



# The Importance of Wild Fisheries For Local Food Security: **KENYA**

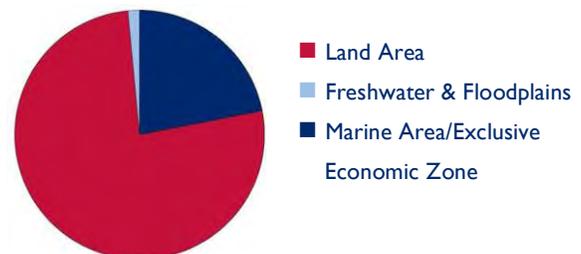
*Kenya's fisheries sector includes industrial and small-scale fishers, and produces fresh and processed fish for domestic and export markets. Yet, fisheries have experienced declines in both diversity and productivity due to poor management, and currently make a limited contribution to the country's 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].

**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].

## COUNTRY PROFILE: **KENYA**



- **Average per capita annual fish/shellfish consumption: 5.0 kg (11 lbs)**
- **Provision of animal protein by fish: 7.6%**
- **Stunting: 35%**
- **Undernourished population: 24%**

**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].

## Sources:

1. Kenya National Bureau of Statistics (KNBS) and ICF Macro, *Kenya Demographic and Health Survey 2008-09. 2010*; Available from: <http://dhsprogram.com/pubs/pdf/fr229/fr229.pdf>. 2010.
2. The World Bank, *Prevalance of undernourishment (% of population)*. Available from: <http://data.worldbank.org/indicator/SN.ITK.DEFC.ZS>. 2015.
3. IFPRI, *Food Security Portal Kenya. 2012*; Available from: <http://www.foodsecurityportal.org/kenya/resources> 2012.
4. USAID, *Kenya- Food Insecurity*. Available from: [https://www.usaid.gov/sites/default/files/documents/1866/kenya\\_fi\\_fs01\\_09-30-2014.pdf](https://www.usaid.gov/sites/default/files/documents/1866/kenya_fi_fs01_09-30-2014.pdf). 2014.
5. Olale, E. and S. Henson, *Socio-economic characteristics of fish workers in Western Kenya*. *International Journal of Fisheries and Aquaculture.*, 2012. 4(7): p. 139-153.
6. Rothuis, A., et al., *Business opportunities for aquaculture in Kenya: with special reference to food security*. 2011: LEI.
7. FAO Fisheries and Aquaculture Department, *Summary tables of Fishery Statistics: Food Balance Sheets 2011*. Available from: <ftp://ftp.fao.org/FI/STAT/summary/default.htm>. 2011.
8. FAO, *Fishery country profile*. Available from: [ftp://ftp.fao.org/FI/DOCUMENT/fcp/en/FI\\_CP\\_KE.pdf](ftp://ftp.fao.org/FI/DOCUMENT/fcp/en/FI_CP_KE.pdf). 2007.
9. Gavenus, E., *Association between small-scale fishery participation and severe household food insecurity: The case of Kenyan fishing communities on Lake Victoria*. Available from: [http://ehsdiv.sph.berkeley.edu/ghe/wp-content/uploads/2014/05/Executive-Summary\\_Erika\\_May11.pdf](http://ehsdiv.sph.berkeley.edu/ghe/wp-content/uploads/2014/05/Executive-Summary_Erika_May11.pdf) in *School of Public Health*. 2014, University of California, Berkeley.
10. Republic of Kenya, M.o.P.H.a.S., *National Nutrition Action Plan 2012-2017*, Available from: <http://scalingupnutrition.org/wp-content/uploads/2013/10/Kenya-National-Nutrition-Action-Plan-2012-2017-final.pdf>. 2012.
11. Government of the Republic of Kenya, *Kenya Vision 2030*. Available from: <http://www.usaid.gov/sites/default/files/documents/1860/3%29%20Vision%202030%20Abridged%20version.pdf>. 2007.
12. Republic of Kenya Ministry of Fisheries Development, *Kenyan Coastal Development Project-Fisheries Monitoring (KCDP). Fisheries monitoring, control and surveillance (MCS) capacity needs assessment report for the marine and coastal fisheries in Kenya*, The World Bank, GEF, and GOK Project, Editors. 2013.
13. FAO, *FAO Country Programming Framework for Kenya 2013-2017*. Available from: [ftp://ftp.fao.org/TC/CPF/Countries/Kenya/CPF\\_KEN\\_2013-2017.pdf](ftp://ftp.fao.org/TC/CPF/Countries/Kenya/CPF_KEN_2013-2017.pdf). 2013.
14. Ojuok, J., et al., *The effect of overfishing on the life-history strategies of Nile tilapia, Oreochromis niloticus (L.) in the Nyanza Gulf of Lake Victoria, Kenya*. *Aquatic Ecosystem Health & Management*, 2007. 10(4): p. 443-448.
15. Cinner, J.E., et al., *Vulnerability of coastal communities to key impacts of climate change on coral reef fisheries*. *Global Environmental Change*, 2012. 22(1): p. 12-20.
16. Republic of Kenya, *The Agriculture, Fisheries and Food Security Authority*. Available from: <http://agricultureauthority.go.ke/about-us/>. 2014.
17. Kenya National AIDS Control Council, *Kenya HIV prevention response and modes of transmission analysis*. Available from : <http://siteresources.worldbank.org/INT/HIVAIDS/Resources/375798-1103037153392/KenyaMOT22March09Final.pdf>. 2009.
18. Camlin, C.S., Z.A. Kwena, and S.L. Dworkin, *Jaboya vs. jakambi: Status, negotiation, and HIV risks among female migrants in the “sex for fish” economy in Nyanza Province, Kenya*. *AIDS education and prevention: official publication of the International Society for AIDS Education*, 2013. 25(3): p. 216.