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Technical Policy Brief/ KIEP/10

Unlocking the Potential of Kenya's Fisheries: A Value Chain Analysis in Homabay County



Key messages

- Kenya's fisheries contribute approximately 0.6% to the national GDP, with Lake Victoria playing a vital role by providing over 70% of the country's freshwater fish.
- Homabay County, a key riparian area of Lake Victoria, accounts for 58% of the national fish catch, highlighting its significance in Kenya's food security and economy.
- The study was conducted under the Kenya Industry and Entrepreneurship Project (KIEP), supported by the World Bank, to enhance SME capabilities through improved technology use and innovation.
- The fisheries sector in Homabay remains underdeveloped, facing issues such as; low value addition, reliance on traditional methods of fish preservation, limited processing technology adoption, and unreliable power supply.
- To improve the sector's productivity and sustainability, comprehensive interventions are needed in technology, reliable energy, skills development, financing, and environmental management.



Introduction

The fisheries sector plays a key role in the National GDP in Kenya's food security and economy. Homabay County prides itself of having the largest Lake Victoria shoreline thereby contributing over 58% of the overall fish catch in Kenya with the main species being Nile perch, tilapia, and Lake Victoria sardines or "*omenda*". Despite its enormous economic potential, the sector remains underdeveloped, with limited value addition, outdated postharvest practices, and technological inefficiencies. On this basis, a study was carried out under the Kenya Industry and Entrepreneurship Project (KIEP) that was spearheaded by the Ministry of Investments, Trade and Industry (MITI) with the support of the World Bank. The aim of the study was to assess ways of enhancing the fish value chain in Homabay County.

Homa Bay County, situated along Lake Victoria's longest shoreline, has seen its annual fish production decline from around 100,000 metric tonnes a decade ago to about 39,000 metric tonnes today due to overfishing, pollution, and unsustainable practices. In 2022, the county produced 50,053 metric tonnes of fish, mainly Nile perch, Omena (silver cyprinid), and Nile tilapia, with Omena being the most abundant; Lake Victoria remains crucial to Kenya's fisheries, contributing nearly half of the country's total fish output. To support aquaculture, Homa Bay has developed fingerling production through local hatcheries like Rabisa Fish Farm, producing about 240,000 tilapia fingerlings monthly, and efforts by Victory Farms and government programs distributing fingerlings to local farmers.

The study approach that was adopted included use of surveys, focus group discussions (FGDs) and interviews. Findings highlighted the need for modern technology, reliable electricity, skills development, and better financing to address key challenges, including climate change impacts. The potential of fish farming in Homabay County is enormous and can significantly grow if the right ecosystem is put in place. Improved infrastructure, policy support, and innovation are essential to enhancing production, sustainability, and economic returns within the sector.

Methodology

A value chain approach was used to assess gaps in the fish subsector in Homabay County through desktop review and analysis. Three key value chains were assessed for impact, sustainability, and inclusivity: namely, capture fisheries, aquaculture, and technology needs. Key stages and actors were mapped from input to consumer. Data was collected using questionnaires, interviews, and observation, focusing on ownership, actors, marketing, technology, skills, risks, support services, quality, and socio-cultural issues. The analysis aimed to improve efficiency, quality, market access, and livelihoods, while promoting inclusivity and reducing poverty in the fisheries sector through targeted interventions and technology assessments.

Identified Gaps in Value Chains

The following challenges were identified in the blue economy sector:

1. Boat builders



- Boats designs are outdated
- Labour intensive
- Male boat buyers often don't honor contracts after the boats have been handed over to them
- Backache among boat builders
- Declining number and quantities of trees used in trade
- Capacity building – old are the ones doing the boat building

2. Boat owners

- Economic Barriers - High initial and maintenance cost of boats.
- Use of manual/diesel powered boats
- Contractual Issues for example disagreement between the client and



3. Fingerlings



- Water quality maintenance
- Inadequate of quality brooders
- Inadequate support to develop innovations and grow to the next level
- High electricity costs and unreliable supply/power outages
- Predators and theft
- Inadequate information on pond farmers – limited communication on source of fingerlings
- Financial constraints in technology transfer of simple intensive fish farming technology

4. Fish feeds



- Lack of on-site feeds formulation and production and high cost of feed
- Expensive feed and feed ingredients
- Lack of feed formulation knowhow

5.

Fishermen



- Insecurity in the lake e.g. piracy and theft of the fish harvest
- Accidents while fishing
- Poor quality of the fishing nets
- Regulatory issues where fishing is banned for a period
- Drying is done on the sand leading to postharvest losses
- Sanitary facilities such as toilets are inadequate and are old

6.

Pond and cage owners



- Belief that farmed fish is not sweet as sweet as lake fish
 - Cases of theft and insecurity
 - Cage farming in the lake might not be for long due to water quality issues,
 - Non uniform size of fingerlings
 - Predators consuming fries and fingerlings
 - High prices of fish feeds
 - Supply of wrong inputs e.g. non UV treated dam liners.
 - No tax waivers
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- Inadequate cooling capacity and drying facilities
 - Unhealthy competition from other fish farmers - inducing growth hormones to fish
 - Frequent power outages
 - Inadequate number of ice flake making plants
 - Inadequate skills and Knowledge e.g. breeding and rearing of fish
 - Low access to capital
 - Perceived unfavorable policies on Taxation and levy structure which are not informed by research

7.

Processors



- Inadequate fish supplies after bans during certain seasons
- Low quality fish from the fishermen
- Limited incentives to promote the sector growth
- Lack of high capacity modern dryers such as solar dryers and cooling facilities
- Lack of technical specifications for processing and marketing
- Lack of legal and policy framework for processing
- Inadequate business skills
- Poor infrastructure development such as road networks
- Lack of skills and equipment for filleting fish and quality control
- Low levels of innovations in terms of paradigm shifts, and market positioning.
- Waste management

8.

Aggregators



- Delays in payments for cases involving agents
- High working Capital requirements
- Postharvest losses due to inadequate drying and cooling facilities

Policy Brief Recommendations

i. Strengthen Fisheries Management

- Enforce regulations to reduce overfishing and illegal fishing activities.
- Promote co-management with local Beach Management Units (BMUs) to enhance community participation and compliance.
- Establish closed seasons and breeding sanctuaries to support fish stock recovery.
- Need for acceptable policy documents on fish management and Guidelines and enacting of Acts in FVC.



ii. **Improve Infrastructure**

- Upgrade landing sites with cold storage, clean water, and sanitation facilities.
- Enhance road and transport networks to ease access to markets and reduce post-harvest losses.
- Continue with the modernization program by investing in the construction of 500 fiberglass fishing boats, aimed to replace outdated vessels and enhance the safety and efficiency of fishing operations.
- Continue with mass-producing climate-smart artisanal boats equipped with safety features like GPS, life rafts, and cooler boxes, targeting fishermen in Homabay and neighboring counties by Additionally, Kenya Shipyards Limited (KSL).
- Investment in drying, cold storage facilities and ice flaking facilities with capacity to hold products for up to a month
- Having renewable energy powered boats
- There is need of setting up a local value addition hub designed with the goal of meeting export requirements to extent the product offering by the processors and to open up the industry

iii. **Support Sustainable Aquaculture**

- Promote fish farming through training, quality fingerlings, and affordable feeds.
- Offer subsidies or credit facilities to attract youth and smallholder farmers into aquaculture.

iv. **Enhance Market Access and Value Addition**

- Build fish processing and value addition facilities to increase income.
- Train fishers and traders on packaging, hygiene, and quality standards.
- Facilitate access to national and regional markets through cooperatives and digital platforms.

v. **Capacity Building and Research**

- Provide training programs for fishers on sustainable practices and business skills.
- Invest in research to monitor fish stocks, climate impact, and best practices for aquaculture.
- Provide training to boat builders in fibre/composite based boats as an alternative from lumber

vi. **Environmental Conservation**

- **Address pollution** from agriculture, domestic waste, and industries.
- **Restore aquatic ecosystems** such as wetlands and riverbanks to protect fish breeding areas.
- Improvement of hygiene in the fish handling



vii. Financial training and support in the form of capital

- Provide accessible grants and loans
- Provide financial training

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