

BARRIERS AND CONSTRAINTS

to the economic
empowerment of women
seafood vendors in the
Labasa 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.

© 2019 Wildlife Conservation Society

All rights reserved. This publication may not be reproduced in whole or in part and in any form without the permission of the copyright holders. To obtain permission, contact the Wildlife Conservation Society's Fiji Country Program, infofiji@wcs.org

<https://doi.org/10.19121/2019.Report.36490>

Cover: Seaweed and invertebrate species sold by women sellers at the Labasa municipal market
©Sangeeta Mangubhai/WCS

Layout and design: Kate Hodge

This document should be cited as:

Mangubhai S, Naleba M, Berdejo V, Arnett E, Nand Y (2019) Barriers and constraints to the economic empowerment of women seafood vendors in the Labasa municipal market, Fiji. Wildlife Conservation Society. Report No. 01/19. Suva, Fiji. 24 pp.

Acknowledgements: We would like to extend our sincere gratitude to the women seafood sellers at the Labasa 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 Gavid, Seini Cabebula, Arieta Baleivale and Anjaly Kumar for assisting with surveys, and to Yashika Nand for providing additional data from a parallel study. We would like to thank the Labasa Town Council under the Ministry of Local Government for supporting this work, especially the Chief Executive Officer Muhammed Faiz Ali and Market Master Shalendra Chand. Alyssa Thomas and Margaret Fox assisted with the design and testing of the questionnaires. 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 Ieli 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.



Contents

INTRODUCTION	4
METHODS	5
RESULTS and DISCUSSION	6
Demographic information	6
Fisherwomen	6
Middlewomen	6
Fishing for sale	6
Buying for sale	9
Sale preferences	10
Transport and time investments	11
Spoilage and leftovers	14
Decision-making	16
Sales and income	17
Fisherwomen	17
Middlewomen	17
Barriers, issues and needs	18
RECOMMENDATIONS	23
REFERENCES	23

BARRIERS AND CONSTRAINTS

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

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 the vendors are women, and their earnings often make up a significant portion of household income in the informal sector¹. Despite this, women are often excluded from market governance and decision-making, and there are little 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 non-discriminatory, 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.

The Markets for Change project in Fiji has largely engaged with women selling fresh produce, mostly fresh fruits and vegetables; however, in Labasa some of the seafood vendors are part of the larger market 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.).

However, women's labour and contributions to the sector are often overlooked, underestimated, and/or undervalued, despite being vital to small-scale 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 UN Women, the Ministry for Local Government and three town and city 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.

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

BARRIERS AND CONSTRAINTS

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

Specific objectives of the study were to:

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

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 sold at the market) and one for middlewomen (i.e. women who purchased the seafood from someone else to sell at the market). As many women were interviewed as available 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 types and quantities of seafood being sold. This information was used to support and validate responses by vendors 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 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 Labasa 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 were held with women vendors at the Labasa municipal markets from 6–10 November, 2018 and 11–14 April, 2019. The Labasa town council did not have records available for individual vendors but estimated between 20–25 vendors regularly used the market. Women vendors within the market place paid market levies to the council. In addition, there were women using the space between the market and the Labasa River (hereafter referred as the 'adjacent market') that were also interviewed to capture their issues and understand their needs as vendors.



Riverview of Labasa municipal market. ©Sangeeta Mangubhai/WCS

BARRIERS AND CONSTRAINTS

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

iTaukei and Indo-Fijian seafood vendors were interviewed in their preferred language. Questions covered a range of topics including: (i) pre-market 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 time 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 Fijian dollars.

RESULTS and DISCUSSION

Demographic information

Fisherwomen

A total of 25 fisherwomen, aged between 23–69 years (average=42 years) were interviewed at the Labasa market. Ethnically, all fishers interviewed were *iTaukei* with low education levels: only four (15.4%) fishers had some tertiary level of education, four (15.4%) had completed secondary school, while 18 (69.2%) had not completed secondary school. The majority were married (88.5%), and only a small percentage were widowed (3.8%) or single (7.7%). With the exception of one fisher from Bua Province, all women came from Macuata Province, mainly from Namuka (53.8%) and Macuata (38.5%) districts.

Middlewomen

A total of 22 middlewomen aged between 26–60 (average=44) were interviewed of *iTaukei* (68%), Indo-Fijian (22%), and mixed (10%) ethnicity. Education levels were low with only one middlewoman (4.5%) having completed tertiary education, three (13.7%) had completed secondary school and ten had completed primary school (45.4%). The rest only partially completed primary school (36.4%). All middlewomen interviewed came from Macuata Province with over half travelling from Labasa (52.3%). Almost all women (81.8%) were married except for two divorcees (9.1%), one widow (4.5%) and one who was single (4.5%). One middlewomen preferred to have her personal information not included in the study and therefore only her responses on market conditions are included in this report.

Fishing for sale

The majority of the fisherwomen (64%) go fishing 2–3 days prior to selling at the Labasa market, while the remaining go out the day before (24%), or 4–5 days before (12%). Most preferred to fish with other fisherwomen (84%), rather than on their own (16%). For those that fish collectively, 86% keep their individual catch while 14% share the total group catch equally amongst all the fisherwomen. All fishers sell their catch individually, rather than as a group. Over half of the fisherwomen interviewed at the Labasa market sell any seafood they are able harvest or catch (68%), while the others are more selective (20%), or only sell what is left over after meeting their household food needs (24%). Sixty-six percent of women fishers sold fish, 24% sold edible algae, and all fisherwomen interviewed sold invertebrates regularly at the Labasa market.²

The top three non-fish species fisherwomen sold at the market included saltwater mussels (*kaikoso* 84%), seagrapes³ (*nama* 80%), other seaweeds (*lumi* 76%), land crab (*lairo* 68%) and mud crab (*quari* 56%) (Table 1). There is a

² Invertebrates are non-fish species such as crustaceans, shellfish, and sea cucumbers. They do not include edible algae such as *nama* (seagrapes) or *lumi* popular in Fiji.

³ 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.).

BARRIERS AND CONSTRAINTS

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

wide variety of fish women target to sell at the markets including emperors (*Lethrinus* spp.) and groupers (*Epinephelus* spp., *kawakawa*), and individual species such as *Naso unicornis* (*ta*), *Balistoides viridescens* (*cumu*) and *Crenimugil crenilabis* (*kanace*) (Table 2). Just

over half the women interviewed sold some cooked seafood products (52%), with the most popular items being fish (92.3%), shellfish (61.5%), octopus (*kuita*, 46.2%), and seaweed (*lumi*, 15.4%).

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

Common name	Fijian name	Fisherwomen		Middlewomen	
		%	#	%	#
Saltwater mussels	<i>kaikoso</i>	84	12		
Seagrapes	<i>nama</i>	80	8	5	2
Other seaweeds	<i>lumi</i>	76	8	5	
Land crab	<i>lairo</i>	68	3	23	1
Mud crab	<i>qari</i>	60	3	18	7
Octopus	<i>kuita</i>	56	2		1
Trochus	<i>sici</i>	44			
Freshwater mussels	<i>kai</i>	24	3		1
Sea cucumber	<i>sasalu</i>	16			
Lobster	<i>urau</i>				1
Giant clam	<i>vasua</i>	12			1
Crayfish	<i>urau</i>	8			
Prawns	<i>ura</i>	4		18	5
Chiton	<i>tadruku</i>	4			
Turbine shells	<i>vivili</i>	4	2		

BARRIERS AND CONSTRAINTS

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

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

Fish group	Scientific name	Common name	Fijian name	#	%
Emperors	<i>Lethrinus harak</i>	Thumbprint emperor	<i>kabatia</i>	18	72
	<i>Lethrinus atkinsoni</i>	Pacific yellowtail emperor	<i>subutu</i>	14	56
	<i>Lethrinus xanthochilus</i>	Yellowlip emperor	<i>kacika</i>	7	28
	<i>Lethrinus olivaceus</i>	Longface emperor	<i>dokoni</i>	6	24
	<i>Lethrinus nebulosis</i>	Spangled emperor	<i>kawago</i>	6	20
Groupers	<i>Epinephelus polyphekadion</i>	Camouflage grouper	<i>kawakawa</i>	11	44
	<i>Epinephelus fuscoguttatus</i>	Brown-marbled grouper	<i>delabulewa</i>	1	4
	<i>Epinephelus malabaricus</i>	Malabar grouper	<i>soisoi</i>	1	4
	<i>Plectropomus leopardus</i>	Leopard coral grouper	<i>donu</i>	1	4
Triggerfish	<i>Balistoides viridescens</i>	Triton triggerfish	<i>cumu</i>	6	24
Surgeonfish	<i>Acanthurus xanthopterus</i>	Yellowfin surgeonfish	<i>balaginawa</i>	2	8
	<i>Naso unicornus</i>	Bluespine unicornfish	<i>ta</i>	6	24
Rabbitfish	<i>Siganus vermiculatus</i>	Vermiculated spinefoot	<i>nuqa</i>	3	12
Mackerel	<i>Rastrelliger kanagurta</i>	Long jaw mackerel	<i>salala</i>	4	16
Mullet	<i>Crenimugil crenilabis</i>	Bluetail mullet	<i>kanace</i>	4	16
	<i>Ellochelon vaigiensis</i>	Squaretail mullet	<i>kava</i>	1	4
Trevally	<i>Caranx ignobilis</i>	Giant trevally	<i>saqaleka</i>	3	12
Snappers	<i>Lutjanus argentimaculatus</i>	Mangrove red snapper	<i>tiri damu</i>	3	12
	<i>Lutjanus russellii</i>	Russell's snapper	<i>kake</i>	1	4
	<i>Lutjanus bohar</i>	Twospot snapper	<i>bati</i>	1	4
	<i>Macolor niger</i>	Black and white snapper	<i>guruniwai</i>	1	4
Mojarras	<i>Gerres</i> sp.	Silver biddy	<i>matu</i>	2	8
Hairtail	<i>Trichiurus haumela</i>	Hairtail	<i>beleti</i>	2	8
Needlefish	<i>Tylosurus crocodilus</i>	Crocodile needlefish	<i>saku</i>	1	4
Barracuda	<i>Sphyrna barracuda</i>	Great barracuda	<i>ogo</i>	1	4
Parrotfish	-	Parrotfish	<i>Ulavi,</i> <i>Rawarawa</i>	1	4
Rays	-	Stingray	<i>vai</i>	1	4

BARRIERS AND CONSTRAINTS

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

Buying for sale

Most of the middlewomen (45.5%) bought seafood 1–2 days before selling at the Labasa market, less than a quarter (22.7%) bought the same day, and four middlewomen (18.2%) bought 4–6 days before. One woman was employed by another vendor and therefore did not buy the fish directly herself. Two middlewomen sold dry fish (*kanace*) they bought from a supplier. They tried to sell as much of the fish straight away, but anything that was left over was stored in cupboards in the stalls inside the market.

Similar to the fisherwomen, there is a wide variety of fish middlewomen target to sell at the markets including groupers (*Epinephelus* spp., *kawakawa*), and emperors (*Lethrinus* spp., *kabatia*, *kawago*) and also individual species such as *Acanthurus xanthopterus* (*balagi*), *Plectropomus leopardus* (*donu*), *Caranx ignobilis* (*saqa*), *Naso unicornis* (*ta*) (Table 3). Just over a quarter (27.2%) of middlewomen sold non-fish species, the three most common being land crabs (*lairo*, 23%), mud crabs (*qari*, 18%), and prawns (*ura*, 18%) (Table 2). None of the middlemen women sold cooked seafood.

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

Fish group	Scientific name	Common name	Fijian name	#	%
Surgeonfish	<i>Acanthurus xanthopterus</i>	Yellowfin surgeonfish	<i>balagi</i>	8	32
	<i>Naso unicornis</i>	Bluespine unicornfish	<i>lele</i>	4	10
Emperors	<i>Lethrinus harak</i>	Thumbprint emperor	<i>kabatia</i>	12	18
	<i>Lethrinus nebulosus</i>	Spangled emperor	<i>kawago</i>	8	14
	<i>Lethrinus olivaceus</i>	Longface emperor	<i>dokoni</i>	6	5
	<i>Lethrinus atkinsoni</i>	Pacific yellowtail emperor	<i>sabutu</i>	6	5
	<i>Lethrinus xanthochilus</i>	Yellowlip emperor	<i>kacika</i>	5	0
Groupers	<i>Plectropomus leopardus</i>	Leopard coral grouper	<i>donu</i>	7	18
	<i>Plectropomus aerolatus</i>	Squaretail coral grouper	<i>batisai</i>	2	5
	<i>Epinephelus polyphekadion</i>	Camouflage grouper	<i>kasala</i>	3	10
	<i>Epinephelus fuscoguttatus</i>	Brown-marbled emperor	<i>delabulewa</i>	1	5
	<i>Epinephelus</i> spp.	Camouflage grouper	<i>kawakawa</i>	13	14
Triggerfish	<i>Balistoides viridescens</i>	Triton triggerfish	<i>cumu</i>	2	5
Barracuda	<i>Sphyrna forsteri</i>	Bigeye barracuda	<i>silasila, queni</i>	5	10
Mackerel	<i>Rastrelliger kanagurta</i>	Long-jaw mackerel	<i>salala</i>	2	5
Goatfish	<i>Parupeneus indicus</i>	Indian goatfish	<i>cucu</i>	3	5
Garfish	<i>Hemiramphus far</i>	Barred garfish	<i>busa</i>	2	5
Mullet	<i>Valamugil negeli</i>	Bluetail mullet	<i>kanace</i>	4	0
Parrotfish	<i>Scarus</i> sp.	Parrotfish >30cm	<i>ulavi</i>	5	5
Trevally	<i>Caranx ignobilis</i>	Giant trevally	<i>saqaleka</i>	6	10
Snappers	<i>Lutjanus gibbus</i>	Humpback red snapper	<i>bo</i>	2	0
	<i>Lutjanus argentimaculatus</i>	Mangrove red snapper	<i>tiri damu</i>	1	0
Sweetlips	<i>Plectrochinus albovitatus</i>	Giant sweetlips	<i>bici</i>	2	0
Wrasse	<i>Chelinus</i> spp.	Wrasse spp.	<i>labe</i>	1	0

BARRIERS AND CONSTRAINTS

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



Common seafood items sold at the Labasa market. ©Sangeeta Mangubhai/WCS

Selling at and adjacent to the market

Sale preferences

Almost all fisherwomen interviewed (92%) were located inside the market place with only a few (8%) located at the front gate of the market. In contrast, only 13.6% of middlewomen sold inside the market with the remaining 86.4% sold seafood on the land adjacent to the carpark and alongside the Labasa River. Only seafood vendors operating within the market are required to pay fees, making payments ranging from \$1.05 to \$2.50 (average=\$1.84) per day.

The majority of women vendors interviewed had been selling seafood for <1 to 29 years (average=9 years) with all fisherwomen and 94.5% of middlewomen selling exclusively at

the Labasa market. Only one middlewomen (4.5%) sold at other markets from time to time; however she pointed out that sales were greater at the Labasa market. Outside of the Labasa market only three women vendors sold to buyers inside their village or other villages, or to other middlemen/traders. Two fisherwomen stated they sold to middlemen and/or middlewomen if they needed money at short notice or had trouble selling their seafood at the market. Interestingly, none of the women vendors interviewed sold to exporters, restaurants, hotels, shops or by the roadside. Those sale items popular with fisherwomen included crabs (land and sea species), mussels (freshwater and saltwater species), seaweeds (*nama* and *lumi*), octopus and trochus (*sici*). Comparatively, popular sale items with middlewomen were fish, crabs (land and sea species), and prawns.

BARRIERS AND CONSTRAINTS

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

A large portion of fisherwomen sold at the market on their own (76.9%), with their husband (15.4%), with other household members (7.7%) or a relative (11.5%).⁴ Five fisherwomen brought their children to the market for one of three reasons: to help them with the selling, because the children wanted to come, or because they were worried about leaving them behind. Ten of the 25 fisherwomen stated they stayed overnight in Labasa sometimes using accommodation provided at the market (n=6) or staying with relatives close to the market (n=4).

Comparatively, less than a half of the middlewomen (40.9%) sold at the market on their own, 36.6% did it with their husband, 32% with another relative, 9% with a non-relative, and 13.6% with their children.⁵ Amongst the women who brought their children to the markets, half of them did it just sometimes, while the other half did it every time they went to the market. The reasons they pointed out for bringing their children to the markets were mainly to help them with the selling (80%) or because the children wanted to come (20%). None of the middlewomen stayed overnight before the sale day.

Transport and time investments

The main modes of transport used by fisherwomen to get to the market were bus (84.0%), boat (26.9%), truck or van (22.7%), with the travel time investments ranging from <1 (8%), 1–2 (20%), 2–3 (52%) to 3–4 (20%) hours, one way (Fig. 1a)⁵. Fisher vendors spent one (53.8%) or two (38.5%) days per week selling at the market, with the majority selling on a Friday (50%) or Saturday (96.2%) (Fig. 1c-d). Women stated they preferred those days because they did not have other commitments (46.2%), and/or it was the busiest days for sales (42.3%). Once at the market, fisherwomen spent between 3 to 8 hours selling at the market (Fig. 1b), with almost all women staying until the majority of their seafood was sold (84%).

Similarly, a large proportion of middlewomen used the bus to get to the market (72.7%), while 22.7% went in their own vehicle, 13.6% by taxi, 13.6% by foot, 4.5% by truck, and 4.5% by boat. Almost all of the middlewomen spent less than an hour travelling to the market (95.5%), while only one woman (4.5%) spent between 1–2 hours one way (Fig. 1a). Middlewomen spent mainly six days per week selling at the market (63.6%), and a smaller a proportion of women sold five (9%), four (9%) or three (18.1%) days per week. The reasons for selling these days largely depend on the availability of fish from fishers (50%), days the market is open (35.3%), or family or other commitments (27.2%). Two women pointed out that transportation limited the days of selling at the market.

Most of the middlewomen stuck to the same days of selling (86.3%) whereas 13.6% sold different days of the week. The preferred days for selling were generally Fridays and Saturdays (86.3%) (Fig. 1c-d). Once at the market, middlewomen commonly spent more than eight hours selling (Fig. 1b) with 81.8% staying until a certain time of the day. Some of the reasons for leaving at a certain time were transportation (13.6%), costumer's demand (13.6%), closure of the market (13.6%). One women pointed out that when it gets dark there is no light in the adjacent market, and therefore they cannot continue with the selling. This factor also affects middlewomen's ability to buy fish from fishers who go to the market at night.

⁴ Vendors were allowed to tick more than one answer to the question "Who do you sell with?"

⁵ Vendors were allowed to tick more than one mode of transport.

BARRIERS AND CONSTRAINTS

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



Seafood vendors at the Labasa municipal market. ©Mosese Naleba, Violeta Berdejo/WCS

BARRIERS AND CONSTRAINTS

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

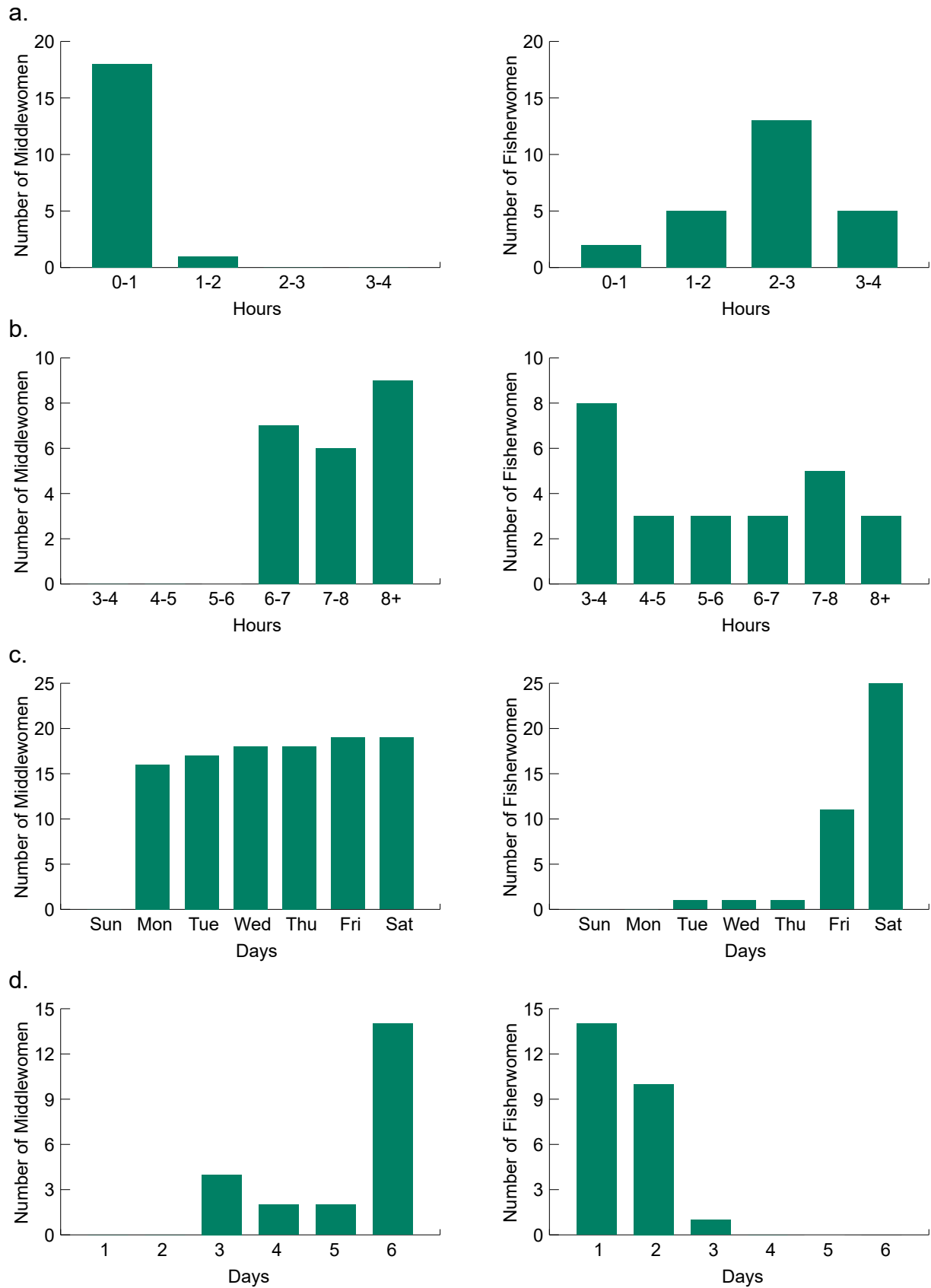


Figure 1. Time investments of women seafood vendors at and around the Labasa municipal market. (a) Transport to market, (b) Time spent selling seafood, (c) Days of the week, (d) Times per week.

BARRIERS AND CONSTRAINTS

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

Spoilage and leftovers

All female seafood vendors (both fisherwomen and middlewomen) described a variety of methods to prevent spoilage (Table 4). Of those listed, only smoking, storage in ice or brining will help preserve seafood. In general, middlewomen invested more in second hand freezers with ice inside or brining. These freezers were largely found outside the market space, adjacent to the river and are left there permanently. There is no facility or access to electricity to run these freezers, with vendor using these fridges to store fish with ice they purchase from the Ministry of Fisheries.

To sell their seafood, the vast majority of fisherwomen will at some point lower the price (92%). This is particularly so for fishers that are returning the same day to their village. Most fisherwomen stated that almost all their seafood was sold (54.2%) (Table 5). A small percentage of women returned with more than half of the fish they brought up (8.3%). Nothing was wasted or thrown away. The majority of seafood not sold was taken home (52%) or given away (52%) (Table 5). In comparison, almost all middlewomen (95.5%) lower the price at some time during the day, largely, when sales are slow (28.5%), if there are Hindu festivities (19%) or when customers bargain (19%). Most middlewomen stated that less than a half of the seafood was left over every day (45.5%) and that the seafood not sold generally stayed at the market another day inside the freezers with ice for sale another day (90.9%) (Table 5). One middlewomen (4.5%) gives away seaweed and sea grapes that were not sold.

Table 4. Methods fisherwomen use to stop seafood spoiling when selling at the Labasa market⁶.

Method	# fisher women	# middle women
<i>Good preservation techniques</i>		
Second hand freezers		17
Brining (salting)		5
Smoke fish	4	
Cooking seafood	4	
Small boxes with ice	2	1
Storage in cupboard (for dried fish)		2
<i>Inadequate preservation techniques</i>		
Fanning (to keep flies away)	3	20
Sell in shady place	2	22
Applying water	4	1
Wrap in plastic or place in buckets	4	
Dip in seawater and wrap in leaves (seaweed)	1	1

⁶ Some women vendors implement more than one preservation method.

BARRIERS AND CONSTRAINTS

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

Table 5. The amount and fate of seafood left over after a trip to the Labasa market for sales.⁷

How much left over? (%)	Fate of seafood left over (%)	
	fisherwomen	middlewomen
None	54.2	0
Almost none	16.7	27.2
Less than half	8.3	45.4
About half	12.5	22.7
More than half	8.3	4.5



Common practices to prevent spoilage of seafood. Starting from top left: second-hand fridges, fridges with ice inside, watering, fanning. ©Violeta Berdejo/WCS

⁷ Women were allowed to tick more than one option for the fate of seafood left over.

BARRIERS AND CONSTRAINTS

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

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”. The majority of the fisherwomen make the decision themselves on what to sell at the market (84%), and very few share the decision with another (12%), or have the decision made for them by another (4%) (Fig. 2). Similarly, the majority of fisherwomen decide when and how often to sell at the market (76%), and few sharing that decision with a spouse or another household member (16%), or have that decision made for them by another (8%) (Fig. 2).

When it came to the income earned, 64% of fisherwomen made decisions on how they spent their earning, 32% made a decision equally with another person, and 4% had the decision made by another. For those that shared the decision-making it was with either their spouse (88.9%) or another relative (11.1%) (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 Labasa market.

Middlewomen were asked the decision-making power regarding ‘when and how often’ to sell at the markets and ‘how to spend their income’. Over a half of the middlewomen made decisions on when and how often to sell at the market (59.1%), while others shared the decision equally with someone else (36.4%), or had the decision made for them by another person (4.5%) (Fig. 2). Those middlewomen sharing the decision do it with the husband (27.7%) or another household member (4.5%). The one woman who has the decision made by someone else is by her husband.

Concerning income earned, over half of middlewomen decided themselves on how they spend their earning (54.5%), while 40.9% shared the decision equally with someone else. For those who shared the decision-making it was with either their spouse (36.3%) or another relative (4.5%) (Fig. 2). These results suggest that many of the middlewomen interviewed are the main decision-makers; however, there is a significant number of women who share the decision-power with someone else.

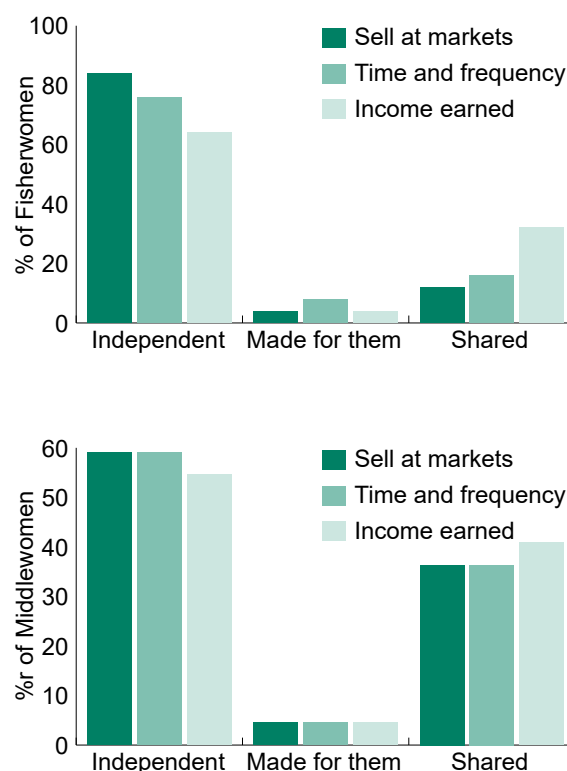


Figure 2. Decision-making power of fisherwomen and middlewomen in terms of what they sell at the market, the timing and frequency of sales and income they earn from seafood sales.

BARRIERS AND CONSTRAINTS

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

Sales and income

Fisherwomen

There was a mixture of responses from the fisherwomen when asked about the ease of earning money from the sales of seafood at markets; 36% felt it was now easier, 36% the same, and 28% felt it was more difficult compared to the past. Those who answered 'easier' explained there were more people buying or they had regular customers they could rely on. In contrast the fisherwomen who stated it was more difficult provided a range of explanations: (i) there was not enough space to sell their seafood, (ii) increase competition with other vendors (especially selling same seafood types); (iii) costs of traveling to and from the market; or (iv) it was harder to catch or harvest enough from the sea.

Fisherwomen earned between \$50–300 per week (average=\$146 per week), with 80% of women earning \$100 or more per week. Some estimated they earned \$60–800 per month (average=\$467 per month). Very few women were able to estimate their annual income from the sale of seafood sales. There were five types of seafood that earned the women the greatest income at the Labasa market: fish (40%), shellfish (20%), crabs (12%), octopus (8%) and seaweed (8%). Women paid \$1.05 for a low table and \$2.05 for a high table. The cost per person for transport to the Labasa market ranged from \$1.50–23.45 (average=\$10.22) one way.

Dependence on seafood sales for income varied between fisherwomen. For the majority of women selling seafood at the Labasa market this is their only source (40%) or main source (36%) of income. Others stated it was a regular source of income, but definitely not the main one (16%). Very few indicated it was an occasional source of income (8%). Just over half (64%) the women vendors felt it was a reliable source of income. Those that felt it was not reliable (36%), explained that the prices fluctuated too much, there were increased expenses for food and village functions or they had recently lost income following the government ban on the harvesting of sea cucumbers.

Despite these challenges, the majority of women (72%) were satisfied with the income they were making, compared to a small number who were unsatisfied (16%) or did not feel strongly either way (12%). The income the women earned allowed them to buy other food, or contribute to the church, school costs for their children, village functions, and other household expenses. Many of the women were able to save some money from the profits made from the sale of seafood (72%). Saved money was placed into a bank (72.2%) or kept at home (27.8%).

Middlewomen

The majority of middlewomen stated that was more difficult to earn money in the Labasa market (54.5%), while others felt it is the same (31.8%) or easier now (13.6%). Those who answered 'more difficult' explained that it depended on: (i) costumer demand; (ii) fish availability; (iii) higher prices of fish and fish catching; (iv) cost of ice; (v) Hindi festivities; and/or (vi) lack of money to reinvest in buying fish.

Middlewomen earn \$40–800 per week (average=\$351.9 per week), with 72.7% of women earning \$300 or more per week. Only one woman could give an estimate of how much she makes per month. All middlewomen earned the most money by selling fish. One woman added that she also earned the most by selling high-value items such as mud crabs and lobsters. The cost per person for transport to the Labasa market ranged from \$0.68–6.00 one way.

The vast majority of middlewomen rely on seafood sales as the only source of income (77.2%), or the main source of income (9%). Only a small percentage stated seafood sales were a regular but not main source of income (13.6%). All middlewomen felt it was a reliable source of income and they were largely satisfied with it (54.5%). One woman stated was very satisfied (4.5%), other women were neutral (18.1%), unsatisfied (9%), or very unsatisfied (13.6%). Similar to fisherwomen, middlewomen used the money earned to buy food, contribute to the church, school costs, household expenses, village functions, or other activities

BARRIERS AND CONSTRAINTS

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

such as covering the baby's needs, medical supplies, or payments for land. Over a half of the women were able to save money from the seafood sale income (54.4%). Amongst these women, 45.4% kept the money in the bank while 23.6% kept the money at home.

Barriers, issues and needs

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

Space availability and allocation: All fisherwomen and over half of the middlewomen (54.5%) stated there was not enough space for them at the Labasa market to sell their seafood. As a result, the land adjacent to the carpark and Labasa River has been taken over by both men and women seafood vendors, the majority of which sell fish. The portion of land where the fuel pump station is located, belongs to Charan Jeath Singh who owns Countdown Supermarket. The owner allows vendors to use the space free of charge but does not provide any supporting infrastructure such as water and electricity. The rest of the adjacent market is state land. Land tenure presents some constraints in terms of market development and improvement. In this context, some of the middlewomen suggested that somebody should take responsibility of the land adjacent to the market so they can set an arrangement to develop the area for vendors.

Poor or inadequate market conditions: Only 21.3% of women vendors were satisfied with the condition of the market, 4.3% were very satisfied, and 8.5% were neutral. However, the majority felt the market was unsatisfactory (40.4%) or very unsatisfactory (25.5%). The reasons for the dissatisfaction were largely due to crowding, inadequate space for seafood vendors, and poor conditions of stalls. Some other reasons women added were that they lack tables, electricity, and water provision and also that the market is unsafe and unhygienic (Table 6). Some stated that if they came late, they risked not getting a table, having to wait for a table to be free, or relying on the generosity of other women to share their space (4–5 vendors per table). This is of concern for

vendors who have a limited time to spend at the market before they catch the only return bus home (around 4pm). Many questioned why so much space was given to vegetable vendors compared to seafood vendors. Other women added that they are often robbed due to congestion and the limited space they have.

Women vendors selling in the adjacent market use poorly constructed stalls and tables they have made or had organised for themselves. Stalls commonly have wooden mouldy floors, with wooden poles, and an unstable roof made of loose planks, plastic tarp or cardboard. The adjacent market has uneven and unsafe walkaways with bare ground and potholes that fill with water when it rains. Access to water was an issue for maintaining their seafood and for drinking, with many hesitant to leave their stalls to get water. Because these vendors are largely selling fish, they have invested in freezers some of which are rusty and second-hand. However, there is no electricity for their fridges and the middlewomen complained there was often insufficient ice at the Ministry of Fisheries ice plant in Labasa, and they had to buy ice at more expensive price and in farther locations if they wanted to preserve their fish. The vendors selling in the adjacent market are also vulnerable in poor weather conditions and do not have free access to the washrooms. In the surrounding areas, there are freezers without door and plastic containers full of water creating a niche for mosquitoes and larvae. All in all, the current conditions of the Labasa market represent a health and safety hazard not only for vendors but also for visitors.

Women vendors felt the supporting infrastructure was also lacking and offered a number of recommendations including the provision of more and better-quality tables and chairs, so they did not have to sit on drums or wooden boxes. Many also wanted to have an exclusive toilet for vendors rather than having to share with the public given that they felt it is unfair vendors have to pay a fee every time they need to use the toilet combined with its current poor conditions and maintenance. Many felt it was unfair for them to pay a fee for the quality of the infrastructure that was provided to them.

BARRIERS AND CONSTRAINTS

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

Table 6. Top three recommendations from interviews of 47 women seafood vendors to improve market places to meet their needs.

Recommendations	#women
Need for increased space	35
Improve access to water supplies	15
Toilets and washrooms for women vendors only and improve hygiene	13
Provision of more tables and chairs	12
Improvement of conditions of stalls	11
Provision of electricity	11
Improve safety conditions	6
Improve overall hygiene and maintenance of market place	6
Provision of adequate roofing	5
Improvement of walkaways	5
Improvement of existing table and chair facilities	5
Improvement of floor conditions	4
Shed and other storage facilities for vendors	3
Locate the ice plant closer to the market	3
Rubbish disposal	2
Abolish fee to use the washroom for vendors	2
Provision of freezers and scales	2
Reduction of cost of table fee	1
Installation of signage and a notice board in the adjacent market	1
Police patrolling and installation of security cameras	1

New seafood market not used: The Labasa Town Council constructed a fish market on the opposite side of the road to the main market, to cater for seafood vendors. However, this market is not used by most seafood women vendors because: (a) as it is across the road from the dry market people tend to go less there to buy seafood; (b) space between tables and walkaways is small; (c) there is inadequate

access to water; (d) the drainage systems are inadequate and women are worried they will get ill standing long hours in wet conditions; (e) there is no access for fishers who arrive by boat to sell their seafood in Labasa; and (f) some of the women feel it is dangerous as it is too close to the train rail. The street between the two markets does not have zebra crossing to facilitate the flow of people between the two markets.

Security: Two fisherwomen and six middlewomen stated that sometimes their seafood or equipment gets robbed because of the congestion inside the market place. Some of the women based just outside the market complained of theft of equipment such as knives and freezers. One middlewomen selling inside the market place recommended to have more security patrolling and to have installed security cameras.

Access to training: A number of women highlighted they would like training 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.

Access to information: Knowledge of municipal bylaws was very low (68.1% no, 31.9% yes), and only ten vendors stated they received information from the Labasa Town Council through the public announcement system and six through word of mouth. Additionally, women were asked the mechanism by which they would like to receive information and were allowed to select more than one option. Largely, women vendors preferred to receive information by word of mouth (74.5%), the public announcement system (19.5%), a notice board (17%), or fisher's association (2.1%). One middlewomen stated that when the council uses the public announcement system it should be also announced in multiple languages to avoid misunderstandings. She added that the microphone's frequency needs to be fixed because the sound is very unclear. Types of information vendors were interested in included: information on fisheries bans, new legislation that affected them as vendors, new laws that could affect their source of income.

BARRIERS AND CONSTRAINTS

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

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 Labasa Town Council. They stated they were afraid that if they raised their issues or made complaints, they may not be allowed to sell their seafood at the markets. Others stated the Council never responded to their complaints or problems.

Inadequate transport: Some of the women stated that infrequent transportation limited the time they could spend at the market. Often women are left with no choice but to sell their produce at a lower price towards the end of the day before their bus departed at 4pm.



Infrastructure adjacent to the Labasa market used by vendors. ©Sangeeta Mangubhai, Violeta Berdejo/WCS

BARRIERS AND CONSTRAINTS

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



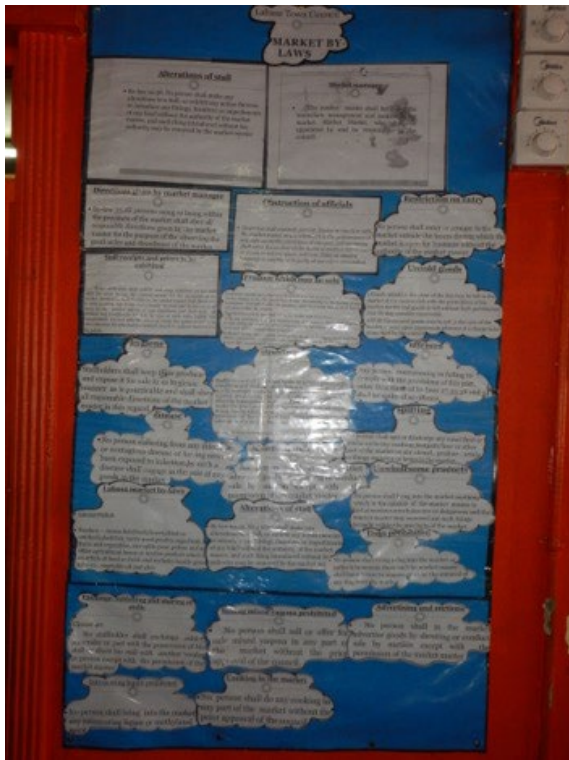
Flooring and roofing conditions of stalls in the adjacent area of the Labasa market. © Violeta Berdejo/WCS



New seafood market not used. © Violeta Berdejo/WCS

BARRIERS AND CONSTRAINTS

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



Notice boards inside the Labasa market. © Anjalay Kumar/WCS



BARRIERS AND CONSTRAINTS

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

RECOMMENDATIONS

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

1. Improvement in the availability of space and quality of facilities (e.g. tables, toilets, water supplies) in the Labasa market for women seafood vendors.
2. Further work is required to look at whether the seafood being sold meets food safety standards in Fiji. Given some women may fish for 4–5 days before they go to the market, travel long distances to get to the market, and are not using preservation methods such as ice, training in food handling methods may be required.
3. Addressing issues of the space for seafood vendors is critical, including resolving how to address fish vendors that are squatting on the land owned by the supermarket. It would be worth understanding what it would take for the vendors to shift to the allocated seafood market space built for seafood vendors.
4. Given many fishers use the river to access the market with their fish, there is a need build new or substantially improve jetty facilities at the market place. This will enable boats to park safely while they offload their fish.
5. The Labasa Town Council should consider partnering with the Ministry of Fisheries to provide the relevant information on fisheries laws and regulations for seafood vendors. In addition, the 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 monitoring the volumes and species of fish, invertebrates and algae being sold from the Labasa market.

REFERENCES

- Bell JD, Kronen M, Vunisea A, Nash WJ, Keeble G, Demmke A, Pontifex S, Andrefouet S (2009) Planning the use of fish for food security in the Pacific. *Marine Policy*. 33: 64–76
- Chapman, MD (1987) Women's fishing in Oceania. *Human Ecology*, 15(3), 267–288
- FAO (2017). Towards gender-equitable small-scale fisheries governance and development. Rome. 154pp.
- Hauzer M, Dearden P, Murray G (2013) The fisherwomen of Ngazidja island, Comoros: Fisheries livelihoods, impacts and implications for management. *Fisheries Research*. 140: 28–35
- Kronen M, Vunisea A (2009) Fishing impact and food security: Gender differences in fin-fisheries across Pacific Island countries and cultural groups. *SPC Women in Fisheries Information Bulletin*. 19: 3–10
- Weeratunge N, Snyder KA, Sze CP (2010) Gleaner, fisher, trader, processor: Understanding gendered employment in fisheries and aquaculture. *Fish and Fisheries*. 11: 405–420

