

## The Importance of Wild Fisheries For Local Food Security: LIBERIA

Fish provide approximately 15% of the country's animal protein supply. Per capita fish consumption in Liberia is among the lowest in the region. The civil war severely reduced Liberia's capacity to manage natural resources and damaged fisheries infrastructure. Recent research suggests that Liberian fisheries can significantly contribute to sustainably providing the country's needs for animal protein if key issues related to local capacity, governance, and infrastructure are addressed.

Food Security: A 2013 report estimated that 49% of Liberians experienced some level of food insecurity, and 34% had inadequate food consumption patterns characterized by high intake of cereals and low intake of protein-rich foods [1]. Among children under age five, 32% were stunted and 15% were underweight [2]. It is estimated that malnutrition plays a significant role in 35% of deaths among Liberian children under age five [3]. Average per capita annual fish and shellfish consumption is estimated to be 5.0 kg, much lower than in neighboring countries such as Sierra Leone (25.3 kg, 55.8 lbs) and Guinea (10.5 kg, 23.1 lbs) [4]. Fish is the second most purchased food commodity and provides approximately 15% of total animal protein supply [1, 5]. A recent analysis found Liberia to be very vulnerable to a decline in fisheries due to its low adaptive capacity and the importance of fish from a food security perspective [6].

## National Development Priority: Liberia's 2012-2017 development strategy (Agenda for Transformation),

2017 development strategy (Agenda for Transformation), emphasizes the importance of the fisheries sector in meeting the country's long-term socioeconomic goals [7]. Specifically, the Agenda identifies community-based fisheries management to increase production, and participation in ongoing efforts to reduce illegal fishing and improve regulatory frameworks as national priorities. The Agenda also prioritizes strengthening women's participation in income generation and employment opportunities within the fisheries sector [7].

**Economic Benefits:** Fisheries in Liberia contribute about 10% to the country's Gross Domestic Product (GDP), and the sector provides full- or part-time employment for

## COUNTRY PROFILE: LIBERIA Land Area Freshwater & Floodplains Marine Area/Exclusive Economic Zone

- Average per capita annual fish consumption: 5.0 kg (11 lbs)
- Provision of animal protein by fish: 15%
- Stunting: 32%
- Underweight children: 15%

37,000 people [3, 8]. Small-scale fisheries provide employment for 33,000 people, 60% of whom are women [9]. A 2009 analysis found that coastal fishing communities were highly vulnerable to poverty, but emphasized that the fisheries sector has "large potential to contribute to socio- economic development" if barriers such as weak institutional capacity, an unfavorable political environment, conflicts with industrial fishing and migrant fishers, and lack of fisheries infrastructure are effectively addressed [10].

**Fisheries Demand and Supply:** Fish is a primary source of protein for many Liberians and is second only to rice as the most purchased food commodity [3]. Small-scale fishers provide the majority of the domestic fish supply,

while the industrial sector is primarily operated by foreign companies that export their catch. Women who live in coastal communities often engage in subsistence fishing for their households [11]. Annual per capita fish consumption is among the lowest in the region and has decreased over time due to damage to fisheries infrastructure during the civil war, over-exploitation of resources in some areas, and a shift from subsistence to trade-based fisheries [9, 11]. While models differ on their predictions about the impacts of climate change on West Africa's coastal fisheries, a recent study found that climate change may increase their productivity, but benefits for local fishing communities will only be realized if threats such as poor governance and overfishing by other nations are effectively addressed [12, 13].

**Fisheries Management:** The government's capacity to manage and regulate fisheries collapsed during the civil war, leading to widespread illegal, unreported, and unregulated (IUU) fishing in Liberian waters during this period [9]. Since the end of the civil war, the Liberian Bureau of National Fisheries has continued to grapple with issues of low enforcement capacity, inadequate infrastructure, and lack of resources to properly survey fisheries [9, 11]. A recent analysis estimates that IUU catches in Liberia are worth about \$75 million per year. This study also found small-scale catches are "grossly under-estimated" and that exploitable fish biomass "could generate a sustainable catch sufficient to meet Liberians' need for animal protein" [11].

**Fisheries and the Ebola Outbreak:** In the wake of bans on bushmeat consumption and sale during the recent Ebola outbreak, the Food and Agriculture Organization representative in Liberia emphasized the importance of fisheries to nutrition and urged support for fishers to sustainably increase and sell their catch [14].

## Sources

- 1. World Food Programme, Liberia Comprehensive Food Security and Nutrition Survey (CFSNS). Available from: <a href="http://foodsecuritycluster.net/sites/default/files/CFSNS-FINAL\_Liberia-2013.pdf">http://foodsecuritycluster.net/sites/default/files/CFSNS-FINAL\_Liberia-2013.pdf</a>. 2013.
- 2. Liberia Institute of Statistics and Geo-Information Service, et al., *Liberia Demographic and Health Survey 2013*. Available from: <a href="http://dhsprogram.com/pubs/pdf/FR291/FR291.pdf">http://dhsprogram.com/pubs/pdf/FR291/FR291.pdf</a>. 2014, Liberia Institute of Statistics and Geo-Information Services, ICF International.
- 3. World Food Programme, The State of Food and Nutrition Insecurity in Liberia. Available from: http://home.wfp.org/stellent/groups/public/documents/ena/wfp231357.pdf. 2010.
- 4. National Marine Fisheries Service, Per Capita Consumption. Available from: <a href="http://www.st.nmfs.noaa.gov/st1/fus/fus/1/08\_percapita2011.pdf">http://www.st.nmfs.noaa.gov/st1/fus/fus/1/08\_percapita2011.pdf</a>. 2011.
- 5. FAO Fisheries and Aquaculture Department, Summary tables of Fishery Statistics: Food Balance Sheets 2011. Available from: <a href="mailto:ftp://ftp.fao.org/FI/STAT/summary/default.htm">ftp://ftp.fao.org/FI/STAT/summary/default.htm</a>. 2011.
- 6. Hughes, S., et al., A framework to assess national level vulnerability from the perspective of food security: the case of coral reef fisheries. Environmental Science & Policy, 2012. **23**: p. 95-108.
- 7. Republic of Liberia, Agenda for Transformation, Steps Toward Liberia RISING 2030. Available from: <a href="http://www.lr.undp.org/content/dam/liberia/docs/Liberia%20Agenda%20for%20transformation.AfT.pdf">http://www.lr.undp.org/content/dam/liberia/docs/Liberia%20Agenda%20for%20transformation.AfT.pdf</a>. 2012.
- 8. Belhabib, D., U. Sumaila, and D. Pauly, Feeding the poor: Contribution of West African fisheries to employment and food security. Ocean & Coastal Management, 2015. 111: p. 72-81.
- 9. Government of Liberia and FAO, Country Programming Framework. Available from: <a href="http://coin.fao.org/coinstatic/cms/media/14/13505800013300/fao\_cpf\_liberia\_signed.pdf">http://coin.fao.org/coinstatic/cms/media/14/13505800013300/fao\_cpf\_liberia\_signed.pdf</a>. 2012.
- 10. Kebe, M., et al., A livelihoods analysis of coastal fisheries communities in Liberia. Available from: <a href="http://www.fao.org/3/a-i0909e.pdf">http://www.fao.org/3/a-i0909e.pdf</a>. 2009, FAO Fisheries and Aquaculture Circular 1043.
- 11. Belhabib, D., et al., When Reality Leaves a lot to the Imagination: Liberian Fisheries from 1950 to 2010. Available from: <a href="http://www.seaaroundus.org/researcher/dpauly/PDF/2013/Others/WhenRealityLeavesalot.pdf">http://www.seaaroundus.org/researcher/dpauly/PDF/2013/Others/WhenRealityLeavesalot.pdf</a>, in Fisheries Centre Working Paper. 2013.
- 12. Baranbe, M., et al., Impacts of climate change on marine ecosystem production in societies dependent on fisheries. Nature Climate Change, 2014. 4: p. 211-216.
- 13. Lam, V.W.Y., et al., Climate change impacts on fisheries in West Africa: implications for economic, food and nutritional security. African Journal of Marine Science, 2012. **34**(1): p. 103-117.
- 14. FAO, Serious food security concerns in Liberia. Available from: <a href="http://www.fao.org/emergencies/fao-in-action/stories/stories-detail/en/c/241614/">http://www.fao.org/emergencies/fao-in-action/stories/stories-detail/en/c/241614/</a>. 2014.