

## **Developing Practical Solutions to Issues Faced by Working Women in the All-female Central Fish Processors Association (CFPA) in Barbados**

### **Desarrollar Soluciones Prácticas a los Problemas que Enfrentan las Mujeres Trabajadoras en la Asociación Central de Procesadores de Pescado (CFPA) en Barbados**

### **Développer des Solutions Pratiques aux Problèmes Rencontrés par les Femmes qui Travaillent dans l'Ensemble des Femmes Association Centrale des Transformateurs de Poisson (CFPA) à la Barbade**

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#### **ABSTRACT**

The Central Fish Processors Association (CFPA) was established in 2005 out of a need to address challenges microenterprise fish processors (fish vendors) were experiencing with their work area at the Bridgetown Fisheries Complex in Barbados. Issues concerned refrigeration facilities, sanitation procedures, working hours, and management communication. Unable to voice their concerns, this group comprising women entrepreneurs worked together to form the only fisheries postharvest association still in existence in Barbados. The CFPA began with approximately 20 members and was predominantly a woman-led group of women from its inception. Today, the association is an all-female organization with 29 members. Despite not being a legally formal organization, participation in the CFPA and its activities is high, especially in times of crisis. Both institutionalized regular meetings and *ad hoc* meetings have proven partially successful at tackling problems and developing the CFPA, but more needs to be done. Persistent wicked problems prompted the president of the CFPA to seek partnership with the Gender in Fisheries Team (GIFT). Issues were identified from CFPA meeting minutes, other documents and discussions with the membership. GIFT is conducting action research to obtain a good understanding of CFPA problems and concerns, and determine what the female members envision as possible practical solutions to enhance their fisheries occupation and domestic life. This paper reports on preliminary small group meetings held with 12 members of the CFPA. This research is framed conceptually in terms of livelihood and institutional analyses and adaptive capacity – the three linked research frameworks of GIFT.

**KEYWORDS:** Gender in Fisheries Team, fish processors, Barbados

#### **INTRODUCTION**

In order to improve the understanding and assist with policy and practice concerning gender in Caribbean small-scale fisheries, the Centre for Resource Management and Environmental Studies (CERMES) at the University of the West Indies, Barbados, and several regional partner organizations, formed a Gender in Fisheries Team (GIFT) to conduct applied interdisciplinary research and outreach. The primary aim of GIFT is to facilitate and support implementation of the Food and Agriculture Organisation's *Voluntary Guidelines for Securing Sustainable Small-scale Fisheries in the Context of Food Security and Poverty Eradication* (SSF Guidelines) in the seventeen member states of the Caribbean Regional Fisheries Mechanism (CRFM). Within the SSF Guidelines, the specific focus of GIFT is on the section entitled *Responsible fisheries and sustainable development*, sub-section 8, on *Gender equality* (GIFT 2018).

The Central Fish Processors Association (CFPA) established in 2005, is the only fisheries postharvest association (primarily for processing the fourwing flyingfish, *Hirundichthys affinis*) still in existence in Barbados. This species comprises over 50% of the total national annual fish landings, and the postharvest portion of its value chain has typically been women's work, although men have recently become more involved. Unable to voice their concerns about challenges, microenterprise fish processors (fish vendors) were experiencing with their work at the Bridgetown Fisheries Complex - refrigeration facilities, sanitation procedures, working hours, and management communication - this group of mainly women worked together to form the CFPA. The CFPA began with approximately 20 members and was predominantly female with a female leader from its inception. Today the association is an all-female organization with 29 members since no men have expressed sustained interest to join.

Both institutionalized regular meetings and *ad hoc* meetings have proven partially successful at tackling problems and developing the CFPA, but more needs to be done. Persistent complex (wicked) problems (Jentoft and Chuenpagdee 2009) prompted the president of the CFPA to seek partnership with the GIFT. GIFT is conducting action research to obtain a good understanding of CFPA problems and concerns, and determine what the women envision as possible practical solutions to enhance their fisheries occupation and domestic life. This research is framed conceptually in terms of livelihood and institutional analyses and adaptive capacity – the three linked research frameworks of GIFT (GIFT 2018).

## METHOD

### Gender Research Development Meeting

CERMES had been approached by the president of the CFPA, Ms. Vernel Nicholls, in the past about the need for research on women in the fishing industry (McConney et al. 2013) and on fishfolk organisations in Barbados (McConney et al. 2017). Based on this, CERMES familiarity with the CFPA, and awareness of repeated issues affecting the group, it was determined that gender research with this group would align well with GIFT's overall aim and specific focus on gender equality in Caribbean small-scale fisheries in the context of the SSF Guidelines (FAO 2017). In July 2017, three GIFT members met with the president of the CFPA to frame gender research to assist the CFPA in seeking solutions to its problems.

The objectives of the research were developed subsequent to this initial meeting and were later refined to:

- i) Identifying key entry-points and advocacy messages in support of the CFPA in keeping with the SSF guidelines, and
- ii) Building CFPA capacity for advocacy, promotion of key issues and mobilisation of resources relevant to defined goals and possible practical solutions envisioned by members.

These objectives will be achieved by identifying the issues from information obtained from CFPA meeting minutes, other documents and discussions with CFPA members, and framing them in terms of livelihood analysis, institutional analysis and adaptive capacity – the three linked research frameworks of GIFT.

### Participatory Small Group Meetings

Interactive small group meetings were thought to be the best means of collecting information from CFPA members to obtain a good understanding of CFPA problems and concerns, and determine what the female members envision as possible practical solutions to enhance their fisheries occupation and domestic life (Kawarazuka et al. 2016). The latter was considered the most important aspect of this research where solutions should be demand-driven rather than imposed.

Two small group meetings comprising six persons each were held on 20 September and 18 October 2017. One male, the husband of one of the members, participated in one meeting since he was in the process of applying to join the CFPA. Meetings were half-day in duration and focused on time use (annual and daily) and livelihoods assets to collect preliminary information on livelihoods. Interactive data collection techniques were used to collect the required information and included seasonal calendars, daily time use patterns and the livelihood assets pentagon. All participants were provided with blank handouts of each and were asked to complete them with their specific information. Four GIFT members assisted participants with the completion of each task. Additional small group meetings will be held until all CFPA members have participated in information collection activities.

## RESULTS

The interactive visualisation techniques utilised during the small group meetings – seasonal calendar, daily time use and livelihood assets pentagon (Bunce et al. 2000) – were successful in gathering preliminary livelihoods information on twelve members of the CFPA. The techniques proved to be easy to use, requiring minimal guidance. They are powerful techniques for collecting complex data.

### Annual Time Use – Seasonal Calendar

*Busy and off-season for flying fish processing* — The majority of persons (91.6%) confirmed that the busy season for the flyingfish fishery was the latter part of the year, October to December, extending to June or rarely August annually. The earliest start to the season was noted specifically as mid-October (thought to be the official start of the flyingfish season) whereas the latest start was mentioned as January. One person noted the earliest end to the season as May.

From analysis of the seasonal calendars, September is clearly an off-season month but there was variation among CFPA members on the extent of the season, beginning as early as June for one individual. Half (50%) of persons note the off season extends to November. Generally, October and November were noted as the months in which there is a slow start to the busy season.

*Hurricane season* — The hurricane season was recorded by 66.6% of persons in the seasonal calendar. Half of these noted the season to be the traditional period of June to November. Shorter hurricane seasons were noted as August to October, and September by two persons. The latter probably represents the period during which the season is most active (more hurricanes or probability of impact).

*Flyingfish processing* — Flyingfish processing coincides, as might be expected, with the busy season of the fishery. One person noted June/July as “a little slow” and August as “slow” in terms of processing activity. This is not unexpected as this period represents the tail end of the busy season. Flying fish is generally stored in July and August for processing and supply in off-season months.

*Sea urchin (sea egg) harvesting* — Harvesting of the white sea urchin (*Tripneustes ventricosus*), locally known as ‘sea egg’ is an important activity noted by the majority of persons (66.6%), with most (50%) indicating September to October as the main harvesting period. The sea egg fishery, when opened in the recent past, has typically been in the months of September and October; in some case straddling these months. One individual indicated sea egg harvesting as occurring throughout the year. The same individual indicated their engagement in pre-harvest monitoring at index sites. Annual pre-season assessments are typically conducted in August or September, so it is unclear if this individual conducts personal sea egg monitoring throughout the year or if illegal harvesting has been captured through the seasonal calendar. Such information will be verified during the validation phase of this research.

*Spearfishing* — Five persons (41.6%) indicated spearfishing as activity on their seasonal calendars occurring between June and October. Spearfishing coincides with the slow/off season for the flyingfish fishery. Four of the five persons sell coastal catches from spearfishing, while one spearfishes as a hobby from April to August.

*Seasonality in earnings* — All persons noted that flyingfish prices fluctuated from one season to the next between years. Generally, however most persons participating in the seasonal calendar activity (41.6%) indicated higher flyingfish prices from October to January, estimated at between USD 10.00 - 12.50 for 10. (Flyingfish are typically sold by count/number and not weight as unit weight is fairly uniform). Lower or decreasing prices of USD 7.50 - 10.00 for 10 were noted overall for the period February to July. There were varying opinions of price fluctuation during this period; but it was generally thought to be low. One lady noted that even though the price of fish may fluctuate based on what fishermen charge (typically USD 17.50 for 100 but can increase to USD 20.00 for 100), the price is usually fixed for processors.

*Sargassum influxes* — Only half of persons completing the seasonal calendar identified *Sargassum* (*Sargassum fluitans* and *Sargassum natan*) influx as an occurrence to be noted. The earliest observation of a Sargassum event was noted as April with most (33.3%) indicating its duration to November annually. One person noted the influx occurring for the entire year, while another noted more of a late spring through to summer duration (May to August).

*Supplemental activities for income or subsistence* — Over half of the persons (58.3%) participating in the seasonal calendar activity noted current or past involvement in activities for supplementing their income or for subsistence either throughout the year or during the off season. Sales provide additional income for two ladies. One noted the sale of clothes throughout the year with the busiest months being August and December annually. Another lady sells plastic bags, sandpaper, aprons, boots and shovels throughout the year to fellow processors. Another lady finds additional work in security from July to October if stored, frozen fish is not available for processing. Another individual noted engaging in supplemental activities throughout the year but did not specify the activities.

One lady was found to be particularly dynamic in the diversification of her livelihood:

- i) Pot (trap) fish sales - June to November,
- ii) Green pea sales – June to December,
- iii) Intermittent baking – January, March to April and November,
- iv) Sales of other species of fish (mahi mahi and turpits) throughout the year (January to December), and
- v) Making and sale of conkies (traditional sweet Barbadian delicacy eaten especially at Independence) – November,

Supplemental livelihood activities were common for one lady about 10 years ago. This lady explained that she would sew school uniforms in July and August prior to school re-starting, and curtains and cushion covers in November and December when Barbadians typically ‘fix the house’ (begin preparations) for Christmas. She also mentioned that she used to rear chickens and turkeys between July and November for subsistence but has since stopped. This lady however stated that she would like to start raising poultry again for sale. Supplemental activities are not only for income but can be solely for subsistence. One woman mentioned that she harvests whelks, ‘sea cat’ (octopus), and lobster once or twice a month for subsistence.

*Personal activities: recreation* — Participation in community events with family, shop ‘limes’ (socialising or hanging out), dominoes, caring for grandchildren, ballroom dancing, travel, and karaoke were provided as activities 41.6% of CFPA members are engaged in during and outside of the fishing season. For the man within the group, horticulture and assisting a marine biologist with monitoring throughout the year were main activities visualised on the seasonal calendar.

*Training programmes* — Participation in fishing industry training programmes was low (25%) among small group meeting participants. Hazard Analysis Critical Control Point (HACCP) and fish handling training were noted by CFPA members.

### **Daily Time Use: General Patterns for a Typical Day in the Busy and Off Seasons**

In reporting the results below, the eleven women who participated in the small group interactive meetings have been deliberately separated from the man since he provided durations for activities in number of hours rather than highlighting specific times at which activities are undertaken. Additionally, the separation in reporting is important in highlighting the differing activities between the processors (females) and the longline fisherman (male).

*Busy season: processors (all females)* — CFPA members typically begin their days in the busy season between 03:00 and 05:00, with most ladies (54.5%) waking between 04:00 and 04:30. Most (63.6%) leave home for work at 05:00 with later departures (36.4%) occurring between 06:00 and 07:00. Most depend on public transportation for commuting to work.

Between waking and leaving home, morning activities involve general preparations for the working day – cooking lunch, having breakfast, and personal preparation. Persons normally arrive at the Bridgetown Fisheries Complex within half an hour to an hour of departing home. Generally, the processing (boning) hall is opened at 06:50. In the duration between arriving at work – between 05:30 and 06:30 – and waiting for the boning hall to be opened, typical activities include having breakfast or a morning snack, changing into work clothes or relaxing.

Between 07:00 and 07:30, flyingfish is collected and either taken out of wharf boxes (cold storage boxes) if frozen or bought from fishermen on the dock. During this time, utensils and equipment are also sanitised. Generally, from 07:30 through to lunch, fish processing (scaling, deboning and filleting) occurs. Fish are generally scaled up until lunch time and de-boned in the after lunch period. During this period, one lady can scale and de-bone in the order of 500 flyingfish. There are varying times at which lunch is taken among CFPA members beginning from as early as 11:00 and as late as 14:00. Lunch breaks last anywhere between 10 - 15 minutes to one hour. During the busy season, flyingfish processing occurs for most (54.5%) up until 17:00/17:30. Some ladies (27.3%) work until 18:00. One lady noted that if it is really busy and there are a lot of fish, work days can be extended to 18:30 or after 19:00.

Lengthy wait times on public transportation after work is the norm for some ladies (27.3%) of the order of about two hours. Home arrival can occur anywhere between 18:30 and 20:30. The majority of ladies (45.5%) arrive at home around 20:00 and 20:30. Subsequent activities normally involve relaxing, watching TV, preparing dinner, doing housework, and socialising outside of the home (playing dominoes and going to shop limes). Bedtime for most (45.5%) is between 20:00 and 21:00. Others (27.3%) go to bed later around 23:00.

*Off season: processors (females)* — Although fairly similar proportions of persons (45.5%) wake up at the same popular time as in the busy season, between 04:00 and 04:30, during the off season later times for getting up are common among the majority of ladies (54.5%) with 36.4% waking between 05:00 and 05:30 and 9.1% each sleeping in until 06:00 and 07:00. As might be expected, morning rituals usually involve similar activities to those carried out during the busy season but also include additional activities such as checking the garden, washing the yard, and walking (for exercise).

Equal proportions of women (27.3% each) have breakfast at either 06:00 or 0:8:00. Morning activities up to lunch time, other than those associated with breakfast, start between 07:00 and 08:00 and include picking breadfruits and okras from the garden, reading, carpentry, baking, crocheting, feeding pets, house cleaning, watching TV, or going to town. Two ladies apparently work throughout the off season processing fish with very similar hours when working during the busy season.

Relaxation is a major occurrence in these women's lives throughout the off season, with TV watching occupying a significant majority of their days; four to six hours per day. Some ladies (27.3%) are particularly social in their habits spending their afternoons or evenings (12:00 to 18:00) visiting with relatives, 'sea bathing', going to "Q in the Community" (a popular weekly event comprising food, back-in-time music, dancing etc. hosted by a media outlet in different communities around Barbados) and preparing for dominoes. Late night activities for two ladies include ("Q in the Community"), and domino playing, and shop limes, from which they return home around 22:00 and 02:00, respectively.

Dinner preparation for families usually begins any time from 13:00 through to 17:00. Sleep patterns tend to be similar to those noted in busy season for 36.6% of ladies going to bed between 19:00 and 22:00. However, later bed times between 22:00 and 24:00 and 02:00 were observed for most ladies (45.5%).

*Busy and off seasons: longline fisherman (male)* — From the information provided by the lone male in the group, it seems as if there is no or little variation in activities carried out by him in the busy and off seasons. Generally daily activities are divided into gear preparation, resting and hauling of gear.

Setting the gear for the longline fishery is done between 24:00 and 03:00, taking between three to four hours. Preparatory activities for setting gear involve driving to the particular fishing location, deploying the hooks (approximately 500) and 20 miles of monofilament line, setting buoys (100) and polyballs (20), and beacon buoys (3).

From anywhere from about 04:00 through to 10:00 or 12:00, the fishermen rests. This includes cooking, eating, and sleeping. Within this period, referred to the fisherman as his 'resting' period, he also undertakes repairing fishing gear, maintenance of the engine and electronics, and monitoring sea conditions and boat traffic on VHF radio. It was noted that boat maintenance could occur at any time within the afternoon or evening period up until about 19:00.

Gear is usually hauled from 19:00 through to 24:00 or beyond, typically taking between four to eight hours. Gear hauling involves locating the gear by nautical bearings, hooking and hauling gear, butchering fish and storing it, and keeping the crew safe.

### Livelihood Assets

The visualisation of the assets or building blocks of livelihoods was perhaps the most difficult component of this preliminary analysis for persons to understand. However, with detailed explanation of the concept of livelihood assets and consistent guidance by facilitators, CFPA members completed this activity successfully.

Based on the quantity of varying assets provided by CFPA members, access to financial and physical capital among individuals could be interpreted as being available. Human, social, and natural capital are present among members but access to such capital appears to be less than that of the financial and physical assets.

Main assets, that is, those listed by 40% or more of CFPA members are provided in Table 1, according to type of capital.

### Lessons Learned and Next Steps

The process utilised for collecting preliminary information via interactive small group meetings and visualisation techniques was successful in obtaining information on the livelihoods and domestic lives of 12 CFPA members. Persons participating in these meetings were fully engaged in the process and enjoyed using the visualisation techniques. One participant even stated, "I really enjoyed this process. I thought you were coming to

talk to us, I didn't think we would have been engaged."

During this process, it was determined that CFPA members are willing to provide information on their livelihoods and domestic lives; they are proud members of the fishing industry, love what they do, and are willing to promote and raise awareness about the fishing sector.

These results are preliminary and as such a thorough discussion of them is not practical. Information from the remaining members of the CFPA is needed for thorough presentation of the reality of group members. GIFT will continue to build a relationship with the CFPA to gain a better understanding of CFPA member livelihood diversity, issues and practical solutions for improving their situation.

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**Table 1.** Livelihood assets identified by CFPA members

Type capital	Asset	% CFPA members
Human	# of years in fishing industry	50.0
	Education	50.0
	Processing and fish handling skills or training	41.6
	Good health	41.6
Natural	Air and water quality	83.3
	Fisheries species of interest (quantity and quality)	50.0
Financial	Financial instruments for saving/investing money (credit union, savings account and meeting turns)	83.3
Physical capital	Processing and storage equipment (ice, pans, knives, wharf boxes, freezer, trollies, cleaning material)	91.6
	Own/rent house	83.3
	Clothing/gear for fish handling and processing (head gear, apron, boots, gloves etc.)	75.0
	Lockers and market space	58.3
Social	Family relationships, strong family base	91.6
	Organisational membership (CFPA and BARNUFO*)	50.0
	Networks and interactions (business acquaintances, interactions with fishermen, government meetings)	41.6
	Church participation	41.6
	Friends/trusted friends	41.6

\*Barbados National Union of Fisherfolk Organisations (BARNUFO). The CFPA is a member of this umbrella (primary) fisherfolk organisation.