA METEOROLOGICAL DEPARTMENT

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REF.NO: KMD/FCST/11-2021/MARINE/48 Date: 22nd November, 2021

7-Day Marine Forecast for the KENYA coast and off shore areas along the Western Indian Ocean Region Validity: 23/11/2021-29/11/2021

GENERAL OUTLOOK

1.1 Wind Speed & Direction:

Southeasterly to easterly winds expected over Kenya and Tanzania waters throughout the forecast period, while over Somali waters the winds are predominantly northeasterly with wind speeds ranging from 10 to 20 knots (5-10 m/s) throughout the forecasting period.

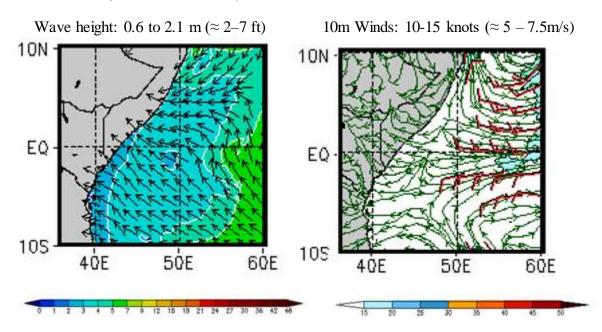
1.2 Sig. Wave Height and Direction:

Slight to moderate waves of 0.6 - 2.1 m ($\approx 2 - 7$ ft) expected to be mainly Southeasterly to easterly over Kenyan, Tanzania and Somalia water during the forecasting period.

1.3 Sea conditions

- Slight to Moderate sea condition with wave heights of 0.6-2.1m (2-7ft) is expected over the Tanzanian, Kenyan and Somali waters while
- Gently to Fresh breeze expected with speeds of 10-20 Knots ($\approx 5 10$ m/s) along the Tanzanian, Kenyan and Somalia waters throughout the forecasting period.

- 2. WINDS AND SIGNIFICANT WAVE HEGHTS FORECAST FOR THE PERIOD 23rd NOVEMBER TO 29th NOVEMBER, 2021.
- 2.1 Tuesday 23rd November, 2021: Significant Wave Height and wind speed (Wave scale in meters; Wind scale in m/s)



2.2 Wednesday 24th November, 2021: Significant Wave Height and wind speed (Wave scale in meters; Wind scale in m/s)

Wave height: 0.6 to 2.1 m (≈ 2–7ft)

10m Winds: 10-20knots (≈ 5-10 m/s)

10N

EQ

10S

40E

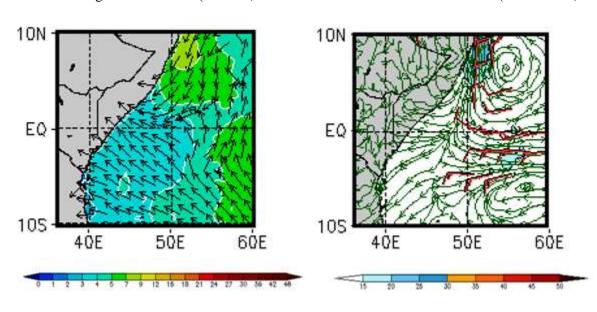
50E

60E

2.3 Thursday 25th November, 2021: Significant Wave Height and wind speed (Wave scale in meters; Wind scale in m/s)

Wave height: 0.6 to 2.1 m ($\approx 2-7$ ft)

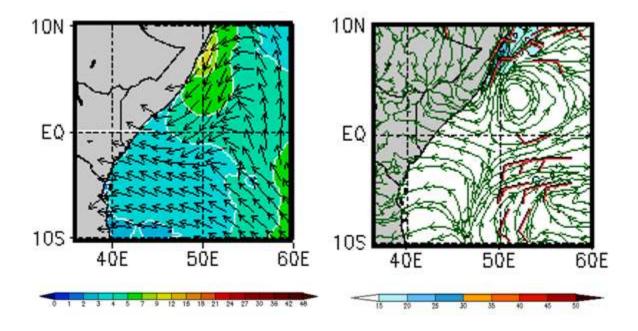
10m Winds: 10-20knots ($\approx 5 - 10$ m/s)



2.4 Friday 26th November, 2021: Significant Wave Height and wind speed (Wave scale in meters; Wind scale in m/s)

Wave height: 0.6 to 2.1m ($\approx 2-7$ ft)

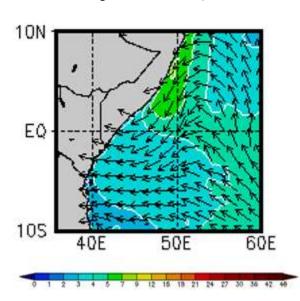
10m Winds: 10-20knots (≈ 5 -10m/s)

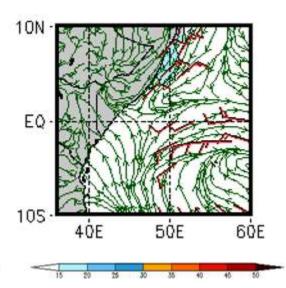


2.5 Saturday 27th November, 2021: Significant Wave Height and wind speed (Wave scale in meters; Wind scale in m/s)

Wave height: 0.6 to 2.1m ($\approx 2-7$ ft)

10m Winds: 10-15knots ($\approx 5 - 7.5 \text{m/s}$)

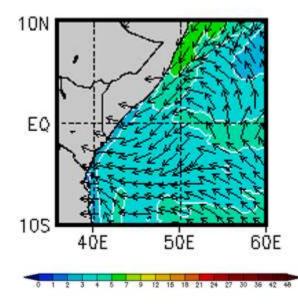


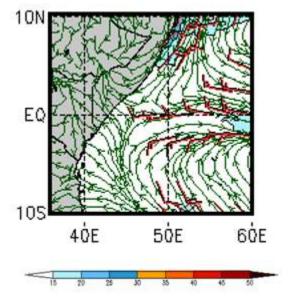


2.6 Sunday 28th November, 2021: Significant Wave Height and wind speed (Wave scale in meters; Wind scale in m/s)

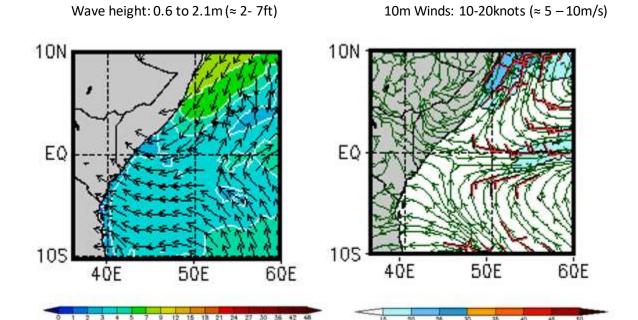
Wave height: 0.6 to 2.1 m ($\approx 2-7$ ft)

10m Winds: 10-20knots (≈ 5 -10m/s)





2.7 Monday 29th November, 2021: Significant Wave Height and wind speed (Wave scale in meters; Wind scale in m/s)



3. Tide forecast valid 23rd November to 29th November, 2021

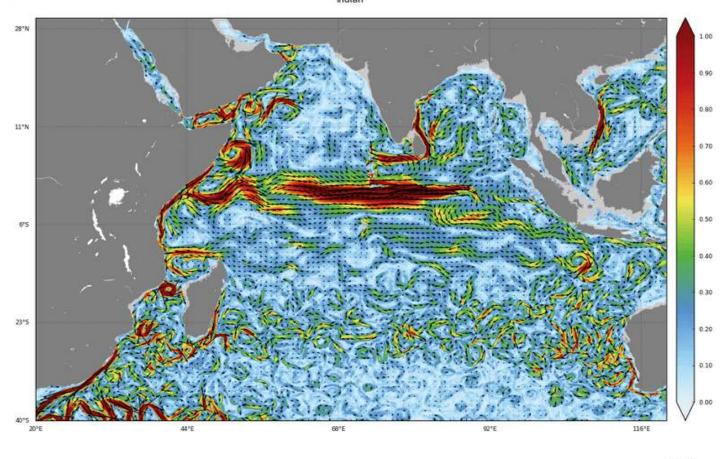
Date	Description	High Tide		Low Tide	
		Time	Height	Time	Height
Tue, 23 rd November 2021	1st Tide	05:55 AM	3.33 m	12:16 PM	0.54 m
	2 nd Tide	06:22 PM	2.71 m		
Wed, 24 th November 2021	1 st Tide	06:27 AM	3.17 m	12:04 AM	0.82 m
	2 nd Tide	06:57 PM	2.56 m	12:50 PM	0.70 m
Thu, 25 th November 2021	1st Tide	07:02 AM	2.98 m	12:36 AM	1.00 m
	2 nd Tide	07:41 PM	2.41 m	01:29 PM	0.88 m
Fri, 26 th November 2021	1 st Tide	07:45 AM	2.76 m	01:16 AM	1.19 m
	2 nd Tide	08:40 PM	2.29 m	02:20 PM	1.04 m

Sat 27 th November 2021	1st Tide	08:46 AM	2.55 m	02:15 AM	1.38 m
	2 nd Tide	10:04 PM	2.27 m	03:30 PM	1.16 m
Sun, 28 th November 2021	1st Tide	10:15 AM	2.41 m	03:54 AM	1.48 m
	2 nd Tide	11:36 PM	2.42 m	04:58 PM	1.17 m
Mon, 29 th November 2021	1st Tide	11:51 AM	2.43 m	05:46 AM	1.37 m
	2 nd Tide			06:12 PM	1.05 m

4. 9days Ocean surface current forecast valid 21/11/2021 to 30/11/2021



Daily Global Physical Bulletin 1/12 (PSY4QV3R1) Date: 2021-11-30 (9-day forecast) Indian



 Max: 2.19 Min: 0.00 Average: 0.3

KEY ON SEA STATE

WAVE HEIGHT RANGE (Meters)	DESCRIPTION	IMPACT
$0.6 - 1.0 \text{ m} \ (\approx 1.8 - 3.0 \text{ ft})$	Slight	Conditions suitable for Marine activities
$1.0 - 1.9 \text{ m.} (\approx 3.0 - 5.7 \text{ ft})$	Slight - Moderate	
$2.0 - 2.9 \text{ m} \ (\approx 6.0 - 8.7 \text{ ft})$	Moderate-Rough	Caution on operating marine activities
$3.0 - 4.0 \text{ m} \ (\approx 9.0 - 12.0 \text{ ft})$	Rough	Warning in place!!!!
$4.1 - 5.5 \text{ m} \ (\approx 12.3 - 16.5 \text{ ft})$	Very Rough	Warning in place and marine activities on
		hold

KEY ON SEA STATE

WIND	RANGE	DESCRIPTIONS	IMPACT
	<1-7 Knots	Calm to Light breeze	1 – 6 knots, the Ocean is relatively calm with very little disturbance. Suitable for Marine operations
	7 – 21 Knots	Gentle breeze to Fresh breeze	7 – 17 knots, small boats are likely to be filled with water sprays and become unstable. Caution in carrying out marine activities
	22 - ≥34 Knots	Strong breeze to Extremely Strong breeze	More than 21 knots, the ocean state is very much disturbed and the prevailing conditions are dangerous for marine operations. Warning in place!!!!!

N.B: This forecast should be used in conjunction with the daily marine forecast issued by this Department.

In concurrence with outputs from relevant marine data platforms, acknowledgement is fully accorded to: ESSO- Indian National Centre for Ocean Information Services (INCOIS), mercator-ocean.fr, COPERNICUS Marine Environment Monitoring Service (CMEMS) and other related sources.

Stella Aura, MBS
DIRECTOR OF KENYA METEOROLOGICAL DEPARTMENT