# **TCD** Practitioner Grant Report

**Project Title:** Assessing the Contribution of Women to the Production of Blue Foods production in the Western Indian Ocean (WIO); A Case Study of Artisanal Billfish Fisheries on the Kenyan Coast

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Location of Research: Kilifi, Kenya

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#### Objectives

The study aims to enhance the understanding of the involvement of women in blue food production, using artisanal billfish fisheries as an illustrative case within the realm of blue foods. The overarching objective is to foster gender awareness in decision-making related to fisheries management and production, to advance gender equity in Kenya.

The research is guided by three specific objectives as follows:

- 1. Characterization of women's involvement in artisanal billfish fisheries,
- 2. Mapping of women-dominated areas in artisanal billfish fisheries, and
- 3. Identification of the challenges and opportunities for women in artisanal billfish fisheries on the Kenyan Coast.

#### Study Area

Kilifi, a coastal county situated in the southeast of Kenya, is gaining recognition as a prominent billfish destination in East Africa (Kadagi et al., 2022). The Kenyan coast is situated within the Western Indian Ocean (WIO) and is home to six distinct billfish species, namely the black Marlin, Blue Marlin, Striped Marlin, Sailfish, short-billed spearfish, and Swordfish (Kadagi et al., 2011). This research focuses on investigating five distinct locations within Kilifi County, recognized for their diverse billfish landings. The areas include Kilifi Central, Watamu, Malindi, Ngomeni, and Mayungu.

The collaborative effort leading to this study involves the University of Florida (UF), the Kenya Marine and Fisheries Research Institute (KMFRI), which served as the host institution for the student, and various stakeholders in artisanal fisheries, commonly referred to as Small-Scale Fisheries (SSF) along the Kenyan coast.

## Summary of Methods

This study has received approval from both the University of Florida Institutional Review Board (IRB) and the Kenya National Commission for Science, Technology, and Innovation (NACOSTI). It employs a mixed-methods approach, blending qualitative and quantitative methodologies. The data collection involves interviews, surveys, and group discussions, while analysis utilizes geospatial analysis and content/thematic analysis. Ethnographic observation and Appreciative Inquiry are incorporated into the data collection process. Furthermore, the study incorporates insights from informal discussions and leverages pre-existing data sources, including datasets from various government and non-government agencies, technical reports, gray literature, and journals.

Two participant groups were targeted for data collection. The first group of experts including research scientists, government officials, technical observers, and partners from NGOs and university institutions were identified through purposive sampling, while the second group, consisting of fishers and traders, was assembled through a snowballing non-probability sampling. Approximately 200 participants were involved in 75 interviews, 17 group discussions, and over 100 surveys.

### **Preliminary Outcomes**

- Billfish species' availability is influenced by various factors such as seasonal shifts in fisheries and challenges faced by fishermen, like inadequate fishing gear. Consequently, relying solely on billfish fisheries for income becomes a challenge for artisanal fishers and traders.
- The engagement of men and women in artisanal billfish fisheries is shaped by diverse factors, including socio-economic and environmental ones, affecting them in distinct ways. Cultural norms, for example, may favor men as fishers, limiting women's participation. Regarding mobility, men often have greater access to motorbikes and cars, placing women at a disadvantage in fish transportation.
- In landing sites where collaboration is robust among men and women, facilitated through entities like Beach Management Units (BMUs), cooperatives, and self-help groups, there is a greater likelihood for women to actively participate in artisanal billfish fisheries.

### Challenges

- In some instances, it wasn't easy to convince male fishers and traders to participate in interviews and discussions whenever it was clear that the research was predominantly focused on women.
- Due to the off-peak season, there was a minimal landing of billfish, making it challenging to identify everyone participating in billfish fishery activities.

## Photos



Figure 1: Fish being landed in Ngomeni from motor-driven boats



Figure 2: Sorting and exchange of fish between fishers and traders at Malindi landing site



Figure 3:A woman cleaning fish in Kilifi Central

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