

## ABSTRACT

Poverty and inequality remain a development challenge for most fishery-dependent households. This has prompted the current interest in the ocean-based economic model as Kenya became the first to host a global conference on the sustainable blue economy which was held in Nairobi in November 2018. To provide a more comprehensive understanding of the challenges surrounding the blue economy approach, we used a fractional response model to analyze drivers of marine fishery dependence. Our case study, involving 384 randomly selected households from Coastal lowlands of Kenya, specifically Kilifi County, revealed that marine fishery is the highest livelihood option exhibiting gender differences. The livelihood participation rates were approximately 68%, 36%, 31%, 25%, and 9% for marine fishery and related activities, agriculture, self-employment (excluding agriculture and marine fishery), wage employment, and remittances respectively. Many livelihood options were pursued independently implying a low level of diversified livelihood strategies in the region. The analysis of the determinants of the marine fishery dependence indicated that education level, agricultural productive assets, access to credit, group membership, security of tenure, flood shock, and fish price shock significantly influenced marine fishery dependence. The study therefore recommends government intervention in marine governance and development programs such as infrastructural development, capital availability and extension services. This will enable the dependent households to diversify to alternative livelihood options and contributes to sustainable marine fishery dependence.

### Keywords:

- **marine fishery dependence**
- **fractional response model**
- **land tenure**
- **shocks**
- **Kenya**