

WOMEN IN FISHERIES DEVELOPMENT, Aliti Vunisea.

This chapter presents a general analysis of women in fisheries development. It includes an overview of women in fisheries development, ^{with a discussion of} ~~before the participation of~~ women in fisheries in Asia and the Pacific region ~~is discussed~~. The chapter ends with a ^{Alt & FI} discussion on the role of women in the fisheries sector in Fiji.

INTRODUCTION

The term "women in fisheries " usually brings to mind visions of women engaged directly in fish production, harvesting, processing, distribution and marketing. In this context the term includes all activities that are directly or indirectly affected by fishing activities, thus the inclusion of women's domestic and household activities which are necessary tasks of a fisherwoman. This definition therefore encompasses the activities of women who are involved with their husbands' fishing activities.

Development in general has tended to increase the options for men and not for women mainly because the majority of development schemes target men. The focus on large and sophisticated technology has in part been influential in this male dominance. Therefore women could be categorised as underdeveloped within development. Gender restrictions have in most cases also inhibited women's progress and participation. For example, Yap (1980) identified socio-cultural factors, such as necessary household responsibilities as preventing many women from taking advantage of fisheries programmes. She argued that even where women are fulltime fishers, domestic and other related activities are still their primary responsibilities.



Handwritten text, possibly a signature or date, mostly illegible.

Handwritten text, possibly a date or reference number, mostly illegible.

Aecn No: 1272

MFN No: 133

Another factor underestimating women's role in development schemes has been the under-valuation of their subsistence, social and economic contribution. Thus Roger's (1982) proposal for time budget approaches to accurately measure women's participation.

RELEVANT RESEARCH

Despite the proclamation of the United Nations Decade for Women (1975-1985) in 1975 and the World Conference on Agrarian Reform and Rural Development in 1979, which both stressed the need to recognise women's rights (FAO, undated) there has been limited success in actuating these goals. This is in spite of the focus by internationally renowned organisations such as the FAO, the United Nations Development Program (UNDP) and the Commonwealth Secretariat on women's participation in fisheries development. Amongst the issues highlighted by the FAO in its Strategy for Fishing Management and Development is the prominent role women play in processing and marketing in small-scale fisheries and aquaculture in many countries (FAO, 1988). The role of women in the fisheries sector was also an important component of the UNCED the Action Plan (Agenda 21) to promote more sustainable development. Chapter 17 of this Agenda 21 highlights amongst other things the importance of community-based small-scale fisheries, and self reliant strategies such as subsistence fishing (UN 1993), areas in which women fishers predominate.

SOCIAL RESTRICTIONS

Most of the challenges faced by women in development today are those imposed by society. Different communities worldwide have their own ethics and modes of conduct and underlying these are traditional perceptions of gender. Most significant perhaps are women's expected submissive roles in society. These gender stereotypes have continually

contributed to the suppression of women's full integration into mainstream development.

Women's fishing participation is on most occasions defined by gender. A report by CIDA (Canadian International Development Agency, 1993) revealed that women traditionally fished within the limits imposed by other domestic responsibilities. Thus women make and repair nets, market fish caught by men, and utilise a wide variety of technology for processing fish. These findings reinforces the work of Momsem and Townsend (1987) who maintained that custom prescribed women's activities and employment. Commenting on women's potentials and limitations they face, Asfar (1987), on her work on women in Bangladesh, argued that income generating activities could not liberate women if the role of community mobilisation and the need for changes to the family ideology of gender was undermined.

Further constraining women's participation in fisheries development has been how development projects target men with little consideration for the long term impact on women's workload, work patterns, income, nutrition and living conditions (Haque and Tietze, 1988).

Women in Employment

Pronounced increase in female heads of households (UN, 1991), have forced women to undertake low paid, menial employment to support their families. Smyke (1991) and Diere (1987) aptly described women's plight in employment, and long working hours as unskilled labour "a response to the economic squeeze". Increased domestic and employment commitments have also forced women to adapt "dual day" or "triple day" programmes to cope (Momsen and Townsend, 1987). Most of these constraints that

women face stem from gender perceptions of employment. In certain cases, women may participate fully but without recognition.

For example, a report on a survey on gender issues in fish farms in Chibote area, Luapala area, Zambia, recorded that although fish farms were family organised;

The idea of a woman digging a ponds or farming fish aroused amusement, even antagonism. But if several women or husbands helped, peoples reaction were not so negative (Mbozi, undated,2).

Thus even though women were engaged in most of the fish farms activities they did not own farms. The undervaluation of women's participation is common throughout the world. Schoeffel (1985) for example documented that at a SPC/ Commonwealth Secretariat meeting on women in small-scale fishers, senior male fisheries department staff privately mocked the women's meeting by retitling it "small scaly women in fisheries" and a meeting for "little fishy women".

Technological Innovation

Technological innovations have to a large extent led to the increased dominance of men in the fisheries sector. The development of modern technology, has been predominantly large-scale, requiring physical strength to operate, therefore seriously limiting women's participation. In other instances technological innovation has displaced women, e.g. in large scale industrial fishing, machines are used to preserve and process (FAO, undated). As a consequence women are forced to concentrate in simpler fishing activities within the inshore area.

Control over Resources

A major constraint to the increasing involvement of women in fisheries has been their lack of control over resources. This is especially true in dominantly patrilineal societies. Women's lack of ownership and access and resources affects the whole family.

An important rationale behind increasing women's direct control over resources in general and cash in particular, stems from the assumption that women are more likely to use these resources to further the immediate welfare of their families, especially the health and nutrition of their children.

Kandiyoti: (1990,9)

Control over resources is crucial for women as primary producers and gatherers for the household unit.

Need for Education/ Literacy.

A factor contributing to the high involvement of women in the informal sector is their lack of access to education and formal training. Hence Smyke's (1991) proposal for education and the transfer of knowledge as the starting point for any form of women's advancement. The proceedings of the Workshop on Enhanced Womens' Participation in Fisheries Development in Victoria Falls, Zimbabwe in 1990 (CIDA, 1991), revealed that the evident lack of control over resources and other related constraints to the enhancement of women's development was exacerbated by the lack of access to knowledge. In this instance the situation was worsened by extension officers who normally only addressed the male head of household because in such a society, the transfer of knowledge within the household was almost non-existent.

As Drewes (1982) argues, education should not be confined to the extension of fishing techniques and training for income generation but must include education to eliminate social and cultural discrimination against women. With this in mind, Ballara (1980) presented literacy as an essential approach to increasing productivity and self-employment in the informal sector. This she argued could result in the emergence of positive competitive participation in fisheries development.

FISHERIES DEVELOPMENT

Current fisheries development efforts prioritize large-scale, capital intensive, commercialised operations in offshore areas which are dominated by men and marginalise women. Related to this is the fact that research and involvement in fisheries development was initially, and still is dominated by males, thus the under valuation of women's economic roles (Haque et al, 1988).

Recent literature however, reveals women's increasing participation in fisheries and their gradual movement into traditionally defined male fishing areas. For instance, Kadjo et al. (1993) reveal how women entrepreneurs in the artisanal fisheries sector in Western Africa buy and process a large part of the 550,000 tonnes of fish landed annually by male artisanal fishers. In addition, women market processed products and invest by giving credit to fishermen to cover the cost of fishing trips, buy fishing equipment and even make fishing boats available to them. This trend had been made possible by the emergence of several professional associations of women fish processors and traders.

Demby (1993), also documented how women in the artisanal fisheries sector of Sierra Leone smoked and sold 80% of the artisanal catches. Similar to women in Western Africa, they also had credit facilities that catered for fishermen's needs. In both cases the significant change is that women own and dictate the terms of credit, an area previously dominated by men. Therefore in general fisheries development, the gender division of labour has significantly changed with women participating more in repair, maintenance, marketing, fish handling and packaging in the artisanal and industrial sectors (CIDA,1993).

Asia and the Pacific.

For both regions women increasingly play an important role with constraints faced by women in fisheries in the Pacific region highly similar to that in the Asian region Heyzer (1985). Ifeka (1989), comparing women's roles in fisheries development in the two regions based on field enquires in Kiribati and south-west India in 1985, recorded women's contribution as crucial to the subsistence and commercial economies of both communities, although in south-west India, women were engaged mainly in post-harvest activities, while in Kiribati, women actually fished.

A study funded by UNESCAP (1987) in 1986 which assessed women's participation in the modern economy in both regions established how the increased participation of women in socio-economic development has increased women's income earning opportunities. Although women in both regions participate in commercial fishing, Asian women, in the cases of Phillipines and Indonesia, (ESCAP,1985) received government support. This was for fish processing, marketing and repairing of fishing gear.

WOMEN IN FISHERIES IN ASIA

Official statistics on women's contribution to the total labour force, especially in developing countries are often neglected or incomplete in the sense that a lot of women's work which includes financial and domestic contribution often are unrecorded, thus the common assumption that women do not work. This motivated Tomoda (1985), to suggest a time allocation approach as a useful method for properly evaluating male and female productive activities.

A reason for the success of women's fisheries projects in the Asian region has been the Bay of Bengal Program (BOBP) focussing some of its development initiatives on the betterment of small-scale fisherfolk communities of the region who suffer from very low incomes and living standards, low social mobility and limited political influence (BOBP, 1987). Included in these were increased efforts at various projects targeting the improvement of women's welfare or participation in development. Madhu (1984), commenting on traditional fisherwomen's contribution to fishing family incomes, described how pond culture, net-making and animal husbandry were implemented in Chittagong to raise family incomes.

Again in 1985, Madhu, described the successes of an integrated marine fisheries project which targeted the fisherfolk in Tranquebar. The project which focussed on the economic welfare of fisherfolk communities made available basic fishing assets such as modern fishing technology. This immensely benefited women who were the dominant fishers in small-scale fishing communities. Drewas (1986), also described the attempts by the Bay of Bengal programme, to improve the socio-economic conditions of women from Tamil Nadu, in India. Thus for the region, women's increased fishing participation was

being positively addressed.

In the Bay of Bengal region, women's contribution to the fisheries sector is diverse, ranging from retailing fish, making and mending nets, collecting prawn and fish seed, drying and salting fish, preparing fish products such as fish crackers and fish balls and general gleaning activities (Madhu, 1989). Wanigasundra (1981) stated that women were engaged in similar activities in the Sri Lanka region and emphasised the need for specific programs that targeted women. On the other hand, Wandell *et al.* (1988), acknowledging the substantial role of women in general food production, argued that women's contribution was only seasonal and in most cases served to facilitate men's activities. Even though this view highlights women's extensive contribution it also, as is the common trend, relegates women's activities to an inferior status.

In most cases, women's earnings are defined as supplementing men's income, rather than income being neutrally worked for and thus independently described. Such perceptions not only hinder the recognition of women's work efforts but significantly contribute to the persistence of gender biases. The extent of women's fishing activities cannot be understood sufficiently unless studies are carried out for the entire range of women's fishing activities. For example Macalicag-lagua (1981) who did a socio-economic study on some fishing communities in the Asian region argued that apart from household activities women were also highly involved in fish product gathering, shellcraft making and fish marketing.

These fishing activities are usually additional tasks to standard domestic duties. This brings home the fact that women's fishing activities are multifaceted and must be viewed

as an integral component of the development process. Thinking along this line, Mc Manus (1989), in her work on the northwest Lingayen Gulf, in the Phillipines, emphasised the heavy workload women's gleaning activities imposed on their already heavy domestic commitments. As evident from the above discussion, women were not only over committed in their own traditional fishing areas, but had at the same time broadened their participation to cater for the changes undergoing the subsistence fishery.

With respect to marketing of marine products, Madhu (1989) argued that based on the Sri Lankan experience she believed training for market opportunities was as important as training in production skills. Her concern was that the absence of proper marketing skills and opportunities in fisheries development planning would result in futile production attempts.

Recent trends reveal increased effort at mobilising awareness for women's potential and increased participation in development. In 1984 the Centre for Integrated Rural Development (CIRD) embarked on a three year action research project targetting rural women in fisheries communities in Indonesia, Phillipines, Sri Lanka, and Vietnam. The project which focussed on collecting data on women's roles and activities identified low capital input, productivity, and low levels of improved technology in catching, handling and processing fish as the major problems. Following these findings special projects on fish preservation and processing were introduced.

A major drawback in the participation of women in fisheries development as recorded by Handuson (1994) who did some work on the Chinese fisheries sector, was the obvious lag of women to male counterparts in almost every area of fisheries.

The same was also recorded by Yahaya (1994) on women's involvement in fishing in the rural sectors of Malaysia. Because of frustrations women faced, they had in some cases organised to have a stronger voice. For example women in Orur and Kuppam near Besant in southern Madras, mobilised and organised themselves to set up their own fish market. This idea materialised as a result of the frustration and setbacks women encountered in having to face stiff competition from the larger merchants in the urban centres.

Women's involvement and participation in fishing schemes in the Asian region have also been facilitated by the provision of special credit facilities to women. For example Dickson (1989) had highlighted the high success of credit ventures implemented.

Empowerment and Constraints

Drewe's (1982) work with fisherwomen in three villages in Sri Lanka highlighted the "power" women attain through increased participation in fisheries development, in particular their increased independence to make economic decisions.

This was empowerment in the sense that they had increased control over cash and profit gained. Unfortunate perhaps is the fact that this financial empowerment has not in any way changed their inferior social status. For these reasons, Drewes (1982) explained that although women had acquired "power" through their roles in market selling, they were still non-entities when it came to community affairs.

Generally, religious and cultural beliefs bore harder on women than on men. Madhu (1989), had highlighted how women's extensive involvement in fishing and their fisheries potential, was hamstrung by taboos, denial of basic educational opportunities and the lack of access to finance.

The practicality of projects that specifically target women need to be accurately evaluated. For in ignoring the broader spectrum that women belong to we may be doing more harm than good and in the process, isolate women's activities and their welfare further. As was revealed by Steele (1993) a major flaw in the development of women's fisheries project in Canada in the 1980's was how these projects isolated women further rather than getting them into development.

THE PACIFIC SITUATION

This section specifically focuses on the status and role of Pacific women in fisheries development. It will conclude with a detailed discussion on women in fisheries industry in Fiji.

Lal and Slatter (1982), Schoeffel (1984, 1985), Chapman (1987), Hetler (1987), Tongamoa (1988), Robertson (1991) and more recently Steele (1993) and Ram (1993) have highlighted how women's extensive fishing participation in the Pacific region is often officially under-recorded.

Environmental and cultural diversity existing within the countries of Melanesia, Polynesia and Micronesia, makes a generalisation on Pacific women's role in fisheries difficult given the different customs and traditions which govern people's lifestyles and fishing patterns. (Chapman, 1987, Schoeffel, 1985, Mathews, 1993). In spite of these differences there are, as explained below, fishing trends common to Pacific island nations.

Status and Roles of Pacific Women.

As argued by Lal and Slatter (1982), Hanson (1982), Chapman (1987), Mathews(1993) and Steele (1993), Pacific Island women are faced by the biases of socio-gender constraints in their fishing participation. Women's exclusion from traditional fish drives, taboos refraining them from fishing when pregnant, or when they had their menstruation are examples of such prohibition. Incidences of women's prohibition from such fishing activities are often explained in terms protection of femininity.

Schoeffel (1995:8) contented that such biases were very strongly felt in Melanesian culture where there existed

..... a kind of sex class system in which the superiority of men and the inferiority of women was strongly asserted. Thus what men do is considered important and what women do is unimportant.

Such views however are slowly changing with modifications to, and the erosion of traditional institutions in Pacific societies. Crocombe (1989) took this stand when he highlighted how gender restrictive measures such as the taboo in contact between brothers and sisters, restrictions on the use of names and limitations of women's movements, are slowly losing hold with increased mobility and new patterns of living.

A common assumption in the documentation of women's participation in development has been the evaluation of Pacific women's status and roles using Western models and perceptions. When I started on this project I spent substantial time with women from my village, in Nadali, near Nausori town, who spent endless hours diving for freshwater clams (**kai**) or line fishing for the introduced grass carp, **ika droka** or flagtail (*Kuhlia repestris*), **maleya** or tilapia (*Oreochromis Mossambica*) and **duna** or eels (*Anquilla spp.*). I took these opportunities to engage women in informal discussions. During one of these discussions I was surprised that many of the women, including my mother who was a regular fisher, seemed taken aback when I suggested that the fishing activities they engaged in were an added responsibility to standard domestic chores. The majority of the women did not see fishing as work, and in return asked what they would do for leisure if there was no fishing. Going to film shows, visiting relatives, or other such social activities were in most cases regarded unbecoming in our society, therefore fishing was an opportune time to yarn and catch up with the news while doing something useful. At the

same time fishing skills and knowledge could be tested during such trips. As obvious from the related experience, the case of women in the Pacific have to be addressed differently with roles assessed within Pacific Islands concepts of society.

However some Pacific societies customarily recognise women's rights. In Polynesia, for example females are not considered intrinsically inferior to males (Schoeffel, 1985). In Samoa, even though women are largely dependent on husbands for social status, women who are unmarried, divorced or widowed and continue to reside in the village are known as the "ladies of the village" Thomas (1986: 715). Such women hold high ceremonial status which is independent of male rank and which enables important decision making powers within their families. In Fiji women of chiefly birth also hold special status and can ascend to chiefly positions if they were first born in their families. There is thus the need for a better understanding of what women are actually do and how they are regarded socially within the context of Pacific societies today.

Traditional fishing activities are normally segregated with men's fishing activities focussing on deeper sea areas and women's activities confined to shallower inshore areas. Women however, generally support men's fishing activities through preparing and repairing fishing equipment, food and taking part in required rituals. Recently women have started to participate in more traditionally male dominated activities. Mathews (1993), cites examples of women engaging in offshore fishing in Tonga, Marianas and Fiji.

Such increased women's workload resulting from expanded fishing participation, is a removal from "distinct traditional gender roles in existent in Polynesia and Melanesia", presented Slatter (1984).

Women's fishing activities

Women's fishing activities are generally referred to as gleaning and collecting on reef flats (Schoeffel and Talagi (1986), Chapman, 1987, Lal and Slatter, 1982, Schoeffel, 1987, Steele, 1993). This definition does not accurately portray the immense knowledge and skills that women's fishing activities entail. Nor does it reflect the importance of women's fishing activities especially to the total household production.

This research therefore attempts to reveal the immense potentials, skills and knowledge possessed by Pacific women in a similar way as recorded by Gina-Whewell for the Roviana women in the Solomons (1992), who showed that women are as informed in terms of fisheries knowledges as their male counterparts as recorded by Johannes (1982) for the Palau male fishers, Hooper (1985) for Tokelau males and Veitayaki (1990) for Fijian male fishers.

Importance of women's fishing activities

Early Pacific societies were self-sufficient in foods many of which were acquired through family fishing foraging and collecting efforts. Women's subsistence fishing activities were a major component of these activities. Even in the current era women fishers are portrayed as basic providers of family protein through their fishing ventures (Taniera and Mitchel, 1992; Schoeffel, 1985; Steele, 1993; Loumala, 1980; Chapman, 1987; Lal and Slatter, 1982). The advent of monetisation in rural communities has resulted in more emphasis being placed on commercially viable products. This has motivated the evident shift from the consumption of local foods to less nutritious, imported foods (Thaman, 1992). These trends have also been intensified by the change in emphasis in women's fishing efforts from subsistence to commercial.

Women are also the major informal traders throughout the region, dominating municipal markets and other roadside and street outlets. Fairbain-Dunlop (1994) maintained that if the "self-employed" category is used as an indicator of informal sector activity, then almost one-quarter of Pacific women are engaged in informal trade. In Fiji, women operate from homes, roadstalls and on the streets selling a diverse range of foodstuffs. Bryant (1992) however explained that women's immense involvement in the informal sector was a response to poverty. This significant informal participation reinforces women's undervalued roles because the formal sector is usually rated higher than the informal.

Women also possess an extensive knowledge of traditional post-harvest activities which is under-recognised. This is because current fisheries development emphasise production, with the post-harvest sector being given low priority. As a result women's dominant participation in post-harvest and processing activities are regarded as secondary in fisheries development. David (1990) argued that post-harvest activities performed by the women of Vanuatu very significantly contribute to the nutritional and income levels of households. He therefore proposed that for modern fisheries development there is a need to blend traditional processing knowledge with the modern strategies.

Access to Resources

The concept of access to resources has been addressed only minimally in Pacific literature. In the majority of the Pacific Island countries resources are clan owned and mostly through patrilineal descent. When women marry they become a part of their husbands clan but cannot own or have legal control over resources in their new home area. At the same time they lose resource rights in their places of origin. Thus in the modern context, women are usually landless.

Exceptions occur where there are traditionally matrilineal descent systems such as in Bougainville and Nauru. These two Pacific societies which have been affected by mining in recent decades which has eroded the control of resources by women. For example, female land owners in Nauru do not have much influence over negotiations for compensations or for the management of phosphate (Embersen-Bain, 1994). Thus even where women have resource access they lack economic, political and social authority to control it, especially as resources take on increasing commercial importance.

Economic Participation

In spite of Pacific women's increased participation in the market economy, they are generally regarded as basically involved in subsistence fishing with minimal defined participation in commercial fishing activities (Lal and Slatter, 1982; Fakahau, 1989; Steele, 1993; Ram, 1992; Chilcott, 1984). Commercial fishing activities in this context does not regard essential post harvest activities as active commercial participation. Hence women's domestic related activities are also not viewed as necessary for the success of men's commercial fishing activities.

Another major obstacle in the documentation of women's economic participation in the fisheries sector is how their fishing activities are not seen as economically productive. Fairbain-Dunlop's (1994) comments on women's plight in agriculture, with development ignoring the mixed subsistence/commercial nature of agriculture also holds true for subsistence and commercial fishing. Because women are primarily involved, the failure to recognise the mixed subsistence nature of the village fishery, results in an undervaluation of their participation.

Apart from this, women's fisheries involvement are usually under-recorded. For example female participation in the fisheries sector in 1993 for Fiji, Samoa and Tonga were recorded as only 13-17% of the total workforce (ESCAP; 1983). This low statistical measure of women's economic participation is due to the subsistence sector not being enumerated. The obvious indifference to women's fishing activities and the non-recognition of their work in the subsistence sector, prompted Ram (1993) to describe them as "invisible fisherfolk".

Current fisheries development trends.

Current industrial-oriented fisheries development leaves women's small-scale commercial and subsistence activities unmonitored and undeveloped. Wherever women have been incorporated into the industrial sector this has been in gender related types of employment such as fish processing. Schoeffel (1985) mentioned, amongst other things, the lack of access to technology and the absence of fisheries extension assistance as being major constraints to women's fisheries development.

She also emphasised that:

The fundamental structure of fisheries development in the South Pacific with development focus on commercial and industrial was the greatest barrier to increasing women's participation in fisheries.

(Schoeffel, 1985; 37)

The above trend is not surprising considering the fact that it was only during the past decade that women's contribution to fisheries began to be recognised (Steele; 1993). Evident in recent literature is the substantial involvement of women in processing and marketing, as recorded by Josephides (1982) for Papua New Guinea and David (1989) for Vanuatu. Women continue to be largely responsible for post-harvest activities in all the different sectors of the fishing industry. This has been increasingly so with the establishment of tuna canneries in Fiji, the Solomon Islands and Western Samoa.

Various international and regional organisations specifically address women's issues throughout the region. Through regional cooperation and with assistance from bodies such as the UNDP and the FAO, research and awareness into women's concerns are being highlighted. Some of these organisations include the SPC, SPREP, FFA, SPACHEE and WFN (Women Fisheries Network).

WOMEN FISHERS IN FIJI

Similar to women in other Pacific islands women in Fiji dominate subsistence fishing and are also increasingly involved in the local commercial fishing sector. Women's significant contribution to the fisheries sector in Fiji, especially in the subsistence sector, had been acknowledged by Sahlins (1965), Schoeffel and Kikau (1980) Kunatuba (1982), Lal and Slatter (1982), Siwatibau (1984), Ram (1993) and Steele (1993). The importance of

women's fishing activities is evident in the vital contribution of the subsistence and small-scale commercial fisheries in Fiji. Women's involvement in other fisheries sectors are diverse as explained below.

The Industrial Fishing Sector

Women's involvement in the sector has increased significantly with the emergence of fish processing as a growth area within the manufacturing sector in post coup years in Fiji.

The expansion in the industry during the time have largely been attributed to the contribution of women workers. Total employment (staff, workers and management) for PAFCO in 1993 was reportedly over 1,000 with the majority being hourly paid female production workers (Emberson, 1995). In addition, women's enormous inclusion in the production process (about 90% of the total workforce in the cannery) is argued by Emberson to be a replication of the practice of assembly lines of the world market regions, which dwell on women's manual skills, speed and efficiency.

As mentioned, women form the core of the industrial fisheries labour force through their involvement in post-harvest or processing activities. This mode of involvement conforms to perceived gender biases in development, where women are largely employed in areas pertaining to their traditional labour divisions such as processing and the post-harvest sectors. There will most probably be increased involvement of women in commercial fishing in the near future given the increasing emphasis on the exploitation of the migratory tuna and the attempt by Pacific Island countries to process their own catches.

The Artisanal Sector

Women contribute significantly to the artisanal fisheries sector especially through small-scale village-based commercial activities. This increased participation can be attributed to the increased commercialisation of non-fish species especially shellfish. Non-fish sales (e.g. of shellfish, crustaceans, octopus, bech-de-mer, seaweed, etc) have totalled an average of 2000 tonnes, worth \$4.5 million on average for the past three years (Fisheries Division Report, 1993). **Kai** or freshwater mussels which are exclusively harvested and marketed by women, comprise about 48% of this volume.

The main marketing outlets for artisanal fishers are municipal markets, hotels restaurants and cafes, butchers and fish merchants, retail shops and supermarkets and roadside stalls, with women dominating selling activities. The past years have witnessed a decrease of fin fish sales at municipal markets with non-fish sales becoming more popular. This signifies the important role women play in the artisanal fisheries sector in Fiji. Despite women's contributions, their participation in the artisanal sector is hardly acknowledged. Except for the mention of the 22 non-fish gleaning licences issued to fisherwomen in the Northern Division (1993 Annual Fisheries Report) most women fish without licenses, thus are largely categorised in the subsistence sector.

In addition to their own fishing activities women also provide necessary post-harvest activities for men's catches. Although formal production has in most cases doubled in its intensity and volume, processing and preserving activities remain unchanged. Therefore the major processing activities such as smoking, drying and salting are still traditionally practised by women. In addition the preservation, distribution and marketing of catches are the responsibility of women. Therefore artisanal fishing could be described as being

principally dependent on women's support. Increased modernisation and associated monetisation in the rural areas of Fiji, will eventuate in women being more involved in the future development of the artisanal fisheries sector.

Subsistence Fishing

Subsistence fishing, although difficult to differentiate from women's involvement in artisanal fishing, is an essential component of the fishing industry in Fiji. For the substantial rural coastal populations and communities situated alongside inland waters, this fishing sector is a major food source. In addition, increasing urban populations are also dependent on marine foods sold in local markets.

Fishing methods employed by women on the coastal flats are generally very simple, with tools and technologies primarily traditional (for discussion on traditional technologies, see Chapter 5). Methods utilised are diverse, with specific methods employed for the different species. The discussion on methods used which follow focuses on those methods that are widely used in the subsistence sector by women fishers in Fiji.

Methods used by women are usually simple, on most occasions involving the use of hands and simple tools. These revolve around a few principles or basic methodologies. For freshwater locations these include netting activities, trapping or stupefying of species. For the exploitation of sea resources women net, set up barriers and traps, use hand lines and glean or collect on the dry reef flats. Such fishing activities usually require keen eyesight and being skilful with the hands and feet. In addition the intimate knowledge and understandings that women have of their immediate environment enable them to easily identify or catch prey. So even if methods used sound and look simple, they are in reality

complicated and require extreme use of the senses, and skilful utilisation of their fisheries knowledge.

Inland Fishing Activities

Net Fishing

Net fishing using small hand nets and larger 2 m nets is common in inland areas. Small hand nets are used for fishing in groups along rivers, lakes and ponds. The nets are firmly lodged in mud or sand while women feel into holes, under grass or weeds with their bare hands. Women have the amazing ability to grip fish or eels out of small crevices, holes or under weeds, with those escaping being trapped in waiting nets. Larger nets are used to block off creek or stream openings. Fish are then chased into waiting nets by splashing on the surface of the water (own observations).

Another variation of net fishing is where a group of about 10 to 16 women wade around in a lake, in waist deep water, removing weeds and grass. The activity is continued until the water is muddy, thus stupefying fish and eels. Consequently fish swim either to the surface to get clearer water, attempt to escape along the dry banks or lie still at the bottom of the lake. When a woman steps on a fish, she keeps her feet on it, dives down, grips it in the gills before the fish is killed. Fish that escape to the surface of the water are caught in nets, while those that escape to the banks are caught barehanded.

In recent years large gill-nets are increasingly used in inland locations. Although the use of large nets in rivers for selling purposes is not allowed legally, the introduction of species such as the grass carp and the availability of freshwater finfish in major rivers have motivated the use of nets (Fisheries Department).

Line Fishing

More recently women have moved away from netting and principally line fish. Similar to their counterparts in coastal locations women are familiar with the best times, winds and weather for fishing. Line fishing is resorted to during and after major flooding when fish leave abodes and feed in calmer areas of ponds and rivers. Women often identify fish by how they bite or nibble on the lines. For example when women use kneaded dough as bait for mullets (**kanace**), spotted scat (**vetakau**) mangrove jack (**damu**) and tilapia (**maleya**) they can tell the differences in feeding patterns. For instance, mullets nibble on the dough, spotted scat touch lightly on the bait, while the mangrove jack and tilapia strongly pull on the bait. Sometimes when women identify the fish feeding on the line they immediately change their fish hooks, bait and line size to match the identified fish. Thus when line fishing women are armed with a range of lines and hooks.

Another major resource for inland areas is the freshwater mussel **kai**, which is usually dived for at depths of up to 2 or 3 metres, using goggles and small wire mesh baskets or pieces of cloth. Once the **kai** are sighted women dig them out with fingers and fill the baskets. More common for storing **kai** is the use of a piece of cloth, **sulu** or lavalava, with two ends tied around the women's waist and the other two around the neck. The **sulu** will then form a sort of space where kai is stored while the women fishes. If full the **sulu** could drag the wearer down. In the course of my research, a young mother died in Nadali village from this practise.

Women's commercial exploitation of **kai** has become very organised. For instance, some villages along the Rewa River, the largest river in Fiji, are entirely dependent on **kai** as a

commercial resource. The villages of Nakini, Naganivatu, Natoaika, Deladamanu, Nacokaika and Kasavu have over the years organised a fishing programme whereby villages do not fish at the same time. Villages are divided into two groups which take alternative turns at fishing and selling at the market. In this manner an oversupply in markets is avoided, and women are also free to attend to other duties during their week off from fishing (Findings of a survey I conducted for the Women Fisheries Network)

Coastal Fishing

For coastal locations gleaning and collecting on the sandflats are women's major fishing activities, as will be discussed in detail in Chapter 6. Other specific fishing activities differ depending on the location and accessibility to urban markets. In fact there is a marked difference in the use of time in areas participating in the commercial economy with those basically fishing for subsistence. For example, on Totoya women's fishing activities are very flexible and selective in nature. Species targeted depend principally on the species in season and the weather. For instance during prevailing southeast trades, women exploit octopus on the dry reef flats. When it is seaweed season, its collection is women's main activity. In addition to the sporadic nature of fishing, technology used also differs from those used in near urban areas. For example netting is still widely practised in rural isolated areas while in near urban locations where there is a higher emphasis on selling women do not net regularly. Netting is surprisingly still significantly used by women who reside on the coastal fringes of the main towns.

Line fishing

Line fishing which is a popular women's fishing activity in Fiji has many variations depending on the locations and target species. Some examples of these are line fishing

from boats, on feet, while swimming and the use of short rods in inland areas. Baits include worms, cut up fish, octopus, shellfish such as **kaikoso** or **hermit crabs (kasikasi)**. There are many variations in the methods used. Some exceptional ones include **siwa. nunu**, which is practised in areas such as Cicia and Totoya in the Lau group. In this case women hold fishing lines and dive along the reef slopes. When the fish is sighted, the bait is thrown at it, and as soon as the fish bites, the line is suddenly pulled in. **Basikeli** (bicycle fishing) which is practiced on Totoya, is where women swim in deeper lagoonal areas and line fish. Because the water is deep, they are suspended in water by treading water while fishing, thus the fishing style likened to bicycle riding.

Women also have unique ways of re-adapting methods and gear to suit the occasion. While I was in Totoya, during moonless nights, the huge bay adjacent to the village area was covered with lights. Recently women have discovered that certain mackerel species have a taste for dough (flour). Coupled with this is the understanding that these fishes have a weakness for bright lights. Thus on such nights, women are out in punts in the bay, with their pressure lights suspended from sticks firmly lodged in the boat. The light attracts these fish which congregate around the boat. Using kneaded dough as bait, women drop their baited line over the side of the boat and the fish snaps it up. The villagers call this type of fishing **Korea**, because the effects of the lights on the bay are likened to what people perceive to be the method of Chinese or Korean fishermen who used lights to catch baitfish in Fiji's lagoons.

Barriers

Mention all types of barriers then all other types of fish fences

Add to this

Other methods used include the setting up of barriers, fish fences and traps. Stone weirs or **moka** are usually erected within the coastal area with the purpose of catching fish that feed in with the tide. The method as explained by Veitayaki (1990) is uncommon today. Fish fences though are still practised especially along estuarine locations.

Net Fishing

Net fishing is commonly utilised in rural isolated locations and is only occasionally used in near urban areas. The use of large gill nets has greatly increased with the availability of faster and bigger boats an activity which is restricted to men fishers.

In areas such as Nukui, where net fishing is an important activity, there exists a wide range of types. For example, **qoli rai** is when a school of fish is sighted and the nets are put out to encircle the catch. This is usually done within the outer reefs. At other times, large nets are used to catch fish hiding under rocks. For this method, rocks are usually surrounded by nets while **duva** or fish poison is crushed and squeezed in to the water around the rocks. Because this is practised on outer reefs, larger species are trapped in the net when they try to escape.

Yavi Rau

The **yavi rau** or leaf drag is widely practised in Fiji, with variations depending on the location (explained in Chapter 6). Both men and women participate in this activity which in most cases is activated for communal purposes. Traditionally men and women swim towards the shoreline a few of them holding the drag. Those with the drag then closes in towards each other when they near the shore. When the shallower areas are reached the fish are harvested using both hands and scoop nets.

Gleaning and Collecting

As will be discussed in detail in Chapter 5, this is the major fishing activity of women in the subsistence and small-scale artisanal sector. Surprisingly, these activities are not confined to women in rural areas as women residing in semi-urban areas also extensively gather or collect from urban foreshores (Passfield, 1995).

Gleaning includes collection of a wide range of non-fish items along the inshore coastal areas. Bivalves, crustaceans, octopus, seaweeds and other miscellaneous items are usually the targets of these gleaning activities. Recently there has been the loss of knowledge of some previously utilised species. This is because such species hold little economical value thus the decline in their harvest. Examples of these are **ibo and vetuna both sea worms**, **dio (oysters)** and **i voce** (a small edible brachiopod). Most of these species were usually eaten raw and were coastal delicacies.

Traditionally there was complementarity in Fijian labour organisation with women being engaged in domestic duties and nearshore fishing or foraging activities while men farmed and were responsible for deep sea fishing. At least in Totoya and Nasau, men worked in gardens and only occasionally fished. Recent developments have led to a transformation of such roles with the emphasis in production being focussed primarily on economically productive activities and men engaged more in fishing activities. The argument here is that the traditional context of labour division can no longer be casually applied to all rural situations.

CONCLUSION

Generally, it can be argued that women have been largely disadvantaged in institutionalised fisheries development in the Pacific Islands. Apart from traditional and social constraints, they are hindered by technological innovations which principally target male fishing activities and marginalise women's fishing participation.

Although there has been increased participation of women in formal employment, this has unfortunately predominantly been in menial underpaid jobs. An overview of the Asia/Pacific region shows that Asia has been more advanced in the addressing of women in fisheries issues. This advantage has eventuated through government support and the accomplishment of programmes such as the Bay of Bengal Programme which targeted small-scale fishing enterprises.

Significant in the majority of writings for both Asia and the Pacific is how women's contributions to the fisheries sector is under-recorded in official statistics. Contradictions may have arisen from traditional conceptualised definitions of work and employment, and

the need of having to fit women into one of these contexts to be enumerated. Another controversial issue that has to be clarified is the concept of how domestic and traditional duties of Pacific women impact on or complicate women's involvement in fisheries development.

Tradition is not static, thus the ideologies which revolve around its usage are not static. Because of women's dominate role in the subsistence fishing economy, and their contribution to the family diet, the shift in women's fishing patterns impact in many ways on local village society and practices.

In short despite women's increased participation in the fisheries sector in the Pacific and in Fiji, their activities remain officially overshadowed by male fishers activities.



