



CONSERVATION
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Addressing Harm in Distant Water Fisheries:

A socioeconomic analysis of fisheries management in Liberia and human rights implications of foreign access agreements

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Objectives

As the global demand for seafood grows, high-capacity industrial fishing fleets are increasingly operating further away from their own, largely overexploited, Exclusive Economic Zones (EEZs) in search of higher volumes and more valuable catch, often in the High Seas or in the EEZs of developing nations (Berkes et al. 2006). This practice, known as distant water fishing (DWF), has intensified pressure on ocean ecosystems and the people who rely on them, and is often associated with overfishing, conflict, and illegal practices, including human and labor rights abuses.

Over the past two years, Conservation International's (CI) locally led initiative in Liberia has explored how the distant water fleets that operate within Liberia's EEZ impact community fisheries and the national economy, and the tradeoffs of providing access for these fleets within the nation's EEZ. Through this work, CI has found evidence of both direct and indirect negative impacts of DWF and is now in the process of designing policy solutions to address those challenges.

One potential solution that has emerged is to develop and invest in small-scale fisheries rather than depending on the licensing or access fees from foreign fleets, which undermine both resource sustainability and equity. For example, Liberia receives licensing fees from a Chinese-flagged trawl fleet for access to marine resources. This fleet targets many of the same fish species as coastal small-scale fishers, directly competing with them and negatively affecting their livelihoods (Jueseah et al., 2020). However, this fleet appears to not be profitable for China, raising questions about why it continues to operate in Liberia (Virdin et al., 2022). Liberia also receives access fees from private tuna vessels, mainly from EU countries, that fish within the EEZ but do not land any of their catch in Liberia, raising additional questions about how Liberia could increase economic benefits from their tuna resources, such as through developing port and processing infrastructure to incentivize vessels to land their catch in Liberia.

As part of our proposed analysis, we would like to explore the following primary question:

- Is there an economic argument to make to the Liberian government to invest in and support small-scale fishers and their communities (i.e., provide cold storage, updated equipment,

training, vessel improvements, etc.) rather than continue to provide access to the Chinese industrial trawl fleet?

In addition, if capacity and interest allows, we could explore the following secondary questions:

- What minimum required financial investment would be needed to develop adequate onshore landing/processing/export facilities in Liberia to increase national benefits from the catch of tuna and tuna-like species within their EEZ?
 - What are potential financial models and investment strategies?
- What are the economic costs and benefits of investing in the development of a nationally owned and operated tuna fishing fleet in Liberia, to replace access agreements from foreign entities? How long would it take for these investments to pay off? What would the environmental costs/benefits be of nationalizing the fleet? (Critically, Liberia would need to improve their fisheries management capacity and policy before investment in a national fleet could be feasible).

Implications

This project would address the sustainability and equity of DWF in West Africa, and provide a framework for economic analysis for countries that allow DWF vessel access to their EEZs in order to determine whether West African economics could derive economic benefit from limiting DWF vessel access. Robust financial analysis, co-created alongside researchers at the University of Liberia, will provide a more digestible and straightforward method of affecting policy change at a national and regional level, and potentially garner increased local support to divest in Chinese trawler fleet access. This research will be put directly into the hands of decision makers, such as the National Fisheries and Aquaculture Authority, but also will be shared with local communities and civil society groups who have the potential to affect change through advocacy and collective action. CI-Liberia has close relationships with the Liberian government, the University of Liberia, and with communities and civil society across the country. Group members will have the opportunity to virtually present their findings to the beneficiaries (see below) at the conclusion of the project.

Beneficiaries

- The National Fisheries and Aquaculture Authority of Liberia (NaFAA)
- Liberia Ministry of Finance and Planning
- University of Liberia, Department of Fisheries and Aquaculture Sciences
- Coastal fishing communities and local civil society organizations in Liberia

Equity

This project, while focusing on the economics of DWF, has a high impact on both the equity of coastal community fisheries in Liberia, and the prevalence of human rights and labor violations associated with DWF worldwide - and notably among Chinese fleets (Environmental Justice Foundation). In West Africa, governance frameworks that allow access for DWF directly contribute to the marginalization of small-scale fisheries by prioritizing the economic benefits from access by foreign fleets at the direct expense of the small-scale sector, which sustainably supports millions of livelihoods (Okafor-Yarwood et al., 2022; Alder & Sumaila, 2004). All Conservation International projects and interventions take a human rights-based approach, prioritizing the civil, political, economic, social, collective, and Indigenous rights

of the communities we work with.

Available data

See table. We are actively working with the Liberian government to obtain access to additional data. Given the change in Liberia’s government this month, we are awaiting confirmation on the data release until the new Director General of the National Fisheries and Aquaculture Authority is named. Regardless, existing data sources are sufficient in the unlikely scenario that additional information requests are barred. No NDAs will be required for this project.

Metadata from past research:

Data type	Description	Number	Date range	Source
Vessel demographic data	Number and origin of DWF vessels	N/A	2010-2020	NaFAA
Access fees (estimated)	Observer fees, processing and pre-license fees, sectoral support fees	N/A	2010-2020	Secondary data – based on listed fees in regulations
Ex-vessel prices (estimated)	Target species, total catch, and associated ex-vessel prices	N/A	2018	NaFAA Est. from literature
Catch data	Reconstructed landed domestic catch of bottom- and mid-water trawlers	N/A	2010-2019	SeaAroundUs NaFAA
Interviews with communities	Interviews with small-scale fishers and fishmongers about the impacts of the DWF trawlers on them and their communities	47	Feb-March 2023	Primary data collection
Interviews with key informants	Interviews with government officials and other key informants to determine how those familiar with Liberia’s licensing system view its effectiveness.	7	January 2023	Primary data collection

Other potential data sources:

- [Sea Around Us project](#) for catch data
- Global Fishing Watch for vessel tracking (AIS), effort, and other data
- C4ADS Seamless Horizons database for beneficial ownership, corporate records, etc.
- Data shared directly from the National Fisheries and Aquaculture Authority (NaFAA)
- Key informant interviews
- Observer reports shared by NaFAA

Possible Approach

Using the data listed above, group project members will investigate the current economic context as it stands (China being the primary fishing fleet within Liberia’s Exclusive Economic Zone and Liberia receiving economic incentives to maintain the relationship). With a baseline analysis of current fisheries yield and profit, we will model alternate scenarios to see how an investment into a local fishing fleet may impact the country’s national economy. Group project members will also conduct deeper research on political, social, and economic stakeholders and institutions to provide a robust set of written recommendations for the Liberian government. Additional approaches may include an analysis of fisheries observer reports and semi-structured interviews with key informants.

Deliverables

Primary:

- Economic analysis, including scenarios / tradeoffs for investment in the small-scale fisheries sector rather than continued reliance on access agreement fees from the Chinese-flagged DWF fleet.
- Written policy recommendations to inform a decision around government spending in Liberia's fishing industry.

Secondary:

- Analysis of the long term feasibility of creating an entirely domestic tuna fleet and/or processing facility in Liberia.
- *If data permits:* Supply chain analysis to determine where catch from the Chinese DWF fleet is landed, processed, and sold within Liberia.

Internships

Conservation International is able to provide 1-2 unpaid summer internships for group project members in 2024. These positions will be flexible in location and timing parameters to meet student needs. There is potential for one internship to become paid, but funding is not confirmed at this time.

Citations

Alder, J. & Sumaila, R. (2004). West Africa: A Fish Basket of Europe Past and Present. *The Journal of Environment & Development*. <https://doi.org/10.1177/1070496504266092>

Berkes, F. et al. (2006). Globalization, Roving Bandits, and Marine Resources. *Science*, 311,1557-1558. DOI: 10.1126/science.1122804

Environmental Justice Foundation. (n.d.). *Illegal fishing and human rights abuses in the distant water fleet*. Environmental Justice Foundation. Retrieved January 8, 2024, from <https://ejfoundation.org/news-media/global-impact-of-illegal-fishing-and-human-rights-abuse-in-chinas-vast-distant-water-fleet-revealed>

Jueseah, et al. (2020). A Bioeconomic Analysis of the Liberian Coastal Fisheries. *Sustainability* 2020, 12(23), 9848; <https://doi.org/10.3390/su12239848>

Okafor-Yarwood, I. et al. (2022). Survival of the Richest, not the Fittest: How attempts to improve governance impact African small-scale marine fisheries. *Marine Policy*. <https://doi.org/10.1016/j.marpol.2021.104847>

Viridin, J. et al. (2022). A snapshot of the economic benefits from foreign bottom trawling in coastal West Africa: A mutually-beneficial trade in services, no winners or extractivism? *Fish and Fisheries*. <https://doi.org/10.1111/faf.12670>
January 12, 2023

Bren School of Environmental Science and Management
2400 Bren Hall
UC Santa Barbara, California 93106

Dear Capstone Project Selection Committee,

I am writing to express my support for the project titled “Addressing Harm in Distant Water Fisheries: A socioeconomic analysis of fisheries management in Liberia and human rights implications of foreign access agreements” and to commit Conservation International (CI) to act as the client for this project, if selected by the Committee. As a leading international non-profit, CI uses science, policy, and partnerships to conserve the forests, oceans, and wetlands that provide food and water, sustain economies, and regulate the climate. At the Center for Oceans, on the Global Fisheries and Aquaculture team, we have a cross-cutting focus on human rights throughout our work, including our Distant Water Fisheries (DWF) program, which seeks to explore the social, environmental, and economic impacts of DWF on coastal communities, small-scale fisheries, and national and regional governance.

CI will provide the project team with unrestricted access to all relevant data that we are able to acquire from the University of Liberia and from the National Fisheries and Aquaculture Authority of Liberia. Other data sources are publicly available, such as catch data from the Sea Around Us Project. Any additional data requests or questions about data alternatives can be made via contacting Katy Dalton (kdalton@conservation.org).

CI can commit to providing two unpaid summer internships for group project members to grow professional skills and dedicate time to completing project deliverables. The specific parameters for these internships are flexible, and may be co-designed with the project team members, as appropriate. Additionally, our team is actively seeking funding support to provide at least one paid internship opportunity. Depending on where interns are located, they will have direct mentorship from members of CI’s Global Fisheries and Aquaculture team in that area (e.g., Seattle, WA; Portland, OR; Santa Barbara, CA; Honolulu, HI; or Washington, D.C.), and opportunities to engage with partners at CI-Liberia and the University of Liberia.

CI has worked with Bren School Masters students under previous projects with great success, and we look forward to the opportunity to do so again. Thank you for your consideration.

Sincerely,

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