

REPUBLIC OF KENYA

MINISTRY OF ENVIRONMENT, CLIMATE CHANGE AND 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:** https://www.meteo.go.ke

REF.NO: KMD/FCST/7-2024/MARINE/29 Date: 15th July, 2024

7-Day Marine Forecast for the KENYA coast and off shore areas along the Western Indian Ocean Region Validity: 16/07/2024 - 22/07/2024

1.0 GENERAL OUTLOOK

1.1 Wind Speed & Direction:

South-easterly winds are expected over Tanzania and Kenya waters; south-westerly winds are expected over Somalia waters with wind speeds of 10 to 30 knots (5-15 m/s) throughout the forecast period.

1.2 Sig. Wave Height and Direction:

South-easterly waves expected over Tanzania and Kenya waters; southerly turning into south-westerly waves expected over Somalia waters with wave heights of 1.2 –3.6m (≈ 4 – 12ft) throughout the forecast period.

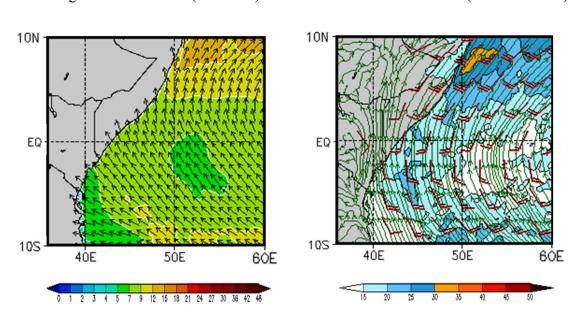
1.3 Sea conditions

- Moderate to rough sea condition with wave heights of 1.2-3.6m (4-12ft) expected over the Somalia waters throughout the forecast period.
- Fresh to strong breeze with wind speeds of 5-30m/s (10 to 15 Knots) expected over Somalia waters throughout the forecast period.

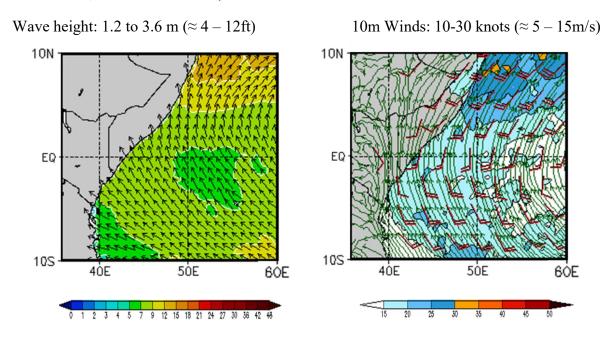
- 2.0 WINDS AND SIGNIFICANT WAVE HEGHTS FORECAST FOR THE PERIOD 16^{TH} JULY, 2024 TO 22^{ND} JULY, 2024.
- 2.1 Tuesday 16th July, 2024: Significant Wave Height and wind speed (Wave scale in meters; Wind scale in m/s)

Wave height: 1.2 m to 3.6m ($\approx 4-12$ ft)

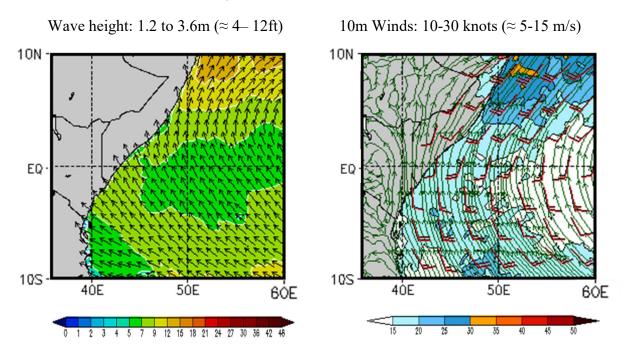
10m Winds: 10-25 knots ($\approx 5 - 12.5 \text{ m/s}$)



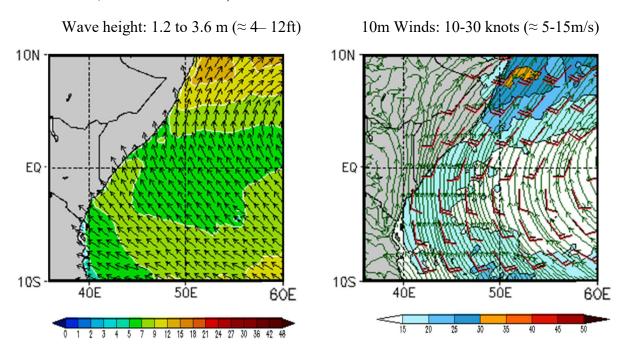
2.2 Wednesday 17th July, 2024: Significant Wave Height and wind speed (Wave scale in meters; Wind scale in m/s)



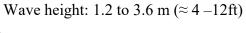
2.3 Thursday 18th July, 2024: Significant Wave Height and wind speed (Wave scale in meters; Wind scale in m/s)



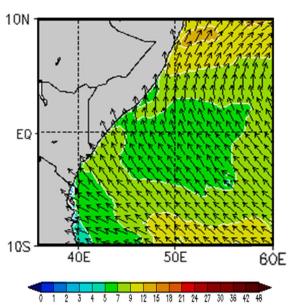
2.4 Friday 19th July, 2024: Significant Wave Height and wind speed (Wave scale in meters; Wind scale in m/s)

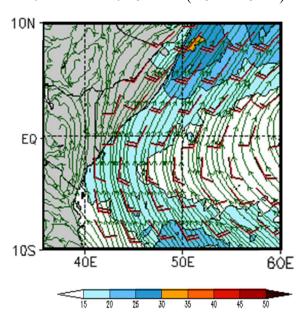


2.5 Saturday 20th July, 2024: Significant Wave Height and wind speed (Wave scale in meters; Wind scale in m/s)



10m Winds: 10-25 knots ($\approx 5 - 12.5 \text{m/s}$)

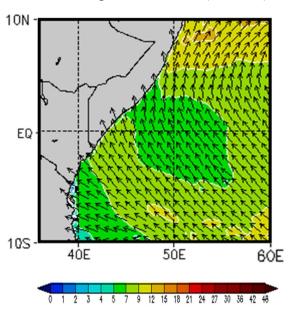


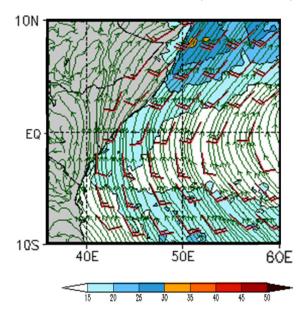


2.6 Sunday 21st July, 2024: Significant Wave Height and wind speed (Wave scale in meters; Wind scale in m/s)

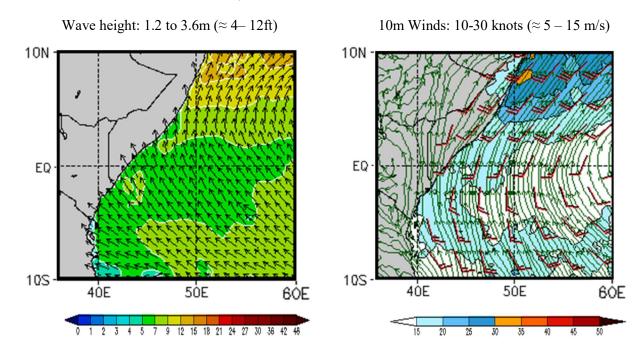
Wave height: 1.2 to 3.6m (≈ 4 –12ft)

10m Winds: 10-25 knots ($\approx 5 - 12.5 \text{m/s}$)





2.7 Monday 22nd July, 2024: Significant Wave Height and wind speed (Wave scale in meters; Wind scale in m/s)

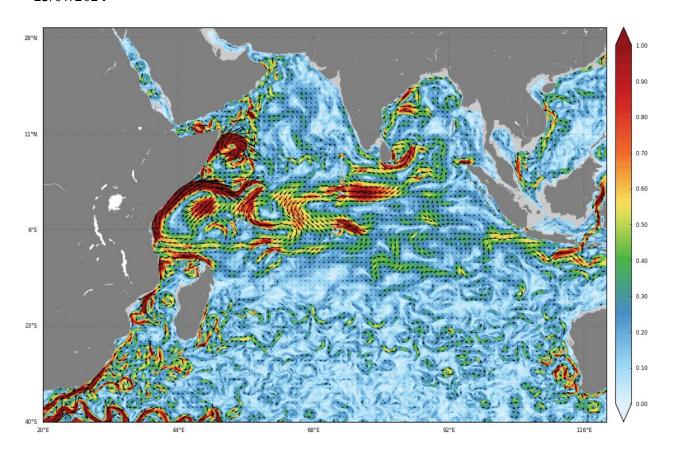


3.0 Tide forecast valid 16th July, 2024 to 22nd July, 2024

| Date | Description | High Tide | | Low Tide | |
|---------------------------------|----------------------|-----------|--------|----------|--------|
| | | Time | Height | Time | Height |
| Tue 16 th July, 2024 | 1 st Tide | 11:49 AM | 2.63 m | 04:57 AM | 1.25 m |
| | 2 nd Tide | | | 06:39 PM | 1.29 m |
| Wed 17th July, 2024 | 1st Tide | 12:27 AM | 2.10 m | 06:13 AM | 1.27 m |
| | 2 nd Tide | 01:02 PM | 2.73 m | 07:52 PM | 1.13 m |
| Thur 18th July, 2024 | 1st Tide | 01:48 AM | 2.19 m | 07:23 AM | 1.20 m |
| | 2 nd Tide | 02:04 PM | 2.92 m | 08:47 PM | 0.92 m |
| Fri 19 th July, 2024 | 1st Tide | 02:47 AM | 2.35 m | 08:22 AM | 1.05 m |
| | 2 nd Tide | 02:55 PM | 3.14 m | 09:31 PM | 0.69 m |

| Sat 20th July, 2024 | 1st Tide | 03:34 AM | 2.35 m | 09:12 AM | 0.87 m |
|---------------------------------|----------------------|----------|--------|----------|--------|
| | 2 nd Tide | 03:40 PM | 3.35 m | 10:11 PM | 0.48 m |
| Sun 21st July, 2024 | 1 st Tide | 04:16 AM | 2.55 m | 09:57 AM | 0.68 m |
| | 2 nd Tide | 04:22 PM | 3.35 m | 10:48 PM | 0.30 m |
| Mon 22 nd July, 2024 | 1 st Tide | 04:55 AM | 2.55 m | 10:41 AM | 0.52 m |
| | 2 nd Tide | 05:03 PM | 3.53 m | 11:25 PM | 0.18 m |

4.0 9 days Ocean surface current in meters per seconds (m/s) forecast valid 15/07/2024 to 23/07/2024



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.

Mr. Kennedy Thiong'o

FOR DIRECTOR OF KENYA METEOROLOGICAL DEPARTMENT