

#### REPUBLIC OF KENYA MINISTRY OF ENVIRONMENT & FORESTRY KENYA METEOROLOGICAL DEPARTMENT

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### 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.

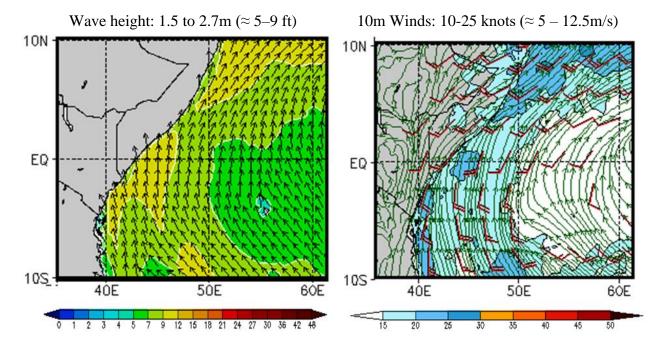
### **1.2** Sig. Wave Height and Direction:

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.

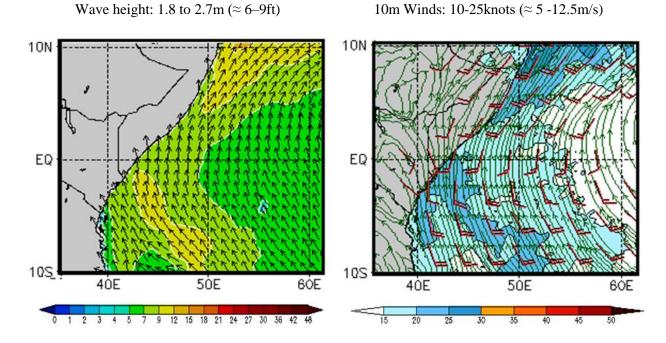
### **1.3** Sea conditions

- 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.

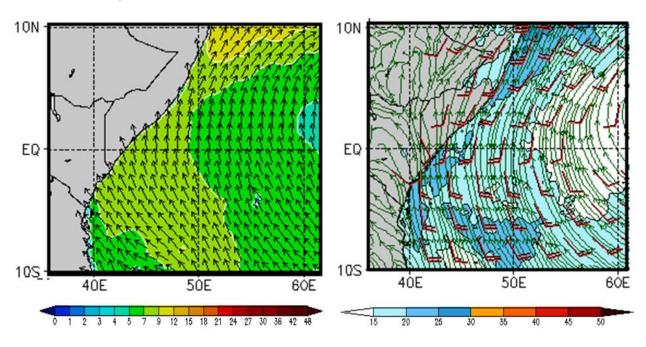
- 2. WINDS AND SIGNIFICANT WAVE HEGHTS FORECAST FOR THE PERIOD 27<sup>th</sup>July TO 2<sup>nd</sup> AUGUST, 2021.
- 2.1 Tuesday 27<sup>th</sup> July, 2021: Significant Wave Height and wind speed (Wave scale in meters; Wind scale in m/s)



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



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



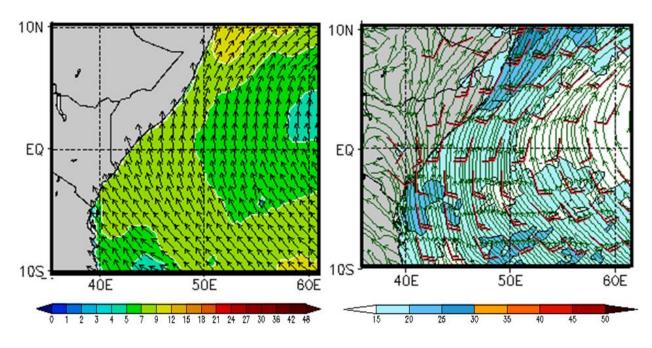
Wave height: 1.8 to 2.7 m ( $\approx 6-9$ ft)

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

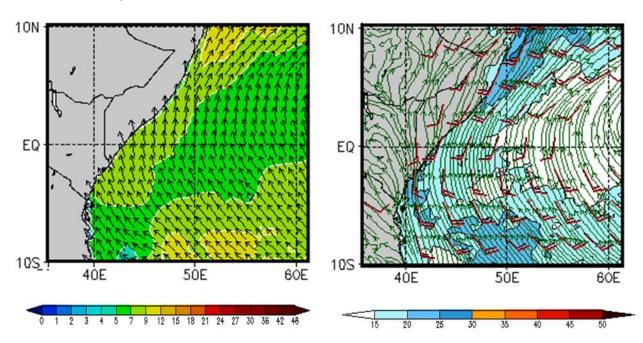
2.4 Friday 30<sup>th</sup> July, 2021: Significant Wave Height and wind speed (Wave scale in meters; Wind scale in m/s)

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

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



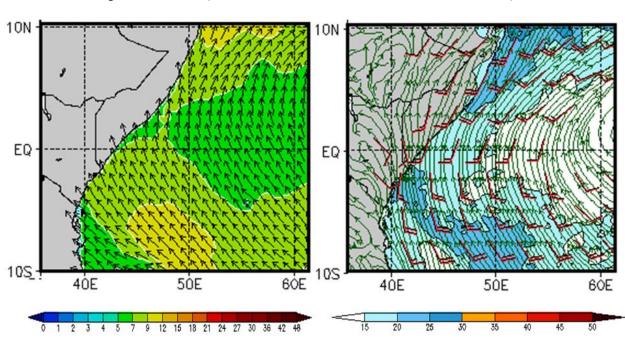
## 2.5 Saturday 31<sup>st</sup> July, 2021: Significant Wave Height and wind speed (Wave scale in meters; Wind scale in m/s)



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

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

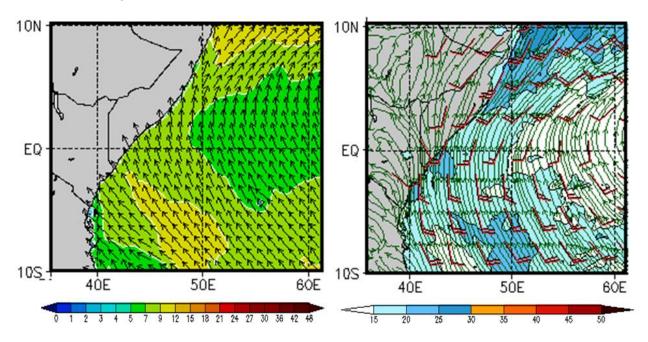
## 2.6 Sunday 01<sup>st</sup> August, 2021: Significant Wave Height and wind speed (Wave scale in meters; Wind scale in m/s)



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

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

# 2.7 Monday 02<sup>nd</sup> 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)

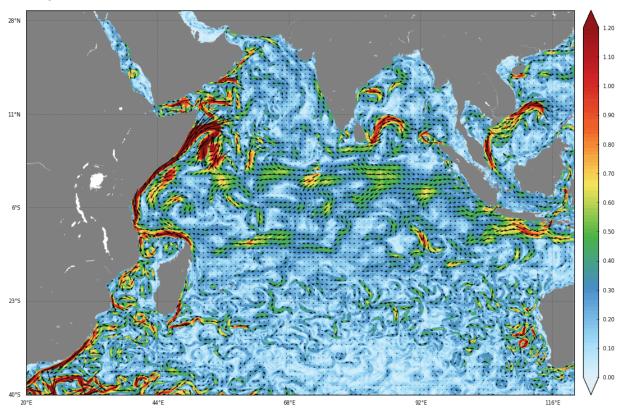
10m Winds: 10-20knots ( $\approx 5$  -10m/s)

3. I luc lui ccast value $27$ July to $02$ August, $2021$	3.	<b>Tide forecast</b>	valid 27 <sup>th</sup> July t	o 02 <sup>nd</sup> August, 2021
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Date	Description	High Tide		Low Tide	
		Time	Height	Time	Height
Tue, 27 <sup>th</sup> July 2021	1 <sup>st</sup> Tide	06:23 AM	3.17 m	12:11 AM	0.22 m
	2 <sup>nd</sup> Tide	06:33 PM	3.43 m	12:16 PM	0.47 m
Wed, 28 <sup>th</sup> July 2021	1 <sup>st</sup> Tide	07:01 AM	3.13 m	12:46 AM	0.31 m
	2 <sup>nd</sup> Tide	07:10 PM	3.21 m	12:56 PM	0.59 m
Thu, 29 <sup>th</sup> July 2021	1 <sup>st</sup> Tide	07:39 AM	3.04 m	01:21 AM	0.46 m
2021	2 <sup>nd</sup> Tide	07:46 PM	2.95 m	01:38 PM	0.76 m
	1 <sup>st</sup> Tide	08:18 AM	2.91 m	01:56 AM	0.64 m

Fri, 30 <sup>th</sup> July 2021	2 <sup>nd</sup> Tide	08:24 PM	2.68 m	02:22 PM	0.96 m
Sat, 31 <sup>st</sup> July 2021	1 <sup>st</sup> Tide	09:01 AM	2.77 m	02:33 AM	0.84 m
	2 <sup>nd</sup> Tide	09:08 PM	2.42 m	03:13 PM	1.15 m
Sun, 01 <sup>st</sup> August 2021	1 <sup>st</sup> Tide	09:53 AM	2.64 m	03:16 AM	1.04 m
	2 <sup>nd</sup> Tide	10:06 PM	2.19 m	04:19 PM	1.31 m
Mon, 02 <sup>nd</sup> August 2021	1 <sup>st</sup> Tide	11:02 AM	2.55 m	04:12 AM	1.22 m
	2 <sup>nd</sup> 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	<b>Conditions suitable for Marine</b>
$1.0 - 1.9 \text{ m} . (\approx 3.0 - 5.7 \text{ ft})$	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