



Secretariat of the Pacific Community

Women

in Fisheries

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I N F O R M A T I O N B U L L E T I N



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Introduction

Welcome to the sixth issue of the *Women in Fisheries* Special Interest Group Bulletin. This and other SPC bulletins are available on-line at <http://www.spc.org.nc/coastfish/>. This issue of the bulletin reports on the activities of the SPC Community Fisheries Section, and includes information on the new fisheries module of the CETC course in Fiji, the preliminary findings of the Pohnpei, FSM field survey, workshops in Palau and Marshall Islands and future work planned by the section.

News from around the region includes HIV/AIDS education for seafarers, a report of training attachment in Fiji by Silika Ngahe of Tonga; various workshops and conferences in Fiji, Palau and Tahiti; coastal management in Kosrae and a conservation award for Madison Kena; and the development of a new fishery for jellyfish in the north of Australia.

From outside the region we have news of informal credit associations organised by women fishworkers in Gambia, Africa; women and artisanal fishing in Kenya; a paper from Norway on the lack of recognition of women's issues, interest and knowledge when designing fisheries management systems; and the story of a seagoing fisherwoman in India.

Details and reviews of books and publications appear at the end of this issue.

As with every bulletin, we request articles and news from you, the reader. Articles you might like to have published in the next issue could include:

- fishing techniques and equipment
- research activities
- development and management projects
- community initiatives (co-operatives, local projects)
- training opportunities

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- conferences
- books and publications
- issues that may impact on fishing communities (e.g. forestry, agriculture, tourism, pollution).

We also welcome any questions, requests for information, contact addresses and other relevant information about institutions and individuals who should be receiving this bulletin. Articles can be in French or English and the bulletin is published separately in both languages.

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COMMUNITY FISHERIES SECTION



News from the Section

The Community Fisheries Section continues to emphasise and support the fisheries activities of women to ensure a balanced approach to fisheries management and development within the region. Some of the activities of the Section since the previous bulletin are outlined below.

New resource materials available

A video in English and Nauruan languages has been completed for Nauru. *The Reef: Our Heritage, Our Future* examines how the destruction of the reef is affecting the livelihood of the people. For generations, the people of Nauru relied on the reef for survival. Today, the reef is relying on the people for its survival. The video explains why modern, destructive fishing practices are being adopted instead of the safer traditional methods. The video is intended to help create awareness of the situation and hopes to change the habits of those who use the reef.

The French version of the manual *Setting up a Small-scale Business: A Guide for Women in Fisheries*

has now been printed and distributed to the French Territories. French and English versions are also available of *Practical Methods for Preserving Seafoods: Salting and Drying (A Training Manual)*.

The new manual on fisheries management for communities has been printed and is now being distributed throughout the region. Funding will be sought to have the manual translated into French later this year.

For details on how to obtain these SPC resource materials, see the review of the SPC manual at the end of this bulletin.

Fisheries module for SPC's Community Education Training Centre (CETC) Programme

by Tony Chamberlain¹

Introduction

The Secretariat of the Pacific Community's (SPC) Community Education and Training Centre (CETC) runs an annual programme for women from the Pacific Island region. During the seven-month programme, the women live in at the CETC campus at Narere, Suva, Fiji Islands. All the trainees have an interest and are involved to some degree in community-based work back in their home countries. The women come from a diverse range of backgrounds ranging from housewives and mothers to government and NGO workers. Some of the women have little education, while others have strong education and training backgrounds. Some women from Francophone countries have a limited grasp of the English language. During the programme the trainees learn a wide range of topics covering nutrition, media, public awareness, community outreach, agriculture, and more.

The University of the South Pacific's (USP) Marine Studies Program (MSP) is running a three-year Post Harvest Fisheries Development Project (PHFDP) being funded by the Canadian Government under the Canada-South Pacific Ocean Development Program Phase 2 (C-SPOD-P II). One of the aims is to improve seafood utilisation, handling and processing of inshore and nearshore marine resources for subsistence and artisanal fishers in the Pacific Island region. In doing this PHFDP is hoping to collaborate with existing regional initiatives. The CETC, which delivers its training courses at a community level, is an appropriate and logical choice for such collaboration. Also women are a worthwhile target group because women at the community level do much of the post harvest handling, processing and marketing of seafood.

In 1999 the USP's PHFDP in collaboration with SPC Community Fisheries Section developed and delivered a pilot fisheries module. The Fisheries Module was offered as an elective in the CETC programme from 29 September 1999 to 1 October 1999. This is the first time such a module has been offered since the CETC's programme began back in the 1960s. Considering the importance of seafood to Pacific Islanders' food security, income generation and way of life, such a module is considered long overdue.

Development

A questionnaire was developed and given to the trainees to complete well before the module's delivery date. The data was collated and fisheries topics were listed in order of priority. From the analysis of the questionnaire data the following objectives were identified for the module:

- to promote recognition of the role of women as members of the fishing community
- to enhance participants' technical expertise and knowledge in post-harvest fisheries
- to teach participants skills that will enable them to assist and train others in sustainable fisheries for income generation
- to teach participants how to work with fisheries departments, women's departments and other government and non-government groups to provide support to those in the fishing community.

The bulk of the preparation was in the development of the module. This commenced when Ms Patricia Tuara, SPC Community Fisheries Adviser, visited CETC to deliver the questionnaire. Ms Tuara then worked with Mr Tony Chamberlain at USP and initial module outlines were drawn up based on the analysis of the questionnaire. In August Mr Chamberlain visited Ms Tuara in SPC, Noumea and further work on the module was carried out. The manual covered the following areas:

- Fisheries activities, gender aspect of fisheries, sustainable development
- Fishing skills, fishing methods
- Nutrition, spoilage, disease
- Processing invertebrates
- Processing fish
- Packaging
- Marketing
- Fisheries development at community level

Other teaching resources including information sheets and training videos were made available from SPC.

Delivery

Twenty-six trainees out of thirty chose to do the fisheries elective. Class work was mostly conducted in groups with some formal lectures and pre-

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Trainees trying out new seafood recipes in the CETC kitchen

sentations. The powerpoint presentations on fishing, health, curing and retailing of seafood shown at the new MSP lecture theatre were very popular.

Even more popular were the practical sessions and field trip. Jone Maiwelagi, USP Fisheries Officer,

showed the trainees net mending and fishing techniques. They were then taken out on the Marine Studies Program boats on a half-day trip to the reef to test their skills. Johnson Seeto, USP Marine Biologist also came along to endow everyone with his knowledge of marine life. Not a lot of fish were caught, but everyone had a good time!

Many types of seafood recipes were trialed at the CETC kitchen. At the MSP Post Harvest Fish Laboratory and Seafood Village, many more recipes were made as well as sashimi, and smoked and dried fish. Everyone enjoyed testing the food at the end of the day. Important lessons on handling and hygiene were stressed and

the microbial tests proved conclusively the need to handle seafood cleanly.

Overall the pilot module was successful and there is a request to repeat it again next year.

Pohnpei survey findings

by Lyn Lambeth

The previous bulletin reported briefly on the visit to Pohnpei, Federated States of Micronesia, by the Community Fisheries Officer. The survey was conducted by the officer with the assistance of Francis Itimai, Head of Fisheries Section; Anne Luior, National Women's Interest Officer;

and Estephan Santiago, Conservation and Management Officer. The assessment was requested by the Government of the in response to an identified need for more information on the participation of women in the fisheries sector in FSM.



Fish market in Pohnpei, FSM

The major findings of the survey were:

- Fishing is an important activity for both men and women in Pohnpei. Many people in the villages are involved in some form of subsistence and artisanal fishing or collecting. The neighbouring islanders from the atolls are still very dependent on fishing and reef gleaning to provide food for the family. Artisanal fishermen and women sell their catch from a number of outlets in the main centre, Kolonia. The large-scale commercial fisheries activities involve foreign fishing vessels, joint ventures and a few locally-owned companies. The majority of the purse-seine and long-line boat crews are foreign. A small number of Pohnpeian men and women

are employed in processing tuna steaks and loins for export.

- Catches of many inshore resources, on which subsistence and artisanal fishermen and women depend, are declining.
- A number of government and non-government agencies exist to support fisheries development, training and the conservation and management of marine resources. Regional training opportunities for those involved in the commercial fisheries sector are also available.
- Government and non-government fisheries development and management has been focussed on the development and support of the large-scale tuna fishing industry. Some support has been given to men involved in artisanal fisheries but there has been little or no direct assistance or training given to women or to those involved in subsistence fisheries. A lack of

recognition of the importance of subsistence fisheries has meant few resources have been directed to their support or development.

- The term 'fishing' is interpreted by men and women alike as only applying to the fishing activities of men. As a consequence many fisheries activities performed by women, such as collecting invertebrates and the preparation and sale of fish, shellfish and other seafood products, have been overlooked in development and management support given to the fishing industry.

A draft report of the survey has been submitted to Pohnpei and is presently waiting for comments from the people involved in the survey. A number of recommendations will be made in the final report and a workshop for Pohnpeian women is being planned. The Community Fisheries Section hopes to continue with further surveys in the other states of FSM.



Handlining, Pohnpei, FSM

Palau: Peleliu workshop on seafood quality, preservation and marketing

by Lyn Lambeth

In November 1998 the Community Fisheries Officer carried out a survey on the role of women within fishing communities in Palau. One of the recommendations made in the report of that survey was to improve training services for women in the fisheries sector. The Community Fisheries Section agreed to assist the Division of Marine Resources in organising and running a workshop for women on seafood quality, preservation and marketing.

Peleliu Island was selected as the venue for the workshop due to the high degree of interest and dependency on marine resources of the people of the island. Peleliu is limited in the work that can be done in developing the agricultural sector because of the small amount of land available. Taro is cultivated for family use and traditional restrictions exist on its sale outside Peleliu state. The people are therefore very dependent on their marine resources—for family consumption, for sale and for tourism.



Brining fish for drying and smoking

The topics of conservation and management of marine resources were included in the workshop to emphasise the importance of sustainable use of marine resources.

During the workshop the 12 participants covered a range of topics including smoking and drying fish; traditional and modern concepts of quality and seafood spoilage; conservation and management of marine resources; and small business skills. Local resource people assisting in the workshop included Evelyn Oiterong of the Division of Marine Resources (DMR), Denise Brown and Bob Bishop

of the Informal Employment and Sustainable Livelihood programme (IESL) and Charlene Mersai of the Palau Conservation Society (PCS).

During the workshop two fish smokers were constructed from 44 gallon drums, and a solar fish dryer from bamboo and plastic sheeting. These were used to experiment with different types of smoked and dried fish, the most popular being a fish jerky half-dried in the solar dryer and then smoked in the drum smoker.

The women also learnt about seafood quality, spoilage and assessment of quality. This led to a lively discussion on different tastes and requirements for seafood. For example, according to modern accepted concepts of quality, a fish that has soft flesh falling away from the carcass is a poor quality fish, but some Palauans like to eat a traditional seafood dish that has gone beyond this point—the flesh is so soft that it can be scooped up in the fingers like pâté.

At the opposite end of the world, in Iceland, you can find a similar tradition for eating 'rotten' fish. This dish, *kæst skata* (rotten skate) is fermented until it has a sour or pickled taste. The word *kæst* apparently means 'to bury something in the



Building the solar dryer



ground until it ferments and smells like ammonia'. Shark meat is also fermented in the same manner in Iceland¹.

Another modern indication of poor quality fish is the bitter taste that comes with the chemical changes in the flesh of fish over time—but many of the Peleliu women said that they liked that taste.

The women agreed that for the purposes of processing seafood for sale, it is safer to aim for high-quality fish, especially when the tender stomachs of tourists are concerned.

A workshop session on the conservation and management of marine resources was conducted by Charlene Mersai of PCS. Some interesting points arose from the session which was conducted as a discussion on the marine environment—resource problems and their causes, solutions and possible actions.

The final session of the workshop was conducted by Denise Brown of IESL and covered small-business skills. A valuable thing to come from the discussion on what makes a business successful was



Using the drum smokers

the observation that the details that are important to you when you buy something (e.g. quality, consistency, cleanliness, price, friendly salesperson, known regular hours) are likely to be the same details that will make your business successful.

A local film crew from the Palau Education Department filmed most of the workshop and a video is now available for use throughout Palau.



Closing ceremony, Peleliu Workshop

1. For more information visit the website: <http://www.eyeoniceiland.com/articles/diaries/dhdiary.html>

Second workshop for Marshall Islands

by Patricia Tuara

The Community Fisheries Adviser travelled to the Marshall Islands in January 2000 to conduct a workshop on seafood processing and marketing on the atoll of Jaluit.

The workshop was requested by the Marshall Islands Marine Resources Authority and was a follow on from the Ebeye workshop held in 1998. Twenty-three women and five men were participants in the *Jaluit Workshop on Seafood Processing and Marketing* which was held from the 17 to 21 January 2000.

The overall aim of the workshop was to provide the 28 participants with skills in processing and marketing their marine resources.

The workshop was a joint venture between the SPC Community Fisheries Section and the Marshall Islands Marine Resources Authority.

The five-day workshop covered the following topics:

- Marine conservation and sustainable management
- Seafood nutrition
- Seafood quality, handling, hygiene, and processing
- Dry and wet salting of fish
- Seafood diseases
- Preparation, packaging and marketing



Participants learning fish salting and drying

Future work

A workshop for women involved in small-scale fisheries activities in Tuvalu is planned for the early part of the year, dependent on the availability of inter-island transport for the participants. Further survey work is planned for Chuuk, Kosrae and Yap in FSM following the finalisation of the report for Pohnpei.

Fieldwork on the gender aspects of the Vanuatu tuna industry will be carried out by the Forum Secretariat's Gender Issues Adviser and the SPC Community Fisheries Officer in March or April.

WHAT'S HAPPENING WITHIN THE REGION



PACIFIC GENERAL

Education on HIV/AIDS for seafarers

by Andrew Peteru¹ & Lyn Lambeth

AIDS has become one of the world's major health problems in just over 20 years, having infected over 50 million people, and killed up to 16 million people to date. In 1998 alone, AIDS killed 2.6 million people and infected another 5.8 million people. 2.9 million of those newly infected were between the ages of 15 and 24 years, while a total of 11.2 million children have been orphaned by AIDS. Just over 2000 people have been diagnosed with HIV/AIDS in the Pacific Island nations and the infection rate is rising steadily.

Most people who have HIV (Human Immunodeficiency Virus) remain healthy for several years before they develop HIV-related illnesses. They will become more susceptible to infections and illnesses that are normally easily fought off by our immune system, or the body's natural defence system. Colds can become worse and develop into pneumonia; TB bacteria may settle in, as well as persistent diarrhoea. This phase of having persistent and serious infections and illnesses is known as AIDS or Acquired Immune Deficiency Syndrome. The HIV-positive person has developed AIDS.

Pacific seafarers, because of their long periods away from home and other factors, are at increased risk of HIV infection. In response to this,

maritime colleges in the Pacific Islands, in partnership with the Secretariat of the Pacific Community (SPC), have incorporated a compulsory section on HIV and STDs into their new curriculum. The project which runs for two years is funded by the New Zealand Official Development Agency, and includes peer education and resource production as well as training the trainers.

Workshops have already been conducted for trainers from Fiji, Papua New Guinea, Samoa, Tonga, Kiribati and Tuvalu. A train-the-trainers workshop at the Vanuatu Maritime College on Santo last year focussed on trainers who deliver HIV education in the maritime colleges of Vanuatu and the Solomon Islands. SPC has also sent teaching aids to maritime training centres around the region.

Resource material produced by the SPC HIV/AIDS and STD Project for seafarers includes Safety at Sea stickers and bookmarks with a condom message; posters; information leaflets; the Pacific AIDS Alert bulletin; and t-shirts with an AIDS-prevention message. More resource material will be developed in the peer-education phase of the project. SPC fisheries staff take condoms and educational materials for the crew when going on board fishing vessels. In January 2000 all SPC fisheries staff attended an HIV/AIDS and STD information session to enable them to give information when in the field.



1. SPC HIV/AIDS and STD Project Training Officer

FIJI

Product development attachment report

by Silika Ngahe, Ministry of Fisheries, Tonga

9 October - 10 December 1999

In March 1999, a consultant from the Marine Studies Program, USP, Fiji Islands visited Tonga to do a study on post-harvest fisheries development and artisanal and subsistence inshore fisheries resources. In her report the consultant recommended that there is a need to train Pacific Island women in product development. Women are very much involved in post-harvest fisheries activities in the Pacific but have had little opportunity to develop their expertise through training.

A training attachment was set up in collaboration with the USP Marine Studies Program and the Ministry of Fisheries, Tonga. Funding for the attachment was provided by the Canadian Government (CSPD). The goal of the attachment was to train women in product development to a level where they would be able to return home and assist women to produce their own product for sale.

This attachment was a follow up to a SPC Training Section course on seafood business operations and management for Pacific Island women held in Nelson, New Zealand in April-May 1999.



Silika with some of the product ready for the taste panel

Following that course three women were chosen for the product development attachment in Fiji, two from Tonga (Mosiana 'Alofi and myself) and one from Kiribati (Ann Tokataake).

The contents of this brief report are based mainly on what we did each day. The programme included lectures, videos and practical sessions on seafood recipes. Recipes used were mainly chosen from handouts given by the Secretariat of the Pacific Community (SPC) and Marine Science Post Harvest Studies (USP).

The first week of the training programme concentrated mainly on product development. Mosiana arrived before us and was soon introducing her new recipe for fish burgers using tuna and reef fish. A very handy meat mincer did most of the processing for this recipe. The product turned out to be acceptable to some of the people who were given it to taste.

Mosiana left two weeks after our arrival, leaving Anne and I to continue the training. Most of the programme was carried out by experimenting with our own products, using our own ideas and recipes that came into our minds, e.g. fish burgers, fish cakes, fish pickle, smoked tuna, tuna jerky, smoked *kaikoso*, salting and drying fish and fish balls, and octopus. The following weeks we continued producing one recipe after another. Every time we produced a new product we had to make samples and give them to Marine Studies Post Harvest staff and students to taste and to make comments. The feedback we received from them was quite encouraging.

The flesh of white, tender reef fish, low in fat, such as emperor, snapper and big-eye bream, was preferred to the tuna species used. We learned that lean fish are more preferred when butter and oil are added.

We also had a chance to join some of the Marine Studies Program students while they were shown a post-harvest video and to attend a lecture on Hazard Analysis Critical Control Point (HACCP). Most of our time was spent reading teaching materials on how different products are produced and from that we were able to produce the products described above.

We were very lucky to have Richard Beyer to give us a talk on how to produce new products. Although he is a very busy man he still made the time to talk to us. Thank you again Richard for sharing your secrets, especially on how to add value to products. He also mentioned some important points to remember i.e. to be very consistent with our product in four areas: colour, taste, texture and keeping quality.

During the attachment we also attended the PACEM in Maribus (Peace in the Oceans) Conference and conducted a one-day workshop on the role of women in post-harvest fisheries. This was a great challenge and an opportunity for all of the women to share the experience and skills they had in their own country. I am sure that this was the most exciting and useful time during this conference - to find out how women badly need training in post-harvest procedures.

Four representatives from Pacific countries presented a paper on the role of the women in fisheries. Ms Dorice Reid from the Cook Islands chaired this session. These presentations were mainly based on the role of women in post-harvest fisheries. From this workshop, we found out that local women who were participating had some interesting points to make, e.g. women are working hard in processing and marketing but are still unrecognised by the government or even their community; there is a lack of women's involvement in new areas of fishing and a lack of fisheries training provided for women in the region. I suggested that the USP Marine Studies Laboratory is one of the best places in the Pacific for women to be trained in post-harvest fisheries, and especially in product development.

Pacem in Maribus XXVII Conference

*by Tony Chamberlain
Marine Studies Programme, The University of the South Pacific*

Introduction

The Pacem in Maribus XXVII Conference entitled 'Oceans in the New Millennium: Challenges and Opportunities for the Islands' was hosted by the International Ocean Institute-South Pacific and the University of the South Pacific in Suva, Fiji Islands 8-12 November 1999. Dignitaries from around the globe attended the last Pacem in Maribus of the 20th century. Apart from a very impressive line up of papers, panels and workshops there was a spectacular opening ceremony, island night and banquet.

Conclusion

I am very thankful for such opportunities for Pacific Island women like us to learn more about post-harvest fisheries. I am sure that these types of attachment should be given to other women in the Pacific if requested. The venue itself is fantastic, especially the laboratory, which is fully furnished with all processing materials at both village level and using modern technology. I am very confident I will be able to transfer these skills to other women in the Pacific if needed. I hope that this kind of programme will provide continuing training for other women in the Pacific.

Acknowledgements

I hereby give my most sincere thanks to the Government of Canada and the Marine Studies Program, USP, for making the funding available for us to do this attachment. I also thank the Government of Tonga and Ministry of Fisheries for accepting this invitation for my attachment; to all Marine Studies staff, especially Tony Chamberlain and Samisoni Sauni, for their kind assistance during our stay here in the Fiji Islands. I understand that we came at a time when both of you were very busy, but we are glad that you were there to help when needed. Also to Jope for his great help out in the laboratory, especially for starting the fire for our smoking. Jobe always helped in shopping and providing materials needed for our product development and we will never forget your great kindness. To Richard Beyer for sharing your time with us, we count it as our great blessing. MALO, God Bless.

Major plenary and panel sessions dealt with:

- United Nations Conference on Environment and Development (UNCED)
- Boundary Issues in the South Pacific
- Restructuring the Regional Seas Program
- Traditional Marine Tenure & Empowerment of Resource Owners
- International Seabed Authority & Deep-Sea Mining in the South Pacific
- Oceanic Environment
- Marine Biodiversity & Bioprospecting

Two workshops were run concurrently over two days:

- The Role of Women in Fisheries Management in the Pacific
- Integrated Coastal Management and GIS Technologies

The Role of Women in Fisheries Management

The workshop on The Role of Women in Fisheries Management in the Pacific was the liveliest session of the week and a lot of hard work and fun emerged. The Chair for this workshop was Te Tika Mataiapo Dorice Reid, a Chief from the Cook Islands, who was an inspiration to all participants and resource people involved. Te Tika Mataiapo Dorice Reid took every opportunity to give the International Conference a Pacific flare by getting participants to sing Pacific songs and pray at appropriate moments.

The overview presentations were given by Ms Vina Ram-Bidese, USP; Ms Aliti Vunisea, USP; and Ms Jese Verebalavu, USP for the Women in Fisheries Network. After the presentations came the following case studies:

- 'Women's Role in Traditional Management of Fisheries in Vanuatu', Ms Kate Holmes, Vanuatu Cultural Center
- 'The Role of Women in Community Management of Fisheries in Samoa', Ms Iulia Kelekolio, Fisheries Division, Samoa
- 'The Role of Women in the Anadara Fishery in Kiribati', Ms Lillian Fay, MSc. Student, USP
- 'The Role of Women in Post Harvest Fisheries in the Pacific', Ms Silika Ngahe, Extension Management and Surveillance, Tonga Ministry of Fisheries.

Major conclusions drawn from these presentations are included in the following brief summary:

Background

- There is an acute shortage of post-harvest expertise at all levels in the region, especially women's expertise.
- Women provide the bulk of the processing and marketing force.
- There is a lack of women's involvement in commercial enterprises and new areas of fishing.
- There is an increase in fishing pressure due to commercialisation.
- Women are often not involved in decision-making processes. Two main areas of disempowerment were highlighted:

1. In fisheries departments because there are many more men than women (disempowerment by numbers)
 2. By the customary/traditional processes.
- Traditional divisions of labour compromise women's positions. Women's roles (family/community) are often seen as less important.

Training

- Women often don't get invited to workshops because of the division of labour.
- More money needs to be allocated to training women (currently most training goes to men).
- Single-gender-based training is thought to be more favourable than mixed-gender training. This is because harvesting and post-harvest techniques used often differ between sexes, therefore there are unique training and development needs.
- More training is sought in small income generation. There is a firm belief that money equates to empowerment.
- More training is sought in fish smoking and drying. In Fiji Islands alone these processes were seen as dwindling methods of fish processing and value-adding.
- More training is required in the conservation of the resource. It was encouraging to see the keen interest in conservation and the desire to learn more about both traditional and modern methods of conservation.
- More education and training is needed to enhance women's job opportunities in the commercial sectors. There is a lack of opportunities for women in emerging and existing commercial fisheries. Training in processing techniques, value-adding, quality control and HACCP is sought.

Research

- Studies are sought on how to recognise to harvest 'just enough', i.e. not to over-harvest.
- Studies are sought on the value of women's labour that is injected into fisheries products. 'Do prices properly reflect the effort and opportunity costs that women contribute in getting the fish to the market?'

Mechanisms

- There is a lack of formal structures for women's processing and marketing.
- Women can form informal groups and networks.
- Women should be more involved in diversified activities.

- Women need more real, meaningful participation in community management.
- Women need to recognise the networks/organisation/groups that already do exist.
- There needs to be more follow-up activity associated with development activities for women in fisheries.

After the presentation a number of small group discussions were run concurrently:

- 'Community rights and access to fisheries (traditional and contemporary)', Lamour Gina-Whewell, Institute of Justice and Applied Legal Studies (IJALS); Aliti Vunisea, USP.
- 'Women's role in post-harvest fisheries processing and marketing', Tony Chamberlain, USP; Silika Ngahe, Tonga; Anne Taake, Kiribati.
- 'Marine protected areas for community conservation', Kenneth MacKay, Forum Secretariat, Iokimi Nagelevuki, Ono Island, Kadavu, Fiji Islands.
- 'Women's role in traditional fisheries management', Te Taka Mataiapo Dorice Reid, Cook Islands; Kate Holmes, Vanuatu Cultural Centre.
- 'Women, fish, nutrition & health', Temakiei Tebano, Kiribati; Jese Vunibalavu, USP.

- 'Participatory Rural Assessment (PRA) Activities as a Marine Conservation Tool', Veikila Vuki, USP; Aliti Vunisea, USP.

The 'Women's role in post-harvest fisheries processing and marketing' small-group discussion went very well and was less academic than some of the other small-group discussions. The participants choosing this group came mostly from the villages (Fijian) so the discussion was focussed on daily realities in the village. The women were asked to consider how they could improve their involvement in fisheries activities. The major outcome was that they wanted more training for women only. Also they saw that government should provide the solution by providing this training. If money and opportunities were made available specifically for women, the customary/traditional obstacles to their personal development would be overcome simply because these opportunities would not be available for the men.

Acknowledgements

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Documenting Changes in Customary Marine Tenure

Many communities throughout the Pacific have witnessed the collapse of customary marine tenure. This has occurred partly through the development of commercial fishing, adoption of more efficient fishing gear, population growth and local agricultural practices. However, in Fiji, recent initiatives in land development, marine tourism and marine conservation are providing new opportunities for local people to derive benefits from their inshore marine tenure system. Consequently, traditional uses of communally held fishing grounds and customary ownership practices are changing.

These changes in customary marine tenure practice are being investigated by Mark Calamia, a University of Colorado doctoral candidate in anthropology presently attached to IOI-SP as a research associate. Fieldwork in three customary fishing grounds (*qoliqoli*) of the outer island group of Kadavu has been ongoing since February 1999. Research will later be extended to include the Southern Mamanuca Group, and is expected to continue until May 2000. Participant observation and in-depth interviews are the principal ethnographic methods employed to collect both qualitative and quantitative data. These techniques are augmented with household surveys, genealogies,

focus groups, oral histories, archival research, and mapping of local fishing areas and habitats.

The aim of this project is to understand how outer island communities in Fiji use and manage local marine resources as they continue to encourage marine tourism and establish marine protected areas in a quest for economic and ecological sustainability. An important aspect of the study is to uncover the role of traditional ecological knowledge in the management of communally held fishing grounds i.e. to assess the degree to which traditional knowledge and local conservation practices are integrated with modern conservation strategies in contemporary marine tenure. Data collection, proceeding with the assistance of a local Fijian survey team hired and trained by the researcher, is focusing upon the topics of semi-commercial and subsistence fishing, marine tourism, community-based marine reserves, agricultural and sea tenure practices, local habitat knowledge, and use of marine species.

An important part of this resource documentation will be to identify the social dynamics of fishing and what people typically do with their catch. Questions of who goes fishing, what gear types are

shared, and how the catch is distributed are critical to understanding how human behaviour affects the local resource base. As in many other provinces of Fiji, women tend to fish more heavily than men; thus, emphasis will be given to documenting the role of women in household production and consumption of finfish and non-fish resources.

Household economic data on daily fish catch have already been collected from 13 villages representing two *qoloqoli* in Kadavu. A fisherfolk logbook approach is also being used to collect catch per unit effort data from these two *qoloqoli*. This will help in assessing the relative level of local subsistence or commercial fishing effort between the two *qoloqoli*.

Finally, information on local tourism will be gathered from seven small-scale resorts in Kadavu, including the systematic underwater observation of dive tourist activities. Surveys and tape-recorded interviews are being used to elicit visitor perceptions of dive experiences, ecotourism and the marine environment. Interviews with resort managers are documenting private sector views on customary fishing rights.

This research is timely in light of a recent government proposal to return full *qoliqoli* ownership rights to indigenous Fijians. Currently, Fijians have customary ownership—giving locals the right to use *qoliqoli* for fishing—but not statutory rights of ownership, which lie with the state. The study should prove useful in policy development for sustainable tourism and the enhancement of outer island biodiversity, and in identifying future research needs. Baseline data from this project will be available for use in subsequent socio-economic and biological monitoring. Hopefully, the study might also enhance cultural sensitivity among local and non-local *qoliqoli* users, and reduce stakeholder disputes over fishing ground access. Direct benefits to locals include monetary compensation, training in social survey methods, and the compilation of indigenous taxonomies, oral histories and marine lore.

Source: *Pasifika*. Newsletter of the Marine Studies Programme and IOI-SP, University of the South Pacific. September – December 1999.

NEW CALEDONIA

Community Education Training Centre (CETC) graduate working with SPC

Catherine Sipa, a graduate from the 1999 Community Education and Training Centre (CETC) course held in Fiji Islands is now on a training attachment with the SPC Pacific Women's Resource Bureau (PWRB). Catherine is from the New Caledonian island of Maré and has previously worked as a receptionist and accountant at the Maré City Hall.

Catherine enjoyed the chance to learn English during her training in Fiji Islands and is now able to continue with some practice in the partly English-speaking work environment of SPC, Noumea. Aside from the English, Catherine also enjoyed learning about community education, community development, agriculture, food and nutrition, home economics and community development through radio. The 1999 course was the first time students could take an elective in fisheries and this was also a popular topic – especially because of the high practical content of the module.

During her training in the Fiji Islands, Catherine became involved in the setting up of a new community radio station, broadcasting around the

Narere campus of CETC. Catherine went from having little experience of speaking English to broadcasting on-air in English, in just a few short months. She is now working on a community radio project with PWRB in Noumea and hopes to get a regular community radio programme on Radio DJIDO in New Caledonia soon. This will be broadcast twice a month and will discuss community issues, women's issues and the work of SPC in these areas.

Catherine also hopes to assist the SPC Community Fisheries Section in organising and implementing what would be its first project in New Caledonia – an assessment of small-scale fisheries activities on the island of Maré, with an emphasis on examining the role of women.



PALAU

Continuing a life of fishing and fisheries

by Lyn Lambeth

The fourth issue of the *Women in Fisheries Information Bulletin* included an article on the fisheries career of Evelyn Oiterong of the Palau Division of Marine Resources. Evelyn continues with her training in all aspects of fisheries and, in the second half of 1999, travelled to Japan to attend a course sponsored by the Overseas Fisheries Cooperation Foundation (OFCF).

For the first two months Evelyn studied the Japanese language in Yokohama with a scholarship from the OFCF. Evelyn joined international students from Brazil, China and South Africa in learning Japanese before undertaking practical training in their specific fields. She then joined the Pacific Islander training group in Okinawa for practical training in coastal fisheries. The 13 participants were a mixture of private fishermen and government fisheries employees and came from Palau, Fiji Islands, Solomon Islands, Kiribati, FSM and

Tuvalu. Evelyn was the only woman on the course. The practical parts of the course covered FAD design, hook and line gear, fishing methods such as trolling around FADs, fibreglass boat building, and engine maintenance. In addition there were lectures on fish farming, seaweed farming and, for Evelyn, one week's statistical training.

During the practical fishing exercises, Evelyn distinguished herself by catching the most fish as well as the biggest fish.

Many sightseeing trips were organised for the students along with site visits to prawn farms and lectures at local government fisheries agencies. A highlight was when the trainees joined local elementary school students in their sports day. The final week was spent touring temples and cities before the final closing ceremony, in Tokyo.

Participants and lecturers of the Pacific Islander Coastal Fisheries course



Evelyn meeting a marine friend at the aquarium

Seafood Business Operation and Management Workshop, Palau

The Palau National Informal Employment and Sustainable Livelihoods Project (IESL) coordinated a Seafood Business and Management Workshop in September 1999. This workshop was conducted by Ms Columba Madraisau through the kind assistance of the Ngchesar State Government. Ms Madraisau was one of the participants at the course held in New Zealand in April – May 1999. This course was coordinated by the Secretariat of the Pacific Community (SPC) and conducted by the New Zealand School of Fisheries, Nelson. Ms Madraisau was keen to share what she had learnt with other women when she returned to Palau and so conducted a three-day workshop based on some of the things that had been taught in New Zealand.



Ms Madraisau, seated left, during her training course in New Zealand. With her are Ebelina Tsiode (Nauru), Mosiana 'Alofi and Silika Ngahe (Tonga).

On the first day of the Palau workshop Ms Madraisau explained the objectives and outline of the course she had taken in New Zealand. She then explained the structure of the fishing industry in New Zealand and how they emphasise quality from boat to consumer. The participants were then broken into small groups and each group was asked to deliver a presentation on the meaning of top quality and what needs to be done to ensure the best quality. Quality assurance measures were then summarised and the basics of retailing were covered. Ms Madraisau then outlined some easy, low-cost measures which could be implemented to improve existing local operations. The importance of customer service and satisfaction was pointed out as well as product knowledge, knowledge of customers and presentation of products.

The second day of the workshop started with some practical sessions on filleting, then an exercise in SWOT analysis (strength, weakness, opportunities, threats) was conducted in small groups. The topic of the analysis was 'seafood business operations in Palau'. Ms Madraisau then summarised the presentation and emphasised simple steps which may be taken to build on strengths and minimise weaknesses.

On the third and final day the class visited four local seafood business operations. After the visits they broke into groups to deliver presentations on what they saw and gave suggestions for improvements.

Some of the advantages identified in the local seafood industry included:

- An abundance of fish
- Government aid in most areas of the fishing industry
- Adequate boats and holding tanks for fresh fish.

Some of the disadvantages included:

- Lack of consistency in supply and quality
- Inadequate knowledge of preparation of saleable products
- Possible poor sanitation
- Poor grooming, presentation
- Poor enforcement of existing regulations
- Customer preference for imported, processed foods.

Some of the solutions offered included:

- Sellers must know ways to ensure continuity of supply (skills and strategy).
- Establish price control or standards
- Training and demonstration on sanitation, preparation, display and distribution
- Training and information on sanitation, packaging
- Monthly inspection of local fish market
- Licensing of markets and certification of employees who check the fish.

The workshop ended with a lecture on the factors in the success of a profitable seafood business operation.

Source: Informed Employment and Sustainable Livelihoods Project (IESL), Palau

FEDERATED STATES OF MICRONESIA

Recognizing the Need for Coastal Disaster Planning in Micronesia

by Douglas Ramsay

The island of Kosrae is the easternmost island in the Federated States of Micronesia. Kosrae is a 112 km² volcanic island surrounded by well-developed coastal mangroves and a narrow fringing reef with no outer islands. The population is approximately 8,000; most depend on fishing and farming for their livelihood.

On Kosrae, major typhoon events are rare; the main tracks are located to the north and west of the island. The last major typhoon was in 1905. This absence of a significant natural destructive event within the memory of much of the population has had a major impact on the economic development of the island. Specifically, virtually the entire population and most of the island's infrastructure are now located within the immediate coastal hinterland, on land generally less than 2 m above spring high tide. In addition, coastal erosion has intensified over the last 50 years leading to a landward retreat (between 5 to 30 m) of the shoreline around much of the island and a loss of shoreline mangroves. This retreat is of concern because approximately half of Kosrae's coastal fringe is developed. The remainder is in a natural and undisturbed state, and some areas are being developed into community-managed marine parks.

Though Kosrae's coastal zone is still relatively healthy, it is subject to the same forces that have depleted coastal resources in other parts of the Pacific, namely:

- Rapid population growth with greater than 50 percent of the population under 16 years of age
- Rapid infrastructure development occurring in the immediate coastal hinterland over the last 30 years (e.g., paved roadways, dock and airport facilities). This has led to the need for coastal defenses for protection and for land reclamation.
- Non-traditional use of coastal resources by landowners (e.g., switch from traditional thatched housing to concrete buildings)
- Overexploitation of natural resources
- Constitutional right of a shoreline landowner to reclaim abutting land on the foreshore or mangrove areas
- Dependence on foreign aid, notably US Compact funding that is decreasing and due to stop in 2001
- Increased public and private venture geared to short-term profits

- Shift from small family/land settlements to municipal urban villages

In 1998 the Kosrae government recognized that an increasing coastal population and changing socio-economic pressures were causing the majority of the population and infrastructure to be located in the high-risk zone. In response, the government started developing a shoreline management plan. The goal is to provide a framework for future development and resource management within the context of coastal erosion and coastal hazard management.

A key factor in this strategy is the integration of state and municipal governments and local communities. Although the plan is being coordinated at the state level, the driving force comes from the communities within each municipality. Community workshops are being used to develop an agreement on:

- The current nature, extent and cause of coastal degradation
- The degree to which these increase coastal erosion
- The risks and potential impacts faced by each community from coastal hazards

The communities of each of the four municipalities have established a group to address the issues identified by the community workshop. The group includes the mayor, representatives from the council, fishers, church groups, senior citizens, women's groups, shoreline landowners and other interested parties. A fifth group consists of decisionmakers from various governmental departments, non-governmental organizations and the municipal mayors. A community liaison officer has been appointed to help facilitate communication between the groups, community and government.

The goal is to make the public and the government aware of their coastal resource, the coastal degradation and hazard management opportunities. Education activities in 1999 include:

- An awareness program on various coastal issues using posters and radio broadcasts
- Monthly environmental video shows in each municipality (There is no television in Kosrae.)
- Church sermons and classes
- Community workshops on coastal erosion, haz-

- ard mitigation and resource depletion
- Development of teaching tools on coastal issues for use in schools
- Training and capacity-building programs on impact assessment and decisionmaking procedures for government and community members

The plan aims to provide a foundation for an integrated, participatory and informed process on development and management of the coastal zone. An additional aim is to have the entire community aware of the full range of natural and man-made hazards and the risks that these pose to the island and its people.

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Source: *InterCoast Network Winter 2000*

Madison Nena of Kosrae receives Seacology prize

Madison Nena of Kosrae, one of the four states of the Federated States of Micronesia, received the 1999 Seacology Foundation's Indigenous Conservationist of the Year Award during ceremonies at Kalaheo, Kaua'i, Hawai'i.

The Award, also known throughout the world as the Seacology Prize, is given annually to an indigenous islander for outstanding achievement in preserving the environment and culture of any of the world's 100,000-plus islands.

Kosrae is a small volcanic island of 42 square miles. It is home to 7,600 residents and traditional subsistence gardening and fishing still form the dominant economic activity. There is a very small, but emerging tourism industry, with approximately 200 visitors each month. The islanders are striving to balance conservation of their natural resources with sensible growth and development, and view small-scale ecotourism as a means to accomplish this.

For over 13 years, Nena was the administrator of the Kosrae Division of Tourism, where he ensured that government decision makers always considered the environmental impact of any proposed development and promoted ecotourism focusing on Kosrae's unique natural and cultural heritage. In 1996 he left to work more directly on preserving Kosrae's environment.

That same year, Nena played a pivotal role in the establishment of the Utwa-Walung Conservation Area, comprised of several rivers, extensive and diverse mangrove swamps, pristine coral reefs and an abundance of marine resources.

Planning for a future based on sustainability and conservation often means deferring immediate

gains or benefits, not an easy decision to make for islands with few sources of income. Recently outside investors tried to convince landowners in the Utwa-Walung Conservation Area to allow the development of a tourist facility in one of the richest areas of the lagoon. No plans were provided for facilities to deal with sewage, which would have spilled into the lagoon and destroyed the marine life vital to the subsistence of many residents. Through Madison Nena's facilitation of community education and input, the landowners saw that the long-term negative effects outweighed the short-term gains, and the development proposal was rejected. A consensus-driven Community Based Resource Management Plan is being drafted to insure that the Conservation Area is protected, while allowing for carefully controlled sustainable development.

Nena has also worked with island elders to revitalize historic methods of Kosrae house construction. Fourteen structures have been built, combining traditional exteriors constructed with local materials with modern interiors. There is now a core group of young builders trained in the traditional skills, insuring that more of these structures reflecting Kosrae's past will be constructed. Traditional canoe-building techniques have also been resurrected, and the boats are now used for fishing and recreation throughout the lagoon area.

Nena is co-owner and operator of the Kosrae Village Resort, an ecotourism resort and dive center.

'Madison Nena, the 1999 Indigenous Conservationist of the Year, has had a long and distinguished career serving Kosrae and its environment as a government official, but I particularly laude his efforts as a private citizen—involving the entire

island in the establishment of a nature preserve and developing an environmentally sensitive commercial enterprise — which show his deep love for his culture and for the natural habitats of his beautiful home island,' said Dr. Paul Cox, chairman of the Seacology Foundation. 'There are too few examples of people turning down the short term economic gains of a questionable development in order to preserve the environment for future generations. The fact that Madison not only was willing to make this enormous sacrifice but was able to convince others to do so is an extraordinary achievement,' stated Cox.

According to Madison Nena, 'I am thrilled with this wonderful recognition from the Seacology Foundation. I strongly believe community-based conservation can only work effectively if all the stakeholders participate in the initial planning stage. Local Awareness and education programs require a lot of time but must be done in order to get full support from the affected communities.'

Nena received the US\$ 5,000 Seacology Prize at a ceremony at the National Tropical Botanical Gardens in Kaua'i, Hawai'i. Costs for the Seacology Prize have been generously underwritten by Nature's Way.

Past winners of the Seacology Prize include King Taufa'ahau Tupou IV for his efforts to preserve fruit bats in Tonga, the late Chief Fuiono Senio for his work to preserve a 30,000 tropical rainforest near the village of Falealupo in Samoa, and Saula Vodonaivalu for his discovery of 30 new species of plants in Fiji and working for the conservation endangered ecosystems.

The Seacology Foundation is the world's premiere nonprofit, nongovernmental organization whose sole and unique purpose is to preserve the environments and cultures of islands throughout the globe. From Aitutaki in the South Pacific to Zanzibar off the coast of Africa, from islands in the Arctic Circle to tropical islands of the Caribbean, from the Maldives to Micronesia and from Polynesia to the Pribilofs, Seacology launches projects to help preserve island ecosystems and cultures.

Source: Pacific Islands Report.
Pacific Islands Development Program/
East-West Center.
Center for Pacific Island Studies/
University of Hawai'i at Manoa.

FRENCH POLYNESIA

Community management of marine resources

In November 1999 representatives from nine Pacific Island countries attended a workshop in Tahiti on community-based Marine Protected Areas (MPAs). The workshop was organised by the South Pacific Regional Environment Programme (SPREP) as part of a project which works with communities throughout the region, identifying ways for them to protect and sustainably manage and develop their marine environments. Funding was provided by the Canada-South Pacific Ocean Development Program Phase Two (CSPOD II) and by the U.S. State Department. The workshop had the support and assistance of the French Polynesia Environment Ministry.

The resource person for the workshop was Dr Michael King, manager of the Samoa Fisheries Project and co-author of the training manual used at the workshop – the SPC-produced *Fisheries Management by Communities*. Participants included representatives of environmental and fisheries government agencies and non-government environmental organisations. The workshop aimed to train people to work closely with communities in

transferring the skills needed to establish MPAs and maintain existing MPAs.

The SPREP project and the SPC training manual are part of a growing realisation that government fisheries agencies alone cannot successfully manage increasingly threatened inshore areas – the involvement and support of coastal communities is essential. The training manual is based on the following premise: *regardless of national legislation and enforcement, the responsible management of fisheries resources will only be achieved when fishing communities themselves see it as their responsibility rather than that of the government.* The establishment of Marine Protected Areas—areas closed to fishing or other disturbances—is just one tool of many that communities can use to manage the inshore areas they depend on.

For a copy of the training manual see your local fisheries department or library, or contact the SPC Community Fisheries Section at the address given in the review of the manual at the end of this bulletin. A French translation of the manual should be available later in the year.

AUSTRALIA

A new Northern Territory fishery

By Dave Field

It's not often an entirely new northern Australian fishery appears, but that's about to happen. The Northern Territory's Department of Primary Industry and Fisheries recently issued the David Glory Group, a Melbourne-based company with experience in jellyfish processing and marketing, a developmental licence to evaluate the jellyfish fishery potential in the area and support assessment of further development.

Benjamin Ding, prime mover behind the new Northern Territory venture, is enthusiastic about the possibilities for export of jellyfish to China and Japan. While there's a possibility other jellyfish may be targeted, the most likely candidate for harvest is the Rhizostome jellyfish (*Catostylus mosaicus*), which in taste tests has been found to be a superior quality product. Jellyfish has long been regarded as a favoured food in China and especially in Japan where it is considered a delicacy, and a 'high-end' market item.

The Chinese and Japanese jellyfish markets are currently supplied with catch taken in Thailand, Malaysia and China. However, increasing demand has created opportunities for Australian involvement.

The David Glory Group has needed to address some infrastructure problems, even at the exploratory stage of the fishery. The fishery will initially be trialled in the estuarine waters of rivers on the western Gulf of Carpentaria, with a temporary headquarters arranged in conjunction with the Borroloola Fishing Club. While two eight metre boats have been constructed specifically for the trial, the company will need to arrange access to them from the club premises, which will involve construction of, probably, a jetty—which will require approval from the authorities. There are also issues of freight costs and other services in the area, which is some hours by road from any major centre.

Development of the fishery will be based on establishing several criteria:

- The most rewarding fishing locations in terms of type, quantity and harvest quality.
- The catching technique—initially, scoop nets will be manually operated. In the longer term, appropriate nets will be arranged with a view to minimising bycatch.

Catch stabilisation processes. The catch will be salted and dried at the Boroloola processing facility prior to shipping by road to Darwin for export by sea. Employment costs will be a challenging factor in the Australian work scene, thus the processing plant will need to be carefully developed and efficient.

Three or four experts from China will be brought in to provide assistance during the early stages of the venture, which is eventually expected to create up to 20 jobs, with opportunities for other businesses. As things develop another boat will be constructed to operate as a mothership. The fishery is expected to be seasonal, most likely operating from February to October.

Perhaps the concept of eating jellyfish doesn't sit well with the Western palate. On catching, the tentacles are removed and the mantle is packed in salt prior to processing for export. Benjamin Ding described how the delicacy is subsequently prepared for the table. The final texture is all-important. 'The salted, dried fish is chopped to three millimetres thickness, plunged into water at 95°C for a few seconds, immersed in cold water to cool, then allowed to expand in the water for several hours. It's then stir fry cooked, flavoured using sesame oil, or vinegar, or soy sauce, and served either as an accompaniment to, for example, chicken – or as an individual dish.' It is, he insists, delicious.

Exploratory work is expected to begin later this year, subject to the presence of sufficient numbers of jellyfish in the area, with the fishery and processing plant worth AU\$ 500,000. The group hopes to export 300 tonnes of processed jellyfish, (valued at approximately AU\$ 4.5 million) to China and Japan by the end of next year.

Interestingly, Sydney University's School of Biological Sciences has been investigating *Catostylus mosaicus* under a contract to the

Biodiversity Group of Environment Australia. Although the project actually involves research over approximately 1,000 kilometres of coastline in New South Wales, it's likely that information gleaned will translate into valuable background for the fishery further north. This is because the scope of the work includes timing of reproduction over the north-south New South Wales range, and abundance and size frequencies over two spatial scales. There's also a relationship to be developed between abundance, size and salinity and temperature variation; determination of the size of the animal at maturity; and description of the benthic phase of the creature. Finally there's to be an analysis of fisheries statistics and fishing methods. The project is being managed by Dr Mike Kingsford.

It appears that *Catostylus mosaicus* has potential as a valuable fishery in several parts of Australia. In 1998 a development permit was issued allowing some 1,500 wet tonnes to be taken over two years in Port Phillip. However, it's important to adopt a reasonable perspective on the tonnage indicated – 95 per cent or more of the weight of the medusa (the animal isn't actually a fish) is water.

Another issue is the effect of any full-on commercial fishery on animals taking the jellyfish for food. It's known, for example, that some turtles feed extensively on *Catostylus mosaicus*, and eventually

there'll need to be some research focus on the effects of extensive harvesting on this relationship. The matter is complicated because the experience of researchers to date has been that stocks can be small and restricted to semi-enclosed water masses (such as estuaries) and thus easily fished out. This problem would be exacerbated where the processing plant is land-based and not readily moved to locations near other stocks.

The Northern Territory has responded to this potential problem by placing restrictions on licensing for the fledgling fishery – including a seasonal closure, the use of scoop nets only, and issue of only a single licence.

Supporting the need for scientific information to promote efficient management as the fishery develops, there's a proposal (once the fishery is operational in the Northern Territory) for employment of a PhD student to collect basic data on stocks.

For further information contact: David Glory Group. Tel: +61 3 9653 9633. Those interested in the research work can visit:
www.wallace.bio.usyd.edu.au/Current/blub.htm

Source: *Professional Fisherman*, November 1999

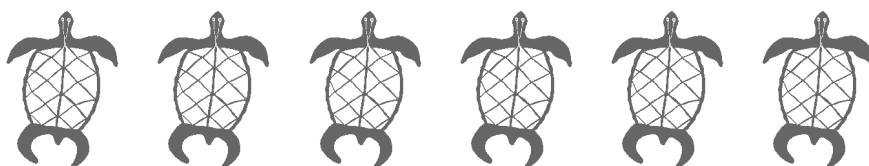
NEW ZEALAND

Third regional course for managers of medium-to-large size fisheries enterprises

Thirteen fisheries enterprise managers from 10 Pacific Island countries and territories attended this two-week course in Nelson, New Zealand, from 18 to 29 October 1999. The course was organised by the SPC Fisheries Training Section and the School of Administration, Nelson Polytechnic. The programme for the course was based on the general theme of building and maintaining successful relationships in seafood businesses, using exam-

ples of management practices from Nelson-based seafood companies.

Four women were among the thirteen participants: Mrs Carmen G. Kigimnang and Ms Maria Mangefel from Diving Seagull Inc. Yap, Federated States of Micronesia; Mrs Lisa Stone from Ocean Trader, Fiji; and Mrs Catherine Keys from Pescadou, Port Vila, Vanuatu.



WHAT'S HAPPENING OUTSIDE THE REGION



AFRICA

Informal power

The kafos of Gambia are informal associations of women fishworkers

by Anna Mbenga Cham, a researcher based in Gambia

In Gambia, as in many countries, fishing is predominantly men's work. Women are engaged in post-harvest activities (smoking, drying and marketing). They encounter several problems in this work, such as the lack of access to credit. These problems, combined with the fact that women also have to manage their heavy household responsibilities, make it difficult for women to improve their business prospects.

Generally women have no access to institutionalized credit. Some credit is provided by the Fisheries Department, which operates a revolving loan scheme for artisanal operations. This, however, benefits more the men. In fact, few loans are destined for the post-harvest activities in which women are involved. Due to such problems, women have, on their own, formed associations to try and access traditional as well as institutionalized credit.

Kinship plays an important role in these associations. It is the basis of co-operation at the beach site, market places and processing houses, as well as in *kafos* (an informal rotating credit organization where

members contribute money regularly to a central pool). Women help each other in many ways, such as by lending tools and drying racks. The social organization of kinship relations helps women escape from the cycle that perpetuates poverty.

There are several *kafos* groups in different villages. The *kafos* network is usually limited to women of the same ethnic group. Through membership of these groups, women can overcome barriers due to lack of credit facilities. The credit schemes of the *kafos*, which operate with a set of agreed rules and regulations, involve specific weekly or monthly cash subscriptions by members. From the fund, credit is given to members in rotation, to help them meet operating costs. The amount of credit obtained through these *kafos* may not be large enough to enable the women to substantially expand their businesses, but it has proved the ability of women to organize and create by themselves.

Source: *Yemaya*. No. 2. ICSF's Newsletter on Gender and Fisheries. International Collective in Support of Fishworkers.

Strategies for Artisanal Fishing – Lake Victoria, Kenya

The International Development Research Centre (IDRC) of Canada is supporting research at the University of Nairobi into artisanal fishing in the Lake Victoria region of Kenya. Lake Victoria is the world's second largest freshwater lake and, with little arable land available for agriculture, fishing,

fish processing and marketing are important economic activities for the people around the lake. The research undertaken by the University is aimed at finding ways to improve the earnings of women fish processors and traders through better processing methods.

Women have traditionally comprised 75% of those engaged in artisanal processing and marketing of fish from the lake. However, new export markets for frozen Nile perch fillets have led to an increase in commercial fishing on the lake, a decrease in the artisanal trade and a reduced supply of fish for the local market. Women are finding it difficult to stay in the industry due to the increase in technology used for production, processing and marketing.

The IDRC-supported research is looking at increasing the participation of women's groups in processing and marketing, and improving the techniques for handling, smoking and marketing fish.

For more information visit the IDRC website:
http://www.idrc.ca/nayudamma/victoria_37e.html

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EUROPE

Beyond the veil: A skewed model or image of community makes gender a non-issue in fisheries management

A paper by Svein Jentoft of the Institute of Planning and Community Studies at the University of Tromsø, Norway, was presented at the Women's World Conference, Tromsø, on 24 June 1999. The paper can be found published in full in the September 1999 issue of *Samudra*, the publication of the International Collective in Support of Fishworkers (ICSF).

According to Jentoft, 'For current fisheries management systems and practices, women's concerns, interests and contributions are typically considered unimportant. It is not simply a matter of neglect but rather an issue of perceived irrelevance. This is an observation that fisheries social scientists share, and I believe it to be fairly accurate, in Norway and elsewhere.'

This issue has become more widely recognised in recent years and is something this bulletin attempts to understand, discuss and address. Certainly what Jentoft observes in Norway could equally be applied to the Pacific. Despite the long history of involvement of the entire community in marine resource use, women's fisheries activities have been overlooked; fisheries departments have been staffed almost entirely by men, have targeted almost only men, while women's concerns, interests and contributions have simply been overlooked.

So why, asks Jentoft, 'are women's issues, interests and knowledge disregarded when governments design fisheries management systems?' Jentoft identifies the issues identified above, of women being conspicuously absent in management agen-

cies and thus having few insiders to speak on their behalf when decisions are made; along with the fact that they simply aren't targeted by management policies. Also identified is the lack of political effectiveness of women in fisheries communities compared to men – this being due to their poorer organisational resources.

Jentoft's descriptions of the role of women in fishing communities under pressure in Northern Europe are interesting in regard to their universal aspects – it could be anywhere. In discussing a crisis-ridden fishing community, 'Here, it is women's efforts, partly channelled through their local association *Helselaget*, that keep the community together and maintain the spirit and life's meaning during times of crisis. In other words, women's contributions are not restricted to the household and their husbands' fishing enterprise. They also take on a responsibility for the whole community, also as community spokespersons *vis-à-vis* the society at large. Again, this is not unique to women in Norwegian fisheries communities.'

Again, Jentoft points out that these contributions are mostly ignored by fisheries managers who can only focus on fish and fishermen, disregarding the fact that 'fishing enterprises only work within the context of the community, in which women play crucial roles' and that women are stakeholders in fisheries management who need to be included in management policies.

Jentoft explores the simple argument that, not only are healthy fish stocks necessary for healthy com-

munities, but that the reverse is equally true – healthy communities are vital to maintaining healthy fish stocks. Overfishing thus becomes a result of community failure, not just market failure. The community finds itself in a state of crisis, it ‘... has disintegrated socially and morally, has lost its ability to formally or informally sanction irregular fishing behaviour. This is perhaps the most serious crisis a fishing community may encounter.’ In other words, in such a community, fisheries management imposed by the government is just not going to work. According to Jentoft there needs to be an understanding of community as a ‘functional system, where the roles and contributions of men and women are equally important, for the material as well as moral well-being of communities.’

So, fisheries management must consist of more than just rules and regulations restricting fishing effort, it must aim at building communities. According to Jentoft, resource rights ‘should therefore be vested in communities; they should not be the privilege of individual fishermen. Then also the civic institutions of the coastal community, in which women have always played a crucial role, could not be defined as outside the fisheries management realm. In other words, a more holistic management, community-centred approach is needed, an approach that recognizes women’s contribution to communities’ viability and hence stock conservation.’

Source: *Samudra*, September 1999

ASIA/INDIA

A surprise encounter

by Nalini Nayak, a social activist working with fishworkers in India, and a member of ICSF

Meenakshi Manna is the first seagoing fisherwoman I have met in India. Spurred by the fact that her family’s debt burden from purchase of fishing implements was increasing, seven years ago she decided to make her fishing boat her home. Operated till then only by her husband, Meenakshi sold her small plot of land and started fishing with her husband and two sons. Today she navigates the 25 HP motorized 35-foot plank boat, uses a variety of nets and directly sells the catch in the wholesale market.

At 37 years of age, Meenakshi looks so small and frail—just a little over four feet tall—but she is full of energy, bubbling with life, and she enjoys her life on the boat. The little, open-deck vessel has a bare minimum of facilities but is used for three- to four-day voyages on the open sea.

Since Meenakshi started fishing seven years ago, her family have been able to repay the loan on their fishing equipment and has bought a small plot of land. For the last three years, they have been growing a winter crop of vegetables on the land. Meenakshi hopes that eventually they will have enough savings to build a house. One of her sons goes to school and lives with relatives.

Meenakshi was made a member of the national committee of the National Fishworkers’ Forum (NFF). This 22-member committee, elected in December 1988, has eight women on it.

Source: *Yemaya*. No. 1. ICSF’s Newsletter on Gender and Fisheries. International Collective in Support of Fishworkers.

Study on women in aquaculture

INFOFISH International recently reported on a US\$ 53,850 grant awarded to two research assistants for a project on women in aquaculture. The project, in collaboration with the Gender and Development Programme of the Asian Institute of Technology in Thailand, aims to find better living

conditions for women and children in developing countries. The research will focus on women from Thailand, China, Vietnam, Malaysia, Indonesia and the Philippines.

Source: *INFOFISH International* 6/99

Books & PUBLICATIONS



Shell Age Economics: Marine Gathering in the Kingdom of Tonga, Polynesia.

Thomas Malm, 1999

430 pages, paperback, illustrated

English language.

Price: Private, 468 Swedish Krona (US\$ 55)
Institution, 375 Swedish Krona (US \$44)
Plus shipping (airmail) to Europe,
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This welcome addition to a rarely researched and little-documented field is a Ph.D. thesis written by Thomas Malm, an anthropologist and biologist working with the Department of Social Anthropology, Lund University, Sweden. The author has done extensive field research in the Pacific region over many years and this thesis is a culmination of a long association with Tonga. Further research on women and marine gathering in Oceania is planned in 2000.

The following is the Abstract of *Shell Age Economics: Marine Gathering in the Kingdom of Tonga, Polynesia*.

Abstract

This monograph analyses marine gathering in the Polynesian Kingdom of Tonga from ecological, social and cognitive perspectives. The overarching issues explored here are (1) the significance of marine gathering in the past and present, (2) how

seaweeds and marine invertebrates have been perceived, classified, named and used, (3) how they have been implicated in social relations, and (4) how the integration of the islands into the modern world system has affected the marine environment and the exploitation of its resources. 'The anthropology of land- and seascape' is analysed in terms of Tongan perceptions of the marine environment in its topographical and mythical aspects, and in maritime practices. Special consideration is given to indigenous topographical terminology; how the world was believed to be organized and controlled by the gods; the relationships between commoners and chiefs, gods and sacred animals; the Tongan relationship to water; and the division of labour by gender, topographical zone and technique. The ethnobiological aspects are first explored by focusing on how indigenous knowledge is differentiated according to specialized expertise, social class, age and gender. The system developed to classify and name marine organisms is then analysed, and more than 230 names and 50 uses of gathered marine organisms are presented. The last part of the thesis concerns the over-exploitation and destruction of the environment, a Tongan 'tragedy of the commons'. In Tonga, the replacement of communal property by Crown/state ownership has reduced the local community's capacity to regulate the use of the marine resources. European influences, a high natural population increase, migration, urbanization, and technological and economic change have combined to result in increased pressure on the marine environment and its resources. As a result, we observe the breakdown of communal-property mechanisms for regulating access and exploitation of the environment.

Manual on Processing – Processing, Packaging and Presentation of Value-added Fishery Products

Compiled and edited by S. Subasinghe
Published by INFOFISH

This manual provides some basic guidelines on production, packaging and presentation of fifteen selected value-added fishery products of potential economic importance. The publication caters to the needs of upcoming entrepreneurs in the developing countries of the Asia-Pacific region who lack direct access to technical know-how and expertise on processing the products.

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A Dictionary of Polynesian Fish Names.

by Karl L Rensch

This book is a comprehensive account of Polynesian fish names from over fifty islands and an attempt to identify them using the Linnaen nomenclature. No graphics, 330 pages, AU\$ 38.

Available from:

Archipelago Press
Box 274
Mawson, Canberra 2607, Australia.
Telephone: +61 2 9418 1816

Song for the Blue Ocean: Encounters Along the World's Coasts and Beneath the Seas

by Carl Safina
Published by Owl Books (Paperback) or Henry Holt and Company (Hardcover)

Safina tells the story of our oceans and the relationship between humans and the sea. The book is divided into three self-contained sections covering New England and bluefin tuna; the Pacific Northwest and salmon; and the southwest Pacific and aquarium fishes. Safina outlines the many

problems facing these three regions but steers clear of the traditional 'environmentalist' stance that lays the blame squarely on single sources such as government, loggers and fishermen. Rather, he explores the complex and interrelated dynamics of economy, politics, science, communities, families, occupations etc. and leaves the solutions to the people directly impacted by the issues and with clear interests in successful outcomes.

The Hungry Ocean: a Swordboat Captain's Journey

by Linda Greenlaw
Published by Hyperion (Paperback)

The August 1999 edition of *National Fisherman*, carries an article written by Jerry Fraser, on Linda Greenlaw, the captain of a United States swordfish longliner pushed suddenly into the limelight after a mention in Sebastian Junger's story, 'The Perfect Storm.' According to Junger's book Greenlaw is 'one of the best captains, period, on the East Coast.' Now Linda Greenlaw has written her own book,

'The Hungry Ocean: a Swordboat Captain's Journey,' an account of a typical trip aboard a swordfish longliner. 'I liked my crew,' she is quoted as saying in the article. 'I had a good boat. We get ready. We steam. We fish. We go home.'

Greenlaw fished for 17 years, moving from cook, to deckhand to captain. She is still involved in fishing, in between book signings and tours to promote her memoirs, rigging lobster traps and thinking about getting a bigger boat.

Fisheries Management for Communities: A manual on promoting the management of subsistence fisheries by Pacific Island communities

This manual has been written by Dr Mike King of the AusAID Fisheries Project, Samoa, and Lyn Lambeth, the SPC Community Fisheries Officer. Both authors worked on a community-based fisheries extension programme in Samoa. The manual has been written in response to a growing regional interest, from fisheries and environmental agencies as well as non-government organisations, in how to provide the motivation for communities to manage their own marine resources.

The manual suggests some practical answers to the following questions:

- How can villages be encouraged to manage their own fisheries?
- What can be done to support village communities in their efforts to conserve fish stocks and protect their marine environment?
- What particular conservation actions can communities take?
- What can be done by communities and what must be done by governments?

The manual refers to the work being done in Samoa to illustrate a working model of community-based fisheries management in the Pacific. In the

words of Ueta Faasili, the Assistant Director of Fisheries in Samoa, 'I believe the model used in Samoa is transportable to other island countries in the Pacific, perhaps with some alterations to suit local conditions and culture.'

Complimentary copies of the manual have been sent to national contacts in fisheries and environmental agencies as well as libraries around the region. All others interested in obtaining copies of this or other Community Fisheries Section manuals will need to pay 1000 CFP (approx. US\$ 10.00) per copy.

The person to contact is:

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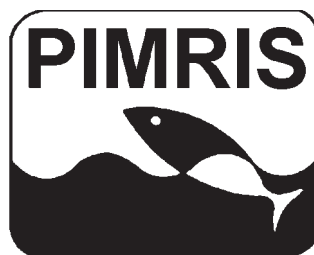
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Pacific Islands Marine Resources Information System

the availability of information on marine resources to users in the region, so as to support their rational development and management. PIMRIS activities include: the active collection, cataloguing and archiving of technical documents, especially ephemera ('grey literature'); evaluation, repackaging and dissemination of information; provision of literature searches, question-and-answer services and bibliographic support; and assistance with the development of in-country reference collections and databases on marine resources.