

The logo for PARDI (Pearl and Aquaculture Research and Development Institute) features the word "PARDI" in white, bold, sans-serif capital letters on a dark brown rectangular background. To the right of the text is a stylized graphic consisting of two curved lines, one yellow and one blue, suggesting a pearl or a wave.

Australian Government  
Australian Centre for  
International Agricultural Research

# Pearl Industry Value Chain Review 2011: Fiji Islands

Anand Chand & Suwastika Naidu (University of South Pacific, Fiji)

Paul C. Southgate (James Cook University, Australia)

Theo Simos (Adelaide University, Australia)

## Table of Contents

Why Pearls?	3
Background	3
Pearl Production in the Pacific	4
History of Pearling in Fiji	5
Process Flow and Industry Structure	9
Pearl and MOP Shell Jewellery Market Structure	11
Pearl Association in Fiji	21
Constraints for Growth of Pearl Production in Fiji	21
Conclusions	22
References	22

## Why Pearls?

- Cultured pearls are the Pacific region's most valuable and highest priority aquaculture commodity (SPC Aquaculture Action Plan, 2007).
- Pearl culture is compatible with traditional lifestyles, and provides opportunities for income generation at a number of levels, from collection and sale of juvenile oysters ('spat'), through pearl production, to handicraft manufacture.
- Pearl culture is environmentally benign and the product is small, lightweight and non-perishable and of high value; ideal as an export commodity from Pacific Island countries.
- The operation of pearl farms particularly in remote and regional areas can provide market opportunities for small farmers in local tourism and resorts and value adding of pearl shell products for handicraft markets.
- Tonga, using the winged pearl oyster, *Pteria penguin*, has an opportunity to develop a regional based handicraft and jewellery supply industry specialising in the production of half pearls and mother of pearl products.
- The development of oyster "spat" growing and supply to pearl farms for pearl culture is a direct industry development outcome that can provide livelihood opportunities for remote local communities and families.
- The potential economic and livelihood opportunities provided by pearl culture are under-developed in the western Pacific, but the scale of development in Polynesia indicates that pearl culture has the potential to generate significant export earnings for Tonga.

## Background

Pearl culture provides livelihood and income generating opportunities in Pacific Island nations. This paper provides an overview of the current (2011) status of the cultured half-pearl ('*mabé*') industry in the Kingdom of Tonga. It also provides the basis for a development plan for the Tongan pearl industry, marketing strategies and research interventions supporting sustainable development of the Tongan pearl industry.

Research and development activities were funded under the three-year ACIAR-PARDI Project "Supporting the Development of the Cultured Pearl industries in Fiji and Tonga" that began in January 2011. The Project team was composed of Paul Southgate (James Cook University), Theo Simos (University of Adelaide), Anand Chand and Suwastika Naidu (University of the South Pacific), Poasi Ngalufe (MAFF, Tonga), Tevita Taumaipeau (consultant, Fiji), the Pearl Growers Associations of Tonga and Tim Pickering of the Secretariat of the Pacific Community (SPC).

## Background to Pacific Agribusiness Research for Development Initiative (PARDI)

This research was funded by the Australian Government through the Australian Centre for International Agricultural Research (ACIAR). PARDI is a partnership involving the Secretariat of Pacific Communities (SPC), the University of the South Pacific (USP) and a consortium of Australian Universities<sup>1</sup>. PARDI seeks to create sustainable livelihood development outcomes for the forestry, fisheries (including aquaculture) and crop-based agriculture sectors in the South Pacific. The initiative undertakes supply chain reviews and market-driven strategies to identify the researchable constraints currently impeding tangible economic development, and then undertake research-based projects to develop the appropriate technologies, products and/or skill based solutions.

The University of the South Pacific research group (Suva, Fiji) and University of Adelaide Value Chain group collaborate to support PARDI projects and provide qualitative and quantitative research, value chain analysis and project oversight across many sectors. In the Fisheries and Aquaculture sector, the group worked closely with scientists and researchers from James Cook University (JCU), industry representatives, NGO`s, government agencies and SPC.

## Pearl Production in the Pacific

Pearls are the Pacific region's most valuable Aquaculture commodity with production valued at US \$176 million in 2007. The species farmed in the Pacific include the black-lip pearl oyster (*Pinctada margaritifera*), farmed for round pearls in French Polynesia, Cook Islands and Fiji, and the winged pearl oyster (*Pteria penguin*), farmed for half pearls (commonly known as 'mabé') in Tonga. Round 'black' South Seas Pearls produced in French Polynesia from *P. margaritifera* account for 98% per cent of the total value of production in the Pacific. However, the range of pearls produced in the region is diverse and, as well as *mabé* produced in Tonga, includes white South Seas Pearls from Papua New Guinea. A relatively new entrant to the industry is Fiji Islands which has developed a high quality niche export product. However, it should be noted that the size of the industry in Polynesia dwarfs the very small industries in Tonga and Fiji (Table 1).

---

<sup>1</sup> *University of Queensland, University of Adelaide, University of the Sunshine Coast, James Cook University, Queensland Department of Employment, Economic Development and Innovation.*

**Table 1. The value of exports of unworked pearls by the main exporting countries in 2005.**

(Tisdell & Poirine, 2007).

	Country	Value (\$USD millions)	Percentage of total	Species utilised
1	Japan	263.6	33.2	Akoya ( <i>Pinctada fucata</i> )
2	Australia	219.5	27.6	Silver/gold-lip ( <i>Pinctada maxima</i> )
3	China	146.5	18.4	Fresh water mussel
4	French Polynesia	128.3	16.1	Black-lip ( <i>Pinctada margaritifera</i> )
5	Philippines	15.45	1.9	Silver/gold-lip ( <i>Pinctada maxima</i> )
6	Indonesia	10.7	1.3	Black-lip ( <i>Pinctada margaritifera</i> )
7.	Fiji (estimate)	0.5	0.1	Black-lip ( <i>Pinctada margaritifera</i> )
8.	Tonga (estimate)	0.01	0.01	Winged/Penguin ( <i>Pteria penguin</i> )
	<b>TOTAL</b>	<b>784.65</b>		

Source: Derived from United Nations (2006) United Nations Trade Statistics Detected (COMTRADE)

Notes: The data are for category H52002-7101 in the COMTRADE statistics. The percentages may not add to 10 due to rounding

Although mariculture can be risky and requires significant long run investment (Hambrey, 2011), pearl culture has been very successful and expanded greatly since being introduced to French Polynesia in the mid 1970s. However, pearl oysters are sensitive to changes in water quality conditions (Lucas, 2008) and are vulnerable to disease, predation, adverse weather conditions such as cyclones and theft. Recent attention has also been drawn to the potential impacts of climate change on pearl culture in the Pacific region (Pickering *et al.*, 2011).

## History of Pearling in Fiji

**1960:** The culturing of oysters for pearls in Fiji 1960s was pioneered by Mr Yasuharu Tokito who emigrated from Japan and started experimenting with *mabe* pearl cultivation on the island of Ovalau. Following successful trials he moved into the cultivation of round pearls from Black lip oysters, using techniques and methods he had learnt in Japan. Over a period of 50 years Tokito experienced many highs and lows (see history of Tokito Pearls) and was forced to move his pearl farms a number of times.

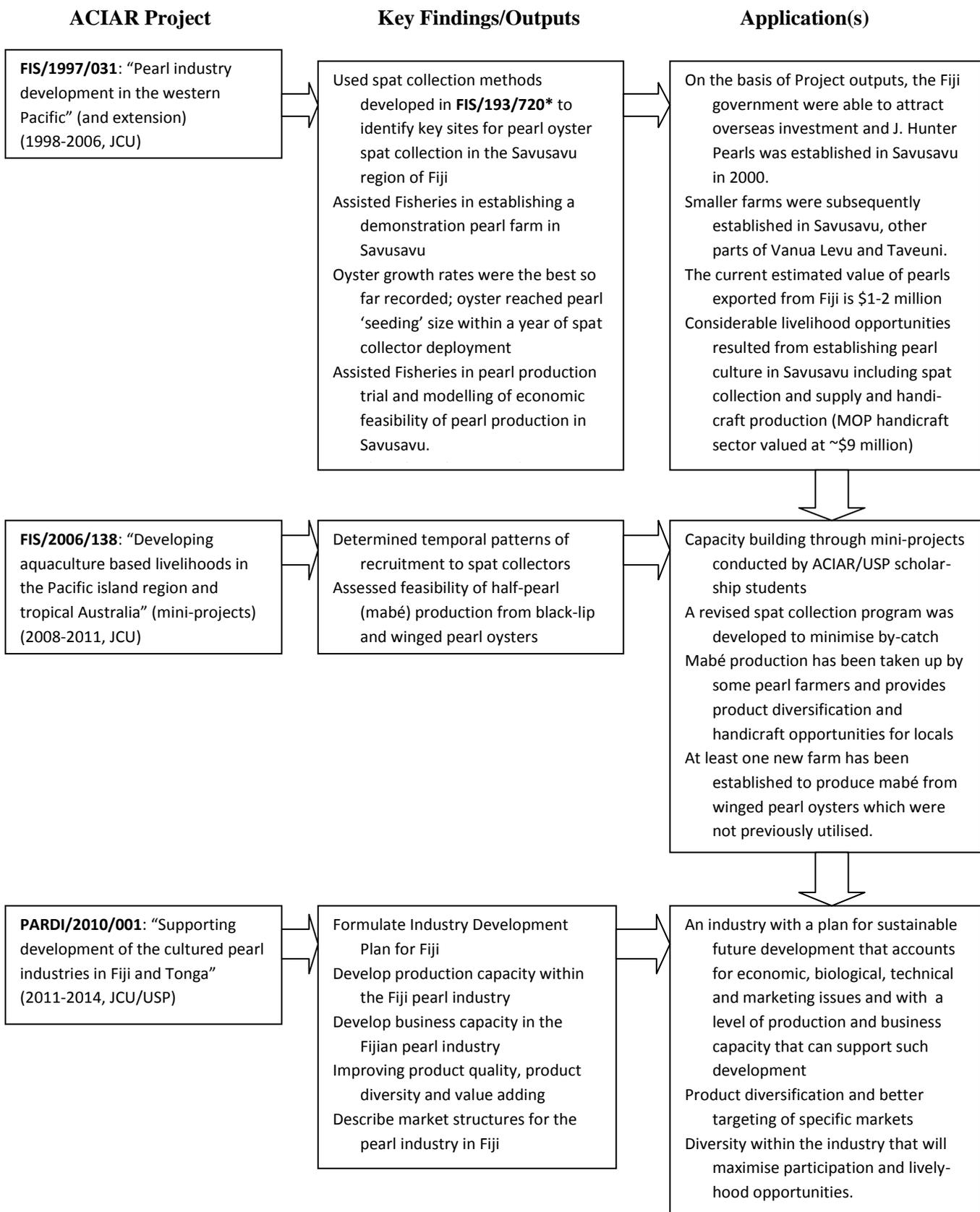
This history epitomises the many challenges; site selection, naturally low oyster stocks in Fiji waters, site tenure issues with indigenous owners, disease and water contamination and low rates on return of investment, the many risks in pearl farming.

Whilst Tokito has retired for a number of years the legacy of his work continues through his sons Kenji and Koji and has recently retired to live and operate Tokito Pearls on his own island in Rakiraki where he has also been experimenting with *mabé* pearl production.

**1990s:** ACIAR has been involved in development of the pearl industry in Fiji through a number of research projects. The key findings and outputs of these projects, as well as their applications, are detailed in Fig. 1 which also shows the relationships between this project (PARDI/2010/001: “Supporting development of the cultured pearl industries in Fiji and Tonga”) and prior research. Considerable investment and research effort from Fiji Fisheries, with assistance from ACIAR projects, identified key sites for pearl oyster spat collection in the Savusavu region of Fiji and determined that oyster growth rates were the best so far recorded for black-lip pearl oysters; oysters were able to reach pearl ‘seeding’ size within a year of spat collector deployment. Fiji Fisheries established a demonstration pearl farm in Savusavu Bay and undertook pearl production trials which enabled them to model the economic feasibility of pearl production in Savusavu. On the basis of these research outputs, the Fiji government were able to seek and support private sector investment in pearl farming in Fiji.

**1999:** Commercial pearl production in Savusavu began with establishment of J. Hunter Pearls in 1999. The company was founded by Fijian-born Justin Hunter and partner Leanne Bossley with the assistance of his family and other investors. Fiji’s largest commercial pearl farm produces unique and highly differentiated pearls that have quickly gained an international reputation for their quality and exclusivity in international markets. Today, Justin Hunter is by far the leading operator in the region and plays a critical role in leading development of the industry in Fiji. Importantly he plays a significant role in local marketing and distribution and positioning and promoting Fiji pearls in international markets. He maintains a workforce of approximately 40 staff and a strong working relationship with the local community people and works closely with other farmers in Fiji to foster learning, development and promotion of the Industry. The company is actively involved in research which supports ongoing improvements to husbandry, pearl production and quality and new product development.

**Fig. 1. The role of ACIAR-funded research Projects in developing pearl culture in Fiji**



Spurred by the success of J Hunter Pearls and the rapid growth of pearling in French Polynesia and the Cook Islands, other operators have now established in Fiji. Notable entrants are:

**Pearls of Paradise:** Indian born Raghu Chaudhary moved to Fiji to establish a pearl farm on Malake Island Rakiraki, Viti Levu, after living in Australia and the Cook islands. This company today distributes pearl jewellery to local and international markets.

**Valili Pearl Farm:** Fijian Ratujone Maivalili who left Air Pacific as a pilot to establish a pearl farm in his local community of Vatulele village at Wailevu in Savasavu Bay, Vanua Levu, now sells internationally by collaborating with J Hunter Pearls to supply markets via the Japan and Hong Kong auction systems.

**Peckham Pearls:** Established by Noelene and Tom Peckham at Matei, Taveuni, this farm experienced considerable damage from cyclone Tomas in 2010. They are currently rebuilding their farm.

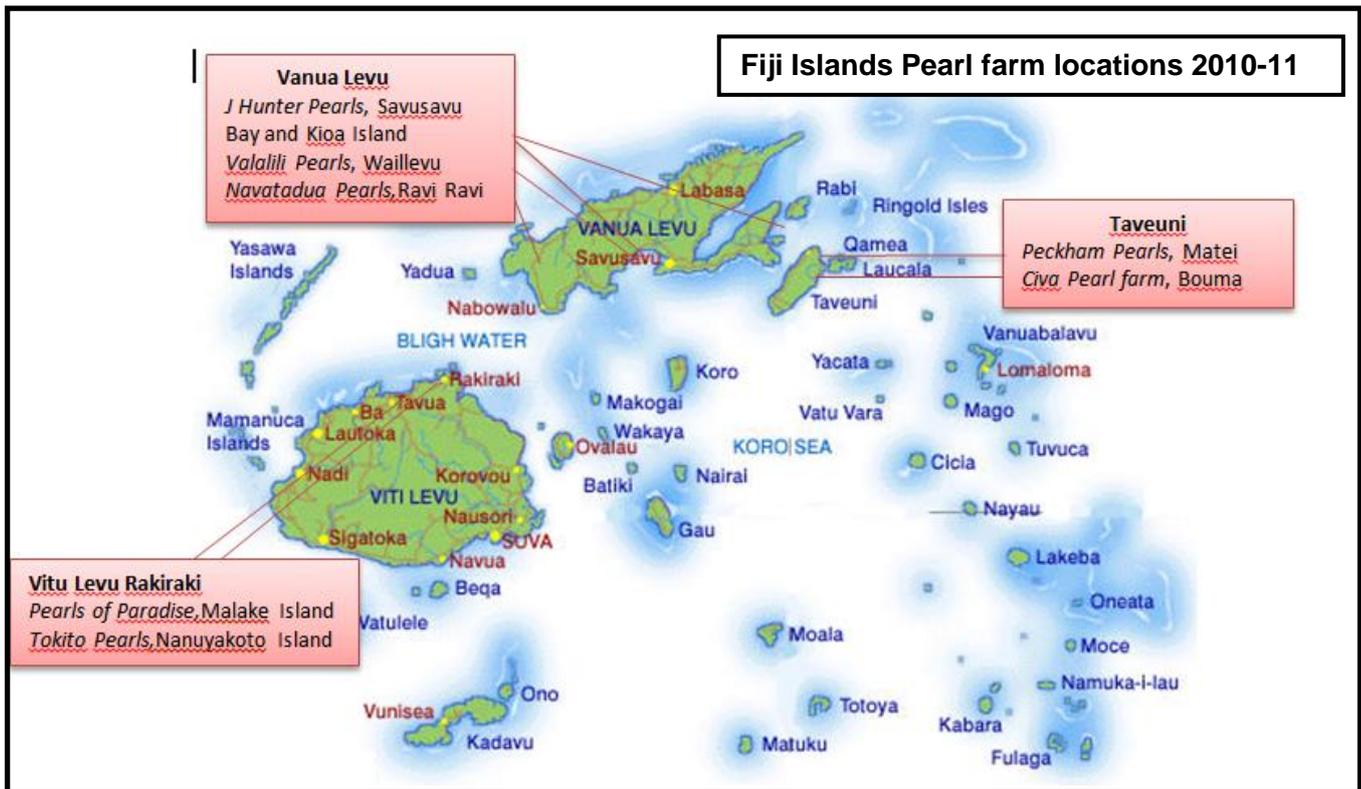
**Civa Pearls:** Established by Canadian-born Claude-Michel Prevost at VureVure near Bouma Taveuni Island, this farm has recently commenced harvest after many difficulties in developing appropriate levels of oyster stock to support commercial pearl production.

There are also a number of other small operators that have commenced and lapsed over the past decade that have been documented in this report (see Table 2 and Fig. 2).

**Table 2. Pearl farms in Fiji (2010-2011)**

	<b>Pearl Farmers</b>	<b>Location</b>	<b>Issues</b>
1	J Hunter Pearls	Savusavu, Kioa Island, Buca Bay, Vanua Levu	Oyster stocks, disease, cyclone
2	Valili Pearl Farms	Vatulele Village, Wailevu Bay, Vanua Levu	Availability of spat, quality, disease
3	Navatadua Pearl Farm	Raviravi, Macauta, Vanua Levu	Has not been reviewed
4	Taukena Pearl Farm	Bua Bay, Vanua Levu	Has not been reviewed
5	Peckham Pearls	Matei Point, Taveuni	No seeding house Availability of spat
6	Civa Pearls	Bouma, Tavenui	Availability of spat
7	Tokino Pearls Ltd	Nanuyakoto Island, Rakiraki	Availability of spat
8	Pearls of Paradise	Malake Island, Rakiraki	Availability of spat

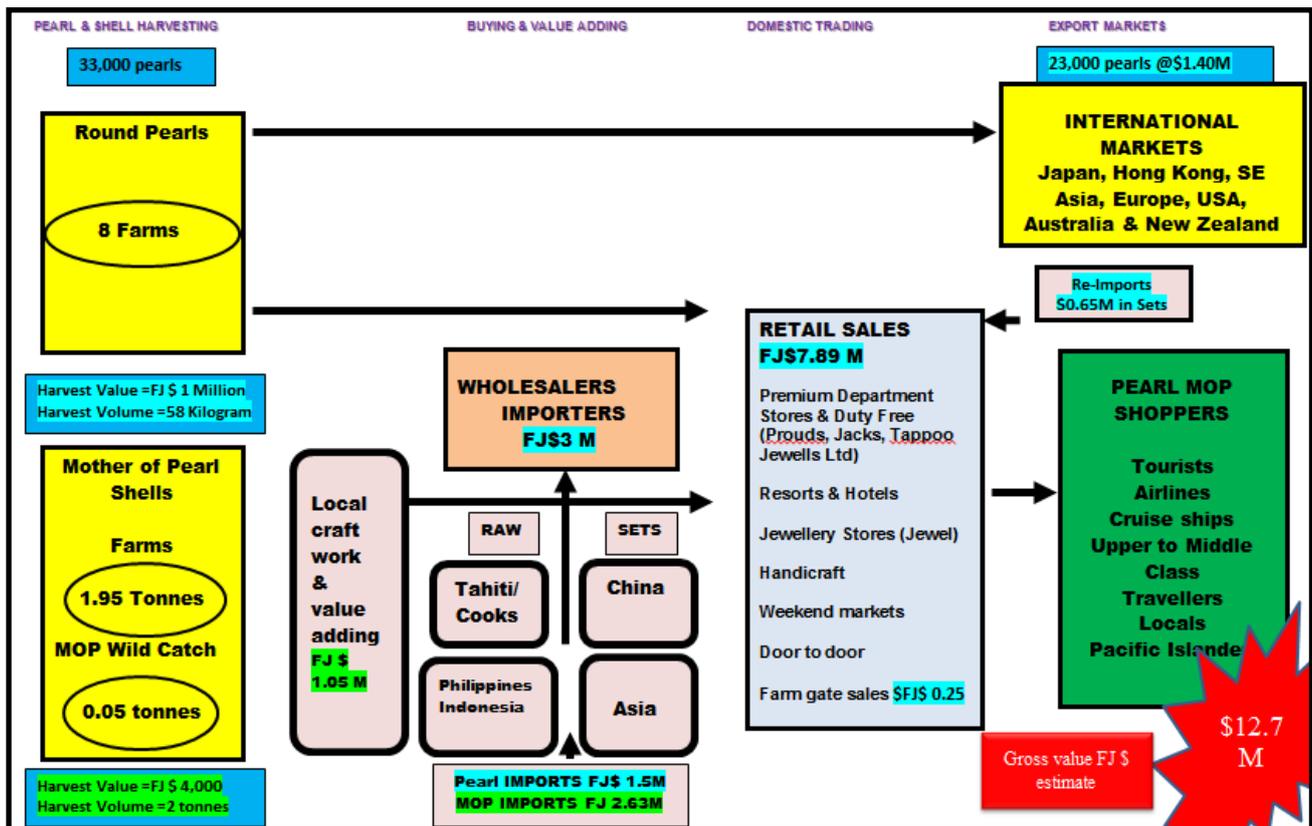
Fig. 2. Locations of Fiji’s pearl farms (see Table 1)



## Process flow and Industry Structure

The value chain map (Fig. 3) has been developed for Fiji from information gathered via interviews with industry and channel participants and identifies industry structure and the flow of farmed pearls to export markets, domestic trade channels and consumer segments. Values are estimated as production outputs are difficult to identify and validate. The movement of pearl materials into and out of Fiji is not accurately captured by the relevant government agencies and farmers are hesitant to supply commercial information. The analysis identifies the flow of imported pearl products from French Polynesia as well as from major producers in Asia and this would have both negative and positive impact on farming returns and future investment in Fiji.

Fig. 3. Value chain map for pearl production in Fiji



The map also highlights the prominence of J Hunter Pearls relative to the remaining farms which are essentially minor in both size and earnings capacity.

Our interviews and site visits highlighted that many farms are struggling to increase pearl production due to an acute shortage of wild oyster stocks, exacerbated by poor farm site selection, no alternative commercial spat supply options and constrained cash flows and low farming/business management skills.

All farms located in the north of Fiji were severely damaged (loss of infrastructure, and oyster stocks) by Tropical Cyclone Tomas which battered Fiji's northern islands on 15<sup>th</sup> March 2010 with gusts of up to 275 km/h (170 mph) and heavy rain and run off into oyster lease areas. On a positive note, some farms located in Vanua Levu and Taveuni indicated that they are able to collaborate with J Hunter pearls to address oyster spat supply, improve farming techniques, share Japanese seeding expertise and at times equipment purchases and that this was critical to their survival.

Furthermore some farms also worked with J Hunter Pearls to access markets where the majority of pearls once graded for size, colour, shape, lustre and surface defects are categorised in lots for eventual sale to overseas clients. These lots target the Japanese and Hong Kong auction markets, and supplied direct to jewellers with some sent overseas to be set with precious metals and other gem stones (rings, ear rings, bangles, strands, brooches) and then re-imported into Fiji for sale to department stores, resorts etc. This highlights one of the gaps in Fiji which does not have a thriving design and jewellery manufacturing industry that the pearl industry could leverage. J Hunter Pearls leadership in promoting Fiji Pearls to locals and clients overseas has and remains critical for sustaining the industry.

## **Pearl and MOP market structure of Fiji**

This section identifies the various market channels (wholesale and retail) where raw and finished pearl and mother-of-pearl (MOP) jewellery related products are distributed and sold in domestic channels in Fiji. A particular emphasis on future planning for development was to identify the importance of the domestic market particularly in Fiji as there was considerable potential

### **Methodology**

This first phase of research was primarily designed to explore the market structure of the pearl industry in Fiji. Based on literature reviews and preliminary interviews with the pearl farmers, pearl sellers and Ministry of Fisheries officials, two separate questionnaires were developed for the pearl farmers, pearl sellers, wholesalers and retailers. The questionnaire was designed in such a manner so that both qualitative and quantitative data could be collected. There were questions for which the respondent was asked to provide his or her own answers and there were also questions for which the respondents were asked to select an answer from among a list. The questionnaire was pilot tested with two pearl farmers and pearl traders, wholesalers and retailers and then used to conduct interviews by University South Pacific staff and selected students. Table 3 identifies the locations that were assessed in the study.

**Table 3. Locations selected for research into the market structure of the pearl industry in Fiji.**

<b>Locations</b>	<b>Targets</b>
Suva	Four upmarket major retail stores and 10 handicraft shops
Nadi	Four major stores and 20 handicraft shops
Sigatoka	Three major stores and 20 handicraft shops
Rakiraki	Three handicraft shops
Pacific Harbour	One hotel
Nausori	Two jewellery shops
Lautoka	3 major stores & 5 handicraft shops
Ba/ Tavua	2 major stores

### **Pearl jewellery sold in large upmarket departmental stores in Fiji**

There are four large upmarket departmental shops in Fiji that sell pearl jewellery and pearl ornaments - Prouds, Tappoo, Jacks and Jewels Fiji.

- **Prouds Fiji Ltd** (<http://www.motibhai.com/prouds.html>)

Prouds Fiji Ltd is one of the largest upmarket retailers headquartered in Nadi. As an upmarket retailer, Prouds offers an extensive range of jewellery lines and heavily promotes pearl jewellery in its key department store locations in Suva, Nadi town, Nadi Airport, Sigatoka, Lautoka and Ba. Prouds also sells pearl jewellery in retail shops located principally in 3-5 star international hotels and resorts. Prouds has an exclusive and long standing arrangement with J. Hunter Pearls Ltd and retails 'ready-made' jewellery in its premium showcases. Jewellery covering a range of styles, colours and prices are made from A, B and C grade pearls. Unlike Tappoos and Jacks, Proud's is only involved in retailing of pearl jewellery and does produce pearl jewellery outside of this arrangement. Proud's also sells some freshwater white pearl jewellery and South Seas golden pearl jewellery imported from Australia and Indonesia.

- **Tappoo** (<http://www.tappoo-group.com/>)

Tappoo is a large upmarket retail and duty-free operator targeting the tourist market with its headquarters located in Nadi. It is the biggest competitor to Prouds and Jacks. Similar in concept to Proud's and Jacks, it has department stores in Suva, Nadi town, Nadi Airport, Sigatoka, Lautoka

and Ba. Tappoo also has retail shops that sell pearl jewellery in some major hotels (3-5 star hotels) and resorts. Unlike Proud's, Tappoo buys individual loose genuine black pearls from 'Pearls of Paradise' company (Rakiraki) then sends the pearls to jewellers overseas (mainly China, India, Australia and NZ) who design and manufacture the jewellery. Tappoo then imports the 'ready-made' pearl jewellery into Fiji. This pearl jewellery is also made from A, B and C grade pearls. Tappoo advised that this is due to a lack of suitably competitively priced jewellery manufacturers in Fiji; however, they do arrange minor corrections or modifications to pearl jewellery 'in-house' using local contractors in Nadi. They also buy golden and white South Seas pearls from Indonesia and Asia.

Tappoo's also maintains a range of genuine freshwater white pearls and these are sourced overseas from countries such as Hong Kong, China, Indonesia, etc. It also sells golden South Seas pearl jewellery imported from Australia and Indonesia.

- **Jacks Fiji Limited** (<http://www.jacksfiji.com>)

Jacks of Fiji, is the largest manufacturer and retailer of handicrafts in Fiji with headquarters in Nadi. Similar in some categories to Prouds, Tappoo's and Jewels Fiji, it has medium sized department stores in Suva, Nadi, Sigatoka, Lautoka, Ba and Labasa. It also has some retail shops that sell pearl jewellery along with other lines in all major hotels (3-5 star hotels) and resorts. Unlike Proud's and Tappoo's, Jacks sells pearl jewellery made from lower grade (B to C grade) pearls. Jack's buys pearls from both local and overseas suppliers. Currently, it buys individual loose genuine black pearls from Pearls of Paradise (Rakiraki) and from a supplier from Tahiti. In the past it used to buy black pearls from the Cook Islands. Jacks buys individual pearls and sends them to jewellers overseas (mainly China, India and Indonesia) and then imports the 'ready-made' pearl jewellery for sale in its shops. Jacks sells freshwater pearls and a wide range of mother of pearl shell jewellery (chains, earrings, belts) and wide range handicrafts made from pearl shells.

- **Jewels Fiji**

Jewels Fiji is another upmarket retail company with its headquarters in Nadi. It retails pearl jewellery to up market customers and foreign Chinese who visit Suva from fishing boats. It has department stores in Suva (MHCC), Nadi town and Port Denarau. Jewels Fiji buys B to C grade individual loose genuine black pearls from Tahiti and sends them to overseas jewellers (mainly China, India) and then brings the 'ready-made' pearl jewellery back for its shops. It also buys some low grade black pearls but is unable to identify the source. Jewels Fiji uses a local jeweller based in Nadi to make and repair some of their pearl jewellery. Jewels Fiji also sells small quantities of freshwater white pearls and golden South Seas pearl jewellery imported from China and Indonesia.

## **Pearl jewellery sold in medium size jewellery shops in Fiji**

There are around five medium size jewellery shops that primarily sell gold items as their core business. Some of these stores offer low numbers of pearl jewellery items. These stores are Anita, Boomerang, Lords, most are located In Suva, Nadi and Lautoka & Ba.

## **Markets/shops where pearls are sold - Suva area**

In Suva, the capital city of Fiji, pearl and pearl products are sold in four major locations:

- Suva Handicraft and Souvenirs Market (near the Suva market),
- Suva Flea Market (opposite Suva bus stand),
- Suva Sunday Rock Market (Dolphin Plaza),
- Suva Terry Walk Market (opposite MHCC),
- Semi-upmarket jewellery shops (Anita Jewelleries, Boomerang Jewelleries, Lords Jewelleries) and upmarket Department jewellery stores (Prouds Stores, Tappoo Stores, Jacks stores and Jewells stores).

## **Handicraft and souvenirs market (medium-low market stores) – Suva area**

Most of the owners of the handicraft stalls are primarily involved in direct retailing and around 10% of their overall business is from pearl products. Some of them also manufacture around 20%-40% of the handicraft jewellery and products that they sell. They largely target tourists from cruise ships and locals who live overseas and come to Fiji for holiday and return back their overseas countries with gifts for friends and family members. The main products found at the Suva handicraft and souvenirs market are: pearl chains (freshwater white and dyed black pearls), pearl necklaces (freshwater white and dyed black pearls), pearl earrings (freshwater white and dyed black pearls), pearl bracelets (freshwater white and dyed black pearls), mother of pearl shell chains (small piece), mother of pearl shell earrings (little piece), mother of pearl shells (round, *mabé*, a few low grade freshwater *keshi* pearl bracelets). The major buyers of these products are tourists visiting Suva on cruise ships and locals (lower to semi-middle class people). In Fiji, middle and upper class people tend to buy genuine grade black and white pearls from up-market department stores and jewellery outlets (Prouds, Tapoos, Jacks and other jewellery stores). The main suppliers of freshwater pearls (white and dyed black) for Suva vendors are wholesalers identified: Roopesh Gift Shop, Hira Solanki, Kuki Ltd, J.K Enterprises, R.C Mathubhai and Selas Shop. Table 4 shows the prices of the pearl products on sale at the Suva handicraft and souvenir market.

**Table 4. Price points of pearl and pearl products on sale in Suva handicraft and souvenir market**

No	Products	Price Range (\$FJ)
1	Freshwater pearl chains (white and dyed black)	20-55
2	Freshwater pearl necklaces	40-100
3	Freshwater pearl earrings	15-25
4	Freshwater pearl rings	26-31
5	Freshwater pearl bracelets	30-80
6	Mother of pearl shell chains (small size)	7-22
7	Mother of pearl shell necklaces	15-21
8	Mother of pearl shell earrings (with one or two small shell)	10-15
9	Mother of pearl shell rings	10-12
10	Mother of pearl shell bracelets (dyed black shells)	25-27
11	Keshi rings	22-26
12	Keshi bracelets	45-49
13	Mother of pearl shells (individual whole polished shells- small to big)	10-30

- **Suva Flea Market (opposite Suva bus stand)**

This market opens from Monday to Saturday and there are two vendors who sell bargain priced freshwater pearls (imported white and dyed black) from Acme, a Chinese supplier in Nadi. Most of the prices range from \$5-25. The stall by the name of 'Volau Art Collection' is owned by a Fijian lady by the name of Kini who has been in business for the last 8 years. Kini sells white freshwater pearl chains, freshwater pearl necklaces, freshwater pearl earrings, freshwater pearl bracelets, mother of pearl shell chains and pearl shells. She buys pearl shells from relatives and villagers from outer islands. Another Fijian lady vendor sells just few pearl products and pearl shells.

- **Suva Sunday Roc Market (Dolphin Plaza- Victoria Parade)**

This market operates once a month on Sundays and there are four vendors who sell bargain priced freshwater pearls and pearls products. Two of these vendors are from Lautoka who travel every three weeks (Sunday) to the Roc market to sell pearl products. The products sold are freshwater pearl chains, freshwater pearl necklaces, freshwater pearl earrings, freshwater pearl bracelets, mother-of-pearl (MOP) shell chains and MOP shell necklaces. One vendor buys low grade black pearls *keshi* pearls from the Peckham Pearl farm in Tavueni. Most prices range from \$10-45. Note Keshi pearls are small non-nucleated irregularly shaped pearls typically formed as by-products of pearl cultivation and as such are composed entirely of nacre.

In addition, one up-market vendor (Bernand Ganilau) sells both genuine black and white pearls and her price ranges from \$100-\$400. This vendor has been selling pearls over the last 20 years and imports 'D' grade and low grade black (salt water) pearls from Tahiti and from Cook Islands. In the past she also imported *mabé* pearl shells from Tonga and *mabé* pearl chains and rings. But she has stopped buying from Tonga because two customers have complained about the quality of *mabé* pearl and the main reason she believes is thin nacre coverage and nacre peeling because the pearl farmers in Tonga harvest the *mabé* pearl prematurely. She now imports freshwater, *mabé* pearls from China. This vendor has a shop in Kesangi street (Vatuwaqa) and she sells black pearl chains, black pearl necklaces, black and freshwater pearl earrings, freshwater pearl bracelets, MOP shell chains and MOP necklaces. Annual sales of pearls and pearl products are estimated to be around \$FJ 5,000.

- **Suva Terry Walk flea market (near MHCC)**

There are 10 souvenirs stalls operating in the vicinity of Cumming Street and Terry walk Suva. These stall they sell fake, plastic (copies) of pearl necklaces, pearl bracelets and pearl earrings as well as Chinese fresh water pearls sourced from Roopesh and Hira Solanki and Kuki Ltd. These items are sold individually or as sets with price points ranging from \$5-\$20. These products are purchased by lower working class shoppers who cannot afford to buy freshwater pearls.

- **Chinese stores in Suva city (Cheap low market stores)**

There are number of small Chinese owned shops scattered around Suva city and they sell a range of basic fake plastic (copies) pearl products imported from China but similar to the Flea market products and sold at very low prices.

- **Door to door selling by local women (via direct sales)**

There are number of small local women who visit government and international organisations and sell pearl products to women working in these places. The products are fake (copies) of pearl necklaces, pearl bracelets and pearl earrings of various styles. These pearl products are also imported from China with prices range from \$10-\$30.

Importers of cheap genuine and fake pearls and pearls ornaments in Fiji are listed in Table 5.

**Table 5. Importers of cheap genuine and fake pearls and pearls ornaments in Fiji**

<b>Importers</b>	<b>Wholesale/ Retail</b>	<b>Products sold</b>	<b>Sold to</b>	<b>Imported from</b>
<i>Importer 1</i>	Both	Freshwater pearls (white and dyed) - low grade - mother of pearl shells	Handicraft shops, flea market stores, tourists	China, Indonesia, Philippines, Hong Kong etc.
<i>Importer 2</i>	Both	Freshwater pearls (white and dyed) - low grade - mother of pearl shells	Handicraft shops, flea market stores	China, Indonesia, Philippines, Hong Kong etc.
<i>Importer 3</i>	Both	Freshwater pearls (white and dyed) - low grade - mother of pearl shells	Handicraft shops, flea market stores	China, Indonesia, Philippines, Hong Kong, etc.
<i>Importer 4</i>	Both	Freshwater pearls (white and dyed) - low grade - mother of pearl shells	Handicraft shops, flea market stores	China, Indonesia, Philippines, Hong Kong, etc.
<i>Importer 5</i>	Only Retail	Freshwater pearls (white and dyed) - low grade - mother of pearl shells	Tourists and locals	China, Indonesia, Philippines, Hong Konk, etc.

### **Markets and shops selling pearls – Nadi area.**

Pearl and pearl related products are sold in the tourist hub of Fiji in four major locations:

1. Nadi Handicraft and Souvenirs Market
2. Small and medium size jewellery shops in Nadi
3. Jacks (Nadi)
4. Boomrang
5. Anita's Jewellery
6. Tappoo's Department Store
7. Proud's Department Store
8. Small vendors in hotels (1-3 star hotels)
9. Tappoo's and Proud's Stores in hotels (4-5 star hotels and resorts)

- **Nadi Handicraft and Souvenirs Market**

The Nadi Handicraft and Souvenirs market stalls sell various kinds of pearls and pearl related products. The majority of the owners of the handicraft shops usually make 20%-30% profit margin on their pearls products. Table 6 shows the selling price of the pearl products and the profit margin on the pearl products.

**Table 6: Selling price and buying price of pearl products in Nadi**

No	Name of Handicraft Shop	Items Sold	Selling Price (\$ FJ)	Profit Margin (%)
1	Handicraft Centre Shop 1	Freshwater pearl chains	31-35	100-200%
		Freshwater pearl necklaces	85-105	100-200%
		Freshwater pearl earrings	15-21	100-200%
		Freshwater pearl rings	16-23	100-200%
		Freshwater pearl bracelets	25-31	100-200%
		Mother of pearl shell chains	7	100-200%
		Mother of pearl shell necklaces	12	100-200%
2	Handicraft Centre Shop 2	Mother of pearl shell chains	5	100-200%
		Mother of pearl shell earrings	5	100-200%
		Mother of pearl shell necklaces	6	100-200%
3	Handicraft Centre Shop 3	Mother of pearl shell chains	6	100-200%
		Freshwater pearl necklaces	65-150	100-200%
		Freshwater pearl rings	25-30	100-200%
		Mother of pearl shell chains	8	100-200%
4	Handicraft Centre Shop 4	Mother of pearl shell earrings	6	100-200%
		Mother of pearl shell chains	6.50	100-200%
		Mother of pearl shell necklaces	11	100-200%
5	Handicraft Centre Shop 6	Mother of pearl shell earrings	5.50	100-200%
		Freshwater pearl chains	30.95	100-200%
		Freshwater pearl earrings	21-26	100-200%
6	Handicraft Centre Shop 10	Freshwater pearl bracelets	31-35	100-200%
		Mother of pearl shell chains	3.50	100-200%
		Mother of pearl shell chains	7.50-10	100-200%
		Mother of pearl shell necklaces	10-13	100-200%
7	Handicraft Centre Shop 11	Mother of pearl shell earrings	5.50-10.50	100-200%
		Freshwater pearl necklaces	105-150	100-200%
		Mother of pearl shell chains	6-8	100-200%
8	Handicraft Centre Shop 12	Freshwater pearl chains	25-31	100-200%
		Freshwater pearl necklaces	80-120	100-200%
		Freshwater pearl earrings	21-26	100-200%
		Freshwater pearl rings	14-16	100-200%
		Freshwater pearl bracelets	20-25	100-200%
		Mother of pearl shell chains	9.50	100-200%
		Mother of pearl shell necklaces	10-15	100-200%
		Mother of pearl shell earrings	4.50-9	100-200%
9	Handicraft Centre Shop 13	Mother of pearl shell chains	6-9	100-200%
		Mother of pearl shell necklaces	11-16	100-200%
		Mother of pearl shell earrings	5-10	100-200%

11	Handicraft Centre Shop 15	Freshwater pearl chains	25	100-200%
		Freshwater pearl necklaces	150-180	100-200%
		Freshwater pearl earrings	20-22	100-200%
		Freshwater pearl rings	15	100-200%
		Freshwater pearl bracelets	19-26	100-200%
		Mother of pearl shell chains	10	100-200%
		Mother of pearl shell necklaces	15	100-200%
		Mother of pearl shell earrings	10	100-200%
12	Handicraft Centre Shop 16	Freshwater pearl necklaces	50-70	100-200%
		Mother of pearl shell chains	15	100-200%
13	Handicraft Centre Shop 20	Freshwater pearl chains	29	100-200%
14	Handicraft Centre Shop 21	Freshwater pearl earrings	15	100-200%
		Freshwater pearl bracelets	25	100-200%
		Mother of pearl shell chains	14	100-200%
		Mother of pearl shell necklaces	13	100-200%
		Mother of pearl shell earrings	6	100-200%
		Mother of pearl shell chains	10	100-200%
15	Handicraft Centre Shop 32	Mother of pearl shell earrings	4	100-200%

The freshwater (white and dyed black) pearls and pearl related products are mainly purchased by tourists who come by boat and by cruise ship. As Nadi is the heart of Fiji's tourism industry, the handicraft and the souvenirs markets in Nadi are trading extremely well. Notably, the handicraft shops do not sell any black seawater pearls because the owners of the handicraft centre cannot afford to buy marine pearls from local suppliers because local is considered too expensive. One of the owners highlighted during the interview that:

*“We cannot afford to buy seawater pearls. I will have to go through many problems if I had to buy seawater pearls. First thing is that I do not have the suppliers of the seawater pearls and there is lack of demand for the seawater pearls as compared to the freshwater pearls...”*

Suppliers of pearl products to Nadi Handicraft and Souvenirs Centre are wholesalers from Suva and Nadi. The suppliers in Nadi are Acme and Kuki. One of the owners of the handicraft market imports his freshwater pearls from Indonesia and China directly. The majority of the owners of the handicraft and souvenirs centre in Suva make 50% of the pearl jewellery themselves, however the majority of the owners of the handicraft and souvenirs centre in Nadi make 20% of the pearl jewellery themselves. Problems faced by the owners of the handicraft centre include intense competition, high wholesale price, reduced tourist arrivals due to political instability following the coups in Fiji.

### **Markets and shops selling pearls – Nausori Town**

There are four jewellery shops in Nausori Town. Only two sell low grade genuine black round pearls which they have sourced from the Cook Islands three years ago. One shop has only 7 rings, 3 rings

and 10 pendants in stock simply because of lack of demand in Nausori. Customers in Nausori prefer crystal products (imported from China) and not pearls. Rings are sold for \$250-\$310, chains are sold for \$120 small and pendants are sold for \$230. Not much handicraft in Nausori because of few tourists. There is a Fijian stall outside Westpac and the operator has some real black pearls that she obtained from her cousin but she mainly sells Chinese fake plastic pearls.

### **Markets and shops selling pearls – Labasa**

Only two shops sell pearls and pearls products in Labasa - Jacks and Ashwin Jewellery Shop. Jacks have a medium size shop which sells mostly handicraft, cloths and devote about 5% of space to pearl products. It sells one type of freshwater white pearl bracelet which cost \$72 because only this product is in demand. Jacks do not sell any seawater black pearls because of lack of demand. Ashwin Jewellery shop sells freshwater white pearl and seawater black pearls mostly to tourists who visit Labasa mainly from cruise boats and yachts visiting Labasa and en route to Savusavu. Ashwin Jewellery has two other small shop outlets in Labasa town and buys pearls from a supplier in Suva but was not willing to reveal the name of the supplier.

### **Markets and shops selling pearls – Rakiraki**

Rakiraki is a small town with 15 small shops. Only two shops sell a few items of cheap/fake plastic pearls and pearls products. There is very little demand for genuine pearl products in Rakiraki. The two shop owners buy cheap/fake plastic pearls and pearls products from Acme and Kuki in Nadi. Also there are stores in two hotels in Rakiraki which sell pearls and pearls products to tourists.

### **Pearls sold by pearl farmers**

**Pearls of Paradise Fiji (Rakiraki)** is owned by an Indo-Fijian with partnership with a pearl farmer from Cook Islands. In addition to wholesaling black to Tappoo's and Jacks Ltd this company wholesales pearls overseas (HK, Japan, Australia and New Zealand) (Interview with the Mr Raghu Chowdhary, 23 March 2011). The firm has a retail shop called the Pearl Distributors Ltd in Nadi (located at Colonial Plaza) and sells pearl jewellery. This company adds value by making jewellery (sets made in Australia and NZ) with silver, gold and white gold settings and mounts

**J. Hunter Pearls** sells predominantly high quality 'A grade' pearls at auction in Japan and Hong Kong with some reserved and sold under a distribution agreement with Prouds, Fiji's largest department store. J.Hunter and Valili Pearl Farm in Savusavu have an understanding where they limit 'D grade' pearls as they do not want this quality to be circulated in the international and

domestic markets. J. Hunter Pearls also has a retail shop in Savusavu servicing tourists from yachts and cruise ships and those from up-market resorts in the Savusavu area. The company also promotes their products on their website (<http://www.fijipearls.com/>), in the Air Pacific in-flight magazine and on Facebook.

## **Pearl Association in Fiji**

Currently there is a Pearl Farmer's Industry Association in Fiji and all pearl farmers are members. However the Association meets infrequently and there are logistic problems with this given the broad geographic spread of the pearl farms in Fiji. A major problem with the Association is the vast difference between members in terms of their degree of farm development and scale of pearl production. Some farms are very small, lack infrastructure and produce only a handful of pearls, whereas the largest farm is spread over multiply farm sites, has well developed infrastructure and exports pearls worth millions of dollars per year. Clearly this results in major differences between farms in their priorities for growth and further development. The three largest farms (J. Hunter Pearls, Valili Pearl Farms and Civa Pearls) have an exclusive arrangement which includes cooperation with spat supply, pearl seeding expertise, pearl harvesting and pearl sales and marketing.

## **Constraints for growth of pearl production in Fiji**

Surveys with Fijian pearl farmers during this study identified a number of factors that are considered constraints to industry development (Table 2), including:

- Availability of oyster stock/spat
- Lack of infrastructure
- Disease and poor condition of oysters

Without doubt the biggest issue facing the industry is limited availability of oysters and spat and a key factor for future industry growth will be to facilitate routine and regular supply of oysters to pearl farmers. Other priorities for pearl farmers in Fiji differ according to the size of the farm and degree of development. For example, smaller, less developed farms identified availability of infrastructure, training in pearl seeding and oyster husbandry, and improved business skills as important factors for them. Larger farms that have already developed an export market identified research to improve farming practices and pearl production, product development, and marketing and branding as

important issues. Another issue affecting all pearl farmers in Fiji is security of tenure at pearl farming sites. This aspect is likely to be addressed in the 'Aquaculture Decree' currently being developed by the Ministry in consultation with stakeholders. This study also identified that significant quantities of MOP and pearl related handicraft and jewellery products are imported into Fiji. The growth of low cost imports from the Pacific and Asia is a threat to the industry particularly the small operators as it has displaced local supply and value adding capacity.

## Conclusions

Since 1999 the Fiji pearl industry has developed into a multi-million dollar export industry. It has developed an international reputation for unique, high quality pearls which are keenly sought. Demand for 'Fiji Pearls' greatly exceeds supply and there is every indication of considerable scope for development and significant opportunities for expansion of both the export and domestic markets. The industry provides livelihood opportunities in remote areas of Fiji through direct engagement with communities and through related activities such as handicraft production. However, further development of the industry requires key constraints to be addressed, particularly oyster supply.

## References

- Fiji Islands Trade and Investment Bureau, 2009, Fiji Islands Investment Opportunities
- Tisdell, C & Poirine, B (2007). *Working Paper No. 143 Economics of Pearl Oyster Culture*, School of Economics, University of Queensland, St. Lucia, 4072.
- Hambrey Consulting (2011). *Opportunities for the development of the Pacific Islands Mariculture Sector*, Secretariat of the Pacific Community, Noumea, 123 pp.
- Lucas, J.S. (2008). Environmental Influences. In: Southgate, P.C., and Lucas, J.S. (Eds.) *The Pearl Oyster*. Elsevier, Oxford. p. 187-230.
- Pickering T.D., Ponia B., Hair C.A., P.C., Poloczanska E.S., Della Patrona L., Teitelbaum A., Mohan C.V., Phillips M.J., Bell J.D. & de Silva S. 2011. *Vulnerability of aquaculture in the tropical Pacific to climate change*. In: J.D. Bell, J.E. Johnson and A.J. Hobday (Eds.), *Vulnerability of Tropical Pacific Fisheries and Aquaculture to Climate Change*. Secretariat of the Pacific Community, Noumea, New Caledonia. pp 647-731.
- Secretariat of the Pacific Community (SPC). 2007. *Aquaculture Action Plan, 2007*. Secretariat of the Pacific Community, Noumea, New Caledonia. pp. 57.