

REPUBLIC OF KENYA MINISTRY OF ENVIRONMENT & FORESTRY KENYA METEOROLOGICAL DEPARTMENT

Dagoretti Corner, Ngong Road, P. O. Box 30259, 00100 GPO, Nairobi, Kenya **Telephone:** 254 (0) 20 3867880-7, **Fax:** 254 (0) 20 3876955/3877373/3867888, **e-mail:** <u>director@meteo.go.ke</u>, <u>info@meteo.go.ke</u> Website: <u>http://www.meteo.go.ke</u>

REF.NO: KMD/FCST/7-2021/MARINE/31 Date: 26th July, 2021

7-Day Marine Forecast for the KENYA coast and off shore areas along the Western Indian Ocean Region Validity: 27/07/2021-02/08/2021

1. GENERAL OUTLOOK

1.1 Wind Speed & Direction:

Southeasterly winds expected over Kenya and Tanzania waters with wind speeds ranging from 10 to 20 knots (5-10 m/s) while over Somalia waters the winds are expected to be southwesterly with wind speed in the range of 10 to 25knots (5–12.5m/s) throughout the forecasting period.

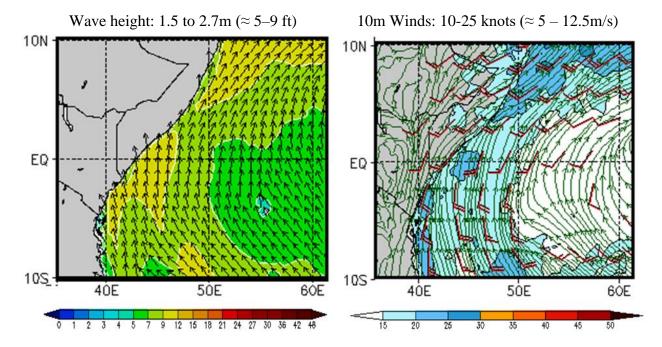
1.2 Sig. Wave Height and Direction:

Moderate to high waves of $1.5 - 2.7 \text{ m} (\approx 5 - 9 \text{ ft})$ expected to be mainly south easterly over Kenyan and Tanzania turning to southwesterly over Somali waters (during the forecasting period.

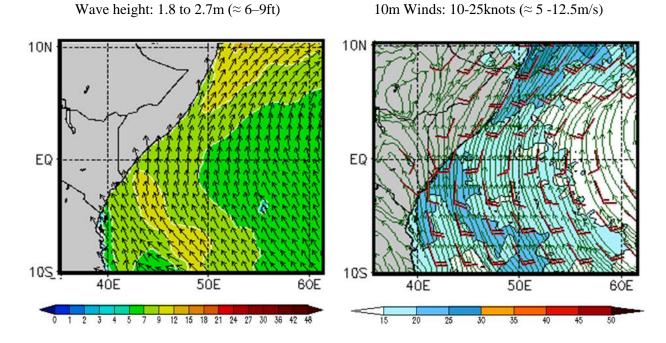
1.3 Sea conditions

- Moderate to rough sea condition with wave heights of 1.5-2.7 M (5-9ft) is expected along the Tanzanian, Kenyan and Somali waters while
- Fresh to Strong breeze expected with wind speeds of 10-25 Knots ($\approx 5 12.5$ m/s) along the Tanzanian, Kenyan and Somalia waters throughout the forecasting period.

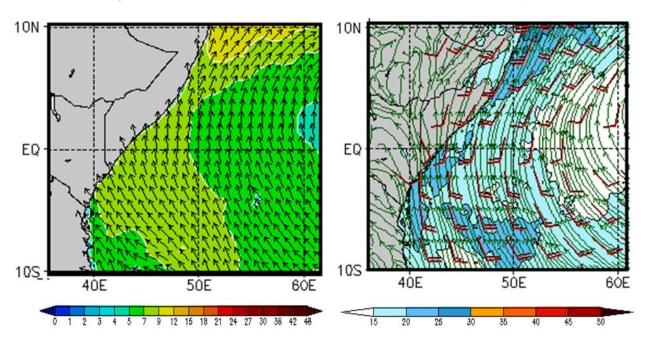
- 2. WINDS AND SIGNIFICANT WAVE HEGHTS FORECAST FOR THE PERIOD 27thJuly TO 2nd AUGUST, 2021.
- 2.1 Tuesday 27th July, 2021: Significant Wave Height and wind speed (Wave scale in meters; Wind scale in m/s)



2.2 Wednesday 28th July, 2021: Significant Wave Height and wind speed (Wave scale in meters; Wind scale in m/s)



2.3 Thursday 29th July, 2021: Significant Wave Height and wind speed (Wave scale in meters; Wind scale in m/s)



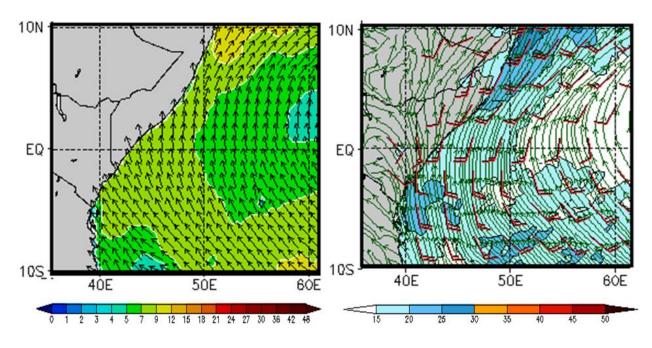
Wave height: 1.8 to 2.7 m ($\approx 6-9$ ft)

10m Winds: 10-20knots ($\approx 5 - 10.0$ m/s)

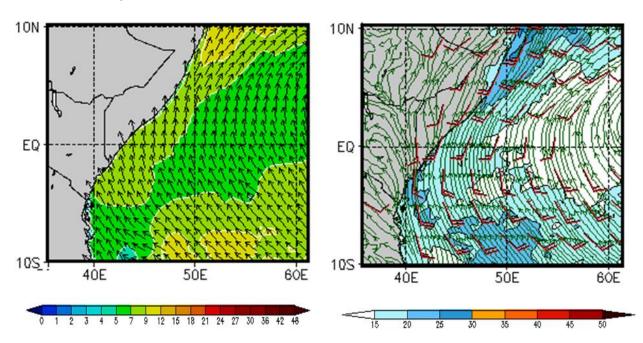
2.4 Friday 30th July, 2021: Significant Wave Height and wind speed (Wave scale in meters; Wind scale in m/s)

Wave height: 1.5 to 2.4m (\approx 5–8 ft)

10m Winds: 10-20knots (≈ 5 -10.0m/s



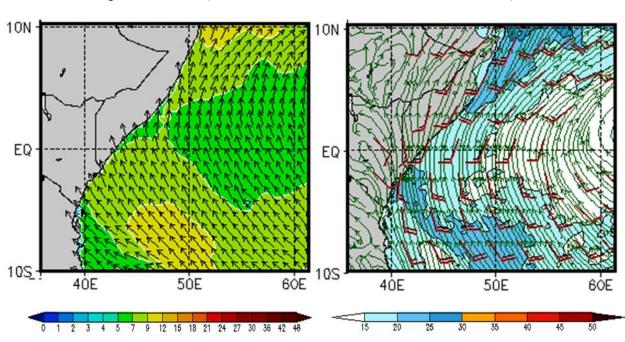
2.5 Saturday 31st July, 2021: Significant Wave Height and wind speed (Wave scale in meters; Wind scale in m/s)



Wave height: 1.5 to 2.7 m (\approx 5–8 ft)

10m Winds: 10-20knots (≈ 5 -10m/s)

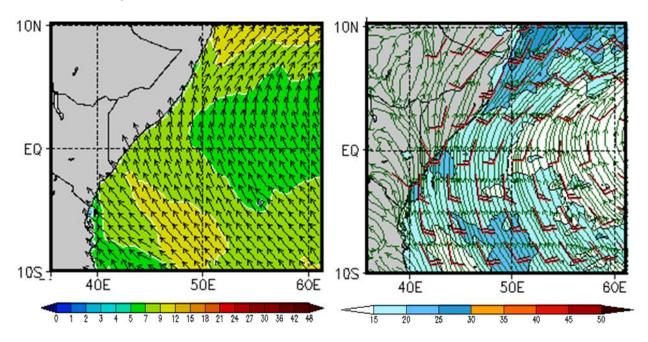
2.6 Sunday 01st August, 2021: Significant Wave Height and wind speed (Wave scale in meters; Wind scale in m/s)



Wave height: 1.8 to 2.7m ($\approx 6-9$ ft)

10m Winds: 10-20knots (≈ 5 -10m/s)

2.7 Monday 02nd August, 2021: Significant Wave Height and wind speed (Wave scale in meters; Wind scale in m/s)



Wave height: 1.8 to 2.7m (\approx 6-9ft)

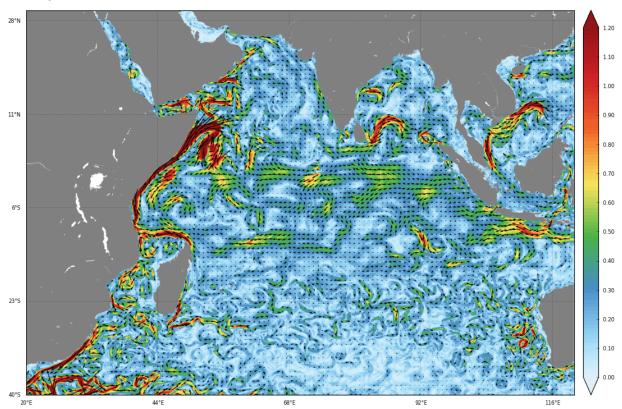
10m Winds: 10-20knots (≈ 5 -10m/s)

3. I luc lui ccast value 27 July to 02 August, 2021	3.	Tide forecast	valid 27 th July t	o 02 nd August, 2021
---	----	----------------------	-------------------------------	---------------------------------

Date	Description	High Tide		Low Tide	
		Time	Height	Time	Height
Tue, 27 th July 2021	1 st Tide	06:23 AM	3.17 m	12:11 AM	0.22 m
	2 nd Tide	06:33 PM	3.43 m	12:16 PM	0.47 m
Wed, 28 th July 2021	1 st Tide	07:01 AM	3.13 m	12:46 AM	0.31 m
	2 nd Tide	07:10 PM	3.21 m	12:56 PM	0.59 m
Thu, 29 th July 2021	1 st Tide	07:39 AM	3.04 m	01:21 AM	0.46 m
2021	2 nd Tide	07:46 PM	2.95 m	01:38 PM	0.76 m
	1 st Tide	08:18 AM	2.91 m	01:56 AM	0.64 m

Fri, 30 th July 2021	2 nd Tide	08:24 PM	2.68 m	02:22 PM	0.96 m
Sat, 31 st July 2021	1 st Tide	09:01 AM	2.77 m	02:33 AM	0.84 m
	2 nd Tide	09:08 PM	2.42 m	03:13 PM	1.15 m
Sun, 01 st August 2021	1 st Tide	09:53 AM	2.64 m	03:16 AM	1.04 m
	2 nd Tide	10:06 PM	2.19 m	04:19 PM	1.31 m
Mon, 02 nd August 2021	1 st Tide	11:02 AM	2.55 m	04:12 AM	1.22 m
	2 nd Tide	11:35 PM	2.06 m	05:47 PM	1.37 m

4. 9days Ocean surface current forecast valid 26/07/2021 to 03/08/2021



KEY ON SEA STATE

WAVE HEIGHT RANGE	DESCRIPTION	IMPACT
(Meters)		
$0.6 - 1.0 \text{ m} (\approx 1.8 - 3.0 \text{ ft})$	Slight	Conditions suitable for Marine
$1.0 - 1.9 \text{ m} . (\approx 3.0 - 5.7 \text{ ft})$	Slight - Moderate	activities
$2.0 - 2.9 \text{ m} \ (\approx 6.0 - 8.7 \text{ ft})$	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