



# A Secondary Data Review on the Barbados Fishery Livelihoods Opportunities: A Focus on Women's Role in the Value Chain

*This document is intended to initiate strategic discussions on livelihoods programming, with a specific focus on the fisheries sector. It is designed to support the development of assessments and to facilitate informed dialogue with key stakeholders. The goal is to foster a comprehensive understanding of the roles and opportunities within the livelihoods of those involved in the fisheries sector, with particular attention to gender dynamics. This livelihood analysis, informed by a secondary data review conducted on the Data Entry and Exploration Platform (DEEP), aims to guide deliberations and ensure that interventions are well-targeted, inclusive, and effectively address the distinct challenges faced by different groups.*

## 1. Introduction and Rationale

The aftermath of Hurricane Beryl has brought significant attention to the fishing industry in Barbados, revealing some information on current vulnerabilities to climate events, and the need to further strengthen and protect people who are part of the fisheries value chain. In this process, it is necessary to acknowledge the intricate and interdependent roles of men and women within this sector. While both genders have been impacted by the disaster, their experiences differ based on their specific roles—men predominantly engage in fishing, while women are primarily involved in processing and vending. This study aims to conduct a secondary data review focusing on the fisheries sector, with a particular emphasis on women's roles along the value chain. Although all individuals within the chain have faced challenges, women's roles in this sector often receive less visibility in media coverage and international support efforts. This lack of recognition underscores the need to focus more intently on women in our assessments and discussions moving forward. However, it is crucial to approach this with an understanding of the cooperative and socially embedded relationships that exist within the industry. Any interventions will consider the potential implications on these relationships, ensuring that support for women does not inadvertently disrupt the balance that has long sustained the fishing communities of Barbados.

## 2. Vulnerability Context

The fisheries sector in Barbados has long been characterized by a range of vulnerabilities that have significantly impacted those involved. Environmental and economic disruptions have been common, with the invasion of sargassum seaweed being a particularly notable event in recent

years. This environmental challenge has led to drastic fluctuations in flying fish catches, which are vital to the Barbadian economy. For instance, during the period from 2010 to 2014, flying fish landings varied greatly, with a significant drop to just 354 tones in 2012 due to the influx of sargassum. These fluctuations have created substantial risks for fisherfolk, affecting both their incomes and the availability of fish in local markets ([FAO](#) 1/12/2016).

In addition to environmental challenges, the sector has faced issues related to market infrastructure and management. Reports indicate that equipment failures, such as problems with refrigerated storage units and forklifts, along with overcrowded stalls due to limited space for vendors and their assistance, have further exacerbated the difficulties faced in the market. ([AquaDocs](#) 19/07/2024).

Moreover, the long-term trend of reliance on flying fish, which comprises over 90% of the catch in some years, has been affected by both environmental and economic factors. The fishing effort increased significantly in the 1980s but has since plateaued, partly due to a reduction in fleet expansion and changes in consumer demand. This, coupled with the recurring environmental challenges, has created an environment of uncertainty and instability in the sector ([FAO](#) 1/12/2016).

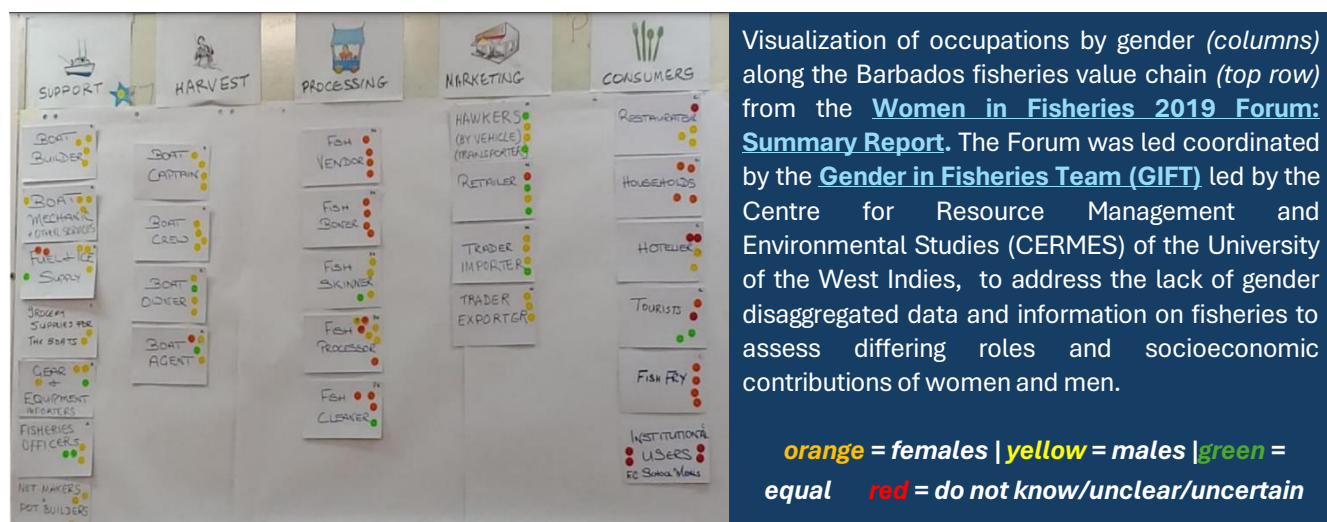
While men face daily risk in terms of safety and wellbeing in the harvesting process, as well as ongoing climate-related risks leading to loss of assets, women in the fisheries sector have faced additional challenges, including limited access to resources such as capital, as well as the essential equipment for maintaining the quality and freshness of fish. These barriers raise unique challenges for women workers along the fisheries value chain, hindering their ability to participate effectively in decision-making processes as their role is often unrecognized. There appears to be less organization in the postharvest segment of the value chain; with limited or no access to social protection nets, and challenges to acquiring land rights and access to fishery resources ([UWI](#) 01/01/2019).

Moreover, the seasonal nature of fishing, with its distinct periods of high and low activity, has further compounded these challenges, resulting in alternating periods of high and low availability. These challenges can be difficult to navigate, particularly for people in the value chain with fewer resources and less power in the market ([UWI](#) 01/01/2019; [WOW](#) 1/02/2023). Overall, the vulnerability context of the fisheries sector in Barbados is shaped by a complex interplay of environmental, economic, socio-cultural factors, all of which have profound implications for the livelihoods of those involved.

## 2. Livelihood Assets

### 2.1. Human Capital (H):

Women involved in the fisheries sector in Barbados possessed specialized skills and knowledge, particularly in processing and marketing roles such as fish vending and boning ([UWI 01/01/2019](#)). However, the sector was characterized by a traditional and generational division of labor, with support and harvest roles, such as boat captains, sea-hands and mechanics, predominantly occupied by men, while women occupy many of the market and administration roles ([UWI 01/01/2019](#)). This division can limit the visibility of the impact of disasters and crises on women's livelihoods assets; inadvertently leading to inequalities in the access to targeted and needs-based assistance ([UWI 01/01/2019](#); [Barbados Today 22/10/2023](#); [Springer 06/12/2017](#)).



Education and training opportunities are limited, though there have been a number of initiatives aimed at improving capacity. One such example was a workshop held at the Oistins Fish Market, focusing on seafood management and fish handling ([Barbados Today 22/10/2023](#)). This workshop primarily targeted women, and provided valuable capacity-building opportunities in their existing roles ([Barbados Today 22/10/2023](#)). On a positive note, there has been gradual increase in female recruitment within the Fisheries Division, with women taking on leadership roles including the Chief Fisheries Officer, the chair of the Fisheries Advisory Committee and the role of fisheries scientist, indicating recognition of gender inclusion in the sector's governance ([Springer 06/12/2017](#)).

Additionally, Women's involvement in the fisheries sector was also supported by broader regional initiatives, such as the 'Small-scale Women in Fishery Learning Exchange' facilitated by CoopeSoliDar R.L. and the Caribbean Network of Fisherfolk Organisations (CNFO). This programme aimed to strengthen the capacities of women in fisheries across several Caribbean countries, including Barbados. Through this exchange, women shared experiences and knowledge from their fishing communities, enhancing both personal and collective empowerment and fostering stronger connections across the Caribbean ([ICSF 1/06/2021](#)).

Health status and access to healthcare for women in the fisheries sector were areas of concern, given the physically demanding nature of their roles. However, detailed information on health outcomes and healthcare access is limited, and more assessments and data collection would help determine if specific training or connection with available social protection services could be beneficial.

## 2.2. Social Capital (S):

Social capital among women in the fisheries sector in Barbados was shaped by strong networks, community organizations, and deeply ingrained social norms. Women in the sector often relied on the support of networks like the Central Fish Processors Association (CFPA), a women's fisherfolk organization that operated in the post-harvest sector. The CFPA used a collective action approach to enhance both the quality of fishery products and the livelihoods of women, providing a critical support system within the community ([FarmHub](#) 22/5/2021).

In addition to organizational support, traditional knowledge and skills were passed down through generations, reinforcing the role of women in the fisheries sector. This generational transfer of knowledge not only strengthened family and community bonds but also highlighted the importance of women's participation in the sustainable development of the sector. The Barbadian Matriarchy of Fishing emphasized the need for strengthening women's involvement in policy and decision-making, acknowledging their significant contributions to the industry ([UN](#) 29/1/2024).

Social networks and advocacy efforts appear to positively impact the representation and remuneration of women in Barbados, both within and beyond the fisheries value chain. For instance, while women in the broader English- and Dutch-speaking Caribbean are generally more highly educated than men, they tend to be paid lower hourly rates. However, Barbados and Jamaica stand out as exceptions, where the pay rates for men and women are nearly equal (UN Women 2019). However, information on how social capital could be further leveraged to attend to the effects of disasters and crisis is limited and will require further key informant interview to stakeholders in different spheres, such as disaster risk financing.

## 2.3. Natural Capital (N):

The availability and quality of marine resources in Barbados were characterized by significant fluctuations, particularly due to environmental factors like the invasion of sargassum seaweed. This had a substantial impact on key fish species, such as flying fish, with total capture production varying from 1,373 tonnes in 2012 to approximately 3,000 tonnes in 2013 and 2014 (FAO 1/12/2016). Most of the fish production in Barbados came from marine fisheries, with landings ranging from 1.4 to 3.2 thousand tonnes between 2000 and 2013. However, the industry faced a notable decline in 2014, with total landings dropping by 26.2% from the previous year ([FAO](#) 1/12/2016).

While both men and women are equally affected by disruptions in natural capital to the fisheries value chain, the plight of women might be less visible and gather less media attention. At the same time, conditions at landing sites and markets were often unsafe and unhygienic, which might require additional trainings or connections with authorities, pending assessments.

([Cavehill](#) 8/03/2019). However, it should be stressed that most of the catch landed is sold at primary landing sites and markets via vendors who are predominantly women ([CANARI](#) 01/09/2021).

In terms of environmental sustainability practices, Barbados's fisheries sector operated under various quotas set by the International Commission for the Conservation of Atlantic Tunas (ICCAT) for species such as bigeye tuna, albacore, and swordfish. The country remained under these quotas, utilizing less than 45% of the catch landed, which suggests some level of sustainable management within the industry ([UNCTAD](#) 01/06/2018). However, the slow development of aquaculture, primarily due to high costs and the focus on offshore fisheries, indicated that sustainable practices were still in their infancy, with traditional fisheries being the primary source of fish production ([FAO](#) 1/12/2016). This area presents an opportunity for additional research that may aid in the development of inclusive project initiatives that support all people along the fisheries value chain.

#### 2.4. Physical Capital (P):

The physical capital available to women in Barbados's fisheries sector was characterized by new fishing facilities were constructed in areas such as Tent Bay, St. Joseph, and Payne's Bay, St. James, aimed at improving vending facilities for rural small business persons, including fish vendors. These developments were part of a broader government policy to make fish and agricultural products more accessible to the rural population. Additionally, significant rehabilitation work was undertaken at the Oistins Visitors Jetty, which included the reconstruction of the berthing platform and fendering system to facilitate the loading and unloading of fuel, ice, and fish, thereby improving the operational efficiency of these key landing sites ([FAO](#) 1/12/2016).

Despite improvements, women faced limited access to physical capital and resources, hindered by male-dominated sectors and restricted access to capital, further marginalizing their economic roles ([UWI](#) 01/01/2019). Accessibility of markets and transportation also posed challenges for women. Although there were approximately 30 fish landing sites around the island, with primary sites such as Bridgetown, Oistins, and Consett Bay being crucial for selling catches, the infrastructure at these sites was often inadequate. Female vendors, who played a significant role in these markets, often contended with inadequate and hazardous working conditions, which hindered their ability to fully engage and succeed in the fisheries sector. ([UNCTAD](#) 14/12/2010; [UWI](#) 01/01/2019).

#### 2.5. Financial Capital (F):

Access to financial services, credit, and savings for all players in the fisheries sector in Barbados was somewhat limited, impacting their ability to invest in necessary resources, with the exception of large-capital conglomerates. While nearly all of the surveyed population by Inter-American Development Bank in 2020 had access to basic banking services, with 57.2% having applied for personal loans and 94% of those being approved ([IDB](#) 01/01/2020). However, women in small-scale fisheries faced significant challenges in accessing capital. This lack of capital restricted their ability to purchase essential equipment for storing fish, maintaining

quality, and preserving freshness, which in turn reduced their control over market conditions ([UWI 01/01/2019](#)).

Income levels for women in fisheries were modest, with fish vending contributing only a 'medium' level to household income ([AquaDocs 19/07/2024](#)). Despite their significant presence in vending and processing roles, many men and women in the sector struggle with financial instability. However, in general, outside of the fisheries sector and regardless of education level, a large proportion of women earned less than \$500 per week, highlighting the disparity compared to men, who dominated higher income brackets ([ResearchGate 01/05/2016](#)). The labor market data from 2015-2019 further illustrated these challenges, with women being more adversely affected by job losses and unemployment, and a higher number of women exiting the labor market during this period ([ILO, UN Barbados and OECS 01/06/2022](#)).

Economic diversification opportunities for women in the fisheries sector were limited but essential. The processing of flying fish, a key area of employment for women, was highly seasonal, necessitating diversification to improve financial stability ([UNCTAD 14/12/2010](#)). Women's participation in financial literacy initiatives, such as rotating savings and credit associations, was relatively high, indicating an awareness of the need for better financial management and a potential interest in diversifying income sources ([IDB 01/01/2020](#)). However, women also faced significant social challenges, including exposure to abuse in the workplace, community, and household levels, which further complicated their economic participation ([UWI 01/01/2019](#)).

### 3. Transforming Structures and Processes

The structures and processes within Barbados's fisheries sector had a mixed impact on both men and women, shaped by government policies, private sector initiatives, cultural practices, and institutional support. The government undertook significant infrastructure projects, such as the rehabilitation of key fishing sites and the development of legislation through the National Agriculture, Health and Food Control Agency (NAHFCA), which aimed to enhance food safety and improve overall sector operations. ([The Barbados Parliament 01/01/2017](#)), but monitoring and assessments of ongoing progress is still a challenge which would benefit from additional data collection.

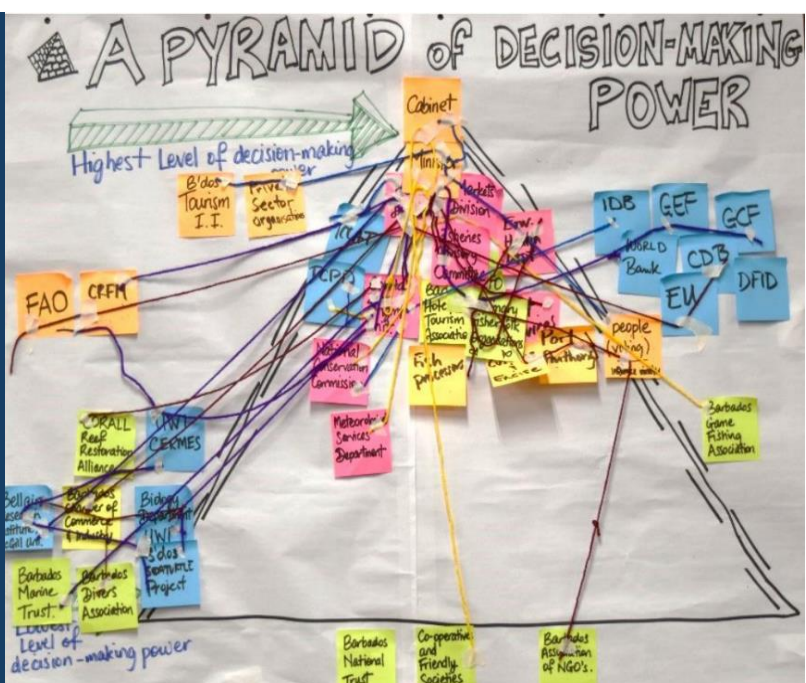
Private and international sector initiatives played a crucial role in supporting women, particularly through collaborative projects that sought to empower them economically. The FAO-supported fish silage project, for example, provided women with an alternative source of income by transforming fish waste into animal feed. This initiative, alongside training programs like those offered by the Barbados National Union of Fisherfolk Organizations (BARNUFO), aimed to enhance the skills and livelihoods of women in small-scale fisheries ([FAO 06/02/2023](#); [IFC 01/11/2023](#)).

Cultural attitudes and practices also significantly influenced women's involvement in fisheries. While traditional gender roles often limited women to specific segments of the value chain, such as processing and vending, there was a notable shift towards greater gender parity in the marketing segment, particularly in retail and hawker occupations. However, trade importation

and exportation remained largely male-dominated, reflecting persistent cultural barriers (UWI 01/01/2019). This can also mean that there are new opportunities for collaboration to explore between these groups, which would be more visible with additional data.

Institutional support for women in fisheries was growing, with various initiatives aimed at promoting gender equality and social justice. The Regional Women in Fisheries Forum, co-organized by the WECAFC Secretariat, brought together participants from across the Caribbean to discuss best practices for gender integration in the fisheries sector. Additionally, activities hosted by the University of the West Indies focused on youth engagement, social justice, and the importance of women’s contributions to the sustainable development of the sector (WECAFC 31/09/2023; UNDP 29/01/2024). This research will prove valuable when designing livelihoods support intervention beyond the fisheries sector.

Illustration from the *Caribbean Natural Resources Institute (CANARI) Institutional Analysis of Enabling Conditions For Ecosystem Stewardship In The Fisheries Sector Of Barbados (2020)*. Pyramid of decision-making power in Barbados fisheries institution, completed during the Barbados validation workshop on February 11-12, 2020. Credit: CANARI, 2020. The study was developed through a mixed methodology that considered a desk review, interviews, focus group discussions and a validation workshop with key stakeholders - [available through this link](#).



The focus of sector reforms was often on operational improvements, which better enable all groups working in the sector to take advantage of limited resources. However there is a need for more inclusive and targeted approaches to ensure that women are better protected in the fisheries sector. The push for better working standards, improved communication with market management, and the promotion of fisheries occupations to younger generations is a critical step towards addressing these challenges; although they were not always explicitly linked to gender equality (UWI 01/01/2019).

#### 4. Livelihood Strategies

Women in the Barbados fisheries value chain employed various strategies to sustain their livelihoods, adapting to climate change and fluctuating environmental conditions. One key strategy was the diversification of income sources. While women were heavily involved in fish processing and vending, they also moved into marketing roles such as retail and hawking,

where there was greater gender parity. This diversification allowed women to stabilize their incomes, especially in the face of seasonal variations in fish availability ([UWI 01/01/2019](#)).

Community-based resource management was another vital strategy. Women played significant roles in community-based resource management, often through involvement in local cooperatives and associations. These organizations enabled them to collectively manage resources, improve their bargaining power, and access better facilities. The involvement of women in the Central Fish Processors Association, for example, demonstrated their active participation in managing post-harvest processes, which was essential for maintaining the quality and marketability of fish products ([FarmHub 22/5/2021](#)). Such community efforts were vital for sustaining livelihoods in a sector where individual access to resources was limited.

However, it should be recognized that all participants in the sector have adapted to environmental changes in resilient ways, such as altering fishing practices to target different species when traditional catches like flying fish were impacted by events such as the sargassum seaweed invasion. Fisherfolk adaptation of vessel designs and the increase in longliners and fiberglass iceboats also played a role in mitigating the impact of seasonality, though these advancements benefited the broader community as well ([FAO 06/02/2023](#)).

## 5. Livelihood Outcomes

Various efforts were made in Barbados to improve livelihood outcomes for women in the fisheries sector. These efforts focused on increasing income, enhancing well-being, reducing vulnerability, improving food security, and promoting the sustainable use of natural resources. Work in this area can be leveraged to (i) increase its scope or (ii) scale up to other groups as more data becomes available.

To increase income for women in fisheries, initiatives like the “JUST BE Fisherfolk” project provided capacity-building opportunities for women small-scale processors, empowering them to advocate for fisherfolk rights and explore alternative income-generating activities. Such initiatives not only improved their financial standing but also fostered greater self-esteem and confidence, as seen in the positive impact reported by women participating in fish processing associations. These women described their involvement as "motivating," noting significant improvements in their self-confidence ([ICSF 01/06/2024](#); [IUCN 01/01/2019](#)).

Efforts to increase well-being were also evident through initiatives that provided women with platforms to organize and participate in fishery-related businesses. The Voices from The Shore Theatre Collective, for instance, allowed women to build their capacity in advocacy, which, in turn, contributed to an improved sense of agency and personal well-being. Such initiatives highlighted the importance of empowerment and community engagement in enhancing the quality of life for women in the sector ([ICSF 01/06/2024](#)).

Addressing the needs of all players involved in the sector, the Government of Barbados has also taken extra steps to reducing vulnerabilities particularly in the context of environmental and economic shocks. Including a review of fiscal policies and the institutional and legislative framework to better support disaster risk governance. This included mainstreaming disaster

risk reduction strategies across all sectors and strengthening coordination mechanisms, which were crucial for building resilience among men and women in fisheries ([FAO 21/10/2020](#); [UNDRR 01/01/2023](#)).

Improved food security was addressed through government initiatives aimed at increasing the availability and consumption of healthy, nutritious food. These efforts were particularly important in school environments and for the general population, ensuring that food security remained a priority even in the face of challenges such as the fluctuating availability of marine resources ([FAO 21/10/2020](#)).

Lastly, the sustainable use of natural resources was promoted through the Fisheries Division's ongoing efforts to legislate a minimum size limit for dolphinfish. This was part of a broader strategy to curb the practice of harvesting juveniles, which posed a threat to the sustainability of the fishery. By focusing on resource conservation and environmental sustainability, these measures aimed to ensure the long-term viability of the sector and the natural resources on which it depended ([The Barbados Parliament 01/01/2017](#)).

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