

The Importance of Wild Fisheries For Local Food Security: KENYA

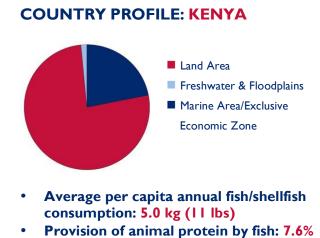
Kenya's fisheries sector includes industrial and small-scale fishers, and produces fresh and processed fish for domestic and export markets. Yet, fisheries have experienced declines in both diversity and productivity due to poor management, and currently make a limited contribution to the country's Gross Domestic Product. Improved fisheries management and policies could increase the sector's contributions to Kenya's economy and food security.

Food Security: About 35% of Kenyan children under 5 are stunted, 16% are underweight, and approximately 24% of the population is undernourished [1, 2]. Following a poor harvest season in 2008, the rates of undernourishment escalated, and millions of people in the country were food insecure: about 1.3 million in rural areas and between 3.5 and 4 million in urban areas [3]. An analysis of the country's food security situation in 2013 and 2014 found high rates of food insecurity related to drought conditions and unfavorable rainfall patterns [4]. Fishing communities in Kenya often experience high poverty rates. A recent study found that 64% of fish workers in western Kenya live below the poverty

line and rates of poverty are higher in households that rely on fishing as their primary source of income [5]. Average per capita annual fish consumption is estimated to be 5 kg, and the contribution of fish to overall protein intake is low at 7.6% [6, 7], likely because many Kenyans do not regularly consume fish for historical or cultural reasons [8]. However, for communities along Kenyan lakes and coastlines, small-scale fishing is essential to overall household well-being as it provides both income and nutrient-rich food [9].

National Development Priority: Kenya's

2014-2017 National Nutrition Action Plan promotes fisheries as one of the sectors that can contribute to the goals of the national nutrition agenda [10]. Kenya's Vision 2030, the national long-term development blueprint for transforming Kenya into an industrializing middle income country by 2030, recognizes the importance of the contributions of the fisheries sector [11].



- Stunting: 35%
- Undernourished population: 24%

Economic Benefits: The fisheries sector, which includes both industrial and small-scale fishing and produces fresh and processed fish for domestic and export markets, accounts for about 0.5% of the country's Gross Domestic Product (GDP) [12]. Despite its limited contribution to the country's GDP, the fisheries sector generates employment for over two million Kenyans through fishing, boat building, equipment repair, fish processing, and other ancillary activities [13]. Kenya currently derives little economic benefit from its valuable marine fisheries that are primarily exploited by foreign fishing vessels. Foreign vessels rarely land or declare their catches in the country, thus depriving the country of much needed revenue and processing jobs [12]. Therefore, with improved management, there is great potential for increasing the contributions of marine fisheries to Kenya's economic development [12, 13].

Fisheries Management: Fishing communities have few livelihood options due to lack of alternatives outside of the fisheries sector, or because fisheries overexploitation limits their income potential [5]. Overfishing is recognized as a threat to the diversity and productivity of fisheries, and Kenya has implemented efforts to combat it, including reducing the number of licensed boats targeting certain species [12, 14]. Climate change also poses a significant threat to Kenya's coral reef fisheries. A recent analysis compared the vulnerability of several western Indian Ocean countries and found Kenya's coral reefs to be the most vulnerable among them to climate change-related coral bleaching [15]. Headway is being made in implementing management strategies aimed at preventing the collapse of the small-scale fishing sector - the establishment of the Agriculture, Fisheries, and Food Authority in 2014 highlights the country's goal of promoting best practices in fisheries management [16] – but much more needs to be done to prevent further declines in fisheries and livelihoods.

HIV in Fishing Communities: Some of the highest rates of HIV prevalence in Kenya are found in the fishing communities that live in the Nyanza region around Lake Victoria; it is estimated that about 25% of the region's new HIV infections occur in fishing communities [17]. The mobility of fishers has been identified as one of the drivers of this pattern, which also makes them a particularly difficult target for public health interventions [18]. Transactional sexual encounters between fishermen and socioeconomically vulnerable female traders (known as the "sex-for-fish" economy) contributes to this epidemiological pattern [18].

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