Gender and livelihoods in the fisheries value chain of blackfish in Barrouallie, St. Vincent and the Grenadines

C. ROMEO AND P. McCONNEY





Centre for Resource Management and Environmental Studies
Faculty of Science and Technology
The University of the West Indies
Cave Hill Campus, Barbados

TABLE OF CONTENTS

Α	BSTRACT		iv
Α	CRONYM	S AND ABBREVIATIONS	v
G	LOSSARY	OF COMMON GENDER TERMS	vi
1	INTRO	DDUCTION	1
	1.1	Overview	1
	1.2	Engaging Gender in the SSF Guidelines and the CCCFP Protocol	2
	1.3	About this report	3
2	METH	1ODS	3
	2.1	Overview of approach	3
	2.2	Gender in SSF value chains in the Caribbean	3
	2.3	Sampling and data collection	5
	2.4	Challenges with data gathering	5
3	FISHE	RIES IN ST VINCENT AND THE GRENADINES	6
	3.1	Country profile and demographics	6
	3.2	Major fisheries of St. Vincent and the Grenadines	10
	3.3	Import and export markets	11
	3.4	Licensed/registered fishers in the overall industry	12
	3.5	Roles along the value chain in the overall industry	12
	3.6	National and international commitments and progress on mainstreaming gender	13
4	GENE	DER AND LIVELIHOODS IN THE BARROUALLIE BLACKFISH VALUE CHAIN	14
	4.1	Description of Barrouallie	14
	4.2	Gender and livelihoods in the blackfish value chain	17
	4.2.1	Hunting	19
	4.2.2	Processing	20
	4.2.3	Marketing	27
	4.3	Fisherfolk community overview	29
	4.4	Livelihood assets in the blackfish fishery of Barrouallie	30
	4.4.1	Human capital	31
	4.4.2	Social capital	31
	4.4.3	Physical capital	32

	4.4.4	Natural capital	. 32
	4.4.5		
	4.5	Gender in some livelihood opportunities	
	4.6	Some constraints and challenges	
	4.7	Participation, power and decision making	. 36
	4.8	Laws, regulations, and institutional practices	. 37
5	DISC	USSION ON GENDER NEEDS AND PRIORITIES	. 38
	5.1	Strategic gender needs	. 38
	5.2	Practical gender needs	. 39
6	RECC	OMMENDATIONS AND NEXT STEPS	. 40
7	REFE	RENCES	. 41

Suggested citation

Romeo, C. and P. McConney. 2022. Gender and livelihoods in the fisheries value chain of blackfish in Barrouallie, St. Vincent and the Grenadines. Centre for Resource Management and Environmental Studies (CERMES), University of the West Indies, Cave Hill Campus, Barbados. CERMES Technical Report No 105. 43 pp.

© UWI-CERMES 2022



This work is licensed under a <u>Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License</u> (CC BY-NC-SA 4.0; https://creativecommons.org/licenses/by-nc-sa/4.0/).

Acknowledgements

This CERMES Technical Report is based on a June 2021 report to the Food and Agriculture Organization of the United Nations (FAO) under the SSF Gender Project (full title "Implementing gender aspects within the Small-Scale Fisheries (SSF) Guidelines and the protocol to the Caribbean Community Common Fisheries Policy (CCCFP) for securing Small-Scale Fisheries"). The co-authors of the original unpublished report were Clonesha Romeo, Hayden Billingy and Lisa Soares; the last two being participants in the initial stages. The report was further developed by Clonesha Romeo and Patrick McConney to produce this CERMES document as part of a series to be disseminated by the CERMES Gender In Fisheries Team (GIFT).

We appreciate the contribution of the Fisheries Division of St. Vincent and the Grenadines for providing information on the fisheries sector in the country, the fisherfolk in the Barrouallie community and participants in the informant interviews. Mrs. Victoria Browne Shallow and her daughters Sabteca Browne and Natisha Francis are thanked for their detailed insight of the processing and marketing of blackfish. Most photos were taken by Clonesha Romeo the lead author and Sabteca Browne a female blackfish processor. Thanks to FAO and everyone who supported and contributed to the report.

Disclaimer

The designations employed and the presentation of material in this information product do not imply the expression of any opinion whatsoever on the part of the Food and Agriculture Organization of the United Nations (FAO) or the UWI Centre for Resource Management and Environmental Studies (CERMES) concerning the legal or development status of any country, territory, city, or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. The mention of specific companies or products of manufacturers, whether or not these have been patented, does not imply that these have been endorsed or recommended by FAO in preference to others of a similar nature that are not mentioned. The views expressed in this publication are those of the authors and do not necessarily reflect the views of the FAO or UWI-CERMES.

ABSTRACT

This report is developed from an output of the FAO supported project on *Implementing gender aspects within the Small-Scale Fisheries (SSF) Guidelines and the protocol to the Caribbean Community Common Fisheries Policy (CCCFP) for securing SSF.* This was known as the SSF Gender Project. It was executed by the University of the West Indies Centre for Resource Management and Environmental Studies (UWI-CERMES) and its Gender in Fisheries Team (GIFT). GIFT implements gender aspects of the SSF Guidelines and the protocol to the CCCFP. This includes conducting preliminary gender and livelihoods analyses along select Caribbean fisheries value chains in order to scope the need and potential for follow-up gender mainstreaming initiatives.

The domestic fisheries sector of Saint Vincent and the Grenadines (SVG) is small-scale. Fisherfolk use mainly artisanal fishing methods and vessels and, throughout the archipelagic country, many women and men in coastal communities are engaged in fish harvest and postharvest activities. Community members depend on fishing and fisheries services for livelihoods. The fishing industry in SVG is male dominated with little attention typically paid to the work of women in fisheries. However, women play a valuable role in the industry, especially in the postharvest sector through the value-added processing and marketing of fish and other marine animals for consumers.

Fisheries in SVG are expected to continue to develop if fisherfolk can add value to fish products. For several reasons there may be less scope to increase the harvests of some species. The fishing community of Barrouallie is prominent in fisheries value-added activity in the country. This community turns pilot whale and porpoise meat called "blackfish", which is not usually eaten in its fresh state, into several products that increase its value. The value chain of the blackfish industry in Barrouallie is operated mainly by males for harvest of the animals at sea, but women dominate the processing and marketing of the blackfish that generates its main revenue.

This exploratory report provides community-based blackfish value chain gender and livelihood data and information from Barrouallie. Understanding how women and men work can assist the mainstreaming of gender equality, informed by gender analysis, and influence implementation of the SSF Guidelines and CCCFP in Saint Vincent and the Grenadines. Interviews were conducted with fisherfolk within the Barrouallie community as well as in Kingstown for the gender and livelihoods analysis of the blackfish value chain. The fisheries authority provided secondary data to accompany the primary fisheries dataset. Prior value chain data on this fishery were scarce.

The Barrouallie blackfish industry is thriving but may develop further if harvesting remains viable. Young men and women are involved in the processing and experiencing its skills first-hand as apprentices. This livelihood has built the Barrouallie community and funded the education of many in that community. Blackfish is the backbone of Barrouallie and is critical for many women even more than for the men living there who engage in several other fisheries. The government has tentative plans to invest in the community and fishery that will need to take gender and the existing sexual division of labour in the value chain livelihoods into account. While this report identifies some areas for attention, more in-depth social-ecological analyses are required for gender mainstreaming and for fishery management (conservation and development) generally.

ACRONYMS AND ABBREVIATIONS

ASW	Aboriginal Subsistence Whaling
CARICOM	Caribbean Community
CCCFP	Caribbean Community Common Fisheries Policy
CERMES	•
CRFM	Caribbean Regional Fisheries Mechanism
EC\$	Eastern Caribbean Dollar (1 US dollar is approximately EC\$2.68)
FAC	Fisheries Advisory Committee
FAD	Fish Aggregating Device
FAO	Food and Agriculture Organization
FEWER	Fisheries Early Warning and Emergency Response
GAD	Gender Affairs Division
GDP	Gross Domestic Product
GIFT	Gender in Fisheries Team
ICCAT	International Commission for the Conservation of Atlantic Tunas
ICT	information and communications technology
IUCN	International Union for Conservation of Nature
NFO	National Fisherfolk Organization
NGO	Non-Governmental Organization
OECS	Organisation of Eastern Caribbean States
SDGs	Sustainable Development Goals
SSF	small-scale fisheries
SVG	Saint Vincent and the Grenadines
UWI	University of the West Indies

GLOSSARY OF COMMON GENDER TERMS¹

Gender: Refers to socially constructed attributes and opportunities associated with being male and female; what societies define as appropriate masculinity and femininity.

Gender analysis: The study of the different roles of women and men in order to understand what they do, what resources they have, and what their needs and priorities are.

Gender-aware approach: This is designed to meet both women's and men's needs reflecting understanding of the role and potential importance of gender. It actively recognizes this role.

Gender-neutral approach: This does not account for the differences between women and men and do not consider how women and men may be marginalized and harmed or may not benefit from research, programs and policy.

Gender-responsive approach: This ensures that both women and men benefit, and neither will be harmed by research, programs and policy, such as, for example, by exacerbating their work. It explicitly attempts to redress inequalities and inequities between men and women.

Gender balance: The equal and active participation of women and men in all areas of decision-making, and in access to and control over resources and services.

Gender discrimination: Any exclusion or restriction made based on gender roles and relations that prevents a person from enjoying full human rights.

Gender equality: Men and women enjoy equal rights, opportunities and entitlements in civil and political life

Gender equity: Fairness and impartiality in the treatment of women and men in terms of rights, benefits, obligations and opportunities.

Gender mainstreaming: The process of assessing and addressing the implications for men and women of any planned action, including legislation, policies or programmes, in all areas and all levels. It is a strategy for making women's and men's concerns and experiences an integral dimension of the design, implementation, monitoring and evaluation of policies and programmes in all political and societal spheres so that women and men benefit equally and inequality is not perpetuated.

Gender parity: Equal representation of women and men in a given area, such as organizational leadership or higher education. Working towards gender parity (equal representation) helps to achieve gender equality.

¹ Source: GIFT. 2018. Gender Scoping Preliminary Report: Caribbean Fisheries in the Context of the Small-scale fisheries guidelines. Gender in Fisheries Team (GIFT), Centre for Resource Management and Environmental Studies (CERMES), The University of the West Indies, Cave Hill Campus, Barbados. CERMES Technical Report No. 86:60pp

Gender roles: Those behaviours, tasks and responsibilities that a society considers appropriate for men, women, boys and girls.

Gender relations: The ways in which a society defines rights, responsibilities and the identities of men and women in relation to one another.

Gender stereotypes: Simplistic generalizations about the gender attributes, differences and roles of women and men that are often used to justify gender discrimination and that can be reinforced by institutionalized practices

Sex: The biological differences between men and women, which are universal and determined at birth

1 INTRODUCTION

1.1 Overview

The fisheries sector in Saint Vincent and the Grenadines (usually abbreviated to SVG) has recently been more challenging than usual for fisherfolk. This is due in part to climatic changes and variability impacting coastal and marine social-ecological systems, the surprise of the coronavirus pandemic, and the shock of the devastating explosive La Soufriere volcanic eruption in the north of the main island. Fisherfolk in the many islands of the archipelagic country have strived to sustain their fishing industry amidst their daily challenges at sea and on land. Increasing operating and maintenance costs of boats, gear and equipment ashore for various harvesting techniques, as well as the uncertainties of an open economy in the postharvest sector that partly relies on earnings from seafood trade add to their issues. Information on all of the above is scarce, but some data exist. However, gender dynamics are undocumented aspects of the industry fisheries value chains and their livelihoods.

Gender is known to be important in the SVG fishing industry. Although fishing is numerically and visually a male dominated sector, women contribute tremendously. Women's work may not have been recognized due to gender disparities and blindness. Social and cultural traditions strongly influence societal views of gender, and this has impacted perceptions of the roles of men and women in SVG fisheries. As such, women are seen mainly to stay at home, take care of the household and assist the husband or partner in whatever ways possible. Women in SVG fisheries usually seek to fulfill the domestic roles society indicates a woman should perform, but they also collaborate or compete with their male counterparts within the industry. This is often less visible.

The worldwide information gap on gender in small-scale fisheries (SSF) value chains and livelihoods is large (Harper et al. 2020) and only recently beginning to close through international applied research collaboration in which the Food and Agriculture Organization of the United Nations (FAO) features prominently². This data and information deficiency contributes to a poor understating of gender roles in Caribbean fisheries sectors as well (GIFT 2018). To assess the socio-economic impact of gender on the lives and livelihoods of women and men in the fisheries sector, gender analysis of value chains is vital. This report uses limited sex-disaggregated secondary data on the fisheries sector in SVG, as well as scarce primary data from observation and interviews, to explore the differing roles, networks and socio-economic contributions of women and men in livelihoods along the blackfish (primarily pilot whales and porpoises) SSF value chain in Barrouallie, a small rural community on the west coast of the St Vincent mainland. Gender provides an important perspective on this fairly unique marine mammal fisheries value chain.

² In June 2017, FAO in collaboration with WorldFish and Duke University initiated a global study titled 'Illuminating Hidden Harvests: The contribution of small-scale fisheries to sustainable development' (IHH). https://www.fao.org/3/cb2879en/cb2879en.pdf

The SVG domestic fisheries sector contributes about 0.5% to annual Gross Domestic Product (GDP) from a fleet of around 1000 small-scale vessels, and a similar number of registered fishers³, landing about 1000 metric tonnes of seafood in recent years⁴. Fisheries are an economic mainstay of many rural and peri-urban communities such as Owia, Calliagua, Shipping Bay/Biabou, Rose Place (Bottom Town), Claire Valley and Barrouallie on mainland St. Vincent, as well as on Union Island, Bequia, Mayreau and Canouan in the Grenadines islands. The communities experience different socio-economic situations due to their locations and major livelihoods. The community of Barrouallie was selected for this case study as it is one of the most diverse fishing communities. Its fishing activities include line fishing, spear fishing, seine fishing and use of pelagic Fish Aggregating Devices (FADs). The town is famous for catching and developing value-added products from pilot whales and porpoises, locally collectively known as 'blackfish' due to the dark colour of their meat. The blackfish industry forms the backbone of this small community and defines its cultural heritage. In Barrouallie, gender roles in fisheries have been passed down through generations and have become socially accepted as the norm. Men mainly fish and may do initial processing. Women primarily engage in most of the value-added processing and sale of blackfish products, as well as selling the usual other finfish and shellfish (e.g., dolphinfish and other large pelagics, jacks and other small coastal pelagics, lobster, conch, etc.).

1.2 Engaging Gender in the SSF Guidelines and the CCCFP Protocol

Putting it more into context, engaging gender in SSF policies, plans, management, and operations facilitates the mainstreaming of gender equity and equality. Such engagement is promoted by the FAO and supported globally by the Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication (SSF Guidelines) (FAO 2015). In the Caribbean, as elsewhere, women are less documented within the fisheries sector than men, and the extent of their roles is poorly understood. However, the SSF Guidelines were recently incorporated into a Caribbean Community Common Fisheries Policy (CCCFP) (CRFM 2014) and protocol for securing sustainable fisheries (CRFM 2018). The SSF Guidelines, the CCCFP and its protocol have been promoted regionally through the Gender in Fisheries Team (GIFT) of the Centre for Resource Management and Environmental Studies (CERMES) at the University of the West Indies (UWI). This has shed more light on the importance of women in the fisheries sector.

Though the CCCFP of 2014, before the protocol was endorsed in 2018, did not speak directly to gender it aimed to "improve the welfare and livelihood of fishers and fishing communities", being guided by fundamental principles such as "the participatory approach, including consideration of the particular rights and special needs of traditional, subsistence, artisanal and small-scale fishers". Focusing on gender within the protocol-enhanced policy enables women's voices to be heard more clearly within the fisheries sector as their stories are told, and interests are understood, alongside those of men. Although the SVG fishing industry is numerically male dominated, there are a significant number of women in the postharvest sector who count in fishery development.

³ Actual numbers fishing vary inter-annually and seasonally, with many being part-time and multi-occupational

⁴ https://www.crfm.int/index.php?option=com_k2&view=item&layout=item&id=56&Itemid=299

1.3 About this report

As noted above, this report explores the livelihoods and social networks of women and men along the SVG blackfish fishery value chain from a gender perspective. In so doing, it aims to further support the implementation of the SSF Guidelines. The report is not intended to be a highly technical or scientific document, but one that is accessible by readers of diverse backgrounds with a basic understanding of fisheries, gender and livelihoods. This is a small start to examine a very complex subject, and it does not get into the ethics of marine mammal conservation or sustainable use. As such, it is neither comprehensive nor detailed, but a preliminary investigation that encourages further applied research and adaptive approaches to fisheries management, planning and policy in support of SSF Guidelines implementation. The next section outlines the methods used. The remainder of the report presents situation context, findings, and a discussion of them with recommendations.

2 METHODS

2.1 Overview of approach

This study required the collection of quantitative and qualitative primary and secondary data. A desktop review of published and grey fisheries and gender literature was conducted using local and regional documents, as well as local datasets provided by the SVG Fisheries Division and the Kingstown Fish Market. Twenty-six key informant interviews were then conducted in Barrouallie to ascertain more localized perceptions and realities of the blackfish SSF value chain and fisheries within the community from the perspectives of women and men, including young people.

The study was hampered by changes in field research personnel and delayed due to the eruption of the volcano in St Vincent. The former was primarily a matter of re-building fieldwork capacity and resuming progress. Despite Barrouallie being on the boundary of the zones of low to moderate hazard, the serious volcanic eruption prompted the suspension of research for a few weeks on ethical grounds while much of the country was in crisis and data collection would have been an inappropriate intrusion. These challenges did not alter the research methods, but they constrained the richness of data and depth of analysis. Hence, the findings were ultimately more descriptive than analytical, but along the lines originally designed. The *Methodological Approach to Conduct Gender Value Chain and Network Analyses in Jamaica, Barbados, and Saint Vincent and The Grenadines to Provide Lessons for Conservation and Development* (Soares 2020) was the main guidance for the approaches used. As noted before, this study was in the vein of scoping as neither time nor resources were available for a full applied academic investigation.

2.2 Gender in SSF value chains in the Caribbean

The Caribbean fisheries sector contributes to the livelihoods of many families and individuals in coastal communities. Fisherfolk benefit from every aspect of the fisheries value chain from preharvest through to harvest and postharvest. While gender roles and dynamics vary across various

value chains (Figure 1), in Caribbean fisheries as elsewhere, women and girls mainly occupy the postharvest stages as fresh fish vendors and small to medium scale value-added fish processers. Men and boys are predominantly in pre-harvest and harvest, engaged in mending fish nets, boat maintenance, repair of fishing equipment, and at sea harvesting fish as well as being the owners and captains of fishing vessels. In the Caribbean, women also fully own or co-own fishing boats of all sizes, and some go to sea to fish nearshore and sometimes offshore, but these roles are less common and less documented (GIFT 2018). In the SVG harvest sector it is more prevalent for women to do handlining and assist with seine fishing inshore compared to the men who go offshore capturing larger fish species, such as tunas, dolphinfish, wahoo etc. So, although women can be found in some predominantly male roles, and gender boundaries for fish workers are becoming more fluid all along value chains, most longstanding livelihood patterns persist.

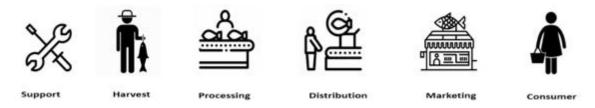


Figure 1. A generic fisheries value chain

Regarding livelihoods, the study drew upon the conventional sustainable livelihoods approach (SLA), with an emphasis on the livelihood assets of men and women and their use (Figure 2). There was insufficient time and information to delve deeply into a comprehensive livelihoods analysis or to do a social network analysis to better understand the creation and use of social capital by women and men in this site-based fishery case.

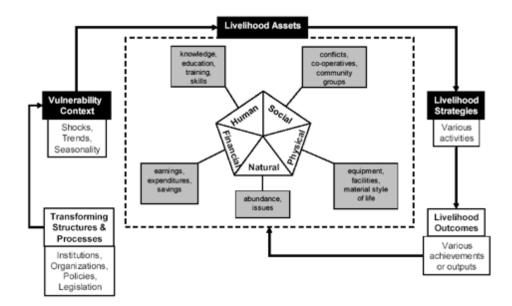


Figure 2. Sustainable livelihoods approach (SLA) or framework (modified from DFID 1999)

Addressing gender in fisheries value chain livelihoods is not only critical for ensuring sustainable SSF in the Caribbean, but also to ensure that the Sustainable Development Goals (SDGs), particularly SDGs 5, 8 and 14 are also achieved (Figure 3).



Figure 3. Sustainable Development Goals; Goal 5: Gender Equality, Goal 8: Decent Work and Economic Growth, and Goal 14: Life Below Water (Source: sdgs.un.org)

To pursue these SDGs requires understanding the differentiated roles of women and men, which also have implications for CARICOM Member State programming activities to develop sustainable blue economies. Pursuing these SDGs requires going beyond current generalized understandings of fisheries value chains in the Caribbean region to dig deeper into specific cases such as this study endeavoured to do for SVG blackfish.

2.3 Sampling and data collection

For data collection, the research consultant worked very closely with the staff of the Fisheries Division as information gatekeepers and sources. Several meetings were held with staff members within three units of the Division (Fisheries Extension, Data and Quality Units) to collect relevant data. Census data were requested from the government's Statistical Office. Community-based information was provided by the Barrouallie Fisheries Development Cooperative Society Ltd., the Barrouallie Heritage and Tourism Association and the SVG Red Cross.

The key informant interview (KII) instrument was completed with the assistance of the Fisheries Division. Twenty-six interviews were conducted in the town of Barrouallie mostly with women, including in the Bottle and Glass community along the bay that had many fisherfolk households. These methods were geared at gathering perceptions from the community on SSF gender roles within the value chain of the local fisheries with emphasis on blackfish.

2.4 Challenges with data gathering

Data collection was challenging in some instances. Fisheries, livelihood (labour force) and gender secondary data sources were distributed among several government agencies, not centralized or collated by the fisheries authority. Some secondary data documents were housed at the Fisheries Division in paper copy only and had to be scanned electronically prior to use, but many documents were sourced online or through recommendations from local and regional colleagues and research counterparts with electronic collections.

Primary data presented more challenges. Some data required for analyses were unavailable from the study site at the time. The key informant interviews presented their own set of challenges as the interviewer had to wait on fishers to complete their daily tasks before engaging them. Some interviews were conducted well into the night. Others had brief windows of opportunity. Some fisherfolk were reluctant or did not participate in the research due to lack of interest or tiredness, both of which were understandable given the stressful conditions. Luckily, COVID-19 presented minimal challenges as there were no curfews or shutdowns implemented in SVG. Also, there were no known COVID-19 cases within the study area. However, there were delays in conducting the field research when the numbers of infected cases were rising nationally. Social distancing precautions were adhered to and public health protocols were followed while conducting the field study in keeping with ethical research procedure.

Overall, the issues with obtaining data and information from some agencies and stakeholders within the sector were only moderately constraining. However, where good and complete data were available, they were useful for better understanding the local context of gender in SVG SSF value chains and the blackfish fishery specifically.

3 FISHERIES IN ST VINCENT AND THE GRENADINES

3.1 Country profile and demographics

Saint Vincent and the Grenadines is a multi-island nation in the Eastern Caribbean. The mainland, St. Vincent, is mountainous with lush vegetation due to its high rainfall and rich volcanic soil. The Grenadines islands stretch southward of mainland St. Vincent, including eight that are inhabited: Young Island, Bequia, Mustique, Canouan, Mayreau, Union Island, Palm Island and Petit St. Vincent (Figure 4).







Figure 5. Settlement Map of Saint Vincent

The archipelagic nation-state consists of 32 islands and cays in total, including those which are not inhabited. The uninhabited cays and rocks are ecologically sensitive, many being surrounded by coral reefs and used by seabirds. The country experiences two seasons: a wet season from June to November and a dry season from December to May. Compared to St Vincent, the Grenadines have lower lying topography, with less rainfall and prolonged dry periods. St. Vincent has five parishes with Kingstown as its capital.

Like many islands in the Eastern Caribbean, fisheries and aquaculture in SVG have been identified as priority blue economy development sectors, holding the promise of food security and an equitable distribution of economic growth (World Bank Group 2020). The demand for seafood has added to the pressure on nearshore ecosystems, exacerbating their overall vulnerability. Over-exploitation of reef fisheries, habitat degradation, pollution, loss of biodiversity and conflicts over access to ocean and coastal resources, especially where marine conservation areas impinge on community livelihoods, are becoming the norm. Climate change impacts, increasing natural hazards and other risks (NEMO 2014) further compound these challenges and contribute to the national socio-economic costs of fisheries despite their benefits to livelihoods, food security and nutrition.

Eighty-five percent of the SVG population lives in settlements in or near to the coastal zone (ESL. 2007) (Figure 5). Therefore, many of the island's livelihood activities are tied to the marine environment along the nearshore, ranging from water taxis, diving, snorkelling, hotels, and restaurant businesses to fishing. The Grenadines is home to an extensive shallow bank with extensive coastal and marine habitats: fringing, patch and barrier reefs, seagrass beds, salt ponds and mangrove forests. These are of prime importance, as marine-based activities are the mainstay of the Grenadines' economy. Tourism and fishing are the two major sources of

employment for residents living in the nine inhabited islands of the Grenadines. Along the coasts of SVG, the livelihoods of fishing families and entire fishing communities (Figure 6) depend on multiplier effects from fishing-related activities and postharvest value chains as most of them are active fish landing sites (Figure 7).



Figure 6. Saint Vincent and the Grenadines fishing communities

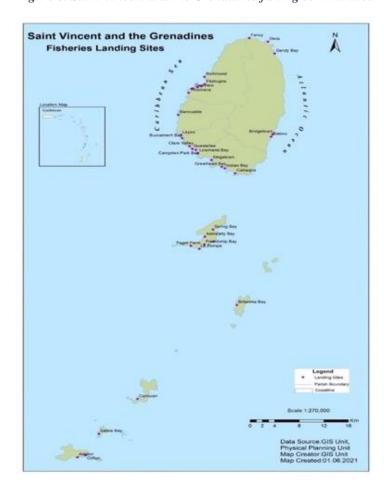


Figure 7. Saint Vincent and the Grenadines fish landing sites

The culture, heritage and traditions of many of these communities and landing sites are relevant to understanding the network of factors and relationships that help to shape the case study in Barrouallie, the latter being specifically addressed in later sections of this report. A broad socioeconomic context is first provided below.

The island of Bequia in the Grenadines has a unique tradition of whaling dating back to over a century ago. Apart from tourism, this practice of whaling, that has become controversial, has contributed to mainstay of the local economy, as well as forming part of the culture and livelihoods of Bequia. Whaling became controversial worldwide due to the International Whaling Commission's 1982 moratorium on commercial whaling which included a global ban on the practice. However, a small number of countries and territories, notably Japan, Norway and Iceland continue to commercially hunt small whales and dolphins "either under objection to the moratorium decision, or under reservation to it," according to the International Whaling Commission⁵.

Bequia is the only Caribbean island with an aboriginal subsistence whaling quota from the International Whaling Commission. In accordance with the Aboriginal Subsistence Whaling (ASW) rules, local whalers are allowed to whale a limited amount during the season using only traditional hunting methods. The current quota for the period 2013–2018 is 24 humpback whales, although only one is taken annually on average (Animal Welfare Institute 2012)⁶. According to the International Whaling Commission stipulations, whalers must hunt within their exclusive economic zones and must provide scientific data and information on their catches to the International Whaling Commission. In addition, local whalers should generally utilize the whale as much as possible, including from the meat, the oil and if possible, bones. Local whalers are also not allowed to hunt females or calves. The International Whaling Commission reviews the whaling quotas roughly every 5 years. An islet based along Friendship Bay on the Bequia's south coast known as Semples is the only remaining whale processing station out of the seven that existed on the island and nearby isle of Petit Nevis.

On mainland St. Vincent there are several fishing communities where livelihood opportunities focus on fishing. Although local fisherfolk fish largely on a small-scale commercial or subsistence level, the sector is a major socio-economic contributor to peri-urban and rural communities. These communities include Rose Place, Owia, Shipping Bay/Biabou, Calliaqua, Clare Valley, Richmond and Barrouallie. While these communities employ different traditional fishing gears, fishing methods and vessels the main fishing activities centre around line fishing, spear fishing, and seine net fishing. However, only the Clare Valley and Barrouallie communities are notably involved in extensive seine fisheries.

⁵ Visit the International Whaling Commission at https://iwc.int/home

⁶ https://awionline.org/content/subsistence-whaling

3.2 Major fisheries of St. Vincent and the Grenadines

Following is an overview of the major SVG fisheries with attention to statistical data related to SSF in particular, but also see the FAO country profile⁷. There is also a high seas fishing fleet, registered with Saint Vincent and the Grenadines as the flag state, that consists of foreign owned vessels harvesting tunas and similar species closely monitored by the International Commission for the Conservation of Atlantic Tunas (ICCAT) to which SVG is a Contracting Party. However, the domestic fishing industry of SVG is characterised by small-scale fishing using traditional fishing gear, methods and vessels. The industry has mainly utilized open fishing vessels powered by outboard engines. These vessels have exploited both oceanic and inshore pelagics as well as shelf and deep slope demersals. The main vessel types used by fishers are pirogues, bow and stern, and double enders.

The fisheries authority describes the SSF as consisting of five fisheries: Off-shore Pelagic, Inshore Pelagic, Demersal, Shellfish and Whaling. Fishers often engage in multi-purpose fishing with several species being captured using different gear from the same vessel on one trip. In recent times, fisherfolk have faced many challenges such as the sargassum seaweed influxes, shifts in fish ecological patterns perhaps due to climate, the COVID-19 pandemic and the La Soufriere volcanic eruption. Maintaining the fishing industry is a challenge and fisherfolk seek support to keep their livelihoods going. Some fisherfolk join cooperatives to deal with the challenges faced. In SVG, there is one national fisherfolk organization and five primary fisherfolk organizations. Through these means, fisherfolk have strived to maintain their livelihoods and representation.

Spiny lobster and queen conch are harvested seasonally in the Grenadines. Table 1 describes the three main Grenadines fisheries and habitat types. Lobster and conch are quite often exported.

Main Fisheries and Habitat Types				
Fishery	Demersal	Inshore Pelagics	Offshore Pelagics	
Major	Hinds	Robin (Decapterus	Dolphinfish (Coryphaena hippurus)	
Species	Groupers	spp.)	Yellowfin Tuna (Thunnus albacares)	
	Butterfish (Serranidae spp.)	Jacks (Carangidae)	Kingfish (Scomberomorus cavalla)	
	Snapper (Lutjanidae spp.)		Barracuda (Sphynaena spp.)	
Habitat	Bottom dwelling; shallow	Pelagic; found	Migratory species; found miles	
	shelf and deep slope	along the coastline	offshore in open water	

Table 1. Main fisheries and habitat types in the Grenadines islands (adapted from Baldwin, 2012)

SVG lobster and reef fish fishing grounds are found to have a greater distribution (74% and 83% respectively) than conch fishing grounds (25%) across the Grenada Bank. Lobster and reef fish fishing grounds tend to be in reef and reef-related (mixed live bottom) habitats (91% and 89% respectively). Conch grounds are split among mixed live bottom (45%), reef (23%) and hard bottom (20%) habitats. Reef and reef-related (mixed live bottom) habitats comprise the largest

.

⁷ http://www.fao.org/fishery/facp/VCT/en

amount of habitat (79%) found on the Grenada Bank and are reported to be the most preferred habitat for all five types of fishing gear used (Baldwin 2012). The gears mostly utilized are beach seine, trolling lines, handline, bottom longline, palange, pots and traps, spear gun, harpoon and fish gun, gillnet (ballahoo net) with some gear types and terms being interchangeable or preferred differently by location or fishery (C. Jackson, Per. Comm., Fisheries Division, 2020).

Fisherfolk don't only sell fresh catches of raw, whole, unpackaged fish. They also process some species further, adding value. Within fishing communities, drying fish that has been heavily salted can be seen as in the preparation for 'cornfish,' which is similar to salted cod or other species that are imported into the country. This is the most common way fisherfolk in SVG add value to the fresh catch. In the fishing village of Barrouallie, the drying of pilot whale or porpoise meat can be found as well as the boiling of the skin and blubber to make crisps and blackfish oil which is a by-product. This practice is traditional to the Barrouallie community and is a principal value-added product of their livelihood as described later in the case study.

3.3 Import and export markets

Although much SVG seafood, especially finfish, is for local consumption there is a market for export as well as import of frozen and processed fish products. In 2018, 5230 lbs (2377 kg) of processed fish products were exported from the country. This included conch fritters, conch samosas, conch and callaloo, crab and callaloo crab samosas, dolphinfish (mahi mahi) samosas, jacks, etc. Within the same year 107,765 lbs (48,984 kg) of fresh, chilled, and frozen fish was exported. Species such as barracuda, butterfish, dolphinfish (mahi mahi), red hind, jacks, kingfish, marlin, parrotfish, snapper and yellowfin tuna were included. Additionally, shellfish exports of conch and lobster amounted to about 723,580 lbs (328,900 kg). Apart from fish species for consumption, 98,389 lbs (44,722 kg) of jacks were exported for use as bait (Fisheries Division 2019). Table 2 outlines proportions in the categories of fish products imported into SVG in 2018.

Table 2. Percentage of selected seafood imports in 2018

Products	Import %
Molluscs	31.1%
Tuna assorted, frozen whole	26.6%
Crustaceans not frozen	7.5%
Lobster (Homarus) not frozen	2.31%
Rock lobster and other seafood	1.15%
Rock lobster and other sea crawfish, frozen	2.11%
Tuna (yellowfin) frozen	5.46%
Fish assorted, frozen whole	0.69%

Source: Observatory of Economic Complexity (OEC)

According to the Fisheries Division (2020) fish and fish products exported from SVG in 2019 have shown an increase of 11% in weight and 14% in value when compared with fish exports for 2018.

In 2019 seafood exports were valued at EC\$11,761,0718 (US\$4,388,459). Also in 2019, queen conch was the main export species showing an 18% increase in weight compared to 2018. Conch was exported to several countries including St. Lucia, Dominica, Curacao, USVI and St. Marteen, but mainly (64%) to the USA. Caribbean spiny lobster was also a species of great importance, for export to the USA and Barbados markets in 2019 generating revenues of EC\$1.3 million and EC\$1.08 million, respectively. Yellowfin tuna has also made its mark on the USA market with a value of EC\$303,826. Over 100,000 lbs (45,454 kg) of live bait jacks are exported to Trinidad and Tobago annually, generating revenue of over EC\$400,000.

3.4 Licensed/registered fishers in the overall industry

The fishing industry in SVG had 900 registered fishing vessels in 2019 and 619 registered fishers in 2014 (Fisheries Division 2019) but the fisheries authority expects active numbers to be higher. The documentation of registered fishers and vessels is ongoing, and the data are being updated with improved accuracy to comply with international obligations and standards. The registration of high seas vessels in SVG in 2020 included four Taiwanese vessels on a charter arrangement with Namibia through ICCAT. Vessels such as these pay an annual license to the state. The breakdown of local registered fishers by gender is 3.33% females and 96.4% males with about 1.43% of the registered female fishers owning their fishing vessels (Fisheries Division 2019). There are 36 landing sites divided into six zones, with Kingstown and Barrouallie being the main landing sites. These areas provide fish daily to the public. Fishers generally bring in their catches of small pelagics early in the morning to sell as bait for the offshore large pelagic fishers as well as for sale as food fish to market vendors. On mainland St Vincent it is typical for fishers and/or vendors to drive daily into inland communities to sell the early morning catch heralded by the traditional signal of blowing a conch shell.

3.5 Roles along the value chain in the overall industry

In St. Vincent and the Grenadines, men have traditionally been seen as having a more prominent role in the SSF value chain (Figure 8) compared to women. Men are harvesters who daily go out to sea to catch fish and other marine species. Men can also be found in the pre-harvest sector repairing fishing vessels, mending fishing nets, building boats, constructing fish pots and so forth. There is also a small percentage of men retailing fresh fish in rural communities. However, women are visibly engaged in postharvest activities such as buying, processing and marketing. They are mainly seen in the fresh fish markets and landing site processing areas.

-

⁸ US\$1 = EC\$2.68



Figure 8. Fisherfolk livelihoods along a value chain in Saint Vincent and the Grenadines

Women are engaged in fisheries management, there being a woman in the post of Chief Fisheries Officer with several female fisheries technical staff. Within fisherfolk organizations, while only a very small percentage of members are women, they are taking on leadership roles in their organizations. Before turning to the site-level case, we next outline the national gender context.

3.6 National and international commitments and progress on mainstreaming gender

Women's equality and empowerment is one of the 17 Sustainable Development Goals (SDGs), but also integral to all dimensions of inclusive and sustainable development, also being relevant to achieving the other 16 SDGs. SDG 5 proposes to achieve gender equality and empower all women and girls⁹. Among its many targets is the mandate that women and girls, everywhere, must have equal rights and opportunity, and be able to live free of violence and discrimination. The Government of St. Vincent and the Grenadines is committed to meeting these targets under the SDG 5 as articulated in the National Economic and Social Development Pan 2013-2025 (GoSVG 2013). In this regard, SVG has signed and ratified international treaties and conventions for the protection and empowerment of women. Among these include the Inter-American Convention on the Prevention, Punishment and Eradication of Violence against Women (Belem do Para), ratified in 1996, and the Convention on the Rights of the Child, ratified in 2003. Although not legally binding, these agreements have served to challenge the country to address Gender Based Violence (CDB 2016). The government has also implemented institutional and policy measures, programmes and projects towards reducing gender discrimination that are embedded in socio-economic and political systems. For instance, the name change from the Department of Women's Affairs to the Gender Affairs Division (GAD) established in 2001 was affected to reflect a focus "on establishing equality between women and men, proposing socially responsive legislation and implementing policies that favourably affected women" (CDB 2016).

⁹ https://sdgs.un.org/goals/goal5

To complement the policies crafted to address particular vulnerabilities facing the family and women in particular, several legal reforms were undertaken. These included the passage of the Domestic Violence Act, the establishment of the Family Court in 1995 and a Crisis Centre, and the establishment of a programme to support teen mothers to continue their education. The goal of the GAD is to support the integration and advancement of a gender perspective in national development to attain equality and equity. This is particularly important in the areas of domestic violence, women's empowerment and advocacy, providing a place where women's problems can be handled with confidentiality (CDB 2016).

The numbers of men and women were almost equal (51% or 55,551 males and 49% or 53,637 females) in the 2012 national population census. Although the literacy rate for both women and men was 96%, women were said to remain the more economically vulnerable group, with 53% of the people unemployed being young females. It was observed that most senior public servants in SVG are women. Currently these include the majority of Permanent Secretaries who are the administrative heads of ministries. They may have the potential to be gender leaders and change agents.

4 GENDER AND LIVELIHOODS IN THE BARROUALLIE BLACKFISH VALUE CHAIN

4.1 Description of Barrouallie

The town of Barrouallie has a population of nearly 6,000, including its fishing community of a few hundred persons. It is located on the western/leeward coast of mainland Saint Vincent, extending uphill from the shore to overlook the sea (Figure 9). Washed by the Caribbean Sea, the bay in Barrouallie forms the centre stage for the most diverse fisheries in the entire main island and archipelago of SVG. Examples of all SVG major fisheries practices are found in Barrouallie or Baga as it is affectionately called. These include line fishing, spear fishing, FAD and seine fishing. What distinguishes this town from any other area in SVG is its unique cultural heritage associated with its history as a whaling community. The cultural heritage of Barrouallie is centred on and inspired by the fishing activities at the Bottle and Glass community, which is situated along the Barrouallie bay. It is famous for pilot whales and porpoises locally known as 'blackfish'. The blackfish industry from capture to consumer, as well as other fisheries, form the backbone of this community and its culture. For example, Barrouallie whalers sang distinctive occupational songs known as 'shanties' while rowing their whaleboats. A product of diverse cultural influences, the shanties of Barrouallie are reminiscent of the work songs of 19th century merchant seamen (Lanier and Reid 2007).

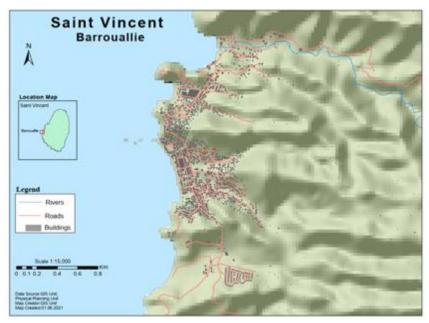


Figure 9. Location and map of Barrouallie

Although whaling culture is dying out in the Caribbean, Barrouallie sustains a small cetacean fishery that started there in the early 20th century as a commercial enterprise. Fisherfolk (the women and men along the fishery value chain) continue to catch and process the blackfish. Most of the meat is cut into strips and sun dried on bamboo, but a small portion is sold fresh. The blubber is boiled in pots as shown in Figure 10 and yields two by-products: blackfish oil and blackfish crisps, both of which are sold to the public locally (FAO 2016).







Figure 10. Blubber of blackfish being boiled, and its value-added products ... crisps and oil

In 2019, Barrouallie recorded 37 species of fish harvested, weighing an estimated 88,422 lbs (40,192 kg) in total with sales valued at an estimated EC\$365,900 for local consumption (Fisheries Division 2019 database). Table 3 shows the species composition of fish landings by recorded weight at the Barrouallie landing site in 2019. Pilot whale and porpoise are ranked 1st and 5th respectively. These comprise several species of small cetaceans, such as short-finned pilot whales (*Globicephala macrorhynchus*), killer whales (*Orcinus orca*) and other small to medium-sized

toothed whales (odontocetes) of which few are of concern according to the IUCN Red List (Fielding and Kiska 2021).

Table 3. Species composition of total landings by descending order of weight in Barrouallie, 2019 (Fisheries Division)

SPECIES	WEIGHT (LBS)	SPECIES	WEIGHT (LBS)
Whale,Pilot	38,800.00	Runner,Rainbow	91.62
Scad,Bigeye	20,720.00	Triggerfish,Queen	67.86
Scad,Round	11,660.00	Hind,Red	65.34
Scad,Mackerel	6,380.00	Jack,Horse Eye	46.33
Porpoise	4,820.00	Parrotfish, Princess	26.25
Tuna,Skipjack	1,486.73	Grunt,Striped	25.76
Tuna,Blackfin	841.73	Hind,Rock	24.57
Dolphinfish	658.86	Jack,Black	23.63
Snapper,Silk	625.84	Needlefish,Flat	15.83
Amberjack,Greater	528.72	Needlefish,Keeltail	15.75
Ballyhoo	316.67	Parrotfish,Rainbow	15.00
Snapper,Blackfin	233.43	Tuna,Yellowfin	13.57
Snapper,Queen	192.71	Triggerfish, Gray	10.86
Barracuda,Great	187.61	Triggerfishes	10.50
Tuna,Bigeye	134.29	Snapper,Vermilion	8.57
Jack,Crevalle	128.57	Parrotfish,Redfin	7.50
Snapper,Red	127.46	Snapper,Glasseye	5.34
Swordfish	102.86	Butterfish	2.63
Total (lbs) 88,422.37			

The blackfish industry is the most distinctive cultural and socio-economic aspect of Barrouallie. It contributes importantly to the local diet and blackfish products remain highly marketable commodities in the capital city, Kingstown. Blackfish provided about 50% of the landings in Barrouallie in 2019. The government, in supporting the local fishery and hoping to develop this sector, has proposed a Barrouallie Blackfish Facilities Enhancement project for the community. This project will facilitate the construction of a blackfish processing facility, house all blackfish processing activities, and improve the hygienic standard for handling blackfish.

Gender composition in a community shapes the dynamics of the area and the types of activities that occur. In Barrouallie, the community consisted of approximately 5,625 residents in total with 2,922 males and 2,703 females as reported in the SVG National Census of 2012. The census provided age distribution across gender groupings, but the gender information was not provided by census district. However, head of household in that census district was recorded as around 60% men and 40% women.

¹⁰ https://news784.com/local-news/us-3-5-million-agreement-signed-for-barrouallie-black-fish-facility/

Also, according to the 2012 National Population and Household Census, Barrouallie recorded 25.5% unemployment, which was higher than the national average of 21.5%. Back then, 21% of the men were recorded as unemployed compared to 31% of the women. A 2008 Country Poverty Assessment Report (Kairi Consultants 2008) stated that Barrouallie experienced a poverty rate of 28.5%. There were reportedly significant levels of poverty in the Bottle and Glass fishing community within the Barrouallie census division. More recent census data were unavailable.

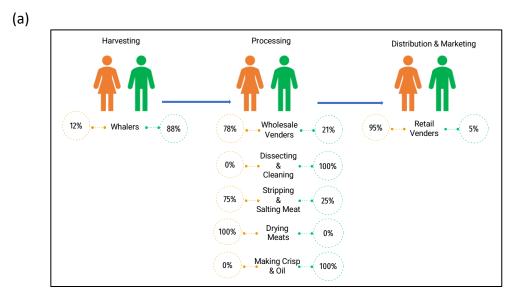
4.2 Gender and livelihoods in the blackfish value chain

Broadly speaking, typical fishing industry gender roles apply to the blackfish fishery in which men occupy most pre-harvest, supporting and harvest livelihoods while women do most postharvest value addition, distribution, and marketing. The meat of the marine mammals, when dried, appears almost black. Hence, the name despite the source animal not being a fish (Figure 11).



Figure 11. Blackfish meat after it has been dried and separated into strips, ready to be packaged

Sex disaggregated and age data on the blackfish value chain were obtained through interviews. The people employed vary over time as demand for labour fluctuates within and outside of the fishery. At the time of enquiry, the blackfish industry had 4 whaling boats consisting of 17 crew members: 15 regular males and an occasional 2 female whalers. Within the industry there were 14 blackfish vendors each having 5-8 processors working with them. So a total of about 70-80 processors worked in the blackfish industry, and the majority of them were women. Fisherfolk in the blackfish industry ranged in age from 25 to over 60 years. There were 20 persons younger than 30 years who had various roles in the value chain. The approximate proportions of women and men in various roles in the value chain are shown in Figure 12.



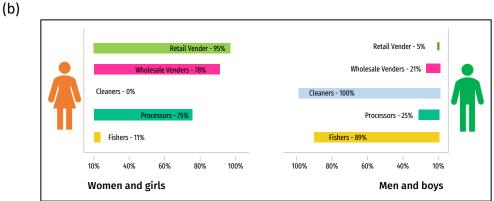


Figure 12. Sex disaggregation of blackfish value chain roles (a) numerically and (b) graphically

The steps and value chain roles in the transformation of the catch into value-added products are shown from harvest to consumption in Figure 13.

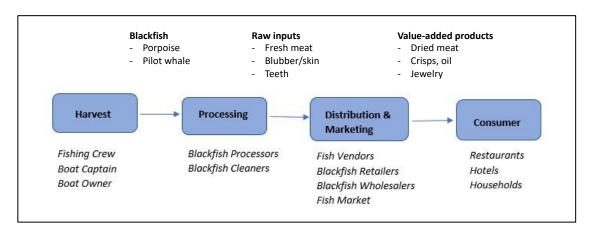


Figure 13. Blackfish value chain steps, roles and products

In the following sections we take a closer look at the activities along the value chain, describing what the men and women do to produce the products in the context of their fishery livelihoods. In all cases further research would be necessary to complete a comprehensive gender analysis that also addresses intersectionality thoroughly and the household circumstances of fisherfolk.

4.2.1 Hunting

Gender roles are distinct in the blackfish industry. Organizing for and harvesting the pilot whales and porpoises is conducted by men plus occasionally a couple of women. Women do not regularly accompany the men at sea during the fishing trips. The men go to sea early in the morning in hope of harvest at a time when many women are engaged in household domestic work. Pilot whales and porpoises are seen infrequently during fishing trips, so often the fishers return to shore without any catch. These hunters are about four crew members per boat performing the roles of boat driver, shooter, backing up and spy. During the trip, one crew member operates the boat engine, there is one shooter, who captures the blackfish with a harpoon, and two persons are used as backing up to assist with capturing the blackfish and as spies to keep a look out for more blackfish. Once the shooter captures the animal using the harpoon and spear gun, it is placed on a large buoy which is left to drift as the hunt continues to spot more blackfish, being returned for at the end.

When the hunt ends the fishing boats head back to shore where men await to pull the blackfish up onto the foreshore via rollers. These are long hard plastic cylindrical tubes (e.g. large diameter PVC pipe). They place the catch on pallets (Figure 14). Based on the quantity of blackfish caught, they would either be processed on the same day or left for the next day. If left for later, the animals would be lined up on the beach with their heads towards the sea and tails tied by rope to a tree to reduce the chances of a high tide pulling the blackfish back out to sea. Hence the hunting process is performed mainly by men who prepare vessels and gear, capture the animals at sea and bring them onto land similar to the harvest of large pelagic finfish.



Figure 14. Small cetaceans on a pallet after being pulled up onto the beach via rollers

4.2.2 Processing

Processing blackfish is time consuming and requires several people to conduct specialised tasks regardless of the final product. Processing consists of the mammals being skinned, filleted and salted, followed by drying the meat and boiling the skin. Compared to male-dominated hunting, there is a different division of labour in which women are prominent in the postharvest stages from processing to marketing. Although men are incorporated in these stages to assist, value-added processing is led by women throughout the various operations as well as women owning the business enterprises that make the profits from final sales to consumers.

To aid the stage of preparing the blackfish, men cut the large animals into manageable sections (Figure 15), remove the skin and blubber (Figure 16) and dissect the meat into large pieces (Figure 17) for the women to prepare. The women then cut the blackfish meat into strips (Figure 18), followed by washing (Figure 19) and draining. This allows excess water to be removed from the meat (Figure 20) before adding salt (Figure 21) to assist the preservation. The salted meat is placed in buckets and the women hang the meat to air dry on bamboo racks outside in the sun (Figure 22). Many operations typically take place along the seafront with minimal infrastructure.



Figure 15. Men section and cut blackfish into manageable pieces



Figure 16. Men remove the skin and blubber from the blackfish



Figure 17. Men cut the blackfish sections into smaller pieces for women to further process

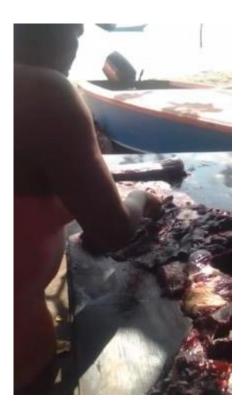




Figure 18. Women cut smaller blackfish pieces into strips for processing



Figure 19. The sliced strips of blackfish meat are washed in large drums



Figure 20. The strips of blackfish meat are drained to be salted



Figure 21. Salt used for the blackfish meat before placing it to dry





Figure 22. Strips of blackfish meat hanging on bamboo outside in the sun to dry

In the meantime, while the meat is being processed, men cut off the blackfish skin and blubber and carve it into pieces that will eventually become the popular snack product known as 'crisp' (Figure 23). Men also get the wood to prepare an open outside firewood flame with large iron pot ready to boil the blubber to make the crisp (Figure 24 and Figure 25).







Figure 23. Men cutting the blackfish blubber into pieces to make crisp

During cooking, the pieces becoming crisps are turned periodically with a huge wooden stick (Figure 26). Once cooked, the crisp in placed in a large woven basket (Figure 27) made from tree bark and vines to allow the excess oil to drain (Figure 28), and for the crisp to cool. The crisp is

then carried into a shed (Figure 29) to be placed in buckets and covered until the next day when the crisp is placed back into blackfish oil which can preserve it for months. When the crisp is ready for use, it is removed from the oil and men continue the process by cutting up the crisp into smaller bite-sized pieces (Figure 30) for packaging with subsequent marketing and distribution most often done by women.



Figure 24. Blubber of the blackfish being prepared in large iron pots as crisp



Figure 25. Cooking is done outside in the open using firewood flames



Figure 26. Stirring periodically with a large wooden stick during cooking



Figure 27. Woven baskets made from tree bark and sometimes vines are used to drain the blackfish crisp



Figure 28. Finished blackfish crisp placed in woven baskets to drain



Figure 29. Men carrying basket with crisp to the shed for storage before sale by women



Figure 30. Young man cutting up blackfish crisp in preparation for the market

Returning to the women's meat processing, the strips of blackfish meat take about 3 to 4 days in the sun to dry completely when the weather is sunny. Once the blackfish is dried, the women

separate it into individual strips (Figure 31) and package it for sale (Figure 32) within the nearby community and for the market in the capital further away.



Figure 31. Dried blackfish being separated and packaged by a young female blackfish processor



Figure 32. Dried blackfish strips packaged for sale

4.2.3 Marketing

The skilful processing of blackfish adds value and allows the fisherfolk in postharvest to gain higher earnings. The value-added products from the blackfish include dried blackfish meat, crisp (dried blubber and skin), blackfish oil, necklaces and pendants made from the teeth and so forth.

At the fish market in Kingstown, female blackfish vendors sell all these products (Figure 33 and Figure 34). These value-added, higher priced items are in greater demand by average households than fresh unprocessed blackfish. Although not as widely used, other parts of the blackfish such as the raw meat, liver and heart can be boiled and stewed. Blackfish vendors try to make use of every part of the animal. Only the bones and intestines are usually discarded. Hence the unit yield, value-added and product diversification from blackfish is often higher than from other SVG fishery value chains.



Figure 33. Women vendors of blackfish at the Kingstown Fish Market selling dried blackfish, crisps, and oil





Figure 34. Simple packaging and presentation used for blackfish products in the market

Women in the blackfish industry also participate in other fisheries, such as handlining and seine netting when the blackfish catch is low, or when there are no blackfish to process and the drying process has been completed. Women in the blackfish industry report that they are proud of their trade and do not feel hindered by their male counterparts. Although the blackfish industry is strenuous, women still integrate their domestic duties within their livelihood. Women in the fishery indicate that they process blackfish and prepare meals for their households at the same

time. This can sometimes be seen as a saucepan cooking outside on a traditional coal pot while the blackfish work is being done. Some processing occurs close to where the women live, and the women multi-task their domestic work while processing as they move back and forth from cooking, packaging blackfish and other duties. Washing clothes, however, is done separately. This causes us to consider the community context for the fishery value chain and its gender dynamics.

4.3 Fisherfolk community overview

There were no available accounts of precisely when the blackfish fishery started in Barrouallie. However, based on anecdotal accounts, men and women engaged in fishing operations in Barrouallie date it back to just more than a century ago. This is for both harvest and postharvest fishing activities that have shaped the Barrouallie community into a fishing village with a strong blackfish heritage.

The last published population census was in 2012, but according to the census authority the Barroullie community had an estimated population of 4743 persons in 2021, disaggregated into 2453 males and 2290 females. The stretch of the Barroullie community that runs closest to the coast is referred to as Bottle and Glass. This is where most of the blackfish landing and processing occurs as well as other fishing activities such as mending nets, repairing boats, selling finfish, and enjoying recreational activities with other fisherfolk. The processing of blackfish is conducted at various parts of the beach at Bottle and Glass. Bamboo structures are found where the blackfish meat is hung and dried in the sun. Large stones used to build outdoor fires for cooking crisp can also be seen. While most blackfish fishers are males over 45 years of age plus a few younger men in their early 20s, during vacation from school some male youth and boys assist their father or grandfather in the blackfish industry. This sustains the transfer of blackfish traditional knowledge to the younger generation, thus prolonging retention of the local culture and heritage. The processing of blackfish meat is done predominantly by women in the presence of onlooking girls and boys. This passes on awareness of the traditions even if the children do not later apprentice into value chain roles. The value of this cultural heritage has apparently not yet been estimated.

In terms of postharvest activities in other fisheries, men and women are jointly engaged in smoking fish and making fish patties. Men are primarily involved in skinning pilot whales and cooking the blackfish crisp. Women are responsible for salting and drying blackfish meat. When a pilot whale or porpoise is hunted, it requires a large number of people to clean, cut up, cook, and process the animal. Many additional people in the Barrouallie community, including youth, get involved when there is a large catch of blackfish, demonstrating livelihood fluidity.

Based on information from the key informant interviews, the main participants in the harvest stages of the several small-scale fisheries value chains reside in the community. Estimates vary, but it seems that men account for 95% and women account for only 5% in the pre-harvest and harvest roles. The main processors also reside in the community and women account for 95% while only 5% are men. The main wholesalers were 100% male and lived in Barrouallie. The main retailers (who sell to consumers) before and after processing also live in the community, with

70% being women and 30% being men. The consumers at the end of the value chain were said to be equally distributed among males and females (

Table 4) and were mainly scattered among various nearby communities.

Table 4. Gender roles in Barrouallie small-scale fisheries operation

Gender	Gender roles in Barrouallie small-scale fishing operations
Men	Fishing
	Wholesale of fish
	Chop large fish into pieces
	Removal of skin and blubber from blackfish
	Dissect blackfish and chop blubber in small pieces
	Fry blackfish crisp
Women	Retail fresh and dried fish
	Process (clean, salt, dry and fry) blackfish products
	Fry blackfish crisps

Considering marketing and distribution further afield, men and women may occupy similar roles in the fish market in Kingstown, except for the selling of plastic bags of blackfish products which is conducted by women. Other activities done mainly by women included cleaning the market and cleaning, filleting and retailing finfish.

4.4 Livelihood assets in the blackfish fishery of Barrouallie

In addition to assets, the sustainable livelihoods approach pays attention to the vulnerability context, transforming structures and processes, strategies and outcomes (DFID 1999). This brief exploratory study was unable to address all of these in detail so we focused on livelihood assets.

Vulnerability, however, was the most observable and likely similar to several other small fishing communities in the Caribbean. As with most Caribbean coasts, climate change and variability pose a clear and present threat through sea level rise exacerbating coastal erosion, extreme weather events causing damage to property and danger to lives ashore and at sea, shifting oceanic patterns affecting resources through their marine environment and so on (ESL 2007). Consuming blackfish may also pose a health risk due to mercury and perhaps other contaminants accumulating in the flesh. Then there are the external global conservation ethics issues associated with killing and consuming marine mammals, even if harvesting for food can be done sustainably, similar to other animals. These issues may need to be faced and addressed systematically in both local and overseas forums if the blackfish fishery is to be sustained or expanded intergenerationally (Fielding (2013).

Regarding the institutional structures and processes, we described earlier the intent of the SVG government to treat the blackfish fishery as a development opportunity in the blue economy, noting the conservation caveat above. The government aims to invest in it while presumably

implementing enabling policies and legislation to assist value chain livelihoods to improve. Details were not available, but this fits well in principle with the observed fisherfolk livelihood strategies and preferred outcomes of extracting the most benefit from each blackfish landed with the least wastage and the maximum profitability.

Vulnerability and the institutional structures and processes concern the entire fishery value chain and both women and men. However, it seems likely that women will be more vulnerable and sensitive to harmful trends in structures and processes due to their more limited livelihood choices. This is especially so if they rely on the blackfish fishery value chain in their community, and outside of the work in other fisheries or economic sectors. While enterprises such as the public service, and some service industries, absorb many women, these jobs are not always as viable as the alternatives typically available to men in fisheries who wish to be self-employed or multi-occupational. Livelihood capital assets, discussed next, may determine viable options.

4.4.1 Human capital

Human capital concerns a healthy person's education, training and skills acquired. The SVG 2012 Population and Housing Census reported that the Barrouallie Census District had 34 persons at the community college, 34 persons at the technical vocational institute and 39 persons at university. There are six early childhood learning facilities, two primary schools (Barrouallie Government School and Barrouallie Anglican School), one secondary school (Central Leeward Secondary School) and one technical vocational school (Barrouallie Technical Institute) in the Barrouallie District. There is a health clinic in Barrouallie. A sex disaggregated breakdown was not available at the community level, but it could be expected that the human capital of men and women in Barrouallie would be similar. More pertinent to the case were their fisheries-related skill sets. No site level sex disaggregated data were readily available on fisherfolk, but similar levels of skills were exhibited by both women and men in their value chain activities. For future diversification and expansion, however, it seemed that men could more easily and guickly enter postharvest and learn skills ashore than women enter harvest and apprentice on boats at sea. On the other hand, if roles remained the same, it is likely that more opportunities would be available for women to improve their training and skills in food handling and processing through to marketing and distribution compared to men receiving skills training relevant to the blackfish hunt. The latter was more dependent on local traditional knowledge.

4.4.2 Social capital

In terms of the area's culturally based social capital, Walliabou Bay, located in the Barrouallie District, was the location for the filming of the first Pirates of the Caribbean movie, and remnants of the movie set are still available for visitors to the area. This has created jobs for local tour guides, shops and restaurants. Also, the rich cultural heritage associated with whaling in Barrouallie was captured by local filmmaker Akley Olton who featured the cultural back story

of the shanties in his film Madulu¹¹. Shanties were work songs whalers sang while rowing their whaleboats to shore. The above provided marine ties that also assisted in area social networking and pride of place. In a previous section the reproduction of labour, sharing of local and traditional knowledge with youth, and the value of cultural heritage were mentioned.

Barrouallie is primarily a fishing community and livelihoods are centred around fishing activities where people gather and exchange stories and information. There is one wharf and one fisheries centre located in the community. Both are used as sites of interaction. The centre is managed by the Barrouallie Fisheries Development Cooperative Society Ltd., providing fishing tackle and fuel to fishers. They also offer storage facilities as well as ice for their catch, but this is underutilized in the absence of a comprehensive value chain developmental intervention to date. Having a fisherfolk organization active in the community strengthens social capital, but the bulk of the interactions are informal or due to kinship. This could not be examined in detail, but work team collaboration was evident along the blackfish value chain, with no significant differences observed between men and women save for the additional social networks associated with household tasks and product marketing in a fairly open environment.

4.4.3 Physical capital

Physical assets in the community intersect with natural capital and include public amenities such as the Wallilabou Recreational Park, a hotspot for visitors and locals to enjoy the river falls and recreational activities they offer. The Barrouallie Heritage and Tourism Organization comanages the parks with the National Parks, Rivers and Beaches Authority and creates employment for the locals. The community is located next to one of the most famous recreational black sand beaches in SVG – Mt. Wayne. Currently, there is construction of the Blacksand Resort, and a Marriot Hotel is proposed for the area. These are expected to change the physical landscape and generate additional employment for locals, with a good chance of attracting additional marine and terrestrial physical infrastructure if successful. Government's plans for investment in blackfish value chain facilities were previously mentioned.

In Barrouallie, men tend to be the owners of the boats in the harvest sector of the SSF value chain. Women in the community dominate the postharvest sector of the SSF value chain and own the infrastructure that they use for processing and marketing. Some men retail their fish catch in rural communities, using their own private transportation. This distribution is typical when there is a glut in the fish market or when vendors refuse to pay a good price for the catch.

4.4.4 Natural capital

Coastal communities like Barrouallie are vulnerable to climate related hazards as noted before. While the surrounding watershed is a natural asset, some areas are prone to flooding due to

¹¹ https://www.youtube.com/watch?v=csT8RXzqIyc

the town's location at the end of the valley. Droughts in the dry season affect agriculture crops and production, as well as the potable water supply to the community. The Barrouallie District was, however, a safe zone during volcanic eruption. There are liabilities associated with the terrestrial natural capital of the area, so the marine natural capital is highly valued.

Typical of most eastern Caribbean islands, the pelagic fisheries resources (e.g. billfishes and yellowfin tuna) are seasonal, being more abundant in the first half and last quarter of a typical year. The FAD fishery, which harvests them, also experiences seasonality in terms of species and amounts. Blackfish is seasonal, but there is a peak in August when pelagic finfish are in their low season. The blackfish fishery is responsible for creating lots of postharvest jobs in its peak season. Longline fishing vessels out of Trinidad and Tobago, have in recent years, been buying bait from fisherfolk in Barrouallie, creating another form of livelihood. The trade-off, however, is less food fish for direct consumption as well as less bait for the domestic fleet.

There are small agricultural plots of groundnuts, peas, ground provisions and bananas. Small ruminants are present in Barrouallie as well as small scale poultry and pig farming. In terms of livestock, there is 'let go season' (when they roam freely) during the drier periods of the year. This affects crops and creates conflicts among farmers and villagers. No sex disaggregated data were available on the above, but it was evident that both women and men benefitted from the natural capital, although only men harvested marine resources.

4.4.5 Financial capital

The financial services available in the community include the Bank of St. Vincent and the Grenadines, Barrouallie Friendly Prudential Society, Western Union and the Barrouallie Cooperative that forms part of the Teachers Cooperative Credit Union. Information on the extent to which these formal services or any informal financial arrangements were used by men or women in the fishing industry was unavailable. Neither men nor women mentioned there being patronage or other ties between male fishers and female vendors, for example through credit in exchange for catches.

4.5 Gender in some livelihood opportunities

Data from the Fisheries Division (2020) suggests that around 96% and 4% of boats were registered to men and women respectively. However, sex disaggregated data on the boat types and gears owned by women and men was not available. Below is a list of boats that are currently being used for fishing in SVG (pers. comm. François, Fisheries Division).

- 'Pirogues' (25-32 ft in length) most propelled by 75-115 horsepower outboard engine
- 'Double-ender' small fishing boat (< 16ft row boats) used by beach seine fisheries in Barrouallie. Also used in villages like Rose Bank (typically 12ft in length) for hand-lining inshore (within 1 mile), propelled by oars.
- 'Blackfish boat' is a flat stern boat of about 18-20ft with 85 horsepower engine.

• 'Bow and stern' (marine ply coated with fibreglass) of around 14-15 ft powered by 30-40 horsepower engine. In Barrouallie, it is referred to as flat stern used to fish around FADs. In Bequia, it is used for diving for conch and setting lobster traps.

Vessel cost data were not available, but in other Caribbean countries women who own boats are known to invest in what are believed to be the more profitable vessels. There are no restrictions to women owning or co-owning fishing boats.

Government-run fish markets are the main centres for sale of daily catches and are important hubs for the economic activity of the local fisheries. Access to secure, hygienic and well-operated fish markets is essential for local consumption and seafood export. The main fish market in SVG is the Kingstown Fish Market (KFM), a division of the Agricultural Input Warehouse. According to the KFM, there are currently 18 women and 25 men vending at the facility. Another active fish market is in Calliaqua, operated by the Calliaqua Fisherfolk Co-operative Society Limited, and it currently houses three vendors and three fish cleaners who are all males. The Bequia and Union Island Fish Markets accounted for three and two males respectively. Barrouallie has a fish market that is not being utilized as most fish caught by fishers from the community is carried to Kingstown Fish Market for sales of higher volume and price, and little is sold in the community. It appears that opportunities exist for more women to use infrastructure, including in Barrouallie.

The fishing industry is faced with threats that range from climatic to institutional and operational. The viability of the industry depends on the capacity of stakeholders to adapt to changes and shocks. For sustainable development of the sector ongoing capacity development is imperative for building resilience across the SSF value chain. The Fisheries Division continues to partner with national and regional agencies to build capacity of both men and women in areas of leadership, safety at sea, information and communication technologies, business management and climate change. A sex disaggregated list of recent fisherfolk training provided by a project is in

Table 5.

Table 5. Sex disaggregated data on recent training provided to the fisherfolk of SVG

Training event	Agencies conducting trainings	% of males participated	% of females participated
Basic Fisherman Course for new entrance	Fisheries Division	Data	Data
to Fishing Industry (Fisheries	NTRC	unavailable	unavailable
Management)			
ICT Stewards and Safety at Sea Training	 Fisheries Division 	70	30
	CIRP		
	Fisheries Division		
	 SVG Coast Guard 		
	NTRC		
	• FAO		
Vulnerability Capacity Assessment	Fisheries Division	57	43
Trainer of Trainers workshop	• CANARI		
	• FAO		

Training event	Agencies conducting	% of males	% of females
	trainings	participated	participated
Fisheries as a Business Stakeholders	Fisheries Division	75	25
Workshop	• FAO		
Climate Change	Fisheries Division	79	21
	CNFO		
	NFO		

Source: Fisheries and CC4FISH Project (FAO)

The table suggests that, while training is not completely male dominated, there may be scope for more equal participation by attracting more women. The practicality of this would need to be determined, however, by checking the logistics and opportunity costs of participation, such as the time of year and day when the training is done, the duration, the location and so forth to assure more equitable opportunity.

4.6 Some constraints and challenges

The fishing industry has challenges which affect the livelihoods of many along the value chain. The key informants had little to say specifically about the blackfish fishery in this regard, but instead shared views on fisheries in general, bearing in mind that most fisherfolk are engaged in more than one value chain or livelihood. To them, their entire portfolio of fisheries activities is what matters. In Barrouallie, fishers (men) must deal with limited access to storage of the daily catch due to issues with the storage facility in the small town. Fishermen interviewed complained about the high cost of storing their fish overnight after a late landing or when there is an abundant catch causing a market glut. Large catches are transported to Kingstown for sale and storage.

In addition, fishers travel to far rural communities to sell their fish late into the evening or leave their fish overnight alive in the seine tied nearshore to reduce spoilage prior to next day sale. Male fish vendors use personal transportation to travel throughout the various communities to sell their fish. However, the proper equipment is often not used, and the fishers and vendors sometimes use coolers in their cars or in the back of a pickup truck. Despite the distribution, when there is a surplus in the market of a particular species, it is often difficult to fetch a good price for their fish at any location and they are forced to sell at very low prices to offset their operational expenses.

Some respondents reported that, due to the high maintenance cost of the storage facility in Barrouallie, fishers are unable to get adequate ice supplies for fishing trips. Most SVG fishers have very limited means of preserving fish at sea and therefore cannot fish for long hours. This reduces productivity on daily voyages to the fishing grounds but the situation is improving as availability and use of ice for immediately chilling the catch at sea becomes more widespread. They said that traditional fishing methods may also limit the quantity of catch compared to using more modern fishing methods and equipment which would allow them to spend longer times at sea acquiring much larger catches. However, there was a scarcity of information and understanding regarding the trade-offs of investing in modernization and the issues that greater efficiency may cause for sustainable fisheries management.

Although there were few limits on fishing, the COVID-19 pandemic caused most fisherfolk to experience a reduction in their sales of seafood to locals and tourists. The absence of tourists visiting the restaurants and hotels led to a significant reduction in the quantities of seafood purchased by these businesses. So, there was little point in continuing to supply more seafood, especially given the storage issues described earlier.

Although not specific to blackfish, these examples of constraints and challenges illustrate several points along the fisheries value chain at which improvement is necessary for advancement. Men were more prone to voice their concerns, but several of these also impact women. Interventions to solve such constraints and challenges need, therefore, to be gender responsive and there is no clear indication that gender as a design variable is being given much weight in the absence of gender mainstreaming throughout the fishing industry.

4.7 Participation, power and decision making

In most Caribbean countries fisherfolk are key to implementing the gender mainstreaming provisions of the SSF Guidelines. Understanding the situation in SVG is useful for determining the appropriate interventions and likely stakeholder participation. In SVG, the secondary level or umbrella National Fisherfolk Organization (NFO) comprises five primary or local level fisherfolk organizations throughout the country. These are the Barrouallie Fisheries Co-operative Society Limited, Goodwill Fisherman's Cooperative, Calliaqua Fisherfolk Co-operative Society Limited (CALFICO), SVG FAD Fisheries Co-operative and the Fish Vendors Cooperative. Their levels of activity tend to fluctuate over time, but all are male dominated from the executives through to their members except in the Fish Vendors Cooperative. The Fish Vendors Cooperative has 12 registered women out of the 27 registered members, with an executive of seven people including four women. Formal and informal organizations are important sources of livelihood social capital, especially for collective action.

The Barrouallie Fisheries Development Co-Operative Society Limited is the primary fisherfolk organization in the community, comprising 28 active members of which three hunt blackfish. None of the co-operative members are blackfish processors or vendors. Although Barrouallie is a fishing community most of the fisherfolk in the blackfish industry have not joined the co-operative despite invitations from the body to do so. The fisheries facilities managed by the co-operative are currently used for the sale of fishing gear, fuel for boats and vehicles, and oils. The design of the fisheries facility at Barrouallie is not conducive to retailing fish but instead their processing and storage as wholesale operations. The co-operative does not have the finance and investment to properly operate at a wholesale level and as such the facility is underutilized. However, the co-operative is seeking investment in order to have the facility in full operation sometime soon.

The community organizations and fisherfolk organizations in Barrouallie are shown in Table 6 with the sex-disaggregated data on membership in these organizations.

Table 6. Gender in community and fisherfolk organizations in Barrouallie

Community organizations and fisherfolk organizations in Barrouallie	% Participation in organization by men	% Participation in organization by women
Barrouallie Fisheries Development Cooperative Society Ltd.	96	4
Barrouallie Heritage and Tourism Association	30	70
Community Disaster Response Team of the Red Cross	22	88

High-level, and potentially powerful, offices in the fishing industry representation arrangements tend to be occupied by men. Men are a visible majority within SVG small-scale fisheries value chains. However, there are no conspicuous formal or informal gender barriers to leadership by women within the sector. The fact that the harvest sector is male dominated could partly account for limited female representation in the NFO and the primary organization executive bodies, but the reasons for the gender disparity in fisherfolk organization governance are likely to be more complicated than this. While most of the collective stakeholder decisions are made by men due to the gender disparity, respondent women did not take issue with the numerical inequality. They accepted the pattern as normal and expected. This requires investigation.

4.8 Laws, regulations, and institutional practices

Gender mainstreaming must be supported by legislation along with administration. The fisheries sector in SVG is governed by laws and regulations to manage the sector, such as the Fisheries Act (1986), the Maritime Areas Act (1982), Fish Processing Regulations (2000), High Seas fishing Act (2001), Mustique Conservation Act (1989) and Forest Resources Conservation Act (1992) which deals with mangrove protection. There is no local government, and no laws or regulations unique to Barrouallie. The town and its people are governed by the national gender laws and policies of SVG which may impact men and women as mentioned earlier. There is no applicable law yet on gender mainstreaming in fisheries, but there are new means of creating gender mainstreaming opportunities through law, policy, planning and management.

Since 2013 SVG has had a draft national oceans policy with a National Ocean Governance Committee (NOGC), besides being covered by the Caribbean Community Common Fisheries Policy (CCCFP) and its 2018 protocol that incorporated the SSF Guidelines. It has established a Fisheries Advisory Committee (FAC) that has the NFO among its members, with a voice to influence policy. These and other institutional arrangements at the project level offer evidence that there are avenues for promoting gender mainstreaming in fisheries from policy through legislation to practice once there is adequate leadership from the NFO and Fisheries Division. A recent study by the Caribbean Regional Fisheries Mechanism (CRFM 2020) strongly supports the mainstreaming of gender in fisheries from national to sub-regional levels.

5 DISCUSSION ON GENDER NEEDS AND PRIORITIES

5.1 Strategic gender needs

Women need equitable and ultimately equal or access to adequate fisheries resources along the value chain to achieve sustainable livelihoods and efficiently carry out tasks within the sector. The uneven additional gender burden of domestic duties can affect the efficiency and effectiveness of work by women whose livelihoods are in fisheries. As illustrated by the blackfish case, some women must simultaneously provide childcare, conduct chores at home and maintain their livelihood earnings, all of which can be challenging. Some minor domestic tasks, in some circumstances, can be shared or passed on to other family or household members. However, this is not feasible for many female fisherfolk single parents and heads of large households, whether in poverty or not. The lack of institutionalized gender-responsive support reduces the choices such women have available to be involved in capacity building and training that can improve their livelihoods. To be proactive, the proposed blackfish handling and processing facility could, for example, set gender-responsive design criteria and implement participatory processes to build the infrastructure around the strategic needs of the women. This would include domestic duties rather than focus only on the business aspects as is often done when the needs of men prevail.

Providing women in fisheries with information, and suitable means of access to information, is also strategic. It enables the women to empower themselves to improve their livelihoods and fosters self-organization for resilience. Although the male dominated fisheries harvest sector is usually the focus of information and communications technology (ICT), women in fisheries households also need to be engaged. Examples of good strategy were seen on the development of the Fisheries Early Warning and Emergency Response (FEWER) system, in which women in the home as well as in fisheries locations were recognised as key to providing entire fishing communities, with information on extreme weather through social networks enhanced by communication technologies.

The needs of men and women are different and dynamic as their roles in society and fisheries value chains vary over time. Gender equity helps to improve women's chances and opportunities of being involved in fisheries livelihood decision-making beyond the household. Although state laws and fisherfolk organization by-laws are not intended to be biased against a particular gender, placing emphasis on women's needs and roles to motivate and help them to enhance themselves and their livelihoods is important in the quest for gender equality as the ultimate goal. Laws must be guided by strategic thinking.

The fisheries sector being visibly male dominated focuses on the needs of men and their decision making. This is seen in the fisherfolk organizations which have very few women in the executive positions across all organizations in SVG. Out of the five primary fisherfolk organizations only one, the Fish Vendors Cooperative, has an executive with significant women's participation. However, the Fish Vendors Cooperative is within the postharvest sector, which has high labour force participation by women making decisions and demonstrating leadership in their own enterprises. Under-representation in the other fisherfolk organizations is due not only to women being fewer in total number within the fishing industry. The reasons are more complex, including advocacy

to promote gender not being on the priority agendas of either women or men in fisheries. It is strategic to raise gender awareness now that the SSF Guidelines and protocol are in the news.

Women becoming more involved in fisheries decision-making processes allows for the sector to better factor in the needs of women within the industry, but it does not guarantee that this will happen. In SVG although gender is slowly being integrated into fisheries management from the governmental level, the fisherfolk organizations as well as fishers in various parts of the harvest sector and value chain stages need to be convinced that gender mainstreaming provides tangible benefits. Women can already be found along with men mending nets, pulling seines, handline fishing, going out at sea harvesting, processing fish for market, vending, owning their own fishing vessels, managing fishing operations and controlling finances within the industry. So why would gender mainstreaming make a useful difference? Other stakeholders must be shown that such women's participation often comes with unseen costs that men do not face. There is inequity. Once women in fisheries are given more equitable access to resources and are included in the decision-making processes, there should also be improvements in profits and other benefits due to gender inclusivity and better operation of the sector taking into account women's needs.

Due to the innate nurturing nature of most women, they often naturally care more than men for children, youth and the vulnerable. As such, the inclusion of women in leadership and decision making could encourage young people to participate in the fisheries sector, bringing new skills and education. Small-scale fisheries, as seen in the blackfish case, may allow women the flexibility to have their livelihood close to home and integrated into their domestic and personal lives. The result is often the apprenticeship of youth into those livelihoods and the reproduction of labour. There may also be advantages for care of the elderly, disabled and for social protection in general.

When children, boys and girls, at a very young age are indirectly involved in the livelihoods of older women, whether it be their grandmothers, mothers, aunts, older sisters and so forth it stimulates their lives and shapes their appreciation for the industry beyond the skills of fishing. This interaction may build future fisherfolk advocates for the industry as children who later grow up to be decision makers within governments and agencies can give an intimate insight that can benefit the sector. Having a generation that appreciates the livelihoods of fishers and the industry extends beyond the economics and contributes to sustainable practices, better management of fish stocks, reduced exploitation, and a care for marine life. Women's pivotal role in stewardship, entrepreneurship and innovation should not be overlooked, even if more postharvest focused.

5.2 Practical gender needs

Providing men and women with equal access to resources in the fishing industry is strategically important, and this links to satisfying practical gender needs. For example, both genders having equal or equitable access to quality ice for storage of seafood at sea and ashore can ensure the preservation of fish for nutrition and food security. Fuel stations near to landing sites managed by fisherfolk organizations or other persons can reduce the time taken to access fuel and prepare for a fishing trip with shorter turnaround that maintains the work force for fish processing (often women). Training in ICT is essential for both women and men in operations and marketing within the fisheries value chain as well as navigation training and access to the technology to ensure

improved safety at sea for fisherfolk. Business training can also assist both men and women in managing their fisheries livelihood, enabling proper planning and growth of their businesses. Satisfying practical gender needs improves fisheries livelihoods for both genders.

Gender differences are a part of various aspects of fisheries and access to resources are not always equal among men and women. Some SVG fishermen prefer not to interact based on equality with women, as females are seen as inferior and not as respected in the industry. This is especially seen among older fishermen holding outdated views on gender roles, and societal norms regarding gender. Females are sometimes still seen as being less of a woman if not married or if childless, and they lose respect from men. This is present in the SVG fishing industry and hinders women's access to resources and information when men with such inappropriate views are gatekeepers. The gender bias reduces some female participation in pre-harvest and harvest activities as the traditional skills, knowledge, and training in these stages are seldom passed on to girls and women.

Women are encouraged to engage in, and can be seen in, postharvest as it is perceived as the gentler area of the value chain featuring mainly the processing and selling of seafood. Access to resources like ice and fuel can be difficult for some fisherfolk as ice machines at some fisheries centres and landing sites need maintenance or are underutilized due to high costs. Fisherfolk must travel by sea and sometimes land to other areas in the country to store their catch to maintain freshness and avoid spoilage. Access to fuel is another challenge as some fuel stations are not close to the docking areas and product distribution can be difficult when land transportation becomes an issue for the fishers and personnel in the postharvest sector. It is challenging for both men and women to access these resources, but women usually have less freedom from other duties and/or more concerns about personal safety when seeking solutions.

In the Barrouallie community, proper processing and storage facility is needed to maintain the standard and quality of the product produced in the blackfish industry. Providing the resources to the women in this industry can improve their livelihoods and products. Access to finance, marketing strategies, business management, and capacity building in product enhancement can contribute to their development. Once women are granted access to information and the ability to improve their skills and livelihood, it not only develops them but their family, community, and future generations.

6 RECOMMENDATIONS AND NEXT STEPS

Gender inequality within the fishing industry can be a challenge. However, the industry focus is on the total development of the sector. Women and youth are currently engaged in the fisheries sector, although less compared to men and adults. Fisheries face the challenge of access to ice, storage for their catch and high price of fuel, which taps into the maintenance and crew allowance. Within the blackfish industry, processing and marketing the catch is the main value addition. The processors try their utmost best to carry out a sanitary operation and maintain standards, but this comes with challenges in properly processing and marketing blackfish.

A processing facility would improve the production conducted within the community. This can increase the scale of production and open new avenues for marketing to a wider range of customers and clientele. Providing training for women in the blackfish industry in marketing strategies, product branding, ICT training including digital transformation, optimizing social media platforms to market products and increase sales would be beneficial and increase the capacity of the women in the industry. Such modern development can encourage young people into the fishery and guarantee an expanded future for the industry even without increasing the harvest.

Mainstreaming gender is essential for the development of the fisheries sector and its integration into local policies and to inform governmental strategies for development to ensure adequate representation of women and men in decision-making. Training and capacity building on gender mainstreaming with fisherfolk cooperatives in Saint Vincent and the Grenadines can contribute to fisherfolk understanding of gender dynamics and their importance in the industry and society.

The blackfish industry in St Vincent and the Grenadines thrives due to women's involvement. The existence of the industry depends on the continuity of gender inclusion, responsiveness and integration of young people. Gender mainstreaming can help to sustain the blackfish industry and other fisheries value chains across the country as intended in the SSF Guidelines and the related protocol to the CCCFP.

7 REFERENCES

- Adams, J.E., 1980. Fish preferences and prejudices in a small Caribbean Island: a study of fish consumption patterns in St. Vincent based on a household survey. Proceedings of the Gulf and Caribbean Fisheries Institute, 32:15-34.
- Animal Welfare Institute. n.d. "Aboriginal Subsistence Whaling". Accessed May 2021. https://awionline.org/content/subsistence-whaling.
- Animal Welfare Institute. 2012. "Humpback Whaling in Bequia, St Vincent and the Grenadines:
 The IWC's Failed Responsibility." June.
 https://awionline.org/sites/default/files/uploads/documents/SVGReport072012.pdf
 - https://awionline.org/sites/default/files/uploads/documents/SVGReport072012.pdf
- Baldwin, K. 2012. Developing a Framework for a Comprehensive Marine Multi-use Zoning Plan for the Grenadine Islands. For The Nature Conservancy, Eastern Caribbean Program. CERMES, University of the West Indies, Barbados.
- Caldwell, D.K. and M.C. Caldwell. 1971. Porpoise fisheries in the southern Caribbean: Present utilizations and future potentials. Proc. Gulf Caribb. Fish. Inst. 23:195–211
- Caldwell, D.K. and M.C. Caldwell. 1975. Dolphin and small whale fisheries of the Caribbean and West Indies: occurrence, history, and catch statistics—with special reference to the Lesser Antillean Island of St. Vincent. Journal of the Fisheries Board of Canada 32:1105-1110.
- Caribbean Regional Track of the Pilot Programm. 2020. FEWER: The App making fisherfolks more secure. October. https://caribppcr.org.jm/fewer-the-app-making-fisherfolk-more-secure/.

- CDB. 2016. Country Gender Assessments Synthesis Report. Caribbean Development Bank, Barbados
- Commonwealth Secretariat. 2013. St Vincent and The Grenadines. Accessed May 24, 2021. https://thecommonwealth.org/our-member-countries/st-vincent-and-grenadines
- CRFM. 2014. Caribbean Community Common Fisheries Policy. Caribbean Regional Fisheries Mechanism, Belize City.
- CRFM. 2018. Protocol on securing sustainable small-scale fisheries for Caribbean Community fisherfolk and societies. Caribbean Regional Fisheries Mechanism, Belize City.
- CRFM. 2020. Mainstreaming gender equality in fisheries of the Caribbean initiative Report on priority issue areas: Research, data and recommendations. Caribbean Regional Fisheries Mechanism Technical & Advisory Document, No. 2020 / 09).
- DFID. 1999. Sustainable livelihoods guidance sheets. UK Department for International Development, London.
- ESL. 2007. St. Vincent Coastal Vulnerability Assessment -- Final Report. Prepared for USAID Caribbean by Environmental Solutions Ltd.
- FAO. 2015. Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication. Food and Agriculture Organization of the United Nations, Rome.
- FAO. 2016. Fisheries and Aquaculture. December. Accessed May 2021. http://www.fao.org/fishery/facp/VCT/en.
- Fielding, R., 2013. Whaling futures: a survey of Faroese and Vincentian youth on the topic of artisanal whaling. Society & Natural Resources 26(7):810-826.
- Fielding, R., 2018. 4. Barrouallie, St. Vincent's Blackfish Town. In The Wake of the Whale (pp. 98-118). Harvard University Press.
- Fielding, R. and J.J. Kiszka. 2021. Artisanal and Aboriginal Subsistence Whaling in Saint Vincent and the Grenadines (Eastern Caribbean): History, Catch Characteristics, and Needs for Research and Management. Frontiers in Marine Science 8: https://doi.org/10.3389/fmars.2021.668597
- Fielding, R., Kiszka, J.J., Macdonald, C., McCormack, M.A., Dutton, J., Ollivierre, A.D., Arnett, J.A., Elkins, M., Darby, N.A., Garcia, H.M. and Skinner, S., 2021. Demographic and geographic patterns of cetacean-based food product consumption and potential mercury exposure within a Caribbean whaling community. Human and Ecological Risk Assessment. 1–25. doi: 10.1080/10807039.2020.1870865.
- Fisheries Division. 2019. SVG Fisheries National Report 2019. Government of St Vincent and the Grenadines
- Fisheries Division. 2020. SVG Fisheries National Report 2020. Government of St Vincent and the Grenadines
- GIFT. 2018. Gender scoping preliminary report: Caribbean fisheries in the context of the small-scale fisheries guidelines. Gender in Fisheries Team (GIFT), Centre for Resource Management and Environmental Studies (CERMES), The University of the West Indies. CERMES Technical Report No. 86, pp. 60.
- Government of St Vincent and the Grenadines. 2012. National Population and Household Census 2012. Kingstown, St Vincent and the Grenadines

- Government of St Vincent and the Grenadines. 2013. National Economic and Social Development Plan 2013-2025. Kingstown, St Vincent and the Grenadines
- Harper S, Adshade M, Lam VWY, Pauly D, Sumaila UR. 2020. Valuing invisible catches: Estimating the global contribution by women to small-scale marine capture fisheries production. PLoS ONE 15(3): e0228912. https://doi.org/10.1371/journal.pone.0228912
- International Whaling Commission. Commercial whaling. Accessed May 2021. https://iwc.int/commercial.
- Kairi Consultants. 2008. St Vincent and the Grenadines Country Poverty Assessment 2007/2008: Living Conditions in a Caribbean Small Island Developing State. Tunapuna, Trinidad and Tobago.
- Lanier, D. and Reid, V., 2007. Whalers' Shanties of Barouallie, St. Vincent: Observations on the Nature, Decline and Revival of a Unique Caribbean Maritime Tradition. Int. J. Intangible Heritage 2, 70 –80.
- NEMO. 2014. Disaster Risk Reduction Country Profile: Saint Vincent and the Grenadines.

 National Emergency Management Organisation (NEMO), Ministry of National Security,
 Air and Sea Port Development, Kingstown, Saint Vincent and the Grenadines
- Observatory of Economic Complexity. 2019. St Vincent and The Grenadines https://oec.world/en/profile/country/vct
- Soares. L. 2020. Methodological Approach to Conduct Gender Value Chain and Network Analyses in Jamaica, Barbados and Saint Vincent and the Grenadines to Provide Lessons for Conservation and Development. GIFT report to FAO Project on Implementing gender aspects within the Small-Scale Fisheries (SSF Guidelines) and the protocol to the Caribbean Community Common Fisheries Policy (CCCFP) for securing SSF (SSF Gender). 31 pp.
- Staff Reporter, 784News. 2018. US \$3.5 Million Agreement Signed For Barrouallie Black Fish Facility. 12 October.
- World Bank Group 2020. Improving Fisheries Governance and Management in the Eastern Caribbean Inception Report September 11, 2020 Finalized 30 September 2020