

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:** director@meteo.go.ke, **info@meteo.go.ke Website:** http://www.meteo.go.ke

REF.NO: KMD/FCST/9-2021/MARINE/38 Date: 13th September, 2021

7-Day Marine Forecast for the KENYA coast and off shore areas along the Western Indian Ocean Region Validity: 14/09/2021-20/09/2021

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.

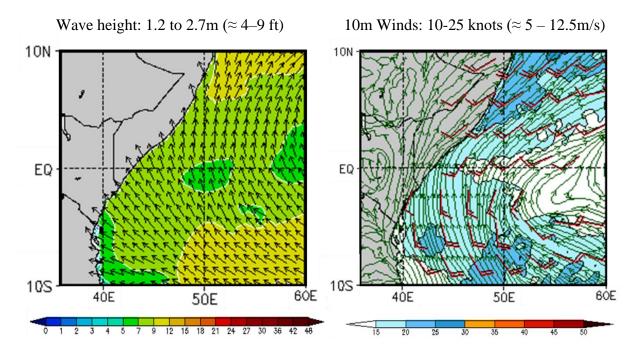
1.2 Sig. Wave Height and Direction:

Slight to moderate waves of 0.8 - 2.7 m ($\approx 3 - 9$ ft) expected to be mainly south easterly over Kenyan and Tanzania turning to southerly over Somali waters during the forecasting period.

1.3 Sea conditions

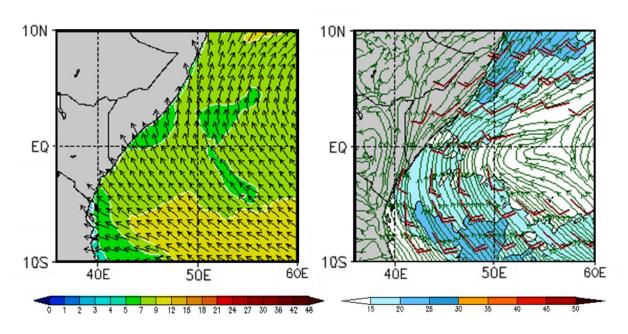
- Slight to Moderate sea condition with wave heights of 0.8-2.7m (3-9ft) is expected offshore the Tanzanian, Kenyan and Somali waters while
- Fresh to Strong breeze expected with wind speeds of 10-25 Knots ($\approx 5 12.5$ m/s) along the Tanzanian, Kenyan and Somalia waters throughout the forecasting period.

- 2. WINDS AND SIGNIFICANT WAVE HEGHTS FORECAST FOR THE PERIOD 14^{TH} SEPTEMBER TO 20^{TH} SEPTEMBER, 2021.
- 2.1 Tuesday 14th September, 2021: Significant Wave Height and wind speed (Wave scale in meters; Wind scale in m/s)



2.2 Wednesday 15th September, 2021: Significant Wave Height and wind speed (Wave scale in meters; Wind scale in m/s)

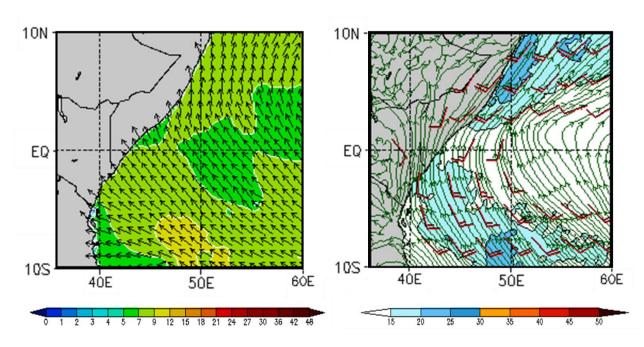
Wave height: 1.2 to 2.7m (≈ 4 –9ft) 10m Winds: 10-25knots (≈ 5 -12.5m/s)



2.3 Thursday 16th September, 2021: Significant Wave Height and wind speed (Wave scale in meters; Wind scale in m/s)

Wave height: 1.5 to 2.7 m ($\approx 5-9$ ft)

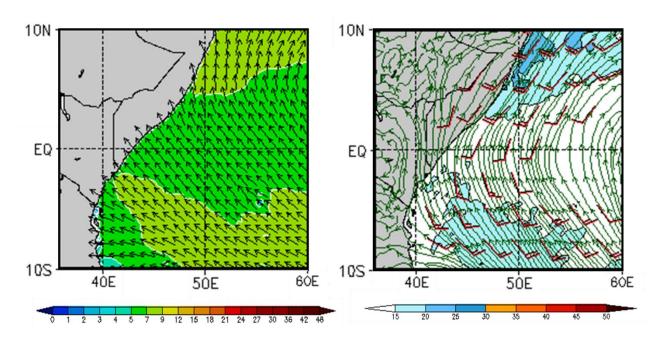
10m Winds: 10-20knots ($\approx 5 - 10$ m/s)



2.4 Friday 17th September, 2021: Significant Wave Height and wind speed (Wave scale in meters; Wind scale in m/s)

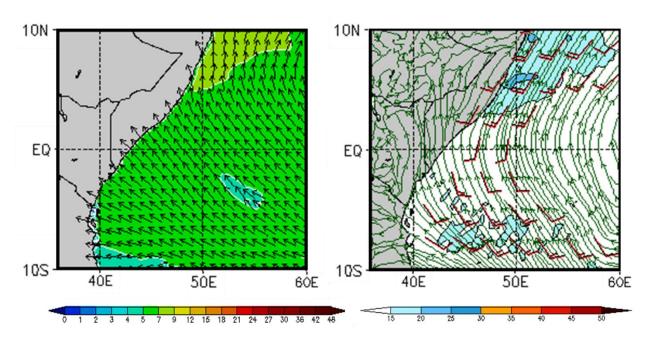
Wave height: 1.2 to 2.4m ($\approx 4-7$ ft)

10m Winds: 10-20knots (≈ 5 -10m/s



2.5 Saturday 18th September, 2021: Significant Wave Height and wind speed (Wave scale in meters; Wind scale in m/s)

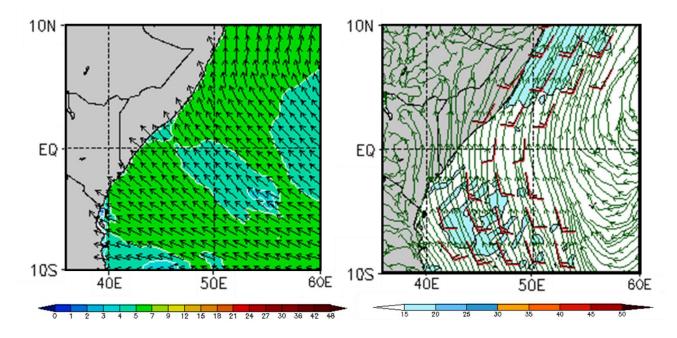
Wave height: 0.8 to 2.4 m (\approx 3–7 ft) 10m Winds: 10-20knots (\approx 5 -10m/s)



2.6 Sunday 19th September, 2021: Significant Wave Height and wind speed (Wave scale in meters; Wind scale in m/s)

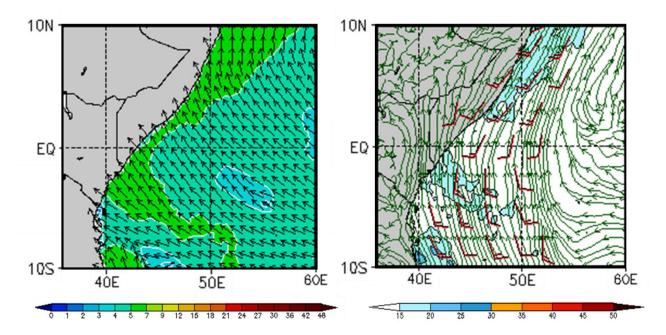
Wave height: 0.8 to 2.4m ($\approx 3-5$ ft)

10m Winds: 10-20knots (≈ 5 -10m/s



2.7 Monday 20th September, 2021: Significant Wave Height and wind speed (Wave scale in meters; Wind scale in m/s)

Wave height: 0.8 to 1.5m (\approx 3-5ft) 10m Winds: 10-20knots (\approx 5 -10m/s)

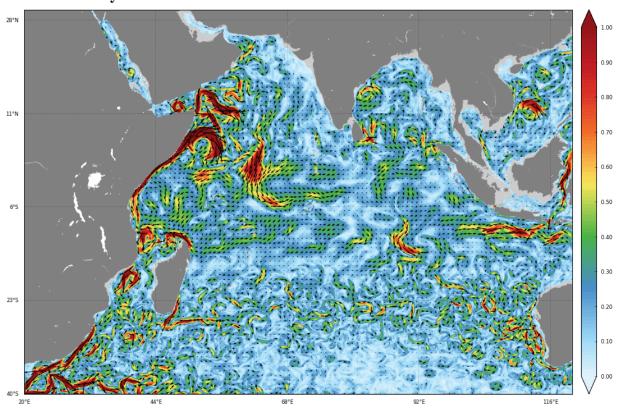


3. Tide forecast valid 14th September to 20th September, 2021

| Date | Description | High Tide | | Low Tide | |
|---|----------------------|-----------|--------|----------|--------|
| | | Time | Height | Time | Height |
| Tue, 14 th September 2021 | 1 st Tide | 09:06 AM | 2.92 m | 02:20 AM | 0.88 m |
| | 2 nd Tide | 09:44 PM | 2.18 m | 03:39 PM | 1.09 m |
| Wed, 15 th September 2021 | 1 st Tide | 10:35 AM | 2.68 m | 03:28 AM | 1.19 m |
| | 2 nd Tide | 11:52 PM | 2.07 m | 05:37 PM | 1.23 m |
| Thu,16 th September 2021 | 1 st Tide | 12:33 PM | 2.67 m | 05:31 AM | 1.34 m |
| | 2 nd Tide | | | 07:31 PM | 1.07 m |
| | 1st Tide | 01:41 AM | 2.29 m | 07:27 AM | 1.18 m |

| Fri, 17 th September 2021 | 2 nd Tide | 01:57 PM | 2.87 m | 08:32 PM | 0.81 m |
|---|----------------------|----------|--------|----------|--------|
| Sat 18 th September 2021 | 1st Tide | 02:40 AM | 2.61 m | 08:33 AM | 0.89 m |
| | 2 nd Tide | 02:52 PM | 3.11 m | 09:14 PM | 0.57 m |
| Sun, 19 th September 2021 | 1st Tide | 03:22 AM | 2.93 m | 09:19 AM | 0.62 m |
| | 2 nd Tide | 03:34 PM | 3.30 m | 09:48 PM | 0.38 m |
| Mon, 20 th September 2021 | 1st Tide | 03:58 AM | 3.19 m | 09:57 AM | 0.58 m |
| _ | 2 nd Tide | 04:10 PM | 3.41 m | 10:17 PM | 0.79 m |

4. 9days Ocean surface current forecast valid 13/09/2021 to 20/09/2021



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