

## **Gender Issues in Tuna Fisheries**

Case Studies in Papua New Guinea, Fiji and Kiribati









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Based on the work of Fishtech Management Consultants with modifications by Gillett, Preston and Associates

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#### **UNITS OF MEASUREMENT:**

All units, unless otherwise specified, are metric. Where the term billion is used this should be taken as equal to 1,000 million. Various dollar (\$) currencies are used throughout the report – US\$, F\$ and AU\$. Unless otherwise specified the reader should assume that where the \$ sign has no prefix that it refers to the currency of the country referred to within the relevant text. Unless otherwise indicated in the text, the currency exchange rates used in the report are taken from <a href="https://www.XE.com">www.XE.com</a> on the 21<sup>st</sup> July 2007:

Euro (€) 1.00 = US\$ 1.383 (US\$ also written as USD) US\$ 1.00 = AU\$ 1.136 (AU\$ also written as AUD) US\$1.00 = F\$ 1.552 (F\$ also written as FJD)

US\$1.00 = Kina 2.876 (Kina also written as PGK or K)

#### ABBREVIATIONS:

ASCL Atoll Seaweed Company Ltd, Kiribati

AUSAID Australian Agency for International Development

CEDAW United Nations Convention on the Elimination of All Forms of Discrimination Against Women

CPPL Central Pacific Producers Ltd, Kiribati

CPUE Catch per Unit Effort

DWFN Distant Water Fishing Nation EEZ Exclusive Economic Zone

EU European Union

€ Euro

FAD Fish Aggregating Device

FAO Food & Agriculture Organization of the United Nations

FCFS Fisheries Credit Facility Scheme, PNG

FFA Forum Fisheries Agency

FPA Fisheries Partnership Agreement (with the EU)

FTC Fisheries Training Centre, Kiribati

GDP Gross Domestic Product

HACCP Hazard Analysis and Critical Control Point

HIV/AIDS Human Immunodeficiency Virus / Acquired Immune Deficiency Syndrome

ILO International Labour Organisation

JICA Japanese International Cooperation Agency

K Kina (100 toea = 1 Kina) KPF Kiribati Provident Fund

MCIC Ministry of Commerce, Industry and Cooperatives

MDG Millennium Development Goals

MELAD Ministry of Environment, Lands and Agricultural Development
MFMRD Ministry of Fisheries and Marine Resources Development (Kiribati)

MTC Marine Training Centre, Kiribati

mt Metric Tonne

NAC National Aids Council, PNG
NFA National Fisheries Authority, PNG
NGO Non-governmental organisation

NSO National Statistics Office

OIP Outer Island (Fisheries) Project, Kiribati

PIC Pacific Island Country
PNG Papua New Guinea
QC Quality Control

RCFDP Rural Coastal Fisheries Development Programme, PNG

SPC Secretariat of the Pacific Community

SPREP Secretariat of the Pacific Regional Environmental Programme

STI/D Sexually Transmitted Infection/Disease

ToRs Terms of Reference

UNAIDS United Nations Acquired Immune Deficiency Syndrome

UNDP United Nations Development Programme

UNICEF United Nations Children's Fund USP University of the South Pacific

WCPFC Western and Central Pacific Fisheries Commission

WID Women in Development

#### COVER:

Mrs.Taubwa Taniera is the Processing Supervisor, at Central Pacific Producers Ltd. in Tarawa, Kiribati. Her story is given in Box 14 of Annex 3.

## **EXECUTIVE SUMMARY**

The objective of this study is to establish what constraints and opportunities exist for women in the tuna industries of three case study countries - Fiji, Kiribati and Papua New Guinea - in the interests of promoting their greater participation in the wider Pacific Islands tuna fishing industry.

An important aspect of the study is to assess and compare current levels and contributions of women in the tuna industry. The country studies in this report give various types of information on the participation of women in the industry. Due to the diversity of conditions in the three countries, the information collected represents a fairly heterogeneous assemblage of facts. Table 1 attempts to summarise and compare some of the results of the study related to employment levels.

**Table 1: Employment of Women in the Tuna Industry** 

Indicator	Fiji	Kiribati	Papua New Guinea
Wage employment	Total females in tuna companies:  PafCo = 544  Longline = 110 + 173  Total = 827	CCPL = 4 (in processing)	About 7,000 women work in the PNG tuna industry, including onshore handling and loining or canning, and technical and administrative positions.
Indication of importance of above wage employment	At total of 37,438 female wage jobs in country in 2007 (BoS 2008).Tuna-related wage jobs therefore represent 2.2% of the total female wage jobs in Fiji.	With a total of 7,467 women in cash employment in the country in 2005 (KNSO 2008), the above 4 jobs are relatively insignificant	The 2000 census states that 211,443 women were formally employed. The tuna industry therefore employs 3.3% of all formally employed women.
Annual wages for women formally employed	PafCo = F\$2,397,606 to F\$3,557,409	About AU\$16,000	Canning/loining: RD = US\$1,875,000 SST = US\$360,000 Frabelle= US\$450,000
No. of women marketing tuna (informal sector)	Unknown	About 189 women are involved full time in the sale of tuna in South Tarawa.	Unknown
Indication of importance of above informal employment	Unknown	Income from artisanal tuna sales represents about 1.3% of all income in South Tarawa.	Unknown

All three countries of the study have mixed subsistence and monetary economies. The ability of islanders to maintain their quality of life during this transition from subsistence to a cash economy depends largely upon the flexibility of women, whose roles are commonly multiplied when they take on paid employment.

A common aspiration in many Pacific Island countries is improve the benefits from tuna resources through domestic tuna industry development: expanding local participation in harvesting, processing and marketing of tuna. Women are active in domestic tuna industries, and their roles are expected to expand. What constraints they face and, conversely, the available opportunities are the subject of this report. For each country and common to all three countries these are summarised as:

## Fiji Islands

- PafCo is the largest national employer of women in the tuna industry and is in a unique position as a
  publicly subsidised private enterprise. Given its central position in the Ovalau economy, important
  initiatives are needed to increase local participation in general and to promote transparency in
  management-staff and management-community relations.
- For the longline fishery, women could rise faster in the companies if they were provided relevant training, especially those that have demonstrated promise.

 The industry requires more assistance to support product development and secondary processing skills and to provide opportunities to attract more women into emerging value-added tuna cottage industries linked to the longline fishery.

#### Kiribati

- Island and Town Council Markets require more attention to service the preponderance of local women
  who depend on these to sell their fish. Councils also currently charge un-competitive high rates for
  seller stalls.
- Gender sensitisation is required in government agencies that deal directly with women and credit and/or business opportunities available to them.
- Some government policies currently exists that generally make private sector development prohibitive. Transparency in the making and implementation of government policy is required to establish realistic and sustainable long term goals for the industry.

## Papua New Guinea

- In tuna processing areas, usually at the edge of town, workers are struggling to balance the quality of
  living once enjoyed in the subsistence economy with the demands and limitations of the new cash
  economy. A realistic living minimum wage must be established for the whole industry, and especially
  in these production plants.
- HACCP and EU food safety accreditation standards must be enforced in a transparent manner and training for their oversight strengthened.

#### **Common Issues**

- The strains of moving into a modern life fall disproportionately on women and children. Public sector responses to health, safety and domestic abuse concerns appear inadequate or non-existent.
- Industry growth has meant an expansion of a spin off sex-trade. The health and safety issues surrounding this require a more coordinated effort by the public and private sectors.
- Industrial-scale fish processing generally occurs at the fringe of towns, often drawing villagers to the
  workforce for the first time and those that are cut off from traditional livelihood strategies may find
  the wages inadequate for basic needs.
- As opportunities are likely to expand for spin-off businesses involving tuna and tuna by-catch, opportunities for women will grow. There is a paucity of private and public training support to seize those opportunities.
- Tuna industries and associated benefits are likely to expand in the future. Social problems, many of which fall disproportionately on women, will probably increase. Present measures by governments and companies to assure the benefits are not negated by social disruption appear inadequate.

## **Conclusions and Recommendations**

The study findings reveal very few institutional constraints to women in the industry, although they are customarily excluded from working on fishing vessels. As small business entrepreneurs and boat owners they remain important, but the greatest expansion in opportunities is most likely to come from participation in a range of shore support services and the formalised fish processing sector.

One of the greatest barriers to women entrepreneurs is the same as for men – namely access to credit to start a business. Preferential credit eligibility would promote more participation across the region, as women are already long-established small scale entrepreneurs in the Pacific region.

Education is critical to women's participation in the sector. More relevant training should be made available for tuna bycatch processing, especially where local tuna supplies are inconsistent. At the upper management level, the more the region does to promote women in commerce, the more the tuna industry will benefit.

Private companies and governments could do more to sponsor promising women in their education. Processing plants should promote more unskilled women through their ranks. The relatively few women who have done extremely well in the industry need to be given coverage in the media as role models to young women searching for careers.

Because much of the industrial tuna processing occurs in areas where *any* jobs are in great demand, market forces have not resulted in the processing companies paying much attention to important health, safety, transport and wage concerns that prevail. This lack of current attention, and unlikely possibility of spontaneous improvement, appears to justify at least some government intervention to mitigate the problems.

In the short term the number of women involved in the processing sector is growing (in Fiji and PNG) and it is important that their importance to the industry be acknowledged by greater support for gender parity in wages, and establishing a living wage for unskilled labour. This requires greater sensitivity to the multiple roles PIC women play, their time constraints, their security issues, and their health and safety concerns. A bottleneck exists for women between the unskilled processing work and promotion to skilled or middle management positions. Because unskilled women are generally multi-tasking their household needs, customary roles and waged jobs, their priorities tend to be with the family rather than with advancing their career.

The study findings suggest that the treatment of women workers, even the perception of their treatment, can make a significant difference in the overall public relations of a company as well as the morale of the entire staff. Although the fish processing sector fairs better than other sectors, it is clear that the minimum wage is not always a living wage in many Pacific Island Countries. However this can often be compensated for by flexible work hours or the provision of company transport, both of which are important social benefits for women. Employers should be encouraged to address such issues.

## 1.0 INTRODUCTION

Fishtech Management Consultants was contracted by the SPC in April 2007 to undertake a study on gender issues in the tuna fisheries of PNG, Fiji and Kiribati. In June 2007 Gillett, Preston and Associates was employed to modify the report.

The overall objective of the study is to analyse the current status/situation of the tuna industry in these three countries for the purpose of increasing the participation of women in the industry/fisheries. The scope of the study includes work to:

- Assess and compare current levels, roles and contributions of men and women
- Highlight and discuss potential roles and contributions of women in the tuna industry
- Identify constraints to higher levels of participation of women
- Discuss challenges and problems faced by women in the industry
- Discuss actions that can contribute to higher levels of participation in both small-scale and industrial tuna fisheries development
- Recommend practical policy and programme options to increase the participation of women in the industry



The full Terms of Reference for this study are provided in Annex 1. The field research, analysis and report writing was limited to an input of 45 days and was undertaken by three associate consultants based in the region: Dr Nancy Sullivan (Lead Consultant) – Kiribati, Papua New Guinea and Fiji; Dr Vina Ram-Bidesi – Fiji; and Dr Temakei Tebano – Kiribati

#### 1.1 METHODOLOGY

Fieldwork in all three countries was undertaken in May-June, with additional work in September 2007 and May 2008. Annex 2 provides a list of all those interviewed during the course of the research. The research methodology included informal and structured interviews with industry personnel, workers, government officials, NGO groups and other key informants in the respective countries. Previous reports on gender issues and other government reports were also used in the study.

The names used in some contentious cases have been changed to protect the identity of the interviewee. Section 7.0 provides a list of references consulted during the course of the research.

#### 1.2 ACKNOWLEDGEMENTS & DISCLAIMER

Fishtech Management Consultants would like to acknowledge the support given by the Michel Blanc and Jonathan Manieva at SPC for the support and flexibility in the implementation of this study. The Study Team acknowledges the time and information willingly given by all those interviewed, in particular those from the private sector.

## 2.0 OVERVIEW - FISHERIES, WID ISSUES AND EMPLOYMENT

Pacific Island societies have some of the highest annual per capita fish consumption rates in the world (WorldFish 2007) and their coastal fisheries produce mainly for the local markets. The fisheries export potential for these countries lies mainly in their offshore tuna resources. The Pacific Islands region and the wider western and central Pacific Ocean is the most important tuna fishing area in the world. The average annual tuna catch during the past 10 years is almost as much as the combined tuna catches of the eastern Pacific, and Indian and Atlantic oceans combined. Presently, a large portion of the benefits enjoyed by countries comes from the licensing of foreign fishing vessels. In Kiribati, for example, access fees account for up to 45% of government revenue (Tarte, 2002). Only limited benefits accrue from processing or support services in most PIC, but there is considerable potential for expansion in many of the countries of the region.

A very large proportion of the work required in the industrial processing of tuna is undertaken by women, and the cost of this labour is critical to the financial viability of this processing. As such, the involvement of Pacific Island women is very important for the development of tuna processing, but the competitive pressure for low wages creates significant issue for the workers.

Whilst more women working in fish canneries and loining facilities could result in more income in the community, in practice it can also mean less household income, lower livelihoods, and more structural inequity between urban and rural poor, landless and landed communities, women and men. Poverty in the developing world is about both income and spending, and building on the balances of labour that already exist between all members of the community. The tuna industry holds considerable possibilities for both men and women in PICs, and to ensure its benefits continue to outweigh the costs, a concerted effort must be made to cultivate the appropriate participation of women.

Women are essential players in most aspects of Pacific Island fisheries, from collection to marketing, processing and preparation. In Fiji and PNG they have expanded their traditional roles from catching and preparation to include post-harvest, distribution and marketing activities, and that they have often done this by relying on traditional community networks. The formal economy now offers them employment opportunities that can bring in more cash. Problems can arise when, by providing cheap labour in processing plants, they are absent from subsistence strategies, or when they are over-burdened with responsibilities from both their formal employment and traditional responsibilities.

As women continue to dominate the processing sector of the industry, special attention must be paid to their specific needs as multitasking members of their communities: as mothers, wives and fishmongers, matriarchs and homemakers. Safeguards to protect their health and lifestyle well-being can facilitate their continued contribution to the industry and open other opportunities in value added processing and other shore-based enterprises.

Numerous studies have been undertaken, and reports written about the participation of Pacific Islands women in the tuna industry highlighting impacts, costs and benefits, constraints and opportunities. A previous DevFish report (Demmke 2006) reviews this literature, assesses the impacts of the tuna industry on women, and identifies critical issues that need to be addressed. Box 1 is a summary of that study.

Box 1: The Demmke study of Gender issues in the Pacific Islands Tuna Industry

The positive impacts of the tuna industry are common to both men and women. However, the negative impacts are often directly felt by women. The increase in a woman's work load and domestic responsibilities, poor working conditions in processing factories, the transmission of sexually transmitted diseases including HIV/AIDS, alcohol and drug abuse are a few negative aspects that affect the health and well being of women. In order to address these negative impacts, women rely largely on NGO groups such as National Women's Councils, Youth Groups, Health Groups, and the Church. More support is required from both Government and the tuna industry. Socio cultural beliefs, family obligations, lack of skills and experience, lack of direct access to credit and finance, transport restrictions, and poor market facilities restrict women from participating or participating equally in the industry. Any opportunities for women will need to take into consideration these constraints. The production of value added products is a proposed business opportunity for women. They may become part of commercial activities, or establish small scale ventures. Tuna and by-catch from fishing activities or waste from processing factories could be used for smoking, salting, drying, tuna jerky and fishmeal.

## 3.0 COUNTRY REPORT - FIJI ISLANDS

## 3.1 BACKGROUND TO THE SECTOR

Fiji's tuna industry is spread across two formal economic sectors: the manufacturing sector and fishing sector. The post-harvest activities of the tuna industry in Fiji can be placed in four categories: (1) loining/cannery operations; (2) exporting frozen tuna for canning; (3) exporting for non-cannery purposes; (4) selling tuna and tuna bycatch in the domestic market.

The harvesting sector is comprised of locally-owned vessels, domestic based foreign vessels and foreign vessels. These vessels may either fish in Fiji's EEZ, the EEZs of neighbouring countries, and/or the high seas.

Women's participation in the formal economy aspect of fisheries in Fiji has increased over the last two decades, some of which is due to special incentives such as the Tax Free Factory Zone that started in the late 1980s as a means to generate economic growth.

### 3.2 FISHERIES POLICY FRAMEWORK

Fiji's Tuna Management Plan (2006-2010) is the current expression of fisheries policies in tuna industry. This Plan is the second phase of the first Tuna Management Plan (2002-2005) that provided the first comprehensive policy framework for tuna fisheries in Fiji. The formulation of the current Tuna Management Plan (2006-2010) followed the audit of the first phase with the major objective of devising policies that would create a framework for a stable and profitable fishery. The key management policy objectives of the Tuna Management Plan address four areas:

- Economic gains tuna resources to provide jobs for men, women, export earnings and government revenue
- Sustainability- ensure compliance with international agreements for long term sustainable use
- Enhanced participation by indigenous Fijians to promote further participation by indigenous Fijians as investors and owners of tuna businesses
- Enhanced catch history for any future regional catch allocation process

While there has been consultation with women's groups in the planning process, substantial progress in addressing social impact issues has not occurred. The Fisheries Department however has increased the number of women staff. Employment of women in the private sector such as in processing has also increased, although the precise number is difficult to determine. The increased trend in women's employment in the processing sector is not however considered a direct outcome of any specific government policy to boost women's employment in the sector, but rather because women have greater needs to join the cash economy.

## 3.3 GENDER POLICY FRAMEWORK

The Government of Fiji recognizes that an important aspect of the improved status for women is their greater participation and involvement in decision making processes at the national level. As such, the government will continue to assign women to 30-50 percent of the positions on boards and committees, as approved by the Cabinet in June 1993. The government will also actively support the participation, training, appointments and promotions of women with merits and skills at levels in both public and private sector (Ministry of Women and Culture, The Women's Plan of Action, 1999-2008, Suva. 1998: 75-6; cf Chandra and Lewai, 2005).

Fiji has made commitments to eight major international agreements and programmes for action on gender equality and the advancement of women. It has also made commitments to achieving the Millennium Development Goals (MDGs), including those associated directly or indirectly with the status of women and gender equality (ADB 2006). The goals and policy objectives for gender and development and gender equality in the Strategic Development Plan have been closely based on the endorsement by government (in 1999) of the Women's Plan of Action (1999 – 2008). In advancing the economic, legal and political status of women, the government in consultation with other stakeholders, NGOs and women's groups have selected five areas of focus for its gender commitments. These are:

- Mainstreaming women's and gender concerns in the planning process and all policy areas
- Reviewing laws that are disadvantageous to women
- Allocating additional resources to develop women's micro enterprises and encourage financial institutions to review lending policies to women who lack traditional collaterals
- · Working towards achieving gender balance partnerships at all levels of decision making
- Campaigning to promote a sound and stable environment that is free of violence

Several advances have been made in the area of legislative reform following the enactment of the 1997 Constitution. The Bill of Rights within the Constitution establishes an equal employment opportunity policy. The Fiji Human Rights Commission employs an officer specializing in gender equity cases. A Law

Reform Commission has been established to review laws relating to sexual and family violence. The Family Law Act (2003) also provides the framework for more equitable gender legislation.

As pointed out in the ADB assessment report (ADB, 2006), the responsibility for achieving gender policy goals are assigned to the Department of Women under the Ministry of Women, Social Welfare and Housing. This creates a structural problem because the Department of Women is not a policy agency but a line department focusing on community development. In relation to tuna fisheries, there is a lack of congruence between the gender policies of government under the Department of Women and those of the Fisheries Department under the Tuna Management Plan.

#### 3.4 LABOUR ISSUES

The Ministry of Labour and Industrial Relations administers the labour laws and oversees labour relations and welfare of workers. The Employment Act (Cap 92) regulates minimum terms and conditions for employment of all employees at their workplace. Other labour laws in Fiji include the Workmen's [Worker's] Compensation Act (Cap 94), the Health and Safety at Work Act, Trade Dispute Act, Fiji National Training Council Act, Trade Union Act and Fiji National Provident Fund Act. There is also a Wages Council Act (Cap 98) which provides for establishment of Wages Councils which in turn decide on the industry/sector based minimum wages and terms and condition where no adequate collective bargaining machinery exists.

A new Industrial Relations Law was passed in October 2006 and has clarified the issue of equal employment opportunities for women. The law comes after a long lobbying effort by, amongst others, the Fiji Women's Rights Movement, which prepared a Lobbying Manual under its Women's Employment and Economic Rights Project. Unfortunately the law's future is uncertain – it was to come into force on October 1 2007 but the government has agreed to postpone after much opposition from the Fiji Employer's Federation (The Fiji Times, September 15 2007). The improvements under the new law are considerable for women, and they include:

- New provisions for 84 days maternity (full pay for 3 births and thereafter half pay)
- Spot checks on workplaces (without 14 day notification)
- 30% minimum female representation on the Labour Advisory Board
- Transport and overtime for night workers
- 'Visual material of a sexual nature' to fall under definition of sexual harassment
- Employer liability for workers' and subcontractors' actions in terms of sexual harassment
- A minimum wage across all sectors (to prevent the discrimination by sector in female-dominated field, like the garment industry)

While PafCo has a workers union to represent workers interest, there are no such unions for the domestic longline industry workers. Most of the employees' wages are determined by a combination of factors, including the minimum wage, market forces, and employer/employee bargaining.

## 3.5 PACIFIC FISHING COMPANY

## 3.5.1 Cannery & Loining Operations

In 1964 a joint venture between the colonial government of Fiji and two Japanese companies, C. Itoh and Nichiro Ltd was set up to operate a cold store trans-shipment base on the Island of Ovalau. By the late 1960s, the administrative capital was shifted to Suva. The trans-shipment base was expanded into a joint venture cannery operation with a 10 year agreement: the Fiji government 25% held shares, local citizens 4%, Nichiro 10% and C Itoh held 61% shares. The agreement also included the assurance of a progressive localisation of personnel and an obligation to purchase skipjack and other tuna from local fishers (Ram-Bidesi *et al.*, 2003).

Whilst the Pacific Fishing Company (PafCo) did record profits in some years, C. Itoh did not seek an extension of its agreement and the Fiji Government nationalised the operations; the government shares increased to 98% and 2% were held by locals. Since nationalisation profits were recorded until 1991, but then PafCo went into financial difficulty for various reasons including lack of supply of fish, depressed market prices, and high operating costs. The amount of government assistance to PafCo required between 1994 and 1997 amounted to over F\$11.5 million (Arthur Anderson, 1997).

In August 1997, PafCo signed a Memorandum of Agreement between Bumble Bee and the Fong Chen Formosa (FCF) Company. Under this agreement Bumble Bee provides raw tuna for processing through FCF which is a global company that supplies fish to Bumble Bee plants for processing. Bumble Bee provides technical expertise and is responsible for the marketing of processed fish while PafCo provides the processing facilities for canning and loining, labour and infrastructure. The current agreement will expire in 2009. As part of this agreement, PafCo has had a major upgrade of the processing facilities to meet international sanitation and hygiene requirements. The Quality Control Manager (a Bumble Bee employee) confirmed that the PafCo facility meets the hygiene and quality standards (HACCP standards) for exports to the EU and the US markets.

The number of workers employed by PafCo during any given period is dependent on production requirements. There are periods when fish supply is regular and the factory operates on a two eight-hour shifts, coinciding with seasonal catches in the Fijian EEZ. When supply of fish is low, PafCo operates one eight-hour shift during the day.

Officials at the Ministry of Labour indicated that there has been an agreement between the PafCo management and the union to review wages every two years. Since a major strike in 2003, no review has been undertaken. Productivity of the workers continues to be an issue. Initially, workers complained about the productivity based bonuses where standards set were high and so seldom targets could be reached (Rajan, 2005). Currently, supervisors (and upper management) impose strict working regimes on factory floor workers to help meet their targets which some factory floor workers resent.

#### 3.5.2 Employment at PafCo

During May 2007, the factory was operating on a five day week and one eight-hour shift or 42.5 hours per week. However some workers are also required to work over the weekend on unfinished and essential tasks. PafCo has about 580 permanent workers (main list), 110 casual workers (on temporary appointments) and about 100 pooled workers. Information from company sources provided the following summary on the current employment status over the last two years – see Table 2.

Table 2: Summary of Employment of by Gender at PafCo

	2005	2006	2007 (May)
Female	593	582	544
Male	216	216	198
Total	809	798	738

The breakdown of employment by various job types is indicated in Table 3 below. Job descriptions have varied over the period in the restructuring of the factory; therefore the list is summarised and may not represent exact employment categories. For example in 2005 there were 11 males and 90 females working in the loining section of the factory. This activity has however been incorporated under cleaning, moulding and skinning in 2006 and 2007. Likewise the 'wet process' in 2005 is described as cleaning/cleaner in 2006 and 2007.

Table 3: Activities Performed by Men and Women at PafCo

1-b 4 2007 (Man)						005
Job type	2007 (May)		2006		2005	
	Male	Female	Male	Female	Male	Female
Butcher	3	19	3	20		
Canning	3	19	4	18	5	32
Cleaning/cleaner	9	152	13	184		
CV operator	-	10	-	10		
Driver	3	11	4	14		
Labelling	11	13	12	14		
Moulder	4	146	4	18		
Skinner	127	76	145	77		
Sorter	2	12	4	11		
Supervisor	-	17	-	18		
Unloading	1	17	1	24		
Flakes	-	10				
Mechanic/ Mechanical	2	5			2	8
Sanitation			4	12		

Job type	2007	(May)	2	006	2	005
Quality Control				6	10	25
Clerical				8		
Day care		3		3		
Raw materials & logistics					5	31
Wet process					159	310
Loining					11	90
Fish meal					3	9
Utilities					2	8
Human resources					1	9
Electrical					1	2
Automotive					4	13
Others	33	34	26	147	13	56
Total	198	544	216	582	203	537

The only task in which men dominate is the skinning of fish, which requires manual handling of large and heavy fish. Interviews with employees indicated that men dominate in the unloading of fish, the freezer area and the maintenance of machine and skinning of fish, whilst women are dominant in the processing lines.

About 70% of the PafCo workers are women (Prakash, pers comm.). There are 580 workers on an hourly paid rate, and 40 salaried staff on a monthly wages, of which about 24-26 are middle management and 13-15 are at senior management level (*Ibid*). The bulk of PafCo employees are in the production section. Table 4 provides the breakdown of employment by gender type in a typical production shift.

Table 4: Staffing of Typical Production Shift at PafCo

Activity		Supervisor		Salaried Staff		Non-salaried staff	
		М	F	М	F	М	F
Preparation					2	2	2
Cleaning			14			13	150
Canning			2	8			18
Freezing	&		2			4	18
moulding							
Labelling			2				
Quality control		2	2		4	2	2
Total		2	22	8	6	21	190

Table 4 reveals a dominance of women as supervisors and non-salaried staff in production. 6 of the 14 salaried staff (43%) are women and 90% of non-salaried workers are women.

The dominance of women on the factory floor has been well documented in canneries and food processing industries all over the world. In 2000, the company's Quality Control Manager explained that, "women are capable of dexterous work, better with their hands, more productive and more committed than the men" (Rajan, 2005). The study team heard the same message from many quarters in both Levuka and Suva. Emberson-Bain (1995) noted that women had replaced men at PafCo because men refused to do monotonous and 'demeaning' tasks like cleaning, gutting and preparing fish to be canned (as reported in Rajan, 2005). Women with minimal skills or education are willing to take up what ever employment opportunities are available to them, and are therefore more likely to follow orders when the one means of earning income for their family is at stake.

PafCo interviewees also told us that women are not barred from work otherwise dominated by men, such as electrical and mechanical tasks, or operating forklifts and machines. However, one [male] interviewee said that a female worker has to be exceptionally good and physically fit to perform such duties. Women generally do not seek jobs that require heavy lifting or pose health risks, such as stevedoring or work in the freezer section. But risk is relative, and employees also suggested that production line work has its own risks. This could not be verified as visitors are forbidden to view factory processing areas (Prakash, pers comm.)

The PafCo Personnel Manager told the study team that the first generation of PafCo women employees is now 40-50 years old; she herself started working at the factory in 1981. She also maintained that there is now a more educated workforce in Levuka waiting to gain employment at the factory; they are all educated, very qualified, and have applied for positions that are still filled by the older permanent employees. For example they had 160 local applicants from Levuka, some of who had computer skills but only 30 were employed.

#### 3.5.3 Economic Assessment of the Role of Women at PafCo

In the absence of accurate quantitative data, the income of all female workers and staff at PafCo was estimated as follows:

- Income of Female Factory **Floor Workers**: Factory floor workers receive an hourly wage rate of F\$2.75 (referred to as "unskilled") whilst the "skilled" category rate varied from F\$3.10 to \$3.50 per hour. In May 2007, there were a total of 742 employees of PafCo of which 580 were permanent workers and 40 staff and 7 in administration and management. At the time of interview (May 2007), only permanent workers were employed, and 115 workers who appeared on the records were assumed to be casual workers or employed on a needs basis. Of the 580 factory workers, 70% are women and 30% are men (Prakash, pers comm.). Thus about 406 women working at F\$2.75 for 42.5 hours/week received a total wage of approximately F\$47,451 per week. Periodic closures total about 6 weeks per year. Given that the factory operates 46 weeks a year and given the current state of operations (single shift operation) the annual wage bill for female workers on the factory floor at PafCo is estimated at F\$2,182,756.
- Interviews indicated that approximately half the **senior staff** positions at PafCo consist of women: 20 female staff at F\$3.50 per hour over 8 hour shift for 5 days means they are paid F\$2,975 per week. 46 weeks will give a total wage bill for female staff of F\$136,850. One assistant manager receives F\$1,500 per month while the other received F\$2,000, giving a combined total salary for both of F\$42,000. There is only one other female senior management staff whose salary level was not known but estimated to be at least F\$36,000 per year (assuming she receives twice as much as assistant manager, ie F\$3000 per month). Thus the senior female staff salaries add up to F\$78,000.
- It is therefore estimated that **all female workers** at PafCo (floor workers plus senior staff) from all levels of operation are annually paid approximately F\$2,260.756 for a single eight-hour shift. Adding an additional shift for six months would result in a total of approximately F\$3,557,409 annually.

Although the total income of all female workers at PafCo is substantial, for the purpose of the present study, it is important to put this amount in context. Unfortunately, the readily available data is insufficient for comparisons to male income at PafCo. On a different level, the value added by female employees of PafCo<sup>1</sup> could be compared to the total value added by PafCo, but additional information would be required: total remuneration by all employees, PafCo profits, and taxes paid by PafCo. Despite the paucity of this data, there may be considerable value in collection the additional information in order to gain further insight on the women's contribution at PafCo.

#### 3.5.4 Some Considerations on Wages and Expenditure

The pattern of income and expenditure for workers on the factory floor shows that female workers' savings after expenses and deductions is generally very low or almost nil (Annex 3). Automatic deductions by PafCo allow the ladies to keep up with various repayments. Women are the major clients of the Employees Credit Union, which is often used for food or family related expenses. Considering the pattern of expenditure of majority of women workers at PafCo, one can say that they play an active role in the cash economy of Ovalau. A local shopkeeper commented that "women often use their wages wisely, in comparison to men who may use part or most of their pay packet at the bar or on kava".

It should be noted that the current wage rate of F\$2.75 compares favourably with a wage rate three years ago for permanent workers of F\$1.75 (Rajan, 2005). This represents an increase of some 57%, not taking into account the annual inflation rate of around 3%. In comparing the minimum wages of workers at PafCo and other manufacturing and retail industry as indicated in Box 2, one can say that the PafCo wage is relatively good. Comparing wage rate of PafCo to that of garment factory workers such as machinists in

<sup>1.</sup> Employee compensation (wages and other remuneration) is equal to the value added by those employees to the firm's total value added (Gillett and Lightfoot, 2001).

the tax free zone in Kalabo near Suva who receive a normal wage of \$1.80 per hour, the wage rate is significantly higher at PafCo.

## **BOX 2: A COMPARISON BETWEEN PAFCO & OTHER INDUSTRIES, FIJI**

In 2003 the minimum wage for the garment sector, for a new worker, was F\$1.15/hour, and for an experienced worker (with more than six months experience) F\$1.36 (Storey 2003:31). The 2006 minimum wage for cadets with technical skills was F\$1.48, and for Hotel and Catering cadets, F\$1.25 (Hodges 2006). The average minimum wages in the manufacturing sector is F\$1.70/hour. Average wage for learners: F\$1.60, casual workers: F\$2.50, other ordinary workers: F\$2.00, and skilled workers F\$4.85 - F\$12.00 (Fiji Trade and Industry Board website 19 June 2007). The current minimum wages for a forklift operator is F\$2.43/ hour; packer over 18 years of age is F\$2.11, unskilled workers over 18 years is F\$1.98 under the wholesale and retail trade. Minimum wages in the Building, Civil and Electrical Engineering trade for unskilled workers is F\$2.25, light plant operators is F\$3.10 and for a clerk is F\$2.68. Source: Fiji Trade and Investment Bureau, 20 September 2007

## 3.5.5 Some Benefits and Costs of Working at PafCo

PafCo workers have certain unique benefits - a laundry in the plant for cleaning uniforms; access to three canteen vendors with two morning tea breaks of 15 minutes each allowed, a 1 hour lunch (versus half-hour in other plants) and a mid-afternoon tea break for 15 minutes. The shifts are staggered, and overtime workers get transport free. They have an active union and a credit union, with local credit card arrangements. Some mobility exists between middle and upper management, although there appears not to be between production and management.

Some workers must pay as much as F\$2.50 each way from distant villages, but they come to work nonetheless. Roughly 15-20 women from each of the farthest villages are permanent employees; they still find it beneficial to commute because the social and long-term benefits are important to them such as building skills, establishing credit, forging an employment record, and so forth.

## 3.5.6 PafCo Employees Union vs Management

Many PafCo workers pay the union F\$5/week, which is non-compulsory to join. There are reportedly 80 non-union 'free-riders' on the factory floor. People interviewed for this study suggest that there is blatant bias against union members. The Union says PafCo has failed to comply with the requirements of the company's Occupational Health Scheme. These complaints include too few fans, hot working environment, sick leave without pay, maternity leave without reinstatement, abusive supervisors, some sexual harassment, women forced to carry heavy loads, some forced to wear wet clothes from the laundry etc.

A feature that persists at PafCo is the poor state management/worker relations. This is seen as detrimental to both the company and employees at the operational level. Interviews with the union workers and management indicated that relations have been unnecessarily polarized as a result of miscommunication, and that there is little interaction between the production floor and the senior management level.

In all tuna processing plants there is a marked difference between the air-conditioned suites of the management offices and the hot, noisy and smelly factory floor below. Ironically, PafCo has a lot to be proud of, and much has changed since various investigative reports first condemned the place. The women of Levuka earn more than their colleagues elsewhere in the Pacific and remain relatively free to choose against factory work. The plant itself has been refurbished and is reportedly clean and well maintained.

There have been several industrial disputes in recent years between the employees union and PafCo management (the most recent and serious in 2003). Employees feel that PafCo management is not sensitive to their needs and is serving the shareholders interests despite a majority government shareholding. The PafCo management reply to these concerns is that Levuka is a high cost production area since the pool of labour is limited on the island and the people feel that they have monopoly power over the company. It is difficult to attract skilled labour from elsewhere because the people from Lomaiviti are given the first preference and Levuka does not have the services that are available in larger towns of Fiji.

## 3.5.7 PafCo Community Relations & Other Issues

The study team noted some longing for the past in the issue of community relations:

- Women who have worked on the factory-floor for many years spoke nostalgically about the Japanese era at PafCo. They remember the Japanese as employers who also socialized with them, brought ice cream to the production floor on occasion, and held meetings
- Those who joined the company more recently could recollect that the previous CEO, Mitieli
  Baleivanualala, would gather everyone together and talk abut performance once in a while, so
  "you felt you were part of a team." He knew how to cultivate morale, and he also lived in Levuka,
  which made all the difference to the staff.

On the other hand, the company has, under the new management made improvements to the pipeline so that the fish waste is now pumped beyond the reef-line. PafCo feels constrained by social obligation and Union pressures to retain underproductive workers. Even if people would make more money in small fishing cooperatives, many workers interviewed indicated that for now they had no entrepreneurial incentives, and they found it easier to work at PafCo.

## 3.5.8 Summary of Key Issues and Opportunities

The majority of women work on the factory floor but some have moved to middle and upper level of management as supervisors and assistant managers. The personnel manager is for example a woman who was appointed to the position about two years ago.

Although working conditions have generally improved with the up-grade of the factory since the new partnership agreement with Bumble Bee, the following issues have been high-lighted by this study:

- Complaints relating to long hours of standing continued to creep by the workers. The provision for sitting on stools could be explored to reduce the work pressure on the knees.
- The relationship between PafCo management and the workers needs to be improved through a more genuine and proper dialogue where decision making is more open and transparent. There is an urgent need for team building approach to improve the morale of the workers and the management for their mutual benefit. More practical steps such as open days should be organized between management and workers to interact within an informal environment to create a more conducive worker-employer relationship.
- Adopting a gender policy for PafCo can also assist the company to be more accountable and transparent and avoid any unwarranted discrimination by union, NGO groups supporting women and from the local community.
- Women and men working at PafCo need training to improve time management to increase efficiency and productivity so that the cannery can continue to operate in a competitive global environment

## 3.6 THE TUNA LONGLINE INDUSTRY

The other segment of the tuna industry in Fiji is locally-based longline fishing, which targets the yellowfin and bigeye for high-value sashimi market and albacore for canning. In the early 1990s the Fiji Government began economic reforms to boost economic growth following the coup of 1987. Focus was on export-oriented development with the private sector playing a key role through the provision of incentives such as duty exemptions and concessions. With the granting of tax free status in 1997 and devaluation of the currency in 1998, the longline industry further expanded with exports of fresh and chilled tuna to Japan and the United States. Exports of sashimi tuna in 2004 was estimated to be F\$249.2 million (Fiji Fisheries Department Annual Report, 2004) and the annual catch of 84 longline vessels licensed in Fiji was 14,945 mt of which 8,785 mt was catch from Fiji waters (Ibid).

## 3.6.1 Employment of women

The harvesting sector of the longline industry consists of about 130 domestic based vessels. These vessels offload their catches in Fiji for processing or transshipment. The post-harvest components of longline operations include packing of whole fresh fish for sashimi, loining of frozen fish, vacuum packing, shipping frozen fish for canning, and processing of bycatch into steaks, loins and other products.

Direct participation of women varies depending on the nature of work and type of business operation. There are several types of company in the harvesting sector: those that focus on fishing only and have their own vessels or act as agents for certain contracted vessels. If these companies own a shore-based office there is direct employment for 1-2 women as clerical staff. All vessel operations and harvesting is done by men. Another type of fishing company is one where the company operates a fishing fleet and uses the processing services of another company and exports the processed fish. In the latter type of operation, women also work as office managers and administrators while the fishing operations, engineering and mechanical work predominantly employs men. Shipping agents that facilitate customs clearance, border inspections and provide other services and provisioning for vessels also employ women in clerical type of positions. Table 5 below provides the estimated direct employment in the tuna harvesting related sector by gender:

**Table 5: Employment Longline Vessel Operations, August 2007** 

Activity	No. of	No. of	Total	%	% Men
	men	women		Women	
Company/boat	25	3	28	11	81
owner/manger					
Skippers	90	0	90	0	100
Engineers	180	0	180	0	100
Crew	968	0	968	0	100
Workshop & other	105	25	130	19	81
Office administration	46	82	128	64	36
Total	1414	110	1524	7	93

Comparing Table 5 to direct employment in fishing and related activities in 2001 reported by the Forum Secretariat (Demmke, 2006), the trend shows a small reduction in total direct employment of in longline fleet operations whilst the number of women in shore based activities related to fleet operations increased from 3% to 7%. Employment of women in office administration has more than doubled to 64% since 2001.

In shore based longline tuna processing, the involvement of women depends on the level of primary or secondary processing. As of August 2007, there were 36 companies that were registered as tuna fish exporters. The two major companies involved in combined harvesting and processing are the Fiji Fish Marketing Company and Hangton Pacific Limited. TriPacific Marine and Celtrock Holding Limited provide processing services to other companies. Two other large processing establishments are Golden Ocean and Tosa Bussan which rely on fish mostly from contracted vessels and other vessels to provide the raw materials for further processing at their processing plants. Table 6 provides a breakdown of employment at these shore-based processing establishments (apart from fleet operations given in Table 5).

Table 6: Employment in the Fiji Tuna Longline Processing Sector, August 2007

Activity	No. of	No. of	Total	%	% men
	men	women		women	
Company/managers	11	5	16	31	69
Processing/packing	238	125	363	34	66
Office administration	56	38	94	40	60
Workshop & other	52	5	57	9	91
Total	357	173	530	33	77

Women therefore make up 68% of labour in office administration and one third in processing and packing related employment; the latter includes mostly stock control, loining, packing, labelling, quality control and acting as supervisors. All the longline companies also employ casual or temporary workers upon demand. These workers are paid on an hourly basis and are drawn from nearby settlements or through networking with permanent workers. In two processing companies women are known to make up one third of the casual workers who assist in cleaning, loining and packing. Concerning vessel un-loading, if there are several vessels coming to port around the same time, the casual labour pool of men are usually used; women are not employed in this activity.

Indirect employment related to fleet operations is more complex to quantify by gender. What is apparent is that there is increased processing and unloading in Fiji, particularly in Suva and Fiji is increasingly being

used as a transshipment and transfer base for foreign crew, vessel provisioning, and for vessel repair and dry-docking because of its strategic location. This point can be substantiated by the increase in the number of shipping agents handling fishing vessels for immigration, customs and quarantine clearance. Crew may spend up to one to two weeks in port. Consequently, there is demand for more night life related activities (sex workers, night clubs, restaurants and other entertainment industry employment). Indirect formalised employment benefits include the airline and travel agency business and boarding and inspection officers where women are likely to be more compatible candidates. The numbers of women employed however are difficult to quantify.

In the processing sector, there are indirect employment benefits is a result of horizontal linkages such as the supply of packaging materials and processing equipment, operation of ancillary facilities (works canteens, etc). While many of these ancillary activities depend on raw materials that may be originally imported, employment (including that for women) is created if there is local value adding. Other spin-off activities result from women employed within the longline related operations who spend their income in purchasing food, clothing and other household items. Thus, the increase in direct employment of women in the industry has a multiplier effect in contributing to the wider economy and providing employment opportunities for women in other (primarily service-related) industries. The quantification of these benefits is beyond the scope of this study.

All tuna processing establishments are export-oriented and therefore have to meet any HACCP standards of the importing country – the consequences of this for female factory workers is better working conditions, with the requirement to wear protective gear (boots, overalls, hand gloves and scarves).

Fiji Fish Company and Tossa Bussan are the two largest local tuna longline fishing, processing and marketing companies where women are employed as casual labour, permanent factory workers and office administrators up to senior management level.

#### 3.6.2 Employment at Fiji Fish Marketing Company

Fiji Fish is a group of 14 companies that operates a fleet of about 38 vessels and handles about 30-40 mt of fish a week. There are no women engaged in the harvesting sector. The onshore facilities are divided into two sections: Support Services and Processing & Administration. The Support Services includes the engineering workshop, dry-docking and electrical services which are dominated by male workers. In the engineering section, there are five men and two women engineers, both with trade certificates from the Fiji Institute of Technology. In the Administration Office the Secretary, Chief Accounts Officer, Accounts Officer and other clerical staff (five in total) are women. The processing section consists of about 50 workers as permanent staff, of which 70% are women (The Labour Ministry records 92 males and 43 females for 2005, Narayan, pers comm.). There is one line of women workers in packaging and one in loining.

Managing Director Russell Dunham says, "We prefer women. They're more reliable than men". They make F\$2.25/hour as unskilled workers. One of their line Supervisors, Leba, makes a salary of about F\$17,000/year, having started 10 years ago as an unskilled worker. (Dunham, pers comm.).

When asked about the potential for increased value adding, Durham's response was ironic. "A top-grade fish is usually one that is 'whole' and requires least handling or 'no value adding' especially for the Japanese sashimi market." In other words there is little opportunity for value-adding locally when targeting the premium Japanese market. Some possibility exists for value adding for the EU market includes cooked and frozen loins for making tuna steaks. However, the problem with shipments to the EU is the transport cost as well as stringent quality control measures. If a business can tackle these, Dunham explained, considerable potential exists for local value-adding.

The company mostly employs women from the nearby settlements, and provides transport when there is over-time and night shift work. Since the factory exports to the EU, USA and Japanese market, maintaining quality standards are critical. Therefore workers are required to adhere to good hygienic practices including wearing of personal protective and safety gear provided by the company. In comparison with the minimum wage rate of F\$1.79 set for the manufacturing sector by the Wages Council, the workers at Fiji Fish Company receive a much higher wage - but still slightly lower than PafCo workers. The working environment at Fiji Fish is more open, well lit and ventilated, and fish handling shifts usually last for 5-6 hours only.

#### 3.6.3 Employment at Tossa Bussan (Fiji) Limited

Tossa Bussan started its operations in Fiji with the processing of skipjack for *tataki* through blast freezing to ultra low temperature (-60°C), then loining the frozen fish, partially cooking and vacuum packaging in plastics and blast freezing again for export to Japan. Since 2005, besides making *tataki*, Tossa Bussan has also moved into ultra low temperature frozen skinless loins for the Japanese sashimi market. The company buys frozen big eye and yellowfin from vessels that offload in Suva.

The Tossa Bussan products require much higher degree of fish handling than that of Fiji Fish Company. The company processes about 15 mt of frozen fish daily and about 120 mt of fish is exported to Japan per week. The company employs about 89 workers of which 90% are men and 10% women. Men dominate the production line because they have to lift heavy fish and work in the freezer areas (ie very cold working conditions). The men dominate the start of the production line whilst women concentrate on packing and inspection. The company also at times employs casual workers who are both men and women.

There is employment of women at all levels, including a shareholder who is also the Factory Manager. Women also have the roles of Quality Control Manager, Supervisors, factory workers as processors, and office administrators. Wages are based on levels of experience for hourly paid workers starting from F\$2.00 up to F\$2.40 per hour for those that operate the machines.

The company provides a workers' kitchen where they can have free tea. Their uniforms and safety gear are also free. The middle management interviewees indicated that workers were generally happy with their work environment, particularly in comparison with their previous jobs. They felt that joining the company had placed them in a progressive context. Their positive attitude may be a good indicator of management relations with the workers. In particular, according to the workers interviewed, the managing director of the company is a likeable boss even though he sets high standards but is both flexible and approachable to workers. People work overtime roughly three times a week and, although they know the wages are better at a competing processor, they know the conditions and benefits are better at Tossa Bussan.

#### 3.6.4 Employment at Solander

In 1994 the Fijian government required the New Zealand-owned Solander to sell 30% of its shareholding to Fijian citizens. As a consequence, the Great Council of Chiefs member Ratu Cokanauto Tu'uakitau became the Chairman and shareholder of Solander Pacific. The company generates gross annual sales of between F\$12-20 million, and although they experienced a slump in 2003 and 2004, they had recovered by 2005. The company employs about 250 employees and 100 casual workers.

Solander has a preponderance of women in the office and all report job satisfaction. There are six women employed in the Accounts/Payroll Department (one of which is paid to do the accounts for South Sea Engineering) and one female receptionist. The General Manager David Lucas says "I have to think they are all here for their merit." One of the women suggests that there is no 'glass ceiling' in the industry, and she'd like to see more women going out to sea too. The study team asked if women would be okay on the boats. "Of course," she says, "There are women at the Maritime school here. They're safe and okay. And women have done well on the boats too."

## 3.6.5 Employment at CPK Shipping

CKP and Tuna Pacific share the same owner, and deal mainly with Korean ships, to which they also supply Fijian crew. They are agents for about 20-30 vessels. They no longer offload fish in Fiji but send it directly to Japan, Korea or Pago Pago. The vessels dock locally for bunkering and crew purposes only. The company has three female workers: a boarding officer, accounts manager, and a clerical officer.

Ships that come for maintenance stay 2-3 weeks, but for transshipment only 3-5 days. They undertake crew changes and arrange accommodation for the captain, officers and crew. One of the officers interviewed said that they have no problems with prostitution. The clerical officer has worked for the company since 2002, when she was recruited from the Fisheries Department.

## 3.6.6 Earnings by Women from the Domestic Longline Industry

Details on earnings by women engaged in the individual companies were difficult to obtain because the information was treated as commercially confidential. Some workers interviewed had moved from one processing plant to another because of a slight variation in wages or better terms and conditions of work. For example, one interviewed factory manager in a prominent company worked for several years for another processor where she had received most of her training in quality control and HACCP. Another factory team leader of a processing line for loins worked for another processor for seven years and decided to move to the current position where wages are only F\$0.90 per hour higher.

The women in fleet operations are largely limited to office-based clerical and administrative work. Companies were also reluctant to provide information to determine women's wages as a proportion of the total wages and company returns. Details on two companies that did provided some estimates are given below:

Company A operates a fleet and a processing plant. It employs 90 men (mainly boat crew) and 10 women; 3 in the processing area and 7 in office administration. The average weekly wages for the 3 females in processing is F\$120 each (equivalent to a total of F\$1,440 per month and annual combined wages of F\$17,280). The females who work in the office receive on average of F\$600 per month (a combined annual wage of F\$50,400). The total annual earnings of the 10 women is therefore F\$67,680. According to the company estimates, the total wages bill for the company last year was about F\$300,000 while the annual turnover was recorded as F\$8.9 million. Women represent 10% of the workforce but 23% of the total wages. Women's wages as a percentage of the total turnover of the company was 0.7%.

Company B operates a processing plant by providing services to other companies: The Company employs about 43 workers of which 6 are women. Two women are in the packaging section while 4 are in office administration and accounts. The wages for those in the packing was given as F\$200 per week while the average in the office was F\$660 per month. The total annual wages for women in the packing section is F\$19,200 and in the office administration is F\$31,680; a total annual estimated wages for women of F\$50,880. The annual wages bill for the company was given as F\$450,000 while annual turnover was around F\$3.5 million. The total wages for women therefore represented about 11% of the total wages bill for the company and represent about 1.5% of the total gross earnings of the company.

In comparing the wages of the two companies, it seems that company B has a slightly higher wage bill for women but this represented a much smaller proportion of the total earnings of the company. On the other hand, Company A had only 10% of its staff as females but their wages bill was almost 23% of the total annual wages cost. One possible explanation for this difference in wages is that Company B employed women in more skilled positions in the office and in the packing line as supervisors compared to Company A which employed more people as crew (mainly men) and in less skilled factory work

### 3.6.7 Climbing the Ladder – Success Stories of Women in the Longline Industry

In the domestic longline industry, as previously discussed, most women are engaged in shore-based activities. In contrast to the cannery operation, the women in the processing sector perform more specialised tasks even though some may still be categorised as "unskilled" when compared to tasks performed by men. Women mostly work in management and administration, quality control, specialised cutting and packaging or as technicians while the majority of the men work as stevedores, fish handlers or as crew.

There are a number of women who have risen into middle to high positions including business executives in their own right. As a boat owner and a fishing company shareholder Unaisi Kolitagane is one such good example. Her and other women's stories are recorded in Annex 4. Other successful women in the Fiji fishing industry include Radika Kumar, the Solander Business Manager, and the owner of Agape Fishing which operates five longline vessels. Excelling to higher positions in the fishing industry largely depends on individual skills, ability, incentives, and desires. Apart from the actual tuna fishing, there are no jobs reserved for men, although there are tasks that may well attract more men than women. Having specific training and skills in shore-based activities such as in the processing sector, marketing and business administration provide better options for women than in the male dominated jobs of vessel operations and maintenance which require engineering skills and long periods away from home.

The operators of the major longline companies in Fiji have their own perspective on women rising to high levels in the Fiji's fishing business. Box 3 gives the opinions of two industry leaders.

## Box 3: What the Big Boys Think: Advancement of Women in the Fishing Business

Graham Southwick of Fiji Fish has strong opinions about the productivity of women in his company: "If I could find enough qualified women, I would sack all the men in my company who work ashore". To achieve the goal of having a large number of women at senior positions in the tuna industry, Graham feels that any available training/education resources should be focussed on identified "movers/shakers": women who have performed very well on the job, rather than all women that are working or on women before they begin their working lives.

<u>Dave Lucas</u> of Solander has a different perspective. He feels that women who have skills in certain areas that are in high demand have a good chance of rising fast and far in the industry. The key is providing relevant training – and this can change quickly. Presently, any motivated person with HACCP and EU quality control skills is bound to become important in the company.

#### 3.6.8 Major Features of Women in the Longline Industry

Some financial information on three women employed in the longline industry is given in Box 11 of Annex 3. Like the women at PafCo, most women interviewed working within the longline industry also spend a large proportion (over 85%) of their income to purchase food items and basic necessities for their families. The study findings suggest that women workers in the longline sector are generally viewed as 'contented'.

When comparing wages rates for unskilled labour, women at longline processing plants are much better paid than garment factory workers. For example the garment workers get F\$1.80-2.50 per hour compared to fish processing workers who may receive between F\$2.25-2.75 per hour. Female food packers and cashiers at a prominent retail supermarket chain outlet in Suva receive F\$2.11-2.30 per hour (see also Box 2).

Other features on women's employment in the longline industry are:

- Women are largely involved in office work with fewer involved in processing and packaging. Those
  women in processing are usually in loining and supervising, while men do most of the heavy
  processing and handling of fresh fish.
- Women are also employed on a casual basis depending on the demand for urgent labour to speed up shore based handling and processing. Employment of casual labour can vary between a couple of hours work a day to weeks and months per year. One company indicated that its casual labourers were paid between F\$20-30 per day. This rate is similar to other casual workers in the manufacturing and retail industry in Suva.
- While quantitative data was not available, it was quite apparent from the various industry interviews that employment and economic returns have increased in the domestic economy as companies have expanded the amount of value-added processing done locally in recent years.
- As the amount of value adding increases (cutting, cleaning, cooking, processing and packing) into secondary products, so the number of jobs for women increases.

#### 3.7 PROSPECTS IN THE ARTISANAL SECTOR

At the Suva market five women regularly sell tuna that is either caught by their husbands or other male family members or is bought as bycatch from a fishing company or a processing operation. The species sold are mostly juvenile yellowfin and bigeye, skipjack or marlin.

There has been an on-going programme to assist fishers in the coastal areas to move further beyond the reef and near-shore areas, the target group has largely been men. According to the Fisheries Department, this involves a 2-4 weeks training, purchase of subsidised vessel and the provision of ice supply and deployment of FADs. In theory, fishers would target tunas and other bill fishes around the FADs, and increase the supply to local markets, hotels and restaurants. With respect to employment opportunities, two aspects of artisanal tuna fishing in Fiji should be noted. ADB (2005) indicates that the Fisheries Department's efforts to promote such fishing have been ineffective and require much better management and monitoring to result in the expected benefits. Recent increases in fuel prices impact heavily on the relatively fuel-inefficient tuna trolling by outboard-powered craft carried out by most artisanal fishers in Fiji.

In Fiji there is a growing local demand for pelagic tuna like fishes for *sashimi, kokonda* and other island and Asian style preparations. Potential also exists for the small-scale production of such items as fish cakes, grilled tuna steaks as lunch packs in schools, hospitals and hostels. To develop such an opportunity, the people likely to be involved in the activities would need assistance in product development, in business skills, and with the start-up capital.

## 3.8 SEX TRADE ISSUES

Anecdotal information suggests that the increased unloading and transshipment of fish in port also leads to an increased sex trade activity, plus increased cases of alcoholism, drug and substance abuse when crews come ashore after spending long periods of time at sea. The precise extent of the problem in Fiji associated with the tuna fishing industry is still largely unknown and it is considered beyond the scope of this current study to carry out any detailed assessment. At present, the problem of young women 'plying their trade' on fishing vessels has been minimised as a result of security fencing around the main wharf area and the placement of security officers at the entry points to the wharves. There is however, little control over such activities within the urban areas immediately outside of the port.

Asela Naisara, Acting President of the National Council of Women, reports that she made an informal study of seafarers' women two years ago, and found that most of them operate from small hotels in Suva, where they meet the men who come ashore. These are low-budget hotels and in some cases their proprietors arrange with the shipping agents tasked with booking the shore stays for crews. Naisara says the girls she spoke to were all using condoms and having regular pap smears and checkups. Naisara stated that the women reported the seafarers (mainly Asian men) treated them well, and that a handful maintained more exclusive relationships with individual men. Certainly for the women acting as 'call girls', just as for the girlfriends, these men are an important source of income, and it may be assumed quite a few households are dependent upon them.

Organisations such as the UNAIDS, Fiji Council of Churches, Fiji Red Cross, Fiji Women's Rights Movement and Fiji Aids Task Force provide technical and social support such as educational materials (public awareness information such as epidemiological fact sheets on HIV/AIDS and other STI), counselling services and short-term refuge. However a more coordinated multi-sectoral approach is needed between Ministry of Health, NGOs, media, Fisheries Department, Social Services and the police. A separate focussed task force or a committee could be established with a clear mandate to look at the problems and issues associated with the sex trade and other social problems associated with seafarers.

#### 3.9 SUMMARY OF ISSUES & RECOMMENDATIONS

A number of interventions to encourage greater participation of women and to address the current concerns of women engaged in the tuna industry are presented in Table 7.

Table 7: Issues & Interventions – Fiji Islands

Practical/Strategic Need	Intervention	Target, focus group or stakeholders
	PafCo	
Practical Need: A system of bonuses are needed for workers on the factory floor to create productivity incentives for the workers. Confining them to the supervisory level, as is the case currently, leads to worker-management resentments and has created tensions between people who live and work together, are often related, and are currently made antagonists on the production line over a negligible difference in pay	Re-introduction of a reasonable bonus system as an incentive for all workers to improve productivity and social relations	PafCo management, union and workers
<b>Practical Need</b> : Routine physiotherapy is needed for women workers during breaks, or supply foot support cushions for their boots.	Appoint a part-time physiotherapist or make provision for workers to access such services at subsidised rates	PafCo management, workers, health clinic
Strategic Need: The relationship between PafCo management and the workers needs to be improved through a more genuine and proper dialogue where decision making is more open and transparent. There is an urgent need for team building approach to improve the morale of the workers and the management.	Create more informal social gathering, management to keep people informed on the status of the operations,	PafCo management, union, local community, Levuka rate payers and town council, Provincial Council
Training and awareness programmes need to be streamlined to improve the relationship between the management and staff at PafCo. The company needs to be more sensitive to the relationship between productivity and social obligation in its operations	Increased and open dialogue	Ministry of Public Enterprises, PafCo Board and management, workers, business partners
Strategic Need: A progressive transfer of government shares to people of Ovalau should be considered. This may provide some sense of ownership of PafCo. All workers should be given equal and first preference to buy shares should such as option become possible.	Government to reconsider innovative ways to deal with its investment that is based on sound economic principles as well as meets the aspirations of the local communities	Government, PafCo Board of Directors, shareholders, community leaders
<b>Strategic Need</b> : If the industry is economically viable workers are more likely to reap the rewards of their labour, a large majority of whom are women. One factor important for increasing women's involvement and improving their economic and social status lies in having a thriving company with leaders who are both technically competent and gender sensitive.	PafCo to have a more pro-active and technically competent board.  PafCo to appoint skilled women in higher levels of authority	Government, PafCo Board, shareholders
<b>Strategic Need</b> : PafCo needs a comprehensive business plan that clearly outlines <i>inter alia</i> - procedures for product development and market research, training and a strategy for promoting its products and business	Carry out a participatory SWOT analysis and address the issues identified. Seek government or outside assistance if necessary using a team approach	Government, PafCo Board of Directors, shareholders, community leaders, donors, development assistance agencies
<b>Strategic Need</b> : Diversification of income sources of PafCo workers is needed to cushion periodic layoffs	PafCo and community leaders to examine possibilities, which could include "piggy-backing" on PafCo infrastructure or operations.	Women's groups, NGOs, community groups, PafCo management and union

Practical/Strategic Need	Intervention	Target, focus group or stakeholders					
_	Domestic Longline Industry						
Practical Need: Product development - There is scope for increasing women's employment related to the longline industry through secondary processing such as gourmet	Provide incentives to industry for research & development into new products e.g. subsidies, technical assistance	Government policy, industry support, motivated young women					
products that target specialised niche markets –exporting pre-packed sashimi loins, skinless loins and <i>tataki</i> .	Innovative ways to market Fiji products in major markets (certification measures)	Short term hiring of marketing experts with networking ability with major buyers or importers					
The feasibility of exporting tuna in pouches to the growing US and EU markets needs to be explored as this holds potential to employ more women.	Seek development assistance for women to attend tuna industry exhibitions and visit overseas markets to meet other overseas industry executives to network for trial of new products	Seek donor assistance and industry partnerships					
Practical Need: Local market development for products produced by women	Carry out market feasibility studies on new products in the local market - sashimi bentos and sushi bars	Women's' groups, mothers clubs, young graduates, innovative individuals, Development Bank through micro-credit scheme, fishing industry association					
	Pilot project on small cottage industries - grilled tuna steaks, fish cakes and lunch packs. Identify the feasibility of processing of by-products wastes ( blood & bones, etc) into fish meal, fertiliser and small -scale processing of smoked tuna, marlin, etc to target local hotels, restaurants, supermarkets						
Practical Need: Training & capacity building for women	Training in HACCP and quality control, fish inspection, fish audits, fish cutting and secondary processing surimi, fish cakes, fish paste, smoked fish & vacuum packing	School of Marine Studies (USP), SPC, Fisheries Department, Public Service Commission, Ministry of Women & Culture					
	More opportunities for women in boarding and inspection and fish sampling	Provision of scholarships and access to training institutions for women					
	Language training for women so that they can establish business partnerships (Chinese, Korean, Japanese)	Respective Embassies, Fishing industry, donors,					
	Higher tertiary training on fisheries planning and policy, international relations & diplomacy, business management, food science	USP, overseas universities, government scholarships, FFA					
<b>Strategic Need</b> : Concerns of women in Fiji's tuna industry should be brought to the attention of national and regional authorities.	Female representation in tuna industry associations and delegations	PITIA, national industry associations, national Government, FFA, WCPF Commission					
Strategic Need: A coordinated approach to minimise risk for women associated with the sex trade	Provide public awareness materials in key locations such as hotels, bars, restaurants - on aids, STDs, impact of substance abuse	NGOs - FWRM, National Council of Women, Ministry of Women, Fisheries, Police, Health, religious groups, Fiji Aids Task Force, other welfare organisations, UNAIDS,					
A need to examine the social problems of the fishing community and how to mitigate some of the problems that	Provide easy and affordable access to medical advice and support	UNFPA					
arise, reduce risks and solicit support from relevant authorities	including counselling and provide rehabilitation projects for women victims	Ministry of Women, UNIFEM, Women's Groups					
Strategic Need: Support legislative efforts that strengthen women's rights	Support fair employment and industrial relations policies, women's access to easy credit, human rights Representation of women's interest in tuna related consultative process	Support national legislative process that addresses gender equity and equality Women industry representation					

## 4.0 COUNTRY REPORT - KIRIBATI

#### 4.1 BACKGROUND TO THE SECTOR

Kiribati is an archipelagic nation comprising 33 islands with a total land area of only 810 sq. km. but with a surrounding EEZ of about 3.5 million sq. km that includes some of the most productive tuna fishing grounds in the Pacific. Subsistence and small-scale artisanal fishing is conducted throughout the islands using traditional canoes driven by sail or paddle, from plywood canoes powered by outboard motor and from larger outboard-powered craft.

The majority of small-scale fishing activity in Kiribati is for subsistence purposes. On the outer islands, customary obligations relating to the sharing of catch among family and kinship groups still prevail. Small-scale commercial or artisanal fishing is concentrated around the capital island of Tarawa where approximately 30,000 (32%) of the total population of 92,500 live.

Kiribati is a member of all of the important regional institutions dealing with fisheries management and marine environmental issues (SPC, FFA, SPREP) and is also a party to a number of regional and international treaties and agreements relating to fisheries management.

There is a fisheries partnership agreement (FPA) between the EU and Kiribati which entered into force in 2003 for a period of three years and was renewed in 2006. It will continue to provide access for 16 vessels (12 longliners and four purse seiners). The annual EU financial contribution under the FPA amounts to € 478,000: € 416,000 compensation for a reference tonnage of 6,400 mt of tuna catch per year plus an allocation of € 62,400 to support the application of Kiribati's national fisheries policy. The agreement also provides for a vessel monitoring system, and pending the creation of a observers' scheme within the framework of the WCPFC, Kiribati may also appoint observers onboard these vessels. This may represent a limited opportunity for female staff within the MFMRD to seek employment at sea for limited periods of time.

The proportion of fresh fisheries resources caught and locally consumed in Kiribati ranks the country amongst the highest consumers in the Pacific region. Estimates of per capita consumption of fish vary widely, even within the same report, from 112-150kg (Gillett and Lightfoot, 2001), 80kg quoted in a FAO paper on fish consumption (undated but data from 1990) and 181.6kg quoted on the SPC website (July 2007).

What is clear is that (a) fish and fish products remain a very significant part of total animal protein supply in Kiribati and (b) tuna species remain the single most common and important marine resource consumed in Kiribati. Data from Gillett and Lightfoot (2001) suggest that tuna landings on South Tarawa (where data is most reliable) are between 26-33mt per week. If an average of 30mt is taken for 50 weeks a year this would, for a population of 30,000, equate to annual landings of 1,500mt on Tarawa and an annual per capita consumption of 50kg of tuna.

## 4.2 THE ECONOMY, HOUSEHOLD & EMPLOYMENT DATA

The country is highly dependent upon overseas workers sending money home, on foreign aid, on distant water fisheries access licenses, and on income from the phosphate trust fund. Macroeconomic data from the World Bank website (for 2005) indicate that the official per capita GDP is US\$1,390 (AU\$ 1,580) classifies Kiribati as a lower-middle income country but amongst the least developed of Pacific Island nations. Only 20% of workforce participates in the formal economy and of this, 60% of formal jobs are in South Tarawa (UK/USA government websites).

The Kiribati National Statistics Office (NSO) has undertaken three household surveys in the past 10 years – the first in 1996, one in 2000 and the last commenced at the end of 2006. Results from the 2000 survey indicate that only 37 women (of all age groups) compared with 217 men were listed in cash employment in the agriculture and fisheries 'industry' (the statistics do not disaggregate between these two productive sectors). For women this represents only 1% (37 out of 3,390) of the total listed in cash employment and by far the most significant employment (for

both sexes and 70% of women) was in the public administration sector (NSO database, 2007). Only 20 women (out of 3,390) were listed as professionally employed by education in the agriculture and fisheries sector. The 2005 census indicates that women held 17 out of 204 of the jobs in occupation of "fisheries". The same survey states 39 of the 290 jobs in the industry of "fisheries" were held by women.

The above statistical information on women's employment in fisheries in Kiribati does not appear accurate. The difficulties associated with obtaining accurate information on fisheries employment from national surveys in Pacific Island countries is discussed in Gillett and Lightfoot (2001). They conclude that, due to the complexity of the fisheries sector, it is relatively difficult to study its employment. Simple sampling strategies, which may be suitable for other sectors, are often not appropriate for estimating employment in the fisheries sector.

#### 4.3 CUSTOM VERSUS THE CASH ECONOMY

People in Kiribati are quick to explain their lifestyle as one of choice: saying they work no harder than they need to, and aspire to income only insofar as it suits their social values. A number of people interviewed for this project were explicit about the differences between monetary and socio-cultural values — namely that capital accumulation may lead to social isolation. Where business and custom conflict, it is in the best interest of I-Kiribati to opt for custom. This is because custom for I-Kiribati, as for most Pacific Islanders, involved a network of relationships with manifold material and social returns. Not to be generous with one's family can have material repercussions: people will shun you, exclude you from fishing trips, fail to look after your children, and may refuse to bequeath you land.

Nevertheless it should be recognised that as the cash economy has developed and with very limited growth in employment opportunities and in the formal economy, so more and more people, including women, have shifted from traditional subsistence fishing activity to part or full time involvement in fishing activities.

The evolution in the economy has been most rapid on Tarawa and on Christmas. The 2006 Household Income and Expenditure Survey indicates that a third of the adult population in South Tarawa and the Line Islands are currently engaged in wage and salary employment or run their own business compared to only 18 percent in the other island groups.

#### 4.4 SPECIALISATION AND COMMERCIALISATION IN FISHERIES

There is considerable specialisation in fisheries in Kiribati. People interviewed by the study team all had specialisations by skill, preference, or custom. These were sometimes gender based: men generally fish in offshore, the role of women has traditionally been restricted to the inner reef areas ie, those areas accessible by foot and occasionally fishing from small canoes inside the lagoon. Only men have traditionally go fishing outside the lagoons by boat for tuna – for which they received respect and status.

Whilst the role of women in tuna fisheries has largely been limited to fish marketing (as confirmed by interviews conducted during this study), some women (and men) are known to specialise in the collection and/or cooking and marketing of certain marine products – fresh tuna, worms, clams, *strombus* (conch), and so forth. Neighbours will place orders with them for their own meals. Thus, what may be a vestigial barter network that knitted families together in the past, has now become a cottage business.

Women are now creating special food products or meals and selling them to each other and the public as a business. Small amounts of money get rapidly redistributed across community networks in ways that provide dietary variety and ensure that each household owns roughly the same possessions.

Whilst the commercialisation of small-scale fisheries may bring much needed cash to households, it can come at the expense of over-fishing. Some of this trade-off has become apparent during the last 10-15 years with the demise of bonefish, spangled emperor, *Anadara* cockles, giant clams, and other lagoon resources of Tarawa. Causes of this include urban drift, overpopulation and the construction of new causeways (Tikai, 1993 and Thomas, 2001).

Another aspect of the commercialisation of fisheries in Kiribati concerns cash and social obligations. The cash value of what a household brings in daily, and the low level of personal benefit for the fisher when a total catch is shared equally, reflects only part of an equation that people do consciously calculate: to fulfil social responsibilities may be more materially important to one's family than to catch more, sell more, and save more in the short term. Economic assessments that pit customary 'socialism' against introduced 'capitalism' simplify are really long-term material returns from the former and potentially long-term deductions (from social ostracism) from the latter. It may even be true that short term returns for appearing to be generous will outweigh the rewards of paying a bank loan or reinvesting profits in a small enterprise.

## 4.5 WOMEN'S LIVELIHOODS AND GENDER ISSUES

The fact that I-Kiribati women have always juggled disparate subsistence strategies makes them adept at balancing the mixed economic values of today: working for wages, selling roadside fish, joining handicrafts co-operatives, collecting shellfish, trading, and borrowing from relatives, have all become routine for I-Kiribati households. But factors that combine to make cash more important in the household have increasingly forced more women (those better educated and/or connected) into wage jobs on top of their informal home-economic responsibilities.

The expanding Kiribati economy is creating more jobs for women, in middle management as well as in seafaring, tourism, and the civil service. Informants in this study noted again and again that the conservatism of traditional gender roles does not encroach to a large degree upon modern behaviour – for example Kiribati already has a woman Vice President. The country's Solicitor-General, an articulate spokesperson on this subject (as a long-resident Australian married to an I-Kiribati) made an interesting point in an interview with the study team. He said that the way women (or, for that matter, all I-Kiribati) manage modernity (modern attitudes) and gender is to separate the role within different realms. That is, in all things traditional, women continue to observe certain social and political restrictions and norms. This mainly refers to their status within the house and *Maneaba*, the traditional meeting house (Lambourne, pers comm.).

As for 'modern attitudes', in recent years some men have begun to take their wives out fishing (perhaps because of a lack of available male crew amongst friends and family or, to increase the family's share of the catch, whereas traditionally, women would only fish on the shoreline and in shallow waters. Women have been observed fishing using hand-lines in Tarawa lagoon but the study team is highly doubtful if this 'modern attitude' has yet extended to the tougher and more dangerous fishing offshore for tuna.

A general truism is that women appear to be able to conduct their professional lives in unfettered gender-neutrality. In fact, there has recently been a discussion in Parliament about women in the Maritime College - when someone hypothetically asked why women weren't being trained as able-bodied seamen, there was no huffing or laughter in the chamber, just one discussant saying, "I'll look into that" (Lambourne pers. comm.).

Wage work also allows women to escape traditional social roles. In Kiribati a strong emphasis has always been placed on women's virtue, their self-effacement, and their honour, as reflecting a family's name. In a peri-urban overpopulated community, where sour toddy is common, and a customary tolerance still exists for male *kooko* (sexual jealousy), where the church and the *Unimwane* (elders) act as social police, and western music and videos provide a continuous stream of suggestions, the life of a young I-Kiribati woman is not care free. Virginity remains valued in marriage arrangements, and the innocence of young women is still a collective concern

for the family. This has become a driving force behind the alienation of young women, especially those who have been used or abused by relatives, friends or strangers, and it propels them away from family into risky activities like prostitution (Bedford, pers. comm.).

#### 4.6 THE ARTISANAL TUNA TRADE

The majority of the artisanal fisheries catch from around Tarawa is sold by women with iceboxes at roadside stalls. These stalls sell a variety of fish species, including tuna. Table 8 gives the various types of fish commonly sold on the road-side and at the fish market in Tarawa.

Table 8: Common Fish Species Sold on South Tarawa

Local Name	English Common Name	Latin Species Name
Bokaboka	leather jacket fish	Siganus sp.
Bawe	red tail snapper	Lutjanus fulvus
Okaoka	orange striped emperor fish	Lethrinus obsoletus
Ikanibong	paddletail snapper	Lethrinus gibbus
Morikoi	spangled emperor	Lethrinus nebulosus
Ati	Skipjack	Katsuwonus pelamis
Ingimea	yellowfin tuna	Thunnus albacares
Ikarii	Bonefish	Abula glossodonta
Te nouo	Small conch	Strombus luhuanus

In 2004 a study was undertaken by WorldFish on the fisher sellers of the municipality of Tarawa. Box 4 summarises some of the results of the study – which emphasise the difficulties and constraints faced by the sellers.

#### Box 4: The Fish Sellers of Tarawa

Women sell most of the finfish sold on Tarawa. In total there are perhaps 60 fishmongers active in the municipality of Tarawa during periods when fish catches are high. In our sample of 15 fishmongers, most came from families that lacked formal employment. Their ages ranged from 25 to 60 years old. On average, they were caring for households that contained 10 members, including 3 children.

Pay varies for the women and pay increases are rare. More than a third of the women interviewed were earning 10 cents per dollar of fish sold and two were given 20 cents per dollar of fish sold. Three of the women were earning a flat rate of between \$10 and \$20 a day. One woman did not receive her pay personally as it was included as part of her husband's income from fishing. In another case, the employer habitually neglected to pay the woman at all, and in one case the pay scale varied. Because daily earnings generally depend on the amount of fish sold, women are encouraged to maximize sales and to work long hours. On most occasions, the women report that they earn at least \$10 per day and for this they work for more than 8 hours, 6 or 7 days a week. At times when there is no fishing, fish sellers have no income. Women remain in the fish trade because they have few or no alternatives for making the money they need.

The municipal councils demand fees from all fish traders but the fees are not uniform. In Bairiki and Bikenibeu, located within the Tarawa Urban Council, the fee that is charged for each business is \$5 per day while in Betio it is \$3 per day. While confused about these differential rates, the women interviewed have never asked why these charges are variable or even required, since their employer already pays for an annual business license. At present, the Tarawa Urban Council, the decision-making body controlling the fish trade, is composed of 17 men and only 1 woman. The one seat occupied by a woman is reserved for the representative of a women's NGO. This suggests that the fish sellers either are not aware that they have a representative on the council to whom they can go, or perhaps they are shy to approach her.

One of the important findings of this study is that women often work for many years selling fish even though their hours are long and their remuneration is low. As a point of comparison, Kiribati office cleaners, who are mostly females with limited education, earned an annual salary of \$2,500 in 2003. This works out to about \$50 per 5-day working week. In contrast to this, fishmongers work 6

or 7 days a week. Work days are much longer: from early in the morning until after 7 p.m. and working conditions are both uncomfortable and unsanitary. On a very good day, fishmongers may earn \$75-150 but most of the time their income is much less (\$7-15) or even nonexistent.

Source: Tekanene 2005

As noted in Table 8 above, much of the fish sold by the fish sellers in Tarawa are species other than tuna. Although it is generally assumed that the sales of tuna are important, there are little data available to indicate the amount of tuna sold, the number of sellers involved, or the economic impact of the sales. To obtain more precise information, an informal survey was carried out in May 2008. An individual with a long history of involvement with artisanal tuna fishing in Tarawa, Mike Savins, was engaged to undertake discussions with fish sellers, staff of the Ministry of Fisheries and Marine Resources Development, and key individuals in communities in South Tarawa. Due to the informal survey design, the results should be considered indicative rather than accurate. Nevertheless, the survey shows:

- 126 active full time commercial tuna troll fishing craft operate out of South Tarawa
- 88 troll tuna fishing craft also participate in tuna fishing on a sporadic basis
- There are average three fishermen and 1.5 women fish handlers/sellers for each of the 126 full time commercial tuna troll fishing craft. There will normally be two women involved, but one will alternate with the other (i.e. taking esky of tuna to the road by hand cart, changing with each other through the day to accommodate domestic responsibilities.
- About 189 women are involved full time in the sale of tuna (full-time equivalent; 2 half time
  is equivalent to one full time). Some men are involved in tuna sales, primarily buying fish
  from several fishing operations.
- About 6,300kg of tuna and related pelagic species sold on an average per day, or 126mt per month. To these commercial sales, approx 5% should be added for domestic use, to give total landings of tuna of about 132mt per month.
- The commercial fishing is carried out by only men and 99.5% of fish sellers are women who are normally the wives of the fishermen.
- The present market price of tuna is \$2.65 kg, and tuna sales account for about \$334,000 per month, or \$4 million per year. This represents about \$21,000 in sales annually for each of the 189 full-time sellers.

These simplistic survey results are complicated by the part-time nature of some fishers and sellers. In addition, many sellers will also deal with inshore species - it often does not make economic sense to focus on selling tuna alone. Some sellers operate on a more commercial basis and obtain fish from several fishers (Box 9 of Annex 3). Despite these complexities, the survey does provide some insight. The general picture is that the artisanal tuna trade in South Tarawa is substantial and that average sales by the sellers are surprisingly large. The results, however, do not provide much information on profitability of the fishing or the selling of the catch.

Other employment data for the Kiribati fisheries sector was examine for relevance. A collection of such information is provided by Gillett and Lightfoot (2001), who quote various sources:

- Fisheries Division data from 1998 indicates that 12% of households (of a national total of 11,920 in 1998) do not fish. Of those that do fish, 17% fish commercially full time, 22% fish commercially part time, and 61% fish only for subsistence.
- Tinga (2000) states that the artisanal fishing is carried out in South Tarawa by 200–300 motorised skiffs.
- Savins (2001) states that (i) there are over 200 boats presently active on Tarawa which employ 300 fishermen full time and 300 fishermen part time, and (ii) people engaged in domestic troll fishing make up 31% of private sector employment in Kiribati
- Savins (2001) states that the artisanal production (on Tarawa) equates to about 5,000 mt per year; this includes non-tuna commercial production. Subsistence production is estimated to be about twice the artisanal production for each island.

Although this information does not directly provide much insight into the size and characteristics of the South Tarawa tuna trade, it is not inconsistent with the results of the informal May 2008

survey. Based on the analysis of data from other research and the results from field work by the study team, it is concluded that:

- The annual earnings for women working on artisanal boats catching tuna is difficult to calculate, but is likely to be negligible.
- Gross sales of tuna by women working as tuna fish traders on Tarawa are in the region of \$4 million per annum.

The 2006 Kiribati Household Income and Expenditure Survey estimated that the total income from "agriculture and fish sales" was \$2.5 million in South Tarawa, with total income \$60 million. If the profits on selling \$4 million worth of tuna are 20 percent, then the income from the tuna sales represents \$800,000, or 1.3 percent of all income in South Tarawa.

Because the catching of tuna and the sales of tuna are most often carried out by the same family unit, such speculation on the net income of fish sellers is in one sense irrelevant – the important feature would be the profitability of the integrated fishing/selling operation. Although beyond the scope of the present study, information on the profitability of such an integrated family fishing operation could be obtained and is likely to prove useful for a number of reasons, including promoting women's involvement. For example, with recent fuel price increases, it could easily a situation of profitable tuna sellers compensating for marginal fishing operations. The contention that such a study would be valuable is consistent with Demke (2006) who states: "An economic analysis of women in tuna marketing could be carried out to quantify their contribution. In the absence of such data, women's contribution remains invisible and as such, women do not acquire the support they need to improve their employment conditions in marketing."

Some other important aspects of the artisanal tuna trade in Kiribati are:

- There is almost no processing of the tuna from the artisanal fishery as the fish is sold fresh the day it is caught. There is, for example, no heritage of smoking or drying tuna in Kiribati and the only significant processing done in recent years has been the production of tuna jerky by a few private individuals. CPPL is now carrying some quasi-commercial sales of processed tuna.
- In the past, Tarawa's artisanal tuna trade was adversely affected by fish discarded from transhipping vessels. While in the Kiribati zone, these vessels are required to tranship inside Tarawa lagoon rather than offshore. Frozen discards were collected on the wharf and resold in direct competition with small scale fishermen. Consumers could see that the fresh fish were much better quality but still bought the discards because they were cheaper. As a result, prices slumped temporarily (Barclay and Cartwright 2006). The town councils now control the price of market fish whilst Central Pacific Producers Limited (CPPL) maintains an exclusive claim on all discards from transhipments and repeatedly announces over the national radio that no person is allowed to collect or purchase discards from fishing vessels in Tarawa lagoon. This has therefore helped maintain roadside fish prices as the market is not swamped with cheap frozen fish.
- The second most important area for the artisanal tuna trade in Kiribati is at Christmas Island. Information from a fisheries specialist based at that location (H.Genthe, pers.comm.) indicates there are no women street vendors on Christmas like on Tarawa.



Involvement of women with tuna fishing at Christmas appears to be limited to assisting their husbands load/unload fishing boats and preparing fish for domestic consumption.

#### 4.7 Betio Fishermen's Wives Association

The Betio Fishermen Wives Association was established in August 2007. It aims to promote and develop a sense of friendship, unity and cooperation amongst members so as to achieve a

better standard of living for wives of the local fishing community on Betio. Ultimately, the Association is attempting to find means by which wives of local fishermen can be improved. Each of the 30+ members pays AU\$2/month to their own treasury to help cover the KANGO Union fee of AU\$100/year.

The members of the Association do not have the land for real gardens, or plantations of kava or breadfruit, but they process various types of fish and shellfish. Skipjack is seasonal, and when it is low season they just catch reef fish—or their husbands do. Each family has a boat and motor, but the fuel cost is very high. The members are keen to prepare tuna jerky, smoked fish, or other value added products. They also desire to have a sewing circle and to make local products for export to expatriate I-Kiribati women living overseas. Recently an FAO worker from Philippines came with a partner to train them in seaweed processing and a future course is planned sea cucumber harvesting.

#### 4.8 GOVERNMENT SUPPORT TO SMALL BUSINESS DEVELOPMENT

The Ministry for Commerce, Industry and Cooperatives has a Small Business Development Department and a Business Advisory Centre, both run by men. No information was available on women's business needs when the study team visited. Some doubt was expressed by the staff of the Centre regarding the interest and qualifications of women to run small businesses. This contention, however, appears contrary to the actual situation: in June 2006 the Chamber of Commerce hosted the South Tarawa and Betio Town Council Business Award (2006) which the study team attended. Five companies were awarded for excellence by His Excellency Te Beretitenti Anote Tong: Taotin Trading Co, Utirerei Bus Services, Tarawa Motors Co, MOEL Trading Co, and Rereiti Kiribati Garment Co. The latter three are owned and directed by women.

The Rural Development Bank offers several types of loans. These loans are as small as AU\$500 and are available for women as well as men. They are for employed people or people guaranteed by an employed person. Applicants must also show their Kiribati Provident Fund (KPF) statements for security, and the bank asks for a 10% deposit. AU\$5,000-10,000 loans require the approval of the General Manager and higher loans require Executive Committee approval. Since 2005 a change of policy has made it easier to borrow, with lending conditions less rigid. The main lending criteria include a salaried guarantor; KPF statements; an income or a profitable business profit, and the use of land as collateral.

The number of women awarded loans has steadily increased from 56 in 2000, 75 in 2002, 150 in 2004, 200 in 2005 and 288 in 2006. The number has increased over the past six years as a result of publicity campaigns by the Bank and 'word of mouth' from borrowers.

#### 4.9 EMPLOYMENT AT CENTRAL PACIFIC PRODUCERS

Central Pacific Producers Ltd. (CPPL) is a company fully owned by the government, with a Board of Directors appointed by the Minister of Fisheries & Marine Resource Development. It was set up in the previous government in May 2001 to incorporate three entities: Te Mautari, KMEL on Christmas Island and the Outer Island Project (OIP). CPPL has a new processing facility, complete with ice plants and generators in Betio and the company exported about 2mt of tuna and other pelagic fish species to Hawaii in 2001. It is the only locally based commercial tuna fishing company. CPPL employs about 80 staff; 15 crew-members at sea and about 40 of its shore-based staff could be considered directly related to the tuna industry (Gillett, 2003). In April 2008 the company employed 70 people, including 20 women – most of whom are clerical staff. There are two or three women employed in loining/processing and the Processing Supervisor is a woman (see Box 14 of Annex 4)

CPPL has just begun tuna loining (yellowfin and skipjack) and vacuum packing to sell to schools on South Tarawa. The women on the production line earn a minimum wage of AU\$80/fortnight. There is also a government backed project to develop the processing of bigeye and yellowfin sashimi and the company aspires to re-establish its fishing fleet to ensure a volume of supply.

# 4.10 THE POTENTIAL FOR DEVELOPING VALUE ADDED PRODUCTS - TUNA JERKY

CPPL occasionally produces tuna and clam jerky that was sold in local restaurants and pubs. This jerky sold quite well and data available to the study team from work undertaken in the early 1990s suggests that there is a potential market for tuna jerky as limited exports were in the past successful to the USA (Hawaii), Marshall Islands and Australia.

The production of jerky is not without its risks – the product retrieval rate is for example as low as 15% (ie 100kg of tuna is required to produce 15kg of jerky) so the processor needs a steady supply of tuna. In addition only yellowfin tuna (or bigeye) can be used because skipjack tuna is too oily, leading to rancid flavours during the drying process. On the positive side the product is time stable with a shelf life, if properly processed (dried) and packed of 6 months and the export sale price (and therefore profit) per unit weight ratio is also high (as the product typically retails in the region of AU\$100/kg). This is an important issue given the high cost of air freight from Kiribati to overseas markets.

CPPL currently has no export trade links established for its tuna jerky and is currently concentrating on supplying local markets. There are plans to develop export markets in the future, regionally and in Asian countries where dried seafood snacks are popular (Onorio, pers. comm.).

The difficulties in exporting jerky from Tarawa should not be under-estimated: Operating from a relatively isolated location and competing head-on in overseas markets with more experience privately-owned firms that obtain raw material at lower cost (Gillett 1996).

#### 4.11 DEVELOPING A BUSINESS IN KIRIBATI – KEY PROBLEMS

Kiribati's remoteness from other major ports often renders other comparative advantaged irrelevant. It is often not economic to import goods as inputs into manufacturing processes for a domestic market of only 30,000 people. Freight costs (whether by sea or air) outweigh many other costs and constraints – and is often used as the justification for the participation of government in the marine resource related enterprises.

Nevertheless, opportunities do exist. Kiritimati is relatively close to Hawaii and the US has always been an attractive export market. The Kiribati government used to charter a weekly Aloha Air flight to support the Japanese satellite programme on the island (the cost of which the Japanese underwrote by 50%) - and under this arrangement fish from Kiribati Marine Export Limited (now managed by CPPL) were exported to Honolulu. This opportunity collapsed when the satellite programme changed venues (Gillett, 2003 and Chapman, 2003). Currently there is a weekly stop-over by an Air Pacific flight from Fiji to Hawaii (both south/north bound) but cargo rates are higher and the availability of cargo space is lower than for the former Aloha flights.

Government officials are aware of the problems faced in exporting from the country and of the problems faced by public-sector companies – as commented upon in earlier research: "It is clear from the evidence, as well as from economic theory, that government-owned and managed companies usually make losses and eventually fail. Privatized companies are more profitable. Government employees are not as careful about money as they would be if the company was their own investment. That's why we have to spend government money on subsidies for government-owned companies" (Fisheries Officer Raikon Tumoa as cited by Barclay and Cartwright, 2006)

The government's aim was to have development driven mostly by the private sector with the government-owned company CPPL 'trail blazing' to encourage private sector development by showing people that a certain business could work provided they know how to do it. A SPC report on tuna development options states however that far from encouraging the private sector CPPL has inhibited private sector development in its main areas of business - namely trade in fresh and

frozen fish, fish processing, agency services and recruitment for distant water fleets, and cargo (Chapman 2003). This appears to be a situation of substantial government support to publicowned companies (with the intention of encouraging private sector development) actually having the reverse effect – constraining private sector development.

One market policy issue that is closely watched by the government (in all sectors) is that privatisation should not lead to businesses falling into the hands of foreigners who would then subject the business to cost-cutting job losses and/or the domestic market to higher prices for goods. Given the weakness and vulnerability of the local market this government policy and protectionism is understandable, at least for the short-term.

With respect to documentation on establishing fishing businesses in Kiribati, Savins (2001) is a case study of the difficulties encountered operating an export-oriented fishing company. The Forum Fisheries Agency reported on the challenges of a business involved with tuna fisheries in Kiribati. The report (Tamate 2002) concluded the major constraints are:

- Relatively high operating costs compared to other Pacific Island countries
- The taxation and tariff systems
- The lack of a level playing field between private companies and public enterprise.

## 4.12 THE LOCAL SEX TRADE & TE KOREKOREA

Transshipping represents an economic opportunity for Kiribati: improved monitoring of fish catches and opportunities for providing fuel, crew and provisions to fishing vessels. On the other hand, it also brought social costs in the form of an influx of ships crews ready to 'party'. As stated in 2006 DEVFISH Project Gender Study (Demmke, 2006), a growth in transshipment activities leads to an increase in shore-based services. Contact with local people is based on the exchange of goods and services, with the sex trade being one service (Vunisea, 2005).

When parents have no income they may encourage their children to stay in Tarawa and earn money through paid employment that does not exist (and these teenagers often do not want to go back to the outer islands). As a consequence Tarawa (South Tarawa particularly) is overcrowded and has serious unemployment problems. Teenage girls from the outer Islands are particularly vulnerable to becoming *Te korekorea*<sup>2</sup> (AMAK, *pers comm.*). The CEO of CPPL suggests that the *Te korekorea* are more organised of late, involving families based on Betio (the main commercial islet on S. Tarawa) who have long term relationships with Korean and some Taiwanese men. The women visit the foreign fishing vessels when they come for 3-4 days and the captains give these women's families fish from their catch, a contentious point for CPPL. When women are arrested for suspected prostitution and loitering, loopholes in the legal system can prevent the police from following through the cases to prosecution and conviction (this was not confirmed by the study team). Women as young as 15 years old are reportedly on the Police Department records as being apprehended on vessels. (Vunisea, 2005)

The DEVFISH Project Gender Study (Demmke, 2006) goes on to suggest that 'local women and incoming men may need advice about prevention of and treatment for sexually transmitted infections. Women who are subject to violence related to substance abuse or the stress of fishing crew lifestyles need particular kinds of welfare services, as do women ostracised for being perceived as prostitutes...The 2005 Forum Leaders' Communiqué pointed out the importance of regional strategies for dealing with HIV/AIDS, and the role of the Pacific Health Fund to help fund initiatives to combat health challenges (Pacific Islands Forum Secretariat 2005). Addressing the health implications of international port areas could be tied into regional as well as domestic services.'

<sup>&</sup>lt;sup>2</sup> The term *Korekorea* is a reference to women who associate with Korean men – the word did not exist in the I-Kiribati language 10 years ago

Women's groups reportedly currently direct their attention to women and children considered at risk from *te korekorea* (Bedford, pers. comm.; Kamanti pers. comm.). Betio and Bairiki both have billboard warnings about HIV/AIDS, and HIV/AIDS campaigns of international NGOs are target vulnerable audiences. Free, anonymous, sexual health clinics are excellent (if expensive) services to high risk populations are recommended for development on Betio.

#### 4.13 I-KIRIBATI CREW & WORK ON FOREIGN VESSELS

Kiribati has for years supplied a significant number of well trained seamen to work on foreign fleets. This started at the Maritime Training Centre (MTC), which first trained and recruited I-Kiribati for the German merchant marine back in the 1960s (Atanimakin, pers comm.) and still operates as a well disciplined training school to this day.

This means of foreign employment was extended to the fisheries sector with the establishment of the Fisheries Training Centre (FTC) on the MTC campus in 1989. In the mid 1990s Japan Tuna funded the renovation of an old hospital in Bikenibeu as a specialist training school. Most of the graduates of the Centre are destined for jobs on Japanese vessels.

Gillett and McCoy (1997) report 226 Kiribati men working on all 10 major foreign fleets in the Pacific Islands area. In 2005 there were around 325 I-Kiribati crew contracted to the Japanese fleet, and 100-200 more contracted to the Korean and Taiwanese fleets (Barclay and Cartwright, 2006).

FTC conducts two courses a year which each last between eight and nine months. Because jobs are assured at the end of the training the FTC courses are very popular. For a 2005 intake of 13 students for a special catch-up course to replace trainees who had left the programme, the FTC received 129 applications (*Ibid*). The economic contribution made by I-Kiribati working on the Japanese fishing fleet is significant. Around 325 I-Kiribati were employed on the Japanese fleet in 2004 and earned a total of AU\$1,695,230 for the year (an average of AU\$5,281 per person). A similar number were employed in 2005 (*Ibid*).

Presently there are no women from Kiribati working as crew on foreign fishing vessels. Considering changes in attitudes in Kiribati and in the distant water fishing nations, employment of Kiribati women as crew could be an opportunity in the future.

#### 4.14 THE SPC STUDY

Social and gender considerations in the tuna industry in Kiribati have been studied in the recent past. Box 5 gives some key results of a study carried out in 2002 in conjunction with producing a tuna development and management plan for Kiribati. The results appear consistent with the present study.

#### Box 5: Gender in the Development and Management of Tuna Resources in Kiribati

The gender component of the Tuna Development and Management Plan for Kiribati was conducted taking into account the many socio-economic issues that were involved. Fishing continue to dominate people's lifestyle in Kiribati and development and change in the fisheries sector have to some extent influenced change in gender roles. Because of the lack of a fully developed domestic tuna industry and there being no processing or post-harvest ventures in existence, there are no defined work areas for men and women in the tuna industry and there is not much data to allow for comparison of employment levels, time, wages and other such indicators. In general participation, women are increasingly moving away from homes and are participating more in the monetary economy, dominating marketing activities and tapping into micro-enterprise.

Key gender issues identified as important under this exercise include the importance of the consideration of traditional and customary gender expectations and norms in the whole tuna development process. For a close-knit community like Kiribati, radical changes in traditional gender expectations and orientation could be received with mixed attitudes and thus indirectly affect implementation of certain areas of the development plans. There is no gender discrimination

in employment opportunities offered but traditional perceptions of gender roles could always undermine this. On the other hand women are actively participating in the market economy through various means thus positive support towards these involvement could result in the further advancement of their roles. Although women's participation outside of domestic defined activities was obvious, involvement in decision making is still dominantly through the traditional councils which effectively leaves out women.

For more meaningful participation in the tuna industry there is need for more vigorous education and training both in the formal and informal sector to prepare the people for associated changes to lifestyle, more importantly to prepare the people to participate in the industry. For these training needs to be met there has to be commitment from the government and the private sector in overseeing local people acquiring local skills, knowledge and know-how to develop their domestic industry. Existing educational institutions for Maritime training can expand on current roles and focus to take on the responsibilities of training and education in the tuna industry. Young people and community leaders can be mobilised for dissemination and conduct of training at the village level. More vigorous awareness work is needed at the community level and these exercises could be maximised by building in areas identified under social impacts of these report. Source: Vunisea (2003)

#### 4.15 CONCLUSIONS & RECOMMENDATIONS

Findings from the present study reveal that, whilst women's fishing activities in the past have been subsistence-related, with the increasing monetary requirements for households (on Tarawa particularly) there has been a shift towards part-and full-time involvement in activities related to fishing. Although such activities are no longer confined to gleaning from the reef, women are generally not involved in catching tuna. Their involvement in the tuna fishery, be it subsistence on the outer islands or artisanal in Tarawa, is largely confined to the marketing of fresh tuna, primarily from roadside stalls. There is currently no substantial amount of processing of tuna sold locally, although CCPL are developing some niche tuna products for the domestic market and there may be potential for local entrepreneurs to develop markets for non-perishable products such as tuna jerky.

Kiribati acceded to the Convention on the Elimination of Discrimination Against Women (CEDAW) in March 2004 and human rights in Kiribati are generally considered good (as reported on the UK Government Foreign Office website - Kiribati Country Profile, 2007). With an expanding economy there are more opportunities for professionally qualified women in a society with a high degree of gender neutrality.

There is however not many clear success stories of women in the commercial fisheries sector in Kiribati. In light of the continual importance of roadside fish sales to the livelihoods of people living on Tarawa, the following are recommended for expanding women's participation in the tuna fisheries sector. Some recommendations are equally applicable to the fisheries sector in general):

- Island and Town Council Markets need proper toilets, adequate drainage, freshwater supply and, most of all, to carry out consultation with sellers before renovation. Councils must also be transparent regarding the expenditure of money collected from sellers.
- Further work is needed to sensitise the MCIC Small Business Development Department and Business Advisory Centre to the specific needs of women and promote micro-credit schemes to assist small businesswomen and organisations such as the Betio Fishermen's Wives Association
- The government must take steps to clarify its policy towards the role of CPPL in the domestic fish market and resolve the current policy conflict existing between the government supporting public-owned companies versus engendering private sector development.
- The government should consider supporting to investigate options for small-scale tuna processing on Tarawa in particular the production of non-perishable products such as tuna jerky. This work should follow on from the work of Teikabuti Fishing Company and the regional experience of SPC.

 The government should consider sponsoring video awareness TV productions on fishing industry issues, including profiles of successful women in the tuna industry in Fiji and elsewhere in the region

## 5.0 COUNTRY REPORT - PAPUA NEW GUINEA

## 5.1 BACKGROUND TO THE SECTOR

The Papua New Guinea catch of tuna is substantial - typically 150,000-200,000mt per year. It is estimated that the resource can sustain much higher annual catches of 250,000-300,000mt with a potential market value of about K1.0 billion. PNG has fishing access agreements with distant water fleets of the US, Taiwan, South Korea, Philippines, Japan fish and other nations. An unpublished estimate by National Fisheries Authority (NFA), suggests between 2001 and 2007 the NFA paid the PNG government K145 million, 80% of which - K116 million - had come from DWFN access fees (Slatter, pers comm.). Some 130 purse seine vessels fish in PNG waters each year. The value of Papua New Guinea's tuna exports rose from around PGK3.5 million in 1996 to over PGK220 million in 2002 (Gomez, 2005).

The National Fisheries Authority (NFA) was established by the Fisheries Management Act of 1998 to replace the former Department of Fisheries and Marine Resources. Women are involved within the NFA in several types of roles, including surveillance, enforcement and monitoring (see Box 15, Annex 4). According to the Secretary to Corporate Services, there are 33 female employees at all levels in the NFA out of a total of 91 staff.

Women have also found employment in fisheries related business administration and provide legal, scientific, and technical services to private and government fisheries institutions. There are no specific employment figures for such workers but the authors estimate no more than 1,000 women are employed in service industries related to the fisheries sector. This does not include the large number of PNG women involved in fish processing.

The actual harvesting of tuna is largely a male domain in Papua New Guinea and there are no women currently working on commercial tuna vessels. The contribution of women to the tuna harvesting sector (purse seine, pump-boat and longliners) is therefore negligible, as very few women actually handle fish at the ports, notably at RD Tuna's Vidar wharf. Women work in marketing fish at all levels, from roadside stalls to the export of tuna sashimi products. The potential for expanding women's roles in the industry is primarily in the processing and marketing stages, where diversifying value added strategies, expanding overseas markets, and enforcing gender equity legislation will produce more jobs for women. Greater credit opportunities, under relaxed criteria, will also bring more women into the industry.

#### 5.2 THE INDUSTRIAL LONGLINE & PURSE-SEINE TUNA FISHERY

As of the 4th September 2007, the NFA records 236 registered tuna fishing vessel licenses: 18 for longliners and 218 for purse-seiners. An additional 46 purse seine vessel licenses have currently expired.

The 18 tuna longline vessels operating in 2007 belong to: Fair Well Investment Ltd (nine); Tuna Well Investment and Equatorial Marine Ltd (three each); two for Coco Enterprises Ltd and one for Highland Products Ltd, plus four longliners fishing for shark (cf. Barclay and Cartwright, 2006). With an average per vessel of nine crew members this represents approximately 162 male tuna crew.

The purse seine fishery is made up of both a distant water access fleet and a locally based foreign-owned fleet. Korea, Taiwan, Japan, and the USA still account for around 75% of the purse seine catch, with vessels based in Pacific Island countries fishing under the FSM Agreement and locally-based Philippines vessels taking the balance (Williams and Reid, 2005). If

the 218 licensed tuna purse seine vessels have an average of five crew members per vessel this represents approximately 4,360 male tuna crew.

The trend in PNG from 2002 to 2006 has been a reduction in longline vessels and an increase in the number of purse-seine vessels; total catches by purse-seiners has increased from 269,291mt in 2000 to 307,043mt in 2004 (Kumoru 2005). At the same time, the number of local (PNG) jobs on fishing vessels have dropped sharply, while the jobs on shore (and these are predominantly women working) have doubled. There are now 17 licences for fish factories (of all kinds) in PNG, but only five tuna processing plants operating - RD Tuna for canning; Equatorial Marine R, South Seas Tuna, Frabelle and most recently Ailan Seafood in Kavieng (with very few women employees) for loining.

Table 9 provides details of trends in value-added exports up to 2004 whilst Table 10 provides a useful summary of recent trends and developments in the sector (Source: Barclay and Cartwright, 2006).

Table 9: Tuna Exports by Volume, Value and Product - PNG (2000-2004)

	Total catch	Chilled	l Tuna	Frozen	Tuna	Canned	d Tuna	Tuna l	oins	Fish	Meal
Year	Mt	Mt	USD	mt	USD	mt	USD	mt	USD	mt	USD
2000	282,005	1,196	5.1m	33,004	13.5m	10,298	18.1m	-	-	1,690	0.4m
2001	162,999	1,857	8.2m	34,656	22.2m	9,858	17.6m	-	-	1,438	0.5m
2002	170,175	2,106	8.4m	33,908	30.4m	12,214	23.4m	-	-	1,670	0.6m
2003	374,542	2,092	9.3m	31,275	16.5m	13,753	28.0m	-	-	1,791	0.7m
2004	313,027	2,111	9.6m	10,968	7m	15,252	35.3m	1,724	0.9m	2,973	1.2m

Table 10: Indicators of Tuna Development in 2005, PNG

Company	Domestic Vessels:	Processing Facilities:	Jobs for Nationals:	Annual Exports:	Annual Domestic Sales:
	No. & Types	No. & Type	No. & Type	Volume & Type	Volume & Type
Latitude 8	10 longline (7 active)	1 sashimi packing	-		Sold non export grade fish in Port Moresby shops
Neptune	3 longline	0	-		
Equatorial Marine Resources (EMR)	19 longline	l sashimi, fresh loin/steak, packing	105 fleet 105 shore	Whole chilled & frozen fish, fresh loins/steaks	
Other companies	- longline	-	-		
RD	12 purse seine	1 cannery	35 fleet 3,000 shore		
Frabelle	7 purse seine	l cannery l fresh loin	35 fleet 80 shore		
South Seas Tuna	12 purse seine	l cooked loin	- fleet 1,400 shore	2,800mt frozen loins	
Pacific Blue Sea	- purse seine	-	-		
NFA	0	l small smoking, fresh fillet/loin, packing	-		
Total	42 longline (39 active) 23 purse seine (D) 19 purse seine (LBF)	>2 fresh loin >3 sashimi packing 3 cannery/cooked loin	>4,760	Fresh chilled & frozen, whole or cut up, cooked loins, cans	Fresh chilled/frozen fish

Notes: D = 'domestic, LBF = 'locally based foreign'.

Other domestic longline companies included: Coco, Molina, Fair Well, Gensbel, Longline Tuna, PNG Fresh Tuna, and Kidu. Gf EMR's vessels 9 were owned by Sanko Bussan, a Japanese company in joint venture with EMR, 10 were owned by other companies. Neptune's vessels were targeting shark and frozen tuna for export to Taiwan, not sashimi tuna.

Source: Interviews and personal communications 2005; Tuna Fisheries Report - Papua New Guinea

#### 5.3 COASTAL FISHERIES

Small scale fisheries in PNG, including those catching tuna, have always been an important source of nutrition for coastal communities, and one part of many strategies to meet cash needs. Catches are usually sold fresh from roadside coolers, smoked for markets, and in 'takeaway' forms as prepared meals. The constraints to coastal fishery development are many and include a paucity of a fish handling, distribution and marketing infrastructure.

The EU Rural Coastal Fisheries Development Programme (RCFDP), formerly of Madang and now based in Port Moresby, has established a number of commercial fishing enterprises with small skiffs in seven provinces, with varying success. Participants with a business plan are

offered low interest loans on their vessels and gear, and paired with private sector partners for marketing, and in some cases, export of catch. The RCFDP is in the process of constructing new fish markets in Port Moresby, Buka, Kavieng and Lae to provide retail outlets for fishermen and women. Once completed, private entrepreneurs will manage and maintain the markets and its facilities. The market sales and market management positions are better suited to women than the loan packages, although women have proved crucial to the operational success of the fishing groups who received skiffs in Madang Province—as reliable bookkeepers and data recorders (Sullivan et al., 2004). Ironically, the loan criteria (which include being a full-time fisher and member of the Fishermen's Association) effectively prohibit women as anything more than fishing group members.

A recent development in PNG, a new category of 'Hand-line/Pump-boat' was included in the 2004 revision of the Tuna Management Plan (Government of PNG, 2004) allowing for 100 vessels to be used across the country's coastal regions. In coordination with the new National Development Bank, Morobe Province has established a Fisheries Credit Facility Scheme (FCFS), enlisting Lae-based Frabelle Ltd as a private sector partner for small fishing enterprises. The FCFS has introduced the new pump boats first brought to PNG from the Philippines by RD Tuna and now being popularized for small longline tuna fishing. Frabelle maintains the boats and buys the catch. In mid-2007 there were a total of 15 pump boats fishing for tuna around the FADs of the Huon Gulf. None of these boats operations involve the employment of women. In 2008 only one vessel remained operating.

#### 5.4 INTERNATIONAL TREATIES & WID

Papua New Guinea is a signatory to the UN Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW), which forbids gender discrimination of any kind. PNG has ratified a total of 19 International Labour Organisation (ILO) Conventions, and yet, with the exception of the Convention on Underground Work (Women) (No.45) and the Convention on Employment Policy (No 122), none of these are relevant to women. The PNG Country Report to the Beijing Conference on Women (1995) urges the Department of Industrial Relations to take immediate action to ratify the Conventions on Maternity Protection (Revised) (No 103), Workers with Family Responsibilities (No 156), Discrimination in Employment and Occupation (No 111), Equal Remuneration (No 100) and on Minimum Age (No 138). The PNG Government's Law and Justice Sector Gender Strategy for 2007 proposes' the development of equal employment opportunity legislation for women as well as awareness training and other anti-discrimination strategies.

#### 5.5 THE ECONOMIC CONTRIBUTION OF WOMEN

An ILO report (ILO, 1998) estimates that women accounted for less than 18% of total formal sector employment in PNG in 1994, and in manufacturing they made up only 16% of the labour force. The most recent published gender related data (gender development index) from UNDP estimates the average annual earned income of men is US\$3,305 and for women in US\$1,896; a ratio of female to male earned income in 2003 of 0.57 (Source: http://hdr.undp.org/statistics/data/cty/cty\_f\_PNG.html).

Results in Table 11 illustrate that women dominate in the informal economy and men in the formal economy in both the rural and urban labour markets.

It is estimated by the Study Team that approximately 7,000 women work in the PNG tuna industry, including onshore handling and loining or canning, and technical and administrative positions, both in government and the private sector. The National Statistical Office of PNG (www.nso.gov.pg/index.htm) estimates from the 2000 census that 211,443 women were employed in the formal economy; the tuna industry therefore employs roughly 3.3% of the 2000 census total. An estimate (see Table 12) that formally employed women represent 0.8% of the total employed workers in agriculture, animal and fishery is a more outdated figure, as all the tuna processing plants have been established since year 2000. The difficulties associated with

obtaining accurate information on fisheries employment from national surveys in Pacific Island countries is discussed in Gillett and Lightfoot (2001).

There is no data for total annual earnings for women formally employed in the sector, as a percentage of the total employment earnings, but women dominate the processing segment of the industry where they generally make a minimum wage as unskilled labour. There appears to be no other formal industry in the PNG economy so dominated by women as tuna processing.

Table 11: Employment by Type of Activity & Gender (2000 Census, PNG)

	T	otal	M	ales	Females		
Sector	Monetary	Non-	Monetary	Non-	Monetary	Non-	
		monetary		monetary		monetary	
Total	584,682	1,760,052	373,239	829,994	211,443	930,058	
Urban	148,419	38,815	102,542	16,004	45,877	22,811	
Rural	436,263	1,721,237	270,697	813,990	165,566	907,247	

Table 12: Distribution of Employed Urban Citizens by Occupation, Type and Gender

Sector		otal employ		Employed in wage jobs		
	Persons	Males	Females	Persons	Males	Females
Total	100.0	100.0	100.0	100.0	100.0	100.0
Legislators, senior officials & Mangers	4.3	5.6	2.1	5.1	5.8	3.3
Professionals Teaching &	6.0	5.7	6.6	9.0	7.2	13.9
associate professional	10.8	11.8	9.1	15.7	14.6	18.6
Clerks Service workers,	9.0	5.9	14.4	13.4	7.4	30.0
shop & market sales workers	11.6	11.9	11.1	14.0	13.4	15.6
Agricultural, animal & fishery workers	21.3	14.5	33.1	1.2	1.4	0.8
Craft & building trade workers Plant & machine	11.8	17.2	2.6	15.3	19.8	2.5
operators & assemblers	5.5	8.2	0.8	7.6	9.7	1.7
Elementary occupations	19.6	19.2	20.3	18.8	20.7	13.7

Source: 2000 Census, PNG

Demmke (2006) gives employment data in the tuna industry for several Pacific Island countries. The information for PNG is given in Table 13:

Table 13: Tuna Employment Data, PNG (2006 and projections for 2007)

Fishing employment	Commercial/ industrial (purse seine, pole and line) companies and vessels staff or crew		tuna fisheri FAD fishir (catchi marketi	ee/artisanal es (trolling, ng) fishers ng and ng) plus anies	Processing facilities (loining, canneries, pack- houses, tetaki, arabushi) number of staff per facility		Company
	Men Women		Men	Women	Men Women		
			2006				
Purse seiner (4-6 per vessel) Longliner (6-12 per vessel)	Purse- seiner: 200 Longliner: 250	NIL	10-12 trainees on pump Boats	NIL	500 200 30	3000 1000 900 10	RD Tuna SSTC Frabelle Others
			2007				
Purse seiner (4-6 per vessel)	Purse- seiner: 1090	NIL	15 trainees on pump Boats	NIL	500 200 50	3000 1000 900 100	RD Tuna SSTC Frabelle Others
Longliner (6-12 per vessel)	Longliner: 162						

### 5.6 THE TUNA PROCESSING INDUSTRY

Currently the country's three main tuna processing plants are in Madang, Wewak and Lae, employing 12,000 to 15,000 Papua New Guineans; the most important employers in the local economy. At least two more plants are in the planning stage, together with slipways and wharfs; all of this proposed development is part of the government's strategy to obtain more benefits from PNG's tuna catch. With the stagnation of the domestic longline industry in 2005, the main focus of government aspirations for developing the tuna resources lie with fishing tied to onshore processing; the RD cannery at Madang, the SST loining plant at Wewak and the Frabelle cannery/loining plant at Lae.

Processing of fresh chilled and frozen fish connected to longline fisheries in PNG are suffering from falling CPUE and the high cost of freight. From a boom of 40 vessels operating in the fishery in 2002, all but Port Moresby centres have since reduced their operations or closed (Barclay and Cartwright, 2006). The EU export certification for RD Tuna was also withdrawn in mid-August 2007. RD Tuna will now have a grace period of several months to reapply for the export status.

Chilled tuna is generally air freighted to the sashimi market in Japan. Frozen tuna is exported to Philippines and Taiwan, canned tuna mainly to USA, Germany and UK with small quantities to the Melanesian Spearhead Group countries. Fishmeal is shipped to Australia and Japan. More than 10,000mt of canned tuna is also consumed locally per year. The export value of tuna products is now about K200 million, a 100% increase from K100 million in 1999. This excludes catch by foreign vessels that pay access fees and ship the tuna directly to overseas processors.

An example of a high value added processing plants now operating in PNG is Equatorial Marine Resources Ltd (EMR) and its joint venture partner Sanko Bussan (PNG) Ltd. They export 250-300mt of tuna a month, mostly to the Japanese sashimi markets while the rest is exported as loins after being processed at its factory in Port Moresby. Their PGK3 million [US\$1 million] small-loining plant set up three years ago has the latest technology and complies with international packaging standards; it currently exports to Japan, the US, European Union, Asia, Australia, Fiji, and American Samoa. The company operates 14 longline fishing vessels and employs 260-plus staff (Hriehwazi, 2007).

The relative benefits of local value-adding are well illustrated in Figure 1. Potential future developments in the sector reportedly include fresh chilled or frozen loins for the EU and USA

markets, and fully prepared and packaged fresh fish for supermarket shelves in Japan. Ultra-low freezer vessels will be allowed to operate in PNG with the enactment of the next National Tuna Management Plan (Kumoru, pers. comm.).

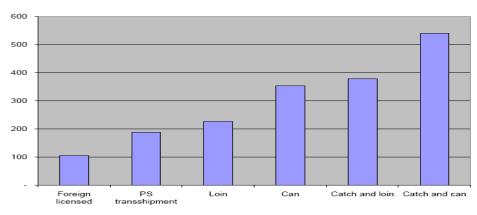


Figure 1: Tuna Operational Models by Economic Benefit, PNG

(Source: Philipson, 2007; Units: value-added in US\$ per mt)

### 5.6.1 RD Tuna Group of Companies

The RD tuna cannery, established in Madang in 1997, processes 150mt of tuna daily, and plans are underway for the construction of a second and larger cannery/loining plant at Vidar, north of Madang, with a capacity for 200mt/day. Under the Government's export driven economic strategy, onshore development is being encouraged as a condition of Distant Water access. RD Tuna Canners and RD Fishing, based at Vidar Wharf nearby, are both fully owned by the RD Corporation of the Philippines, which signed a 20 year agreement with the PNG government in 2005. 10 Philippine-flagged purse seiners fish around 300 FADs (they actually fall into the licensing category of 'locally-based domestic' vessels).

At present RD is the largest employer in Madang and a pillar of the province's growing economy. The company is currently trying to sell shares, as its agreement with the NFA requires the company to be 34% local owned.

Wages at RD Tuna are competitive for PNG, but the company's productivity, the amount of export grade canning material recovered from each fish, remains lower than competing plants in South East Asia, where the cost of labour is much lower.

The minimum wage has been an issue since 2001, when the National Government rejected a proposed 160% increase by the Minimum Wage Board (from K24.20/week to K60.42/week). Instead an interim minimum wage of K32.91/week was established, which is where it still stands today and which most factories adhere too. The Trade Union Congress has been lobbying for a 100% rise this year, 2007, to K150 a fortnight (roughly US\$50). The issue of minimum wages has achieved national prominence as show by a recent editorial in a national newspaper (Box 6)

## **Box 6: The Minimum Wage Issue**

THE news that the Government is reviving the Minimum Wages Board will be seen by many thousands of workers as the best thing in years. Wages for the workers on the lower rungs of society have been virtually frozen for the better part of a decade. The last judgment or determination of a Minimum Wages Board was in the year 2000. Since then, workers in the bottom tier have been stranded on the survival rations type of wage of about K75 a fortnight. It has to be said: That amount is not enough for survival in any urban centre of Papua New Guinea. It's barely enough to scrape by on even if the worker is on a rural plantation. People like house domestics, security guards, basic labourers and the like have had to depend on the goodwill and commonsense of individual employers. And without any government regulations to be governed by, even the most generous employer is going to take the cost-effective way out. So it is that we

salute the National Executive Council's decision to establish a Minimum Wages Board. The principle is right. There should be an institution with government authority to determine a living wage for the least protected working people in our society.

Source: Post Courier, April 2008

Barclay and Cartwright (2006) report that, even though there has been plenty of press regarding the substandard wages and conditions of these Pacific factories (Emberson-Bain 1994; Hughes and Thaanum 1995; Sasabe 1993; and Sullivan et al. 2003), they found "these companies have been more responsible corporate citizens than their reputations suggest." RD pays factory workers approximately US\$2/day (K5.75)<sup>3</sup> and this is legal. Workers have a Union (to which an estimated 2,400 members have K1.50 deducted from their pay fortnightly, generating K89,700 annually).

### 5.6.2 South Seas Tuna Corporation

The South Seas Tuna Wewak loining plant (200mt/day capacity [Kumoru, 2005]), was completed in early 2004 and is currently operating at 100mt/day. South Seas Tuna Corporation Ltd. operates 14 purse seine vessels, all in the licensing category of 'locally-based foreign'. NFA records that the company exported 26,975mt of frozen tuna in 2001 and that about 129 people are employed at sea (7 PNG nationals). Using the other locally based companies as a guide, it is estimated the company may have 25 people employed ashore (20 PNG nationals) with these vessels.

A factory on the scale of SST, which employs 600 workers at each of two shifts, is bound to have an enormous effect on the local economy. During interviews at SST, the management expressed pride in the amount of money they inject into the local economy, the fact that they are providing work for villagers, and reclaiming for PNG a manufacturing process that would otherwise benefit another country. As with RD Tuna, and PafCo in Fiji, the Personnel Department reported no shortage of applicants for every available position.

Women have reported to the Study Team that they are eager to work in processing plants because they want the sociality of the workplace, and/or they want to escape village routine (where young women are often burdened with menial tasks). As was found during this study at PafCo, and in RD Tuna, women are happy to work for low wages under strenuous conditions in order to join the workforce and establish themselves as public citizens, eligible for a bank account, an ID card and a credit line at the local store. The main issues raised by plant workers concerned:

- Low wages: SST pays an average fortnight wage (based on 5 days work per week) of K90, less National Provident Fund deductions and possible deductions for late arrival at work.
- Lack of transport for those travelling from distant locations: This sometimes results in walking to/from work in the dark). The SST Personnel Department explained to the Study Team that they are about to implement a company transport system for workers.

# 5.6.3 Frabelle (PNG) Ltd

Frabelle PNG Ltd is a subsidiary of the Manila-based Frabelle Fishing Corporation. They started fishing in PNG five years ago and in 2006 opened their loining factory. The facility is designed to process cooked frozen loins for export and canned tuna for the domestic market. The plant has the capacity to process 100mt of raw material per day, with a recovery rate of about 45% of the volume of raw material. At present, however, the equipment capacity can only process 20mt per eight-hour shift (40mt over two shifts). The cannery and processing expansion is still under construction as of June 2007. Their export markets are American Samoa, Italy, Japan, South Korea, Spain and Thailand.

<sup>&</sup>lt;sup>3</sup> Essentially the minimum wage plus payment in lieu of lunch and less statutory deductions and penalties for lateness

Frabelle operates ten 'locally based domestic' purse seine vessels fishing in Morobe, East Sepik and New Ireland Provinces, and offloading at the Frabelle cannery. There is the intention that the cannery will also be supplied by the new pump boats (Section 5.3), which are owned and operated by the coastal people of Bukawa, Labu and other villages along the Morobe coast.

There are a total of 1,300 workers, of which 900 are women. Most of these women are in the Production Department where they loin tuna. There are two production shifts, night and day. The ratio for each shift of women to men is ten women to four men. Women interviewed by the Study Team reported their fortnightly pay as between K50-70. Most of these people interviewed indicated that the money is not enough to support their family in the city of Lae, particularly for those women who have children and an unemployed spouse. When asked about school fees, some say that have decided not to send their children to school at all because there is no money for fees. An illustrative case study of one of the women working at this cannery is provided in Annex 3 (Box 8).

### 5.6.4 Other Tuna Processing Opportunities

'Gourmet processing' may offer considerable opportunities for PNG in the future. These small-scale processing plants could provide jobs for women both in the processing facilities and in related industries, like agriculture, where women are key participants. Smoked, dried and salted tuna could also be processed and packaged with various locally produced ingredients.

Apart from a short-lived *katsuobushi* factory in Kavieng in the 1970s, tuna smoking is not being done on a commercial basis in PNG. The NFA factory in Kavieng could conceivably be converted for gourmet small-scale processing to produce various tuna-based products.

Bycatch processing includes drying shark fins for the lucrative Chinese export market. The interest in increasing the marketing of shark products comes from deriving greater economic benefits from tuna fishing, as well as complying with proposed or existing bans on fining by full utilisation of sharks.

The NFA database (NFA webpage) reveals that recorded shark bycatch in PNG has been rising significantly over the past five years in the tuna purse seine fishery - from 294mt in 2002 to 7,995mt in 2006 although the landings in 2007 (to date) are only 542mt.

Making of leather from blue shark (*Prionace glauca*) could represent a processing opportunity related to tuna fishing (McCoy, 2007). McCoy states that there is no hard data on sales, prices or market quantities of shark but estimates that 75% of shark landed by longliners was exported (primarily as frozen trunks to Taiwan), with the balance sold on the local market. He also reports that there has been a demonstrated demand for shark in Lae and Port Moresby, particularly for the institutional market such as mining camps. The level of employment opportunities for women in shark processing has not been estimated.

## 5.7 GAME FISHING

This industry is thought to be somewhat seasonal - blue marlin and yellowfin for sportfishing seem to be found in good concentrations around Bougainville and the Solomon Strait from January through April. In Madang region, both species are especially common from November to January. The use of FADs in these areas could be thought of as taking 'sport' out of game fishing, but they do increase game fishing catch rates, and thereby serve the tourism industry in general. Women are employed in all levels of tourism and, with specific relevance to game fishing, they are commonly employed as barmaids and waitresses in sport fishing clubs at several locations in PNG.

#### 5.8 FISHING HUBS

In PNG a deliberate effort to distribute development has led to large-scale processing ventures in Madang, Wewak and Lae, with longline developments spread even more widely. The problem with spreading tuna developments out geographically is that it can exacerbate the diseconomies of scale that plague the viability of many PIC developments. RD has been trying to attract more businesses to Madang for some years but there has been past government aspirations of 'a tuna factory in every port.' To some extent, the major processing companies have been burdened with installing infrastructure at their own expense.

For individual companies, the operating costs are high in Papua New Guinea, at least in comparison with plants in Thailand and other Southeast Asian competing countries. RD Tuna management is therefore particularly keen on the prospects of a Marine Business Park in Madang Bay (Barclay and Cartwright 2006, Slatter pers. comm.). The concept could involve a regional initiative for processing fish from other Pacific Island countries. Preferential EU trade access would also assist in the success of such a business strategy, particularly in light of freight and infrastructure costs (*Ibid*).

The concentration of processing capacity within one region would only benefit women living in the neighbourhood of the marine business park and there may be negative socio-economic consequences should such a business strategy lead to closures elsewhere. There are however good reasons why fish processing has not been consolidated in one PNG province, as beyond the immediate environmental concerns there is very little land not customarily owned in PNG, and even less near port areas.

### 5.9 OPPORTUNITIES & CONSTRAINTS FOR WOMEN

#### 5.9.1 Key Constraints

Women commonly do not have the educational opportunities that men do in PNG - the expense of school fees often require families to make a choice (UNICEF 2006). As a result they are less likely to be qualified for executive industry jobs. In addition, in the rural areas particularly, women are much more likely to be married by the time they are employable.

The biggest constraints to women in the tuna industry are in the fishing, where women are least likely (and willing) to join vessel crews or even fish in small coastal fisheries operations. But apart from fishing, PNG women have already shown themselves able and willing to participate - from the smallest village fishing cooperatives to high executive positions.

Women are, however, preferred factory workers and are eager to take these jobs as their entry into the working world. Where their families can maintain a subsistence existence and not depend exclusively on the workers' wage, the benefits are significant: one working wage for a rural family can pay for the basic amenities like school fees, medical costs and transport to market. Where families are uprooted or clustered into settlements, it is difficult to live on a low wage only – both the financial and social costs rise significantly. Although the proposed tuna industry hubs may reduce operating costs for the fishing/processing companies, the financial and social impacts of those locations on the workers may not be receiving adequate attention.

Outside the tuna industry, a growing number of private companies have been training female cadets at the Maritime College. The Principal of the PNG Maritime College believes there are a maximum of 12 PNG women working on maritime vessels at present, although none are tuna vessels (Richard Coleman, pers. comm.). Establishing scholarships for women at the Maritime College, the Kavieng National Fisheries College, or the PNG Institute of Public Administration may be an appropriate strategy for expanding women's participation in the fisheries sector.

### **5.9.2 Key Opportunities**

The largest potential for women's increased participation in the PNG tuna industry lies in the processing sector and other shore-based jobs - including those at NFA: auditing, enforcement, licensing, and as a fishery observer. Legal, administrative and technical positions in the industry are in theory all open to women with further education. In the processing sector, employment opportunities are growing, with plans for new plants and options for more value added processing.

Demmke (2006) refers to a variety of industry-related support services, most of which are dominated by women, as "secondary activities." These services range from restaurant work to airlines and shipping jobs, to nightclub work for visiting crew and the sex trade (see also Section 5.10.2). All these activities benefit from the growth of a tuna industry but not all these activities are socially beneficial, and some, like sex work, have serious health and security risks for women, men and their families.

## 5.9.3 Training Opportunities

There are a number of institutions in PNG which offer training relevant to the fisheries sector (from the FAO Fishery Country Profile 2002 webpage):

- The Kavieng-based National Fisheries College, which is now a Branch of NFA, offers a range of seafood and fisheries courses including new qualifications for fishing vessel crew and captains authorised under the Merchant Shipping Act.
- The Maritime College in Madang offers more advanced and officer-level vocational training for the merchant shipping.
- The University of PNG offers degree courses in marine biology and other relevant scientific disciplines through its main campus as well as via its Marine Research Station at Motupore Island.
- The University of Technology at Lae offers a food technology degree.
- The PNG Institute of Public Administration and some technical colleges offer accountancy, management and other training programmes relevant to the fisheries sector.

Papua New Guinea's National Fisheries College has successfully run short courses on fisheries small business development and the SPC Fisheries Training Section has conducted courses for women on seafood enterprise operation and management and small business management (Barclay and Cartwright, 2006). Product development is an area highlighted by Demmke (2006) as a weak link in most PIC tuna industries, and this is certainly the case in PNG. There is no training currently available in PNG for product development in tuna processing, and were the University of the South Pacific to offer such courses (as recommended by Demmke, 2006) it would be difficult for PNG candidates to enrol. The Fisheries College, Lae Unitech and technical colleges should investigate adding product development training to their curricula, with options pursued for sponsorship by private companies.

In examining two decades of tuna industry development in Pacific Island countries, very few small-scale fishing operators have successfully upgraded to becoming managers of large fishing businesses. (Gillett 2003). On a smaller scale, the upward mobility of small fishing operators, including women, who lead community and family-based fishing groups, could be facilitated by making extension courses in business more available.

## 5.9.4 Provision of Credit

Additional constraints faced by women wanting to start businesses in the industry are the high utility costs and a general lack of start-up capital. Initiatives are however in place to overcome these constraints. For example, the resuscitation in January 2007 of the defunct Rural Development Bank (now the National Development Bank is likely to result is a government grant of K45 million for small business loans at 10% interest rate, of which K4 million is promised to be earmarked for women borrowers.

One of the ways women could more fully participate in, and benefit from, coastal fisheries development would be to extend flexible credit terms to women entrepreneurs so that they might purchase small boats, including pump boats. The National Development Bank (and its funds earmarked for female borrowers) is behind the new coastal fisheries pump-boat loans in Morobe Province. It is therefore likely that women with fisheries ambitions and good business plans could be beneficiaries of this financing. To succeed, they would most likely be part of a family business or collective rather than single entrepreneurs, because with male relatives and their support they would have a greater chance of bypassing any gender barriers.

## 5.10 WOMEN'S LIVELIHOODS AND GENDER ISSUES

### 5.10.1 Negative Impact & Social Issues

Women and children are highly vulnerable in Papua New Guinea in terms of both physical safety and health. While the constitution clearly supports equal participation of women in the workforce, and equal rights for women in the home, the tacit understanding of women in PNG is often as resources, or goods, rather than fully entitled citizens (UNICEF, 2006).

Although tuna loining and canning factories are predominantly in town limits, they are normally at the town's edge, at the wharf, and draw from nearby village populations for their staff. Village girls are often married by age 19, and therefore frequently working to supplement a household income, rather than for personal savings, as might be the case for unmarried girls living with parents. In addition, they are more likely than their male counterparts to be unskilled and educated to grade 6 only. They are also likely to be mothers, and as such, managing childcare whilst at work which is socially difficult in PNG (PafCo workers in Fiji often have house-husbands but this is not common in PNG). Women are also more likely to take second place to men in access to health care.

A number of key social issues therefore conspire to limit opportunities for women entering the workforce. This present considerable justification for private sector operators in the sector to be especially sensitive to the specific needs of female staff when addressing employment issues related to working hours, wages, health and safety and provision of worker transport.

#### 5.10.2 Sex Trade Issues

Few fishing industries address, but virtually all acknowledge, the problem of prostitution that occurs when their vessels return to port. This is not an indictment of any one company, merely a reality of the fishing industry.

In a 2001 study by the PNG National Aids Council into HIV/AIDS in the PNG fishing industry, rapid focus group assessments of industry workers in Madang, Kavieng and Port Moresby, confirmed that the fishing industries are a high-risk group that lack knowledge of sexually transmitted infections (STI), including HIV/AIDS. The very mobility of seamen attracts sex workers to them.

## 5.11 CONCLUSIONS AND RECOMMENDATIONS

The findings from this country study reveal that, whilst women have benefited from entry into the formal economy through the tuna industry, most of the opportunities exist primarily at the lower wage range in processing plants in Madang, Lae and Port Moresby. Because these jobs are in great demand, market forces have not resulted in the processing companies paying much attention to important health, safety, transport and wage concerns that prevail. This lack of current attention, and unlikely possibility of spontaneous improvement, appears to justify at least some government intervention to mitigate the problems.

Women's education should be supported, especially at the level of vocational training, to prepare women where much of the future tuna-related opportunities lie: in various types of processing. The NFA should take the lead in establishing scholarships and training programmes around the coastal centres to encourage product development and entrepreneurial activity at the community level, which will be spearheaded by women. NGOs have an important role to play in such initiatives.

#### Recommendations

- Establish a higher minimum wage: the current minimum wage does not provide a decent standard of living for a worker and family who live solely on the cash economy. In the establishment of the minimum wage, some consideration should also be given to the ability of the processing plants to compete on the world market.
- Strengthen the legislative framework to redress gender inequality in PNG, as per the UN
  Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW) and
  Millennium Development Goals. Specific issues related to the tuna industry should be
  incorporated into this strengthening, such as equal pay for equal work.
- Facilitate access by local small-scale processors to tuna from purse-seiners and longliners. There is considerable potential to develop cottage industries employing women.
- Product development is important tuna and bycatch processing: courses should be jointly funded by private and public sector at the Kavieng Fisheries College, Lae Unitech and/or technical colleges that focus on product development and value added technologies, specifically for women.
- Micro-credit and revolving credit institutions for women should be established by private sector partners, aid organisations or industry stakeholders, to extend opportunities like that of the Rural Coastal Fisheries Programme to more women at the community level.
- Processing plants should consider establishing day care facilities, such as those at PafCo has in Fiji.
- Where processing plants employ women shift workers, special attention should be paid to
  providing in-house training opportunities that enable motivated unskilled workers to become
  skilled). Shifts should accommodate the safety concerns of women and the terms and pay
  scale of 'skilled' labour for women should also be redefined and monitored.
- Private sector operators need to develop their own communication strategy aimed at addressing workplace safety, wage rates and the behaviour of foreign crews.
- The processing companies should undertake short-course training for communities linked to the processing plants to raise the standards of local service provisioning (security, catering, cleaning and transport) to facilitate spin-off businesses.

### 6.0 DISCUSSION

In this report we have presented the results of a survey, with emphasis on their formal economic participation and the changing roles in the informal sector. This survey focuses on the downstream processing of tuna in Fiji, Kiribati and Papua New Guinea, but also covers the aspects of tuna fishing and marketing. Women in these three countries are involved in a range of activities in the tuna industry and their participation continues to grow, for better or worse. This review aims to contribute to the understanding of the social and economic impacts of these trends, and the implication for the industry in general.

Opportunities for women in the tuna industry cluster at the upper and lower income levels in the formal sector, and in the informal sector mainly in marketing. In the formal sector women can be found in corporate middle-management and at administrative levels in government agencies, often as a product of gender equity policies in education. This participation should expand in time and could be fast tracked by scholarships for women at tertiary institutions studying business, economics, management and fisheries. Most opportunities for women at present exist in industrial processing (except in Kiribati), where planned facilities will employ more women. The

shore-based service sector - catering, net repair, handling and inspection – currently provide only limited employment opportunities for women.

Pacific Island women and men could both benefit practically from a more supportive small business climate. Indeed, many of the development constraints to women's further participation in the industry are not specific to women. The constraints specific to women are indeed more logistical and practical than customary. The nature of PIC societies today requires women to juggle multiple responsibilities and income-producing strategies. Nevertheless, the more women who join shore based support services, and enter companies at the unskilled level, the more these roles become attractive and are perceived to be safe or gender neutral. This is where media promotion of women in the industry as role models could be most effective.

## 6.1 STRATEGIC CONSERVATION AND TRADE ISSUES

In order to ensure that tuna resources are sustainable in the long term, the Western and Central Pacific Fisheries Commission (WCPFC) has agreed on a number of resolutions to limit fishing effort targeting bigeye and yellowfin tuna. Pacific Island countries have been exempt from most of the Commission's management measures and are likely to remain so for the foreseeable future. Consequently, there is likely to be increasing interest by foreign vessels to re-locate in Pacific Island countries.

Regional policy decisions on fisheries, such as those taken recently by Pacific Islands Forum and the Forum Fisheries Committee, have cross-cutting implications for the industry and will impact on aspects of the current and future fishing industry, including the participation of women. Representation of women in national fishery industry associations and in delegations to the regional meetings that make policy decisions is therefore essential. In order for this to occur, there is an urgent need for capacity building to enable effective participation at high levels of decision making - so that women are able to adequately represent the wider interests of the processing sector where most women are employed.

As trade liberalisation progresses and trade preferences are eroded, issues related to product quality will become increasingly important. In nearly all tuna processing plants visited in PNG and Fiji, women currently play a key role in quality control and, being a growth area, quality control offers increased employment opportunities for women. While effort in providing training related to fish sanitary requirement has been done by national fisheries departments and various regional/international agencies, there is still a need within the industry for the up-grading of skills. A number of women interviewed in the longline industry in Fiji, for example, indicated that their training has been limited and that they would very much like to learn more to improve their work.

### 6.2 PRACTICAL PROBLEMS & GENDER ISSUES

### 6.2.1 Barriers to Entry

**Men and women** working in the tuna industry in Fiji, Kiribati and PNG all suffer from the lack of and/or high cost of:

- Start up capital (lack of easy access to credit)
- Technical skills in harvesting, processing and marketing
- Fuel and electricity
- Information on labour rights, health care, STDs, and the tuna industry
- · Regular supply tuna for small-scale processing
- Transport and communications services
- Access to overseas markets, airfreight and/or shipping services
- Storage and refrigeration facilities onshore and equipment for small processing ventures

### 6.2.2 Dependency on the Flexibility of Women

In the shift from a rural subsistence to monetary economy, the ability of islanders to maintain their quality of life depends largely upon the flexibility of women. Development represents more, rather than less, work for women, whose conventional responsibilities vis-à-vis their family could be shared with an extended family in a subsistence economy, but are to some extent devolved to individual women in nucleated middle class peri-urban settings. At the frontiers of economic expansion, where new plantations and factories and industries require pools of unskilled labour, and where women as well as men can now find wage income for the first time, the effect has been dramatic upon once-subsistence communities.

Women who would spend their days in the garden and in the home now spend them on factory floors earning what may or may not be the equivalent amount of cash to purchase the produce they once harvested or traded for. Closer to town, women who regularly marketed the fish their husband's caught or they themselves gleaned, are now making wages that may require them to purchase someone else's fish for dinner, or hire third parties to sell their household fish. In many cases, change can be accomplished by women taking on additional roles and simply working harder. Men who enter the formal workforce often do not perform subsistence roles at home, whereas women do so in addition to being mothers and caterers at home.

## 6.2.3 The Need for a Living Wage

Where men or women dedicate themselves to a commercial sector for a wage income, and that income is below a living wage, the household and/or community must pick up the slack in providing for them. Entry-level jobs in new canneries, for example, often cannot provide for one individual's living in today's economy. Where a worker might have migrated to the cannery area for work, he or she frequently must place demands upon family and community because wages from company are frequently inadequate for basic needs.

In Levuka, Fiji, and Madang, PNG cannery employees are still tied to traditional community security, placing a strain on the subsistence economy even as it relieves some of the newer cash requirements. There is some question as to whether the cheap labour pool now available to the tuna processing companies can last for long because, as production processes expand, new jobs are filled by migrants whose expenses are higher than the local community members. Wealthy subsistence economies are better able to support the loss of adult labour to these factories, in return for healthcare, schools and other services they can now purchase.

## 6.2.4 Role Models – Juggling Careers & Family Life

Typically, government services are minimal, health and school fees expensive and transport unpredictable and social support for the working mother non-existent outside the village. In this situation it is hard to induce career ambitions in young women, especially if they can achieve the same quality of life from working in the informal sector.

The study team met several successful middle management women, like Ana Delailomaloma at Golden Ocean in Fiji. They are still clearly balancing income generating projects with their full-time employment, and spending virtually all their income supporting the lifestyle they have established. In Kiribati and Fiji, many women have taken on the roles of head of household to enable their husbands to work for months at a time as seafarers. They may work full time, like Taubwa Taniera, the Processing Supervisor of CPPL in Kiribati, while they also take on the domestic duties of home and family and the obligations to the community. Remittances from men working on overseas fishing vessels contribute substantially to the country's revenue and significantly contribute to household income, but at the same time absentee husbands can make modern family life difficult in another sense – increasing vulnerable to domestic strife, spousal abuse and neglected children, and so forth.

### 6.2.5 Child Care, 'House Husbands' & Female Security

The husbands of women working in the canneries tend not to take on women's child rearing functions or household duties. Employment of women in the factories can therefore be socially disruptive, at least in PNG. Ideally, processing factories should provide child care facilities, as PafCo has done successfully in Fiji. Management may also consider staggered shifts, reduced shifts and other accommodation to women with families where absenteeism is a chronic problem.

Many of the women working in processing plants in PNG and Fiji are unmarried and therefore do not have the same domestic responsibilities as married women have. However they face different problems of security and harassment, especially when they either live at cannery hostels or travel to and from their shifts in darkness.

#### 6.3 IMPROVING SOCIAL WELFARE & HEALTH SERVICES IN THE INDUSTRY

To ensure that benefits from tuna industries are not undermined by growing social needs, a range of social welfare and health services should be available around international transhipment ports and industrial processing centres. Local women and incoming men may need advice about prevention of and treatment for sexually transmitted infections. Women who are subject to violence related to substance abuse or the stress of fishing crew lifestyles need particular kinds of welfare services, as do women who are ostracised for being perceived as prostitutes.

Both single parent families left at home, and the husbands at sea, are anxious for contact and sociality, and could benefit from organized industry events or gatherings. While the needs and health of young women who befriend seafarers is a social concern, the industry should also be responsive to the loneliness and yearning of families separated by employment.

## 6.4 FOOD SECURITY & THE IMPORTANCE OF THE ARTISANAL SECTOR

Fresh tuna plays an important part of food security in all the Pacific islands - processed tuna conversely plays a minor role in domestic diets in most countries. Canned mackerel remains the fish of choice of most consumers, for price reasons, although RD Tuna in PNG is producing diverse canned tuna products for the domestic market. With trade liberalization and the decrease in import duties canned tuna will face increasing competition from Asian products, and it may be that Asian tuna will make inroads into the traditional canned mackerel market. But the increased availability of processed fish is also a danger for communities with very limited diets, when fresh fish landed by the artisanal and inshore fisheries still provides a healthier alternative. The local marketing of tuna and bycatch is, and is likely to remain, important to the communities in and around industrial processing plants.

## 6.5 PRACTICAL TRAINING NEEDS IN VALUE-ADDED PROCESSING

Women across the region need food technology and fish processing skills, particularly in tuna and tuna by-product processing. Courses in product development and value adding for the domestic and export market has already attracted entrepreneurial women in the region, and these programmes should be expanded and made more accessible.

How much the attendance on such training courses will improve productivity and the new skills used in the factories is uncertain. But their relevance in the informal sector may be invaluable in the medium term. An innovative approach could be for factories to sponsor training programmes budgeted as part of factory floor annual bonus schemes – take the money or the training, for example. This way, women can choose training that would help develop their potential. In addition, this would go a long way to engendering a 'sense of belonging' at the processing plants.

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## ANNEX 1: TERMS OF REFERENCE

#### Introduction

The Development of tuna fisheries in the Pacific ACP countries Project (DEVFISH) is seeking a short term consultant to undertake a socio-economic study that will document a broad appraisal of women's participation to Pacific Island tuna fisheries development, and recommend how it can be improved.

The assessment will provide a balanced view of the positive and negative impacts of the industry on women, and suggest how negative impacts may be mitigated. It will identify opportunities for, and constraints to, greater participation; identify needs; and provide this information for purposes of enabling appropriate support and policy decisions by stakeholders. It will also identify examples of successful women in the sector with a view to attracting greater participation.

#### **Background**

The Pacific ACP countries are home to a great diversity of cultures and traditions. This has great influence on attitudes to women which vary considerably across the region, as does the acceptance of modern Western views on gender equality. All these countries have endorsed and are committed to international and regional gender equality frameworks for development, such as the Millennium Development Goals, CEDAW and the Pacific Platform for Action. These commitments are in turn reflected in their national development plans/strategies and in some cases, their sector development strategies. Regrettably, demonstration of these commitments is at best weak and ad hoc.

The development of a commercial tuna industry, with its emphasis on the employment of women in the processing sector, has the potential to provide employment for large numbers of Pacific Island women. In small scale commercial fishing also, women are often involved in marketing of the catch and play an important role in the cash economy. Most men are employed in the capture and commercial marketing areas.

Socio cultural beliefs, family obligations, lack of skills and experience, lack of direct access to credit and finance, transport restrictions, and poor market facilities restrict women from participating equally and fully, in the industry. Developing opportunities for women will need to take into consideration these constraints.

Regional and national studies carried out on gender issues in tuna fisheries have provided some specific information related to this subject. Across the region, though, there is a lack of up to date information on the economic value of women's contribution in the tuna industry sector. In the absence of such economic statistics and data, women's contributions in the industry remain invisible, and women do not acquire the support they need, to create and improve their participation and opportunities in tuna industry development.

Some past studies and media reports on the impact of tuna industry development in the region have drawn attention to the negative effects, particularly on women. Low and unequal wage rates and unhealthy working conditions in processing factories have been compared unfavourably with standards in larger, richer nations. In addition, the growing incidence and spread of HIV/AIDS and other STDs amongst seafarers, the impact that this is having on their families and communities, the links between the commercial sex industry, fisheries/tuna industry and the involvement of school-aged girls in these activities is becoming a growing concern in the region.

All of these issues need to be addressed through a gender analysis and balanced assessment of the tuna industry focusing on:

- Participation of women
- Employment conditions
- Options for alternative employment
- Services provided by large fishing companies

And the potential growth impact that more gender equal opportunities in this sector can have on economic development.

For reasons discussed earlier and highlighted above, fisheries is seen in some countries as an unattractive career, for both sexes but particularly for women. However, there are many women in the Pacific islands who have achieved considerable success in the fisheries sector, as entrepreneurs, scientists, managers and technical specialists in fishing companies, the public service and in regional and international organisations. The study will research and profile examples of successful women in order to promote career choices and subsequent training and development initiatives in the industry.

#### Objective

The overall objective of the study is to analyse the current status/situation of the tuna industry in the focused Pacific island countries for the purpose of increasing the participation of women in the industry/fisheries.

#### The study should:

- Assess and compare current levels, roles and contributions of men and women
- Highlight and discuss potential roles and contributions of women in the tuna industry;
- · Identify constraints to higher levels of participation of women
- Discuss challenges and problems faced by women in the industry
- Discuss actions that can contribute to higher levels of participation in both small-scale and industrial tuna fisheries development
- Recommend practical policy and programme options to increase the participation of women in the industry

The study will be based on field work in three countries – Papua New Guinea, Fiji and Kiribati. In the first two it is envisaged that the focus will be mainly on the role of women in industrial tuna processing, while in Kiribati data will be collected mainly from women in the artisanal fishery

#### Work to be undertaken

- 1. The consultant will verify and provide baseline information on the number of women involved in the tuna industry and related activities, and quantify the trend in the last 5 years in these focus countries.
- 2. The consultant will undertake an economic assessment of the role of women which, subject to the availability of data may include:
- Total annual earnings for women formally employed in the sector, as a percentage of the total employment earnings
- An estimate of value added by processing and/or marketing by women in informal employment connected with tuna fisheries and linked to their share of returns.
- Information of the pattern of expenditure of women's income in the local economy;
- Information on the importance of women working in tuna processing and marketing relative to other industries and in the context of the national economy.
- 3. The consultant will identify and document gender issues in the focus countries by conducting a gender needs assessment to identify problems, potential resources, and possible solutions. The assessment will prioritize and provide justifications of the identified needs to provide information for purposes of enabling appropriate support and policies implementation decisions by appropriate stakeholders. Need to link with the national women's agencies; in government; at sectoral level and in the NGO community. Also need to link up with agencies involved in this issue USP, SOPAC etc, through other programmes.

The needs assessment for women in tuna industry in the proposed countries would include looking at:

- What is feasible for each individual country
- What women want and see as realistic development options
- Investigate employment opportunities at/for commercial facilities as well as for small scale businesses
- Investigate novel products from tuna and bycatch (e.g. the use of shark teeth and skin in handicrafts)
- Research in-country support for women entrepreneurs
- And any other appropriate need areas
- 4. The consultant will meet with successful businesswomen in tuna industry and directly linked associated industries to briefly document their stories, and to use as role models for other women.
- 5. The consultant should also include in the report any other gender issues arising in the identified areas and suggestions of the most appropriate attention for the focus countries.

## ANNEX 2: PERSONS INTERVIEWED DURING THE STUDY

Fiji Islands (Suva)

Anare Raiwalui Acting Director of Fisheries
George Mate Senior Fisheries Officer
Vimlesh Maharaj Chief Labour Officer

Harbans Narayan Manager Administration Services Ministry of Labour Elizabeth Cox, Dtr United Nations Development Fund for Women

Russell Dunham Fiji Fish

Prakash Chandra Finance Manager & Acting General Manager, PafCo

Toru Nakano General Manager, Tosa Bussan

Sandra Tarte USP

David Lucas Solander Pacific

Claire Slatter Women in Fisheries Network

Fr Kevin J. Barr ECREA

X.J. Du Managing Director, Golden Ocean Min Sik Park General Manager, Golden Ocean

Shinya Tamio JICA

Tara Chetty Fiji Women's Rights Movement

Ana Delailomaloma-Ratumudu Golden Ocean Susanna Atulau Tosa Bussan Margaret Raisele Tosa Bussan

Tadulala Gade CPK

Lionel Gibson Foundation for the South Pacific Etika Rupeni Foundation for the South Pacific

Asela Naisara Acting President, National Council of Women

Solander Staff Radhika Kuman, Keshni Lata, Nanise Ligalevu, Talei

Whibbley, Vindiya Lae, Erine James & Isabel Morell Mary Siana Saganavere, Venina Vikou, Koini Vere.

Josephine Racava, Litiana Tama, Aliti Saganavere, Fave

Melike and Mere Benga

PafCo (Levuka)

Kei sellers

Taraivini Lomani Dtr Childcare Centre Ana Baranisavu Production worker

Makalesi Domonakibau Provincial Womens Interest Officer. Ovalau

Monica Vasi PafCo Workers Union

Lusia Wakalo Ping Accounts Clerk, Pafco Employees Credit Union

John Ping, Manager Pafco Employees Credit Union Adi Alisi Tinivakaca Assistant Production Manager Vasiti Komaiti Assistant QC Manager

Gerald Kntoh QC Manager Leone Wagaliya HR Officer

Laisa Tamani Toakula Personnel Manager

Mr Epineri Uliviti Provincial Council Assistant Roko

Melaia Naidu Levuka Mayor

Other Factory workers, Shopkeepers & Villagers (undisclosed

names)

Kiribati (Tarawa)

Anne Tokataake US Peace Corps Barerei Onorio CEO, CPPL Komeri Onorio CEO, ASCL

Mike Savins Betiraoi Boatbuilding

Derek Pendle MPK Marine Products Kiribati William Sommerville MPK Marine Products Kiribati

Tauai Taom Agriculture Department, Bonriki Airport

Teebure Teeta AMAK

Roadside fish-sellers Ioanna Katoatau, Katoatau Utimaawa, Teuee Bateriki,

Taotika Iotia, Tiaen Aabaiota, Komeri Onorio, Sila Banetito, Karuoniiti Tiare, Burenneita Temaewe, Kaitiree Katekeimoa

and family

Lovia Kamanti KANGO Roko Timeon KANGO Soko Mataitoga UNICEF Libby Bedford UNICEF

David Lambourne

William S. Sommerville

Maere Tekanere

Sira Redfern

Solicitor General

MD ASIL Group Ltd

Chamber of Commerce

Betio Fisherman's Association

Ioteba Atanimakin MTC

Betio Fisherman's Wives Assoc. Ngangata, Rannabiri, Meriti, Jane. Miriam, Tabaria, Katua,

Baurine, Nei Jaake

Linda Uan and David Anderson NTNK

Tiare Erekana MCIC Small Business Development

lerevita Biriti MCIC SBD Ainete Taareti Retailer

Papua New Guinea

Timothy Numilengi NFA

Ronald Kuk Executive Manager, Projects, NFA Kananam landowners Blasius Nagir, Leo Panu, John Wasau

RD employees Marytherese Ikung, Rose Damon, Margaret Kubak

Claire Slatter Researcher
RD workers Names withheld

Morgan Gwangilo SST Human Resources Manager

Joseph and Angela

Market women, Wewak (undisclosed names)

Resources Staff HELP NGO

Jerry Hensen Settlement Youth Organizer

Br Herman Boyek

Lawrence Wanyia

(undisclosed names) Meni Villagers

Maria Huaniangre

Various Staff at Frabelle Lucy (40 years old) from Butibum Village; Jennifer (19),

Labu Village; Linda (20), Sepik; Regina (20), Markham; Upin (21), Raikos; Daisy (17), Morobe Patrol Post; Rita (20)

and Rachel (25), East New Britain

Richard Coleman Principal, Papua New Guinea Maritime College

Trevor Hattersley Manager, James Barnes PNG Ltd

Dr Eric Kwa University of Papua New Guinea School of Law

Emma Wangi NFA Legal Officer

## **Annex 3: Economic Case Studies**

## **BOX 7: MEREONI, PAFCO EMPLOYEE & UNION MEMBER, FIJI**

Mereoni has been working for PafCo for the last seven years and is a union member. She is a permanent staffer working 8-hour shifts five days per week. Her wage rate is F\$2.75/hour, so she grosses F\$116.00/week for 42.5 hours. Her weekly expenses include (all in F\$):

Union fee	\$5.00
Credit Union Store deduction	\$10.00
FNPF	\$9.00
LICI Insurance	\$6.00
MH Credit card payment	\$5.00
School expenses and electricity	\$20.00
Bus fare	\$10.00
Foodstuffs	\$30.00
Total weekly expenses	\$95.00
Weekly average balance	\$21.00

Mereoni's expenses include school fees within the range of F\$100-F\$200/term; contributions to the village soli and church; and occasional medical expenses. Mereoni also has a yaqona plantation with about 160 plants for her future. In 2003, she was sponsored by PafCo for a six-week computer training course in Suva. Since then, however, she has not been able to use her skills. In her view, she sees very little opportunity to progress since she is on an hourly pay rate. Promotion to staff level, she says, is almost impossible. She starts work at 4:00am in the morning and finishes her shift at 2:00pm, often missing her transport home. When asked if Mereoni was satisfied with her work, she replied, "not really" since after all the deductions, "I am left with very little savings, sometimes money is just sufficient for the bus fare." She also said that being a union member also did not go well with PafCo management (something echoed by other works to us). At times she has had to make partial withdrawals of her superannuation fund to pay for expenses.

## **BOX 8: LUCY, FRABELLE PRODUCTION DEPARTMENT, PNG**

Lucy is 40 years old, from Butibum Village, and works in the Production Department at Frabelle Ltd. She joined the company in 2006 as an unskilled labourer. She is married with four children, two of which are at school, and the family lives at the Papuan Compound in Lae. Her husband works as a security guard. There are four other people (relatives) living with them in the same house.

Her gross fortnightly pay is K115.20, but after deductions she makes a net pay of K90. Her husband earns about K140 fortnightly. They both get their pay at the same time. Lucy also sells ice blocks, betelnut, and loose cigarettes at her house to earn extra cash. The family's daily expenses are food (for her family and the four relatives) and other necessities, which is around K10-K15 per day. Monthly expenses are things like electricity and water, which is around K60 per month. The total school fee for her two children is K1, 600 (K800 each). Her family fortnightly budget is typically:

Income:	
Lucy's net wage	K90
Husband's wage	K140
Extra income: Betelnut and cigarettes	K70
Extra income: Ice blocks	K60
Total Income	K360
Expenses:	
Rent	K0
School fees for 2 children (K1600/yr)	K64
Food stuffs (K15/day)	K210
Electricity and water	K30
Total Expenses	K270
Net Disposable Income	K90

#### **BOX 9: TUNA VENDOR, BETIO & BAIRIKI MARKETS, KIRIBATI**

BT sells yellowfin and skipjack tuna (AU\$1-1.20/lb), along with a coral fish (AU\$1.20/lb), six days/week at Bairiki market. He sells about 120 lbs every day, and is paid AU\$70-100 weekly (although this can be up to AU\$150). This is equivalent to 20% of the takings. The leftover fish is frozen for sale the following day. He works for a group of 3 fishermen, not relatives, who provide fish daily and collect the takings. The shares go five ways: 3 for fishermen, 1 for the boat and 1 for the sales agent (himself). They buy ice at CPPL, pay the Town Council fee (AU\$30/week for 6 days), and provide the cooler for him. Good days are Easter, Christmas and public holidays in general. Customers tend to buy on credit, which is a problem. He has 9-10 credit accounts running at any given time. Over the past three years he's been selling, roughly 10 people have left unpaid accounts, and he must repay these from his own 10%. He himself takes 1-2 fish daily for his family, which includes his mother, older sister and her kids. The cost of food for his family can be AU\$90-100/week, but his sister also works. His own extra money (AU\$20/week or so) is spent on playing cards, smokes, toiletries, etc

#### **BOX 10: TWO WOMEN EMPLOYED AT PAFCO**

Sera, a single mother with two children, works as a cooker and sometimes cleans the fish. She has been working for PafCo for the last 10 years and is a permanent worker. She is a Union member and her net weekly wage is F\$114 but after expenses and deductions she has only F\$2.00 left to save. Sera is totally reliant on her job at PafCo to support her family as she does not get time to do her own gardening and only occasionally goes fishing.

Amelia lives with her husband, six children and brother-in-law who own the house. Her husband and brother-in-law are both farmers while Amelia works at PafCo as a cleaner in the Production Department. She has been working for PafCo for 13 years and receives a weekly wage of F\$116.00. Her weekly expenses are F\$107.50, leaving her just F\$8.50 disposable savings. Whilst her husband also sells vegetables and they rely on their garden for supply of root crops and vegetables, she is the main 'bread-winner' in the family.

## **BOX 11: TWO WOMEN EMPLOYED IN FIJI'S LONGLINE INDUSTRY**

Akanisi works as a team leader at a processing company in Suva where she receives a weekly net wages of F\$120.00 for working six days a week. Her main task is to oversee a line of about eight men who sort, clean and pack fish. A typical weekly expenditure pattern (totalling F\$110) includes: food F\$20, transport F\$20, school expenses F\$10, utility costs F\$10, church F\$10, clothing F\$25 and credit repayments F\$15. Akanisi is a single mum who has a twelve year old son and she also owns a small canteen in the village where she employs her cousin to look after the canteen while she is at work. She lives with her uncle and aunt and her son and so does not have to contribute towards house rent. After paying her cousin's wage, Akanisi is able to make on average of F\$80-100 per week in her canteen business. She has attended two training courses, one on quality control and the other on cutting fish organised by the Fiji Fisheries Department.

Nikita is 22 years old and single and was appointed as a laboratory technician/clerk in a processing factory about 9 months ago. Prior to working for this fishing company, Nikita worked as a lab technician in a dental company. Nikita has a Diploma in Industrial Laboratory Technology from the Fiji Institute of Technology. She lives with her brother's family in Suva. Since the company has not yet established a laboratory testing facility, her current task in the interim is to ensure product quality is maintained. She is responsible for weighting, recording and ensuring that all catches are properly documented. She also works closely with the Accounts Department where she prepares vessel summary information. Nikita receives a net income of F\$536 per month and her average monthly expenditure (totalling F\$218.50) includes: food F\$50, transport F\$40, contribution to house rental F\$30, utility costs F\$8, social/religious expenses F\$5, clothing F\$30 and credit repayment F\$55. From a net monthly income of \$536, Nikita is therefore able to make a saving of around \$317.50 per month. Nikita is happy with her current job but does have concerns as to when she will be able to work as a lab technician, the job she applied for.

# **Annex 4: Role Models in the Tuna Industry**

#### **BOX 12:**

## UNAISI KOLITAGNE, SHAREHOLDER/DIRECTOR, BLUE AND GREEN MARINE TRADING, FIJI

Unaisi Kolitagane operates two longline vessels in partnership with a Korean national who works as a captain on one of the vessels. The vessels mostly fish in Fiji, Tuvalu and Vanuatu waters. The business has been in operation for 5 years and currently employs 29 crew-members. Unaisi organises and facilitates the unloading of catches from her vessels. She arranges for Health, Quarantine, Fisheries and Immigration clearance and permits as soon as her vessels are scheduled to come in port. Unaisi supervises the unloading and transport of the fish to a processor such as Golden Ocean or Celtrock. She also negotiates domestic and export sales and coordinates the transportation of all fish caught by the two vessels. Much of Unaisi's training on fish handling, administration and coordination was learned on the job. There was also training provided through the Fisheries Department and through her experience working as a marketing officer.

Unaisi's success is largely attributed to her ability to speak, read and write Korean language. In 1989 Unaisi went to Korea with the intention of studying theology. She spent about a year and a half in Korea where she mastered the language. While waiting to get an appointment at a Bible college, she was approached by a Korean company, Dae-Yong Shipping, to work as an interpreter. Later, Unaisi was approached by Mr. Jun, the Director of Voko Industries to work for the company in the Sales and Marketing Section. One of Unaisi's other task was to continue as an interpreter for Koreans. On one occasion a Korean vessel had run aground on a nearby reef and, in the process of assisting as a court interpreter, Unaisi also forged a business partnership with another Korean investor. Blue and Green Marine Trading is registered as a local company in Fiji and thus benefits from some of the concession available to local investors by the government. Unaisi is very actively involved in the business and contemplates increasing the size of her fishing fleet. Unaisi has three children aged 9, 11 and 13 and works almost seven days a week. When asked about the business turnover, she was rather reluctant but said that she was doing very well and has no regrets or turning back. Unaisi has just recently returned from Honiara after attending an industry consultation meeting related to management issues implementing the resolutions of the Western **Central Pacific Fisheries Commission.** 

#### **BOX 13: TWO WOMEN MANAGERS IN FIJI'S LONGLINE INDUSTRY**

Ana Delailomaloma began as a sales clerk four years ago. She was promoted to Local Sales Officer, trained in production and in quality control and then became the Marketing Officer. With additional skills training, she was promoted to International Marketing Manager two years ago. Ana has travelled to Europe and attended several meeting and expositions. She has now been in the tuna industry for 11 years. Golden Ocean has a woman in Quality Control, one in Accounts, and one in Stock Control, but as yet they have no women on the factory floor - although they hope to in the future, Ana says.

Elena Veigaliyaca initially worked as a chef at a popular Japanese restaurant at Pacific Harbour where she learned about Japanese cuisine. She then worked as a supervisor for seven years with a local fish processor in making tataki with frozen loins. Elena underwent further training in fish quality control and then joined Tosa Bussan in 2001 which was processing tataki using skipjack tuna and exported frozen loins of big eye and yellowfin. Elena is one of the local shareholders and a director of this Japanese joint venture company. There are 99 people employed under her supervision of which 90 are males and 9 females. As a factory supervisor, Elena has to ensure that jobs are done according to schedules and the quality standards required by the importers.

#### BOX 14: TAUBWA TANIERA, PROCESSING SUPERVISOR, CPPL, KIRIBATI

Mrs.Taubwa Taniera was schooled on Tarawa to Form 5. After joining Central Pacific Producers Ltd. (CPPL) in 2000 as Accounts Clerk, she has risen rapidly. Promoted to Outer Islands Radio Operator in 2003, she was promoted again to Processing Assistant in 2005, and to Processing Supervisor in 2006. She now aspires to be Sales and Marketing Manager.

Her present duties at CPPL supervising, organising, and monitoring the daily activities of the processing staff, receiving and recording orders for catering and other processing needs, providing monthly summaries and updated records of activities and outputs of the processing section, and providing support services for any promotional and product development activities of the company. With respect to actual fish processing, Mrs. Taniera overseas the production of several products made with yellowfin, skipjack, and reef fish: fish balls, katsuo powder, tuna jerky, fillets, and tuna loins. Asked about the favourite aspect of her job, she proudly states it is seeing the final products. The hardest part of the job? She shyly says "No part of my job is difficult".

Mrs. Taniera also has important domestic responsibilities – with three children and a husband – who is a security guard. Her annual salary of AU\$6950/year goes mainly for food and the needs of her children.

#### **BOX 15: LICENSING OFFICER, NATIONAL FISHERIES AUTHORITY, PNG**

Mrs. A is currently employed as Assistant Licensing Officer and is responsible to the Manager, Licensing and Information Division. She comes from Rigo District of the Central Province. She completed Grade 10 at the Yule Island High School in 1982 and was accepted into Madang Secretarial College in 1983 to do Basic Secretarial Studies. Mrs [A] started off as a Keyboard Operator with the Department of Primary Industry in 1984.... Mrs A was initially a secretary by professional but her exceptional work commitment and honesty has paid off and she now deals with key players in the fishing business. Her main tasks includes, meeting fishing industry clients, attending to their licensing queries, receiving licensing applications, registering applications and distributing licensing applications to certain senior managers of the Licensing Review Committee for comment. After the review by senior managers, she is required to prepare an agenda for the full Licensing Review Committee meeting. Her other prime task is to assist the Licensing Officer issue licenses, and liaise with the accounts section regarding license payment and applications. "My job is tough, challenging and interesting but I enjoy it. I have been performing these tasks for four years and with experience over time, it is much easier now and I am enjoying it."

Extracted from Fishing Line, Newsletter of the National Fisheries Authority, Issue No 7, Jan-Feb 2005, p2

#### BOX 16: VASITI KOMAINALOVO, PAFCO ASSISTANT QUALITY CONTROLLER, FIJI

Vasiti Komainalovo is from Levuka. She has a High School Diploma, Form 6, and secretarial skills training from Suva Vocational College. She used to work in a pest control office and started at PafCo in 1990. From skinning and cleaning she moved to packing and canning and, as an excellent worker, was promoted to staff level (a very rare occurrence). She began her career at the factory on F\$1.64/hour, and now makes F\$18,000 per year as Assistant Quality Controller (F\$1,500/month). At age 42, she hopes to still rise further in the company.