to the economic empowerment of women seafood vendors in the Suva municipal market



This study was supported by a grant from the John D. and Catherine T. MacArthur Foundation (#17-1706-152078-CSD) and David and Lucile Packard Foundation (#2017-66580), to the Wildlife Conservation Society.

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https://doi.org/10.19121/2019.Report.36496

Cover: Women seller at the Suva municipal market ©Sangeeta Mangubhai/WCS Contents page photograph: ©Ashnil Kumar

Layout and design: Kate Hodge

This document should be cited as:

Mangubhai S, Vitukawalu B, Nand Y, Berdejo V (2019) Barriers and constraints to the economic empowerment of women seafood vendors in the Suva municipal market. Wildlife Conservation Society. Report No. 03/19. Suva, Fiji. 20 pp.

Acknowledgements: We would like to extend our sincere gratitude to the women seafood sellers at the Suva municipal market who gave up their valuable time to participate in this study, and speak so openly about their role in coastal fisheries. We are grateful to Kelerayani Gavidi, Mosese Naleba, Ilisapeci Marau and Mere Ravugatini for assisting with surveys. We would like to thank the Suva Town Council under the Ministry of Local Government for supporting this work, especially the Chief Executive Officer Bijay Chand as well as Asaeli Tokalau. Alyssa Thomas and Margaret Fox assisted with the design and testing of these surveys. This work was done in collaboration with the United Nations Entity for Gender Equality and the Empowerment of Women (UN Women) under their Markets for Change project. Preeya leli and Sandra Bernklau from UN Women provided valuable technical guidance and support. Social ethics approval was received from the WCS Institution Review Board for this study.



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INTRODUCTION

The majority of the Pacific's population is coastal and therefore highly reliant on inshore fisheries for their subsistence and local economic needs (Bell et al. 2009). Women make up a large percentage of those involved in the fisheries sector and contribute substantially to food security and livelihoods by supplementing household income and food supply, and in some cases, are the primary protein and/or income supporter for households (Kronen and Vunisea 2009; Hauzer et al. 2013; FAO 2017). In many Pacific markets, 75-90 percent of vendors at Pacific markets are women and their earnings often make up a significant portion of household incomes in the informal sector.¹ Despite this, women are often excluded from market governance and decision-making, and there are few opportunities for them to raise their issues and concerns.

The "Markets for Change" project run by United Nations Entity for Gender Equality and the Empowerment of Women (UN Women) is working to address the barriers and constraints to women's economic empowerment.¹ The project aims "to ensure that marketplaces in rural and urban areas of Fiji, Solomon Islands and Vanuatu are safe, inclusive and nondiscriminatory, promoting gender equality and women's economic empowerment." These efforts include extending and expanding existing market buildings, in some cases rebuilding entire new municipal markets and accommodation centres for rural market vendors, providing adequate water and sanitation facilities, and supporting greater women's representation in market forums. As a result of the program, women have increased sales and their representation on market committees, and are better able to communicate their issues to relevant authorities. They have also been vocal to ensure their needs are heard and met when it comes to allocating market fees to improve economic opportunity, and the safety, health and wellbeing of market vendors.

However, women's labour and contributions to the sector are often overlooked, underestimated, and/or undervalued, despite being vital to smallscale fisheries (Chapman 1987; Weeratunge et al. 2010; FAO 2017). Part of this stems from the incorrect perception that fisheries is a male-dominated space based on national statistics focusing on men's role in inshore and offshore fishing, commercial fisheries and on fishing activities, rather than the wider diversity of activities in the sector such as post-harvest processing, selling, etc. (Weeratunge et al. 2010). As a result of these misperceptions and biases, technical and funding support tends to be focused on men in the fisheries sector, and specifically male fishers.

In early 2018, the Wildlife Conservation Society (WCS) partnered with the UN Women, the Ministry for Local Government and three municipal councils (Suva, Labasa, and Savusavu) to undertake a study aimed at providing information to improve gender equality and social inclusion of women seafood vendors in municipal markets in Fiji.

Specific objectives of the study were to:

- a. Assess women's level of dependency on selling seafood at markets;
- Understand women's decision-making power regarding their seafood sales at markets;
- Document the barriers and constraints faced by, and needs of, women seafood market vendors; and
- Provide information that will assist policy makers in creating policy that is aligned with the needs of women seafood vendors.

The Markets for Change project in Fiji has largely engaged with women selling fresh produce, mostly fresh fruits and vegetables; however, in Suva some of the seafood vendors are part of the larger vendor association. Preliminary results from a socioeconomic study of indigenous Fijian (*iTaukei*) women in the inshore fisheries sector shows that 44% of women fish or glean for income; this is a significant increase from previous work on Fijian women in the fisheries sector (Thomas et al. in prep.).

¹ https://unwomen.org.au/our-work/projects/safer-markets/

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METHODS

Socioeconomic questionnaires were designed by fisheries and gender specialists from the WCS and UN Women and tested on women seafood vendors in a local village prior to implementation in three municipal markets in Fiji. There were two versions of the individual questionnaire; one for fishers (i.e. women who caught the seafood themselves) and one for middlewomen (i.e. women who purchased the seafood from someone else to sell at the market). As many women as available were interviewed to get sufficient representation of fisherwomen and middlewomen (hereafter referred together as 'vendors'). The questions were carefully translated by interviewers who understood and spoke a variety of *iTaukei* dialects and Hindi. WCS also designed a "market observation logbook" to collect data on market facilities and infrastructure being used by women, and the types and quantities of seafood being sold. This information was used to support and validate responses by vendor regarding market conditions and their needs.

Preliminary discussions were held with staff from each of the councils to get background information on the market such as: How many women vendors sold seafood (both cooked varieties and live catches)? Which days of the week were most popular for selling seafood? When did women arrive at the Suva market and how long did they stay? When would be a good time to conduct interviews, with minimal disturbance to the vendors?

One-on-one surveys and focal group discussions were held with women sellers at the Suva municipal market on 18 May and 21-22 June, 2019. The interviews were conducted in the respondent's preferred language. Questions covered a range of topics including: (i) premarket decision-making (e.g. Who decides on what seafood to sell at the market?); (ii) market access (e.g. Which markets they sell at, and times and costs to accessing those markets?); (iii) seafood sales (e.g. What is being sold and to whom? What time investments women make? How much wastage is there); (iv) barriers and needs (e.g. Is there enough space at markets? Are market facilities adequate for their needs?); and (v) income generation (e.g. How much money do women make at the markets? How dependent are women on this livelihood, and how reliable is the income?). Focal group discussions focused on barrier and needs, safety, market facilities (e.g. water, sanitation), permits and licensing. All financial figures in this report are in Fijian dollars.



Seafood sellers intermingled with fruit and vegetables being sold at the Suva municipal market. ©Ashnil Kumar

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RESULTS AND DISCUSSION

Demographic information

Fisherwomen

A total of 38 women aged between 24–70 (average=46 years) were interviewed at the Suva market. All fishers interviewed were *iTaukei* with low education levels: only three (7.9%) had some tertiary level education, three (7.9%) had completed secondary school, while 23 (60.5%) had only completed primary school. The majority of the women were married (81.6%) while only a small percentage were divorced (5.3%) or widowed (13.2%). The women interviewed were mainly from Tailevu (36.8%), Rewa (28.9%), or Naitasiri (23.7%), and only a few were from Ra (7.9%) or Cakaudrove (2.6%) provinces.

Middlewomen

Forty-one *iTaukei* middlewomen aged between 22–64 (average=45 years) were interviewed. Only one middlewoman (2.4%) had completed tertiary education while 14 completed secondary school (34.2%) and 22 had completed primary school (53.7%). Almost all women were married (82.9%) while two were divorced (4.9%), and the remaining were either single (7.3%) or widowed (4.9%). Similar to the fisherwomen interviewed, the majority of the middlewomen travelled in from Naitasiri (39.0%), Tailevu (22.0%) and Rewa (12.2%) provinces. A small percentage of women travelled from Ra (2.4%), Namosi (4.9%) and Nadroga (2.4%) provinces.

Fishing for sale

The majority of the fisherwomen (44.7%) go fishing 1–3 days prior to sale at the Suva market, while others fish 4–7 days prior to sale (18.4%). Many however, fish a few hours before heading to the market (36.8%) so that their seafood is fresh for sales. Most women chose to fish on their own (60.5%), while others (39.5%) preferred to fish with other women. For those that fish collectively, 86.7% keep their individual catch while 6.7% share the catch equally with the group of fisherwomen.

Many of the fisherwomen interviewed at the Suva market (57.9%) were selective of the type of seafood they harvested; others sold anything they were able to catch (26.3%). A small number (7.9%) only sold leftovers after meeting their household food needs. Edible algae and invertebrates (86.8%) were a more preferred and regularly sold marine resource, although a high proportion of women (66%) sold fish at the Suva market. The top three non-fish species fisherwomen sold at the Suva market were mud crabs (39.7%), salt water mussels (34.2%) and seagrapes² (80.0%). Other non-fin species include other edible seaweeds (29.0%), prawns (29.0%), freshwater mussels (21.1%) and octopus (18.4%) (Table 1).

Additionally, there is a wide variety of fish that women target to sell at the Suva markets. These include emperors (*Lethrinus* spp.), parrotfish (*Scaridae* spp.), unicornfish (*Naso unicornis*), trevally (*Carangoides plagiotaenia*) and mullet *Crenimugil crenilabis* (Table 2). It was also found that less than half the women interviewed sold cooked seafood products (42.1%), with the most popular items being fish (75.0%), seaweed (*lumi*, 43.8%), shellfish (37.5%) and octopus (*kuita*, 18.8%).

² Seagrapes (*Caulerpa* spp.) are a type of seaweed but have been separated from other seaweeds (e.g. *Hypnea, Ulva, Gracilaria*) because they are sold as separate food items in markets across Fiji (C. Morris pers. comm.).

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Table 1. List of non-fish (i.e. invertebrates and edible algae) sold by fisherwomen and middlewomen at the Suva market. The number and percentage of women selling different seafood items at the market.

	Fisherwomen		Middlewomen	
Fijian name	#	%	#	%
kaikoso	13	29	12	12
nama	12	21	20	37
lumi	11	3	13	15
lairo	5	13	8	-
qari	15	26	14	17
kuita	7	16	10	22
sici	6	-	9	2
kai	8	8	7	5
sasalu	4	3	8	7
urau	1	5	2	-
vasua	4	-	6	2
ura	11	3	5	5
Cawaki	-	-	1	-
	kaikoso nama lumi lairo qari kuita sici kai sasalu urau vasua ura	Fijian name#kaikoso13nama12lumi11lairo5qari15kuita7sici6kai8sasalu4urau1vasua4ura11	Fijian name # % kaikoso 13 29 nama 12 21 lumi 11 3 lairo 5 13 qari 15 26 kuita 7 16 sici 6 - kai 8 8 sasalu 4 3 urau 1 5 vasua 4 - ura 11 3	Fijian name#%#kaikoso132912nama122120lumi11313lairo5138qari152614kuita71610sici6-9kai887sasalu438urau152vasua4-6ura1135



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Table 2. List of fish species sold by fisherwomen at the Suva municipal market. The number and percentage of women selling each species is provided.

Fish group	Scientific name	Common name	Fijian name	#	%
Emperors	Lethrinus harak	Thumbprint emperor	kabatia	4	11
	Lethrinus atkinsoni	Pacific yellowtail emperor	subutu	3	8
	<i>Lethrinus</i> spp.	Emperor		15	39
Groupers	Epinephelus polyphekadion	Camouflage grouper	kawakawa	4	11
	Plectroomus leopardus	Leopard coralgrouper	donu	3	8
Surgeonfish	Acanthurus xanthopterus	Yellowfin surgeonfish	balagi	3	8
	Naso unicornus	Bluespine unicornfish	ta	3	8
Rabbitfish	Siganus vermiculatus	Vermiculated spinefoot	nuqa	4	11
Mullet	Crenimugil crenilabis	Bluetail mullet	kanace	10	26
Trevally	Caranx ignobilis	Giant trevally	saqa	3	8
Mackerel	Rastrelliger kanagurta	Long jaw mackerel	salala	1	3
Snappers	Lutjanus argentimaculatus	Mangrove red snapper	tiri damu	1	3
Mojarras	Gerres sp.	Silver biddy	matu	2	5
Parrotfish	Cetoscarus bicolor	Bicolor parrotfish	ulavi	4	11
Goatfish	Parupenus ciliatus	Cardinal goatfish	mataroko	1	3
Ponyfish	Leiognathus equulus	Ponyfish	kaikai	5	13
Sweetlips	Plectorhinchus chaetodonides	Many-spotted sweetlips	sevaseva	1	3
Tuna	<i>Thunnus</i> sp.	Tuna		1	3
Marlin	Makaira nigricans	Black Marlin	Sakuloa	1	3

Buying for sale

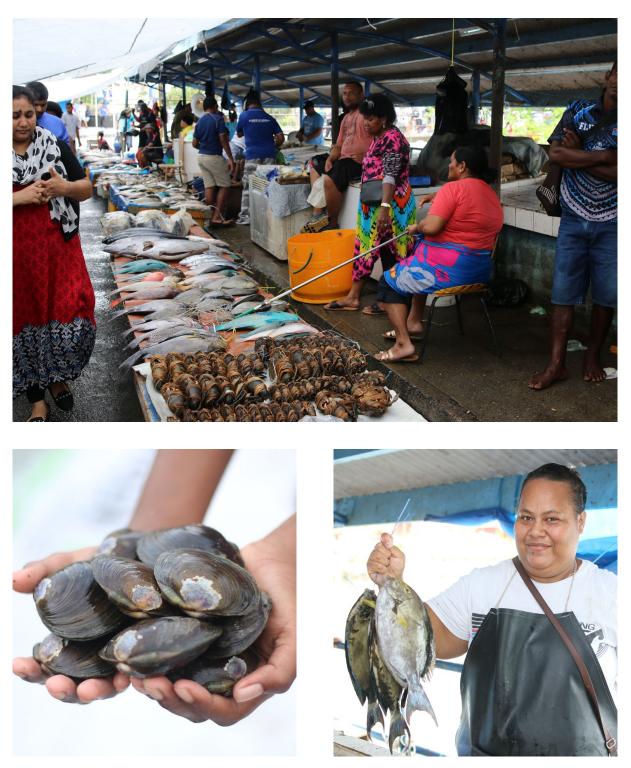
A vast majority of middlewomen (70.7%) bought seafood 1–3 days prior to selling at the Suva market, 17.1% bought fish 4–7 days before, while five middlewomen (12.2%) bought fish just a few hours before selling. A small group of middlewomen were highly dependent on fishermen (night divers) that sell fresh fish; this was a preference for a lot of their customers.

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Table 3. List of fish species sold by middlewomen at the Suva municipal market. The number and percentage of women selling each species is provided.

Fish group	Scientific name	Common name	Fijian name	#	%
Emperors	Lethrinus harak	Thumbprint emperor	kabatia	4	10
	Lethrinus atkinsoni	Pacific yellowtail emperor	subutu	2	5
	Lethrinus spp.	Emperor		8	20
	Lethrinus olivaceus	Longface emperor	dokonivudi	2	5
Groupers	Epinephelus polyphekadion	Camouflage grouper	kawakawa	1	2
	Serranidae spp.	Grouper		5	12
	Plectroomus leopardus	Leopard grouper	donu	1	2
Surgeonfish	Acanthurus xanthopterus	Yellowfin surgeonfish	balagi	1	2
	Naso unicornus	Bluespine unicornfish	ta	9	22
	Acanthuridae spp.	Surgeonfish		5	12
Rabbitfish	Siganus vermiculatus	Vermiculated spinefoot	nuqa	10	24
Triggerfish	Balistoides viridescens	Triton triggerfish	сити	1	2
Mullet	Crenimugil crenilabis	Bluetail mullet	kanace	8	20
Trevally	Caranx ignobilis	Giant trevally	saqa	1	2
	Carangidae spp.	Trevally		3	7
Mackerel	Rastrelliger kanagurta	Long jaw mackerel	salala	1	2
Snappers	Lutjanus argentimaculatus	Mangrove red snapper	tiri damu	1	2
	Lutjanus fulvus	Black tail snapper	tanabe	1	2
	<i>Lutjanidae</i> spp.	Snapper		3	7
Barracuda	Sphyraena barracuda	Great barracuda	ogo	1	2
Parrotfish	Cetoscarus bicolor	Bicolor parrotfish	ulavi	12	29
Goatfish	Parupeneus indicus	Indian goatfish	сиси	3	7
	Mulloides flavolineatus	Yellowfish goatfish	ose	1	2
	<i>Mullidae</i> spp.	Goatfish		1	2
Ponyfish	Leiognathus equulus	Ponyfish	kaikai	5	12
Sweetlips	Plectorhinchus chaetodonides	Many-spotted sweetlips	sevaseva	1	2
Tuna	Thunnus albacares	Yellowfin tuna	Yatunitoga	2	5
	Thunnus spp.	Tuna offcuts		1	2
Marlin	Makaira nigricans	Black Marlin	Sakuloa	1	2
Mahimahi	Coryphaena hippurus	Common dolphinfish	maimai	1	2

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Seafood vendors selling adjacent to Nabukalou Creek (top ©Ashnil Kumar), freshwater kai from Naitasiri Province (above left ©Ashnil Kumar), and surgeonfish sales at the Suva market (above right ©Ashnil Kumar).

Selling at the market

The Suva market consists of three main sections where women vendors sell seafood: (i) the main fish market that is adjacent to Nabukalou Creek (section A); (ii) the car park area that provides no shelters, tables and seats for vendors (section B); and (iii) the cooked seafood area at the main market complex (section C). Over half the fisherwomen interviewed (57.9%) were located at section C while 34.2% were located at the main fish market (section A). Only a few women (7.9%) were located in section B. In contrast, the majority of the middlewomen (56.1%) sold seafood at the main market complex (section C) while the rest (43.9%) sold seafood at the main fish market (section A). All women vendors are required to pay market fees, making payments from \$3.50 and above per day for a designated space.

The majority of women vendors interviewed had been selling seafood for <1 to 40 years; an average of 9 years for middlewomen and 6 years for fisherwomen. Most fisherwomen (86.8%) and middlewomen (97.6%) sell exclusively at the Suva market, because there were more customers, they had permanent stalls, and they earned good income from their sales.

Three fisherwomen (7.9%) and two middlewomen (4.9%) interviewed sold at the roadside, while 4.9% of middlewomen sold inside the village. None of the women vendors sold to exporters, restaurants, hotels or shops. Seafood items that were popular with fisherwomen included fish, crabs (land and sea species), mussels (freshwater and saltwater species) and seaweeds (*nama* and *lumi*). Comparatively, popular items with middlewomen were fish, octopus, seaweeds (*nama* and *lumi*), shellfish (freshwater mussels), and prawns.

More than half of the fisherwomen (60.5%) sold at the market by themselves while 10 were accompanied by their children (26.3%),

seven by their spouse (18.4%) and four was accompanied by other household members (10.5%).³ Ten fisherwomen brought their children to the market to either help out with the selling or because the children wanted to come. Eight of the 38 fisherwomen stated they stayed overnight at the Suva market either using the accommodation provided at the market (n=6) or sleeping next to their tables (n=2).

Similarly, the majority of the middlewomen (46.3%) sold at the market on their own, 15 were accompanied by their children (36.6%), eight with their spouses (19.5%) while nine sold with a relative (22.0%).⁴ Majority of the women brought their kids mainly to help them with selling (39.0%). Other reasons include the children wanting to come (7.3%), no one to look after them (2.4%) or they only come during the weekends (2.4%). Among the middlewomen interviewed, only six stayed overnight (14.6%) either sleeping at the market accommodation or next to their market tables.

Transport and time investments

The cost per person for transport to the Suva market ranged from \$1-\$42.50 one way. The main forms of transportation used by fisherwomen to the market were bus (71.1%), trucks (21.1%) and boats (13.2%), with the time investments ranging from less than an hour to four hours (Fig. 1a).⁴ Saturday (84.2%), Friday (55.3%), then Thursday (42.1%) were the most preferred fish sale days for fisher vendors (Fig. 1c). The majority of the women stated they preferred those days because they were the busiest for sale (60.5%) and/or they did not have other commitments (15.8%). Once at the market, fisherwomen spent between 1 to 8 hours selling their products (Fig. 1b), with almost all women staying until the majority of their seafood was sold (89.5%).

Similarly, a large proportion of middlewomen used buses for transportation (56.1%), while 19.5% travel by trucks, 17.1% used their own vehicle, 17.1% came by taxi and 4.9% travelled

³ Vendors were allowed to tick more than one answer to the question "Who do you sell with?"

⁴ Vendors were allowed to tick more than one mode of transport

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by boat. The cost for transport to the Suva market ranged from \$0.68-\$20.00 one way. Almost all of the middlewomen spent less than an hour travelling to the market (65.9%), while some travelled for 1–2 hours (26.8%) or 2–3 hours (7.3%) (Fig. 1a). Most middlewomen spent 4–6 days selling at the market (58.5%), 1–3 days (36.6%), while a smaller percentage sold daily (4.9%). The preferred days for selling for most of these middlewomen were Saturdays (94.9%), Fridays (90.0%) and Thursdays

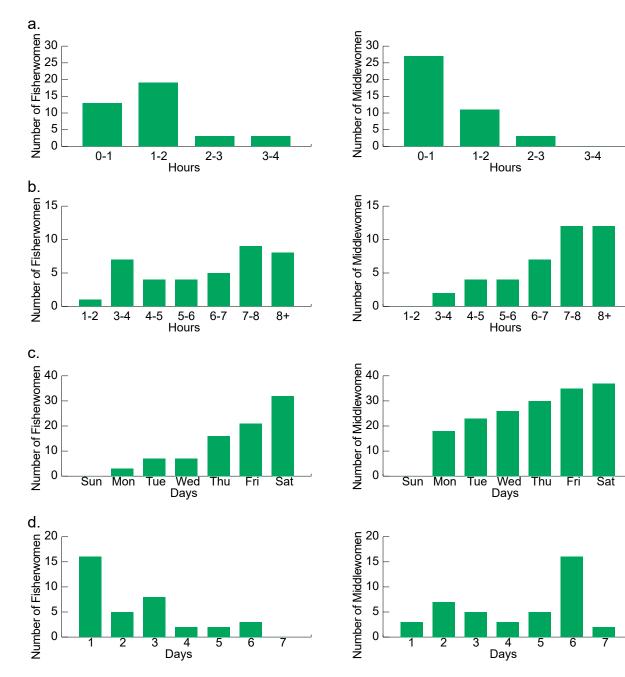


Figure 1. Time investments of women seafood vendors at and around the Suva municipal market. (a) Transport to market, (b) Selling seafood, (c) Days of the week, (d) Times per week.

(76.0%) (Fig. 1c-d). Most of the middlewomen preferred selling on the same days (95.1%) whereas 4.9% sold in different days of the week. Once at the market, middlewomen commonly spent more than eight hours selling (Fig. 1b). About 61.0% of women stay until all seafood is sold while some middlewomen prefer to stay at certain time of the day (39.0%). Some of the reasons for leaving at a certain time were transportation (22.0%), emergency cases (4.9%), and closure of the market (17.1%).

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Lumi sold in heaps (top, ©Sangeeta Mangubhai/WCS), and kaikoso sold in bags at the Suva market (bottom, ©Ashnil Kumar).

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Spoilage and leftovers

In order to maximise profits, seafood vendors use a variety of preservation methods to avoid food spoilage (Table 4). Of methods used, storage on ice, use of freezers, brining or storage in air-tight containers and packets were common among the vendors. The vast majority of fisherwomen (94.7%) admitted that at some point, they lowered the price of seafood by \$1-\$3 when sales are low or when they needed to return to the village. Most fisherwomen interviewed stated they generally sold all their seafood at the market (42.1%), and less than a fifth (18.4%) left with less than half of their seafood not sold. These foods were either taken home (48.0%), given away (24.0%) or sold the next day (28.0%) (Table 5).

In comparison, over half of the middlewomen (78.0%) lowered the price at some time during the day, largely, after lunch or after 5pm (39.0%). Others lowered the price due to increased competition (34.1%) and less sales (24.4%) or when selling to relatives (7.3%). Similar to fisherwomen, the majority of middlewomen (53.7%) drop seafood prices by \$1–\$3. When asked 'what happened to seafood that is not sold', most middlewomen stated they took the items home (36.6%), kept the items at the market for sale the next day (34.1%), gave it away (9.8%) or sold from home or by the roadside (4.9%) (Table 5). Table 4. Methods fisherwomen use to stop seafood spoiling when selling at the Suva market.⁵ * is used for seaweed only.

Method	# fisher women	# middle women				
Good preservation techn	Good preservation techniques					
Use of second hand freezers	2	6				
Brining (salting)	-	3				
Smoke fish	2	-				
Cooking seafood	2	3				
Use of small boxes with ice	12	7				
Store in air-tight containers	1	9				
Gutting	1	-				
Storage in cupboard (for dry fish)	-	2				
Inadequate preservation techniques						
Fanning (e.g. to keep flies away)	3	-				
Sell in shady place, away from sun	2	3				
Applying water or cover with damp cloth	5	1				
Wrap or place in buckets, sacks	4					

How much left over? (%)		Fate of seafood left over (%)			
	fisherwomen	middlewomen		fisherwomen	middlewomen
None	39.5	17.1	Stay another day	28.0	34.1
Almost none	42.1	46.3	Take it home	12.0	36.6
Less than half	18.4	24.4	Give away	6.0	9.8
About half	0	4.9	Other	0	4.9
More than half	0	7.3	Throw away	0	0

Table 5. The amount and fate of seafood left over after a trip to the Suva market for sales.⁶

⁵ Some women vendors implement more than one preservation method

⁶ Women were allowed to tick more than one option for the fate of seafood left over

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Decision making

Fisherwomen were asked a series of questions to determine how much decision-making power they had when it came to "what they fished for", "whether they sell at the market or not" and "how often they sell at markets". Half of the fisherwomen interviewed (50.0%) made decision themselves on what to sell at the market and 34.2% of the women shared the decision with someone (mainly their spouse) or have the decision made for them by another relative (5.3%). Similarly, the majority of fisherwomen decide when and how often to sell at the market (63.2%) while few share the decision equally with someone else (34.2%) or had the decision made for them (2.6%) (Fig. 2).

With regards to making decisions with the earned income, half of the fisherwomen (50.0%) made decisions by themselves on how they spent their earnings, 47.4% made a decision equally with another person and 2.6% had the decision made by another. For those that shared the decision-making it was with either their spouse (52.6%) or another household member (2.6%) (Fig. 2). These results suggest that the majority of the fisherwomen interviewed were the main decision-makers when it came to the selling of seafood at the Suva market.

Similarly, middlewomen were asked on decisionmaking relating to 'when and how often' to sell at the markets and 'how to spend their income'. The majority of the middlewomen made decisions by themselves on what type of seafood to buy and resell (73.2%) while the remaining shared the decision by someone else (19.5%), who were mainly their spouse (19.5%). Only a smaller proportion of women (4.9%) had the decision made for them either by a relative (2.4%) or another household member (2.4%).

Moreover, almost half of the women interviewed decided themselves how they spent their income (48.8%) while 34.1% shared the decision on spending income with someone else, who were either their husbands (34.1%), a relative (2.4%) or another household member (2.4%). These results suggest that many of the middlewomen interviewed were the main decision-makers; however, there is a significant number of women who share decisions relating to their livelihoods, income and expenses (Fig. 2).

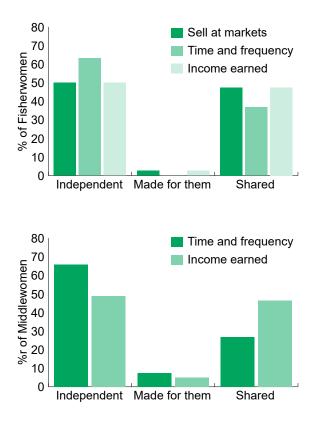


Figure 2. Decision-making power of fisherwomen and middlewomen in terms of what they sell at the market, the timing and frequency of sales and income they earn from seafood sales.

Sales and income

Fisherwomen

When asked about the ease of earning money from the sales of seafood at the markets most fisherwomen felt it was now easier (63.2%) because there was an increase in demand from customers. They also felt that compared to past there were more customers that they could rely on. Other women vendors felt earning money was either the same (18.4%) or was more difficult compared to the past (18.4%).

Fisherwomen who stated it was more difficult provided explanations that there was an increase in competition with other vendors (especially those selling the same seafood types) and there was not enough space in the market to sell seafood. In addition, two fisherwomen (who are more engaged in mud crab sales) pointed out that the stronger enforcement on the minimum size for mud crabs has made sales difficult because most of their mud crabs were confiscated by the Ministry of Fisheries. Fisherwomen made weekly earnings of \$50–\$1500 (average=\$292), with majority of women (42.1%) earning \$100–\$200 per week (Table 6). Very few women were able to estimate their monthly and annual income from the sale of seafood. There were five types of seafood that earned the women the greatest income at the Suva market: fish (26.3%), crabs (21.1%), seaweed (18.4%), prawns (7.9%) and seagrapes (7.9%).

Furthermore, the majority of women selling seafood at the Suva market identified seafood sale as their main source of income (42.1%) or only source of income (36.8%). Others stated it was a regular source of income, but definitely not the main one (10.5%) while few indicated it was an occasional source of income (10.5%). The majority of the women vendors (97.4%) felt it was a reliable source of income while only one fisherwoman felt it was not reliable (2.6%) as the sales depended entirely on the availability of the customers.

Fisherwomen were also asked on 'how satisfied they were with the money earned from selling seafood'. The majority of women (50.0%) were very satisfied with the income from seafood sale, 34.2% were satisfied, 10.5% were neutral while a small number (5.3%) were very unsatisfied. The income earned by the women allowed them to buy other food (92.1%), contribute to village functions (57. 9%) or church (71.1%) or to provide school costs for their children (73.7%) and other household expenses (79.0%). Many of the women were able to save some money from the profits (68.42%) which was either placed into a bank (26.3%) or stored at home (42.1%).

Middlewomen

The majority of the middlewomen felt it became easier to earn money in the Suva market (58.5%). Those that felt it became more difficult (26.8%) explained this was due to increase in fish prices from suppliers, increase in competition from other vendors, less customers and the limited space for selling seafood was affecting their business. Some vendors also stated that income from seafood sale was the same (14.6%). Middlewomen earn \$150-\$8000 per week (average=\$600 per week), with majority of women earning \$200-\$300 weekly (41.5%). Few women could give an estimate of their monthly and annual income (Table 6). Over half the middlewomen earned the most money by selling fish (57.5%) followed by other seafood items such as octopus (10.0%), seaweed (10%), seagrapes (2.5%) and freshwater mussels (2.5%).

This study also showed that the majority of the middlewomen depend on seafood sales as their main source of income (46.3%) or their only source of income (29.3%). Only a small proportion of women stated that seafood sales were a regular but not main source of income (9.8%) or their occasional source of income (14.6%). Almost all the middlewomen interviewed felt that seafood sales were a reliable source of income (92.7%) and they were very satisfied with it (61.0%). One woman stated she was very unsatisfied (2.4%) while other women were satisfied (31.7%) or had a neutral view (4.9%). Some women (7.3%) stated that the income was unreliable because their seafood sale was heavily dependent on weather and fishers, a number of customers hence they were not able to earn on a regular basis.

Similar to fisherwomen, middlewomen used the money earned to buy food (92.7%), provide school costs for their children (82.9%), contribute to the church (68.3%) and village functions (53.7%), cater for household expenses (90.2%) or purchase more seafood for their next sale (2.4%). A vast majority of women were able to save money from the seafood sale (92.7%). Among these women, 29.3% kept their money at home, 68.3% kept the money in the bank and a small percentage saved their money with microfinance business (4.9%).

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Table 6. The number of fisherwomen and middlewomen with the amount of income earned on a weekly basis.

# fisher women	# middle women
4	0
16	11
12	17
2	3
1	3
1	2
1	1
1	4
	women 4 16 12 2 1 1

Barriers, issues and needs

Barriers, issues, and needs identified through individual interviews with all women vendors are summarised below.

Limited market space: Almost all women vendors interviewed stated limitation on sufficient space to sell seafood. In most cases, women vendors were sitting very close to each other in a congested space and/or were asked to share a designated space with other vendors. Some of the women, particularly those who sold freshwater mussels (kai), were unsatisfied with the disproportional distribution of space that they had to adjust in. There was also concerns about 4-5 women vendors sharing a small space where vendors were forced to accommodate 3-4 heaps of freshwater mussels in a single row. Additionally, these vendors also claimed that it seemed unfair that they were expected to pay the same amount of market fees (\$3.50/per space/day) as the other vendors who were provided with more space and better marketing facilities such as proper tables. Many also questioned why so much space was given to vegetable vendors compared to seafood vendors?

Poor or inadequate market conditions:

Almost all women vendors highlighted the need to improve the conditions and facilities at the Suva market which has deteriorated over the years. The issue of improper shelters, poor drainage, unhygienic toilets, poor stall conditions and lack of tables and chairs have become a growing concern for most. Women vendors were asked on 'how satisfied they were with the conditions of the market' and majority have stated they were unsatisfied or very unsatisfied (76.1%); only a few women vendors claimed to be satisfied (35.9%). Many women shared their experiences on how the unavailability of proper shelters would affect their sales and leave them vulnerable especially during adverse weather conditions. Also, the lack of proper tables and seats have resulted in women using plastics, tarpaulin and cardboards to put their seafood on, with many relying on wooden boxes and drums to sit on.

Access to a clean toilet highlighted as an important issue because many stated that there was a need to have an exclusive toilet at the fish market area to avoid overcrowding at the toilet near the main market complex. Many women also felt hesitant leaving their stalls and walking quite a distance to visit the main toilet. Additionally, women vendors stated that it seemed unfair that they were charged with a fee to use the toilet, considering its poor and unhygienic conditions.

The provision of electricity and power points was also a concern for vendors at the main fish market. Usually, all vendors would rely on a single power point that provides electricity to about 10 vendors. It was highlighted that the current conditions at the Suva market poses a health and safety risk for both vendors and customers.

Table 7. Top three recommendations from interviews of 79 women vendors to improve market places to meet their needs.

Improvement and provision of more	
tables and chairs	36
Toilets and washrooms for women seafood vendors only and improve hygiene	31
Need for increased space	23
Abolish fee to use the washroom for vendors	18
Improve overall hygiene and maintenance of market place	8
Improvement of conditions of stalls	6
Provision of freezers and scales	4
Shed and other storage facilities for vendors	4
Provision of electricity	3
Improvement of floor conditions	3
Improve access to water supplies	2
Provision of adequate roofing	1
Relocate butcher	1
Locate the freezer adjacent to the river	1
Reduction of cost of table fee	1

Lack of information: Knowledge of municipal bylaws was low with fisherwomen (71.1%=no, 29.9%=yes) and middlewomen (41.5%=no, 58.5%=yes). The majority of other vendors received information either through the public announcement system (fisherwomen=23.7%, middlewomen=36.6%), or through word of mouth (fisherwomen=13.2%, middlewomen= 26.8%). Additionally, women were asked the mechanism by which they would like to receive information and were allowed to select more than one option. Many women vendors preferred to receive information by word of mouth (fisherwomen=63.2%, middlewomen= 58.5%), or through the public announcement system (fisherwomen=23.7%, middlewomen=36.6%). Only a small proportion preferred the use of notice boards (fisherwomen=10.5%, middlewomen= 19.5%). Types of information vendors were interested in included information on fisheries bans, new legislation that affected them as vendors, and new laws that could affect their source of income.

Communicating their needs: A number of woman stated they were not comfortable being vocal and sharing their issues and needs verbally or in writing, with the Suva Town Council. They stated they were afraid that if they raised their issues, they may not be allowed to sell their seafood at the markets. Others stated the Council never responded to their complaints or problems over the years.

Access to training: A number of women highlighted they would like to be trained on how to preserve their seafood to prevent spoilage, business planning including how to earn more from selling their seafood. However, they did not know how to access this type of training.

RECOMMENDATIONS

A number of key recommendations are made as a result of this study.

- 1. There is an urgent need to improve the overall hygiene and infrastructure at the Suva market and to provide women vendors with quality facilities (e.g. tables, seats, clean toilets, electricity, proper shelters, adequate roofing, good drainage, proper rubbish disposal and clean water supplies).
- Relevant information on market issues or new market or fisheries laws should be disseminated to market vendors verbally, face to face where possible, by the Suva City Council and Ministry of Fisheries.
- 3. Implementing training programs on seafood preservation methods for vendors is crucial. This is to ensure customers are provided with seafood that meets Fiji's safety standards. This is critical given some women may fish for 3-5 days prior to sale.
- 4. Provision of sufficient space and its equal distribution amongst vendors is a critical issue that needs to addressed by the Suva City Council. Also a review of the market fees needs to be undertaken to ensure there is fairness amongst vendors.
- 5. The Suva City Council should keep accurate records of the vendors, and work closely with the Ministry of Fisheries to support the collection of market survey data to monitor the volumes and species of fish, invertebrates and algae being sold in the Suva market.

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