

WOMEN IN COMMERCIAL FISHERIES IN THE SOUTH PACIFIC

A Focus on the Situation in Fiji

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INTRODUCTION

Women's contribution in the South Pacific in terms of food production and marketing in the Fisheries Sector has been totally underestimated and certainly undervalued.

Planners have assumed that it is only the men who are seriously involved in all aspects of the fishing industry while women are basically responsible for housekeeping and children. They fish to feed the family and may only occasionally sell any surplus catch for cash. As a result of this assumption, women become the "invisible fisherfolk" who do not appear in the statistics of these island countries, therefore do not benefit from most fisheries development programmes and projects.

While it is true that women in rural fishing communities do contribute substantially towards families' food needs, at the same time it is seen

that more and more women are getting economically productive in terms of contributing a regular income for the family by marketing their products. For example, Taniera & Mitchell (1992), in their report on Women in Kiribati write "Women are responsible for the handling and marketing of fish for domestic consumption throughout all of Kiribati". Schoeffel & Talagi (1989) also point out in their study that women in Tonga and Western Samoa were active in selling of fresh fish, edible seaweeds and crustaceans and women made up at least 50% of the vendors at the market.

Focusing on the issue of commercial fisheries in Fiji, this paper will bring to light the contribution by women to the commercial fisheries sector and that of marine resources and development. Firstly it will highlight the sort of activities women are involved in and secondly point out how they have been ignored by fisheries planners by assuming that they only play a marginal role. Thirdly, the report will point out some alternative ways to enhance their productive capabilities in order to assist them to improve their socio-economic status which will ultimately lead to a more balanced approach towards economic development and betterment of the whole community, and not just one section of the community.

THE FISHERIES SECTOR

The fisheries sector can be broadly divided into three categories -

subsistence
artisanal - commercial
industrial

This paper will try to illustrate the role of women within these three categories. While there is no doubt that the artisanal-commercial and industrial categories relate to commercial operations, the subsistence fishery is understood to be one that is basically responsible for providing food for the family. It is however important to include this category within the discussion for various reasons which will be discussed below.

Subsistence Fishery

The estimates by Fiji Fisheries Division for the subsistence sector is given below in Table 1.

From Table 1, it is evident that the subsistence sector contributes half the domestic production by volume. This figure would be much higher for countries like the Solomon Islands, Papua New Guinea and Kiribati where there is still a large rural coastal population. Chapman (1987, p.272-274) attempts to give some quantitative evidence on the high degree of reliance on the subsistence fisheries in providing food for the people in Kiribati, Western Samoa and Papua New Guinea. By definition, subsistence refers to meeting own or families consumption needs and leaving no surplus for sale. There is no element of exchange for cash.

With the monetization of the economy there is an increasing pressure on the subsistence sector to exchange surplus production for cash. It is now rare to find a community that is purely subsistence in nature in Fiji ie. that there is no involvement of cash economy. Therefore in most rural fishing communities, one would find an increase in exchange of surplus catch for cash to meet other needs in order to sustain their livelihood. Cash is needed for such purposes as payment of school fees, transport costs, clothing, and food items like sugar, tea, oil, milk, biscuits, canned meat, flour, etc. Things like kerosene, kava, cigarettes and church donations also require cash. On the other hand, in rural areas of Papua New Guinea, Solomons and Vanuatu, the life style is still dominated by subsistence production with no exchange for cash but at the same time in the urban centres of these Islands like Port Moresby, Port Vila and Honiara, there is a high demand for cash to meet other needs. As the rural areas become more accessible with development of infrastructural facilities and communication, similar trends are likely to take place in these islands as well.

The subsistence fishery which involves use of simple and traditional gear and techniques such as handlines, handnets, traditional traps, fish fences, goggles and even digging sticks is largely dominated by women and children. They fish within the inshore lagoons and mangrove areas and by gleaning on the reef and mud flats at low tide. Sometimes women also fish from canoes and punts using handlines in deeper

waters, but this is limited to places where they have access to such means of production.

As the families' needs change with more demand for cash, more and more women are seen to supply the aquatic non-fish products to the market through their subsistence activities. The major types of fishery products that women collect and sell at the domestic markets include prawns, lobsters, crabs, octopus, giant clams, freshwater clams, sandfish, sea cucumbers, a variety of seaweeds, fish and sea shells.

Table II gives the details of the artisanal non-fish production for sale, which gives a reflection on the production and sale by women although they are still referred to as subsistence producers.

Statistics are not available to indicate the actual contribution of sales by sex. However, it can easily be confirmed by observing the scene on a Friday or Saturday at the municipal markets over a period of time. In the Markets in Fiji, over 90% of the aquatic non-fish commodities are sold by women while men are seen to sell fin-fish. For example in Suva women are seen with their produce around the Nubukalou Creek area, on the surrounding pavements at the market and along the corridor of shops in front of the market. A careful observation will also reveal that many of these women are regular suppliers at the market.

In 1991, the aquatic non-fish sales including shellfish, crustacea, molluscs, holothurians, seaweeds, etc. totalled 2051 tonnes which was worth around \$4.6 million. "This was an increase of 9.9% by weight and an increase of 15% by value. The freshwater kai (*Batissa* sp.) accounted for 57% (1170 mt), mangrove crabs (*Scylla* sp.) 143 mt and rock lobsters (*Panulirus* sp.) 90.8 mt" (Fisheries Division, 1991 : 3).

Studies have also confirmed that women are major suppliers of these aquatic non-fish products. "In Fiji, women are actively involved in both fishing and marketing of marine and freshwater fish and non-fish products". (Lal & Slatter, 1982: 4). The following statement was written in 'The Fiji Times' on the role of fisherwomen: "Taking active part in many agricultural activities as well as seeing to their daily chores, female youths have contributed greatly towards increasing family incomes by engaging themselves in many fishing activities" (The Fiji Times April 9, 1991). A study on the Giant Clam market also indicated that majority of the vendors who sold giant clams were women (Ram, 1992).

This therefore does not mean that because women use simple and traditional means of production, and have no large investments or own very limited gear and equipment, that they are insignificant contributors of fisheries products to the domestic market. Commercial fisheries by definition means fishing for income or profit, therefore these women with their low cost operations do earn income to meet their immediate needs. The increase in the number of women vendors over the years also gives an indication that the majority of them would be deriving some benefit, otherwise they would not continue their operations.

It is also important to briefly consider the non-marketed portion of the catch from this sector in a broader perspective of marine resources and development. From Table I it can be seen that the subsistence sector represents half of the total domestic production by volume. The question is one of food security, nutrition, and the well-being of the fishing community. In terms of development of the rural economy, this indirectly means better health, therefore reduced medical and associated bills and a more self reliant community. Economic planners would only appreciate it if one had to evaluate in economic terms, the value of labour, production and savings contributed by these women as a result of such activities to the total economy. Therefore, within the dynamics of the society and cultural change as a result of introduction of cash economy, the role of women within the subsistence sector is also changing. There is a tendency for their work burden to increase as they engage themselves in multiple roles within the household and community, ranging from managing children, household duties, social and community activities, providing food for the family through agriculture and fishing, to participating at the market place for income to meet the families other needs. The basic objective is still sustaining of livelihood of the family rather than one of attaining equal status with men.

Their increased participation at the market place also means increase in supply of marine products to the urban areas, therefore contributing towards the protein needs of the urban population as well.

It may indeed be a self-regulated commercial activity whereby they participate at the market place in order to meet some perceived level of income rather than maximise profits. The situation is similar to that of the artisanal - commercial fishermen who mostly operate on a part-time basis and regulate their own fishing activities in response to their need for income. While one considers the latter as commercial operations,

women are categorised as subsistence even though their level of supply to the market contributes to a significant portion of the total supply. It is a general belief among planners and fisheries administrators that women's fishing activities are irregular, it is thus difficult to provide assistance to them. The women's fishery should therefore be left to its own forces to progress. On the other hand, by looking at the level of supply contributed by those women who do sell their catch, one can only deduce that having such a rationality is for convenience, so that much effort is directed towards modernizing the fishery.

Another important activity women engage in is the export fishery of trochus shells and beche-de-mer in Fiji. In most rural fishing communities, women also regularly collect trochus and beche-de-mer at low tide on the reef flats and some also occasionally dive for them. They either operate as members of the household or in womens' groups. In Papua New Guinea and Vanuatu, women not only collect beche-de-mer and trochus, but green snails as well.

Trochus and green snail meat is either consumed at home or sold at the market while the shell is packed in bags and sold to local traders or village co-operative stores. The traders either export or supply to the button factories. Likewise, beche-de-mer also provides an important source of income for the women. The women not only collect beche-de-mer but also they are responsible for processing it by gutting, boiling and drying. "Fresh beche-de-mer weighs ten times as much as a dried specimen" (Anon, 1990). This gives an indication of the time spent by these women in processing the commodity.

Table III gives the export figures for trochus shells and beche-de-mer. Unfortunately, both commodities indicate a downward trend in quantity of exports. This is partly because of the imposition of export regulations but more so because of the declining stock as a result of over fishing. These resources and some other aquatic non-fish products like giant clams, kai and mud crabs which are largely exploited by women are now showing signs of stress because of the unregulated nature of the fishery and the neglect on womens' fishing activities.¹

Women are increasingly seen selling smaller size crabs, kai, clams, etc. In terms of fisheries development, this may have severe implications on the availability of these resources in the future and may further jeopardise womens' fishing activities and their commercial involvement.

¹ - Fisheries Regulations on size and seasons do exist but are not enforced or monitored within the rural fisheries. Women also lack knowledge on such regulations because of inadequate extension services to them.

Artisanal - Commercial Sector

This category refers to those who need to obtain licences or permits to fish for commercial purposes either full-time or on a part-time basis.

Fishermen with motorized punts, launches, catamarans and improved gear such as trolling lines, spear guns, handlines, gillnets, traps, etc. and who supply to the domestic market fall within this category. This also includes those fishermen who have undergone thorough training at the Fisheries Division and those who are facilitated with loans to purchase improved vessels and gear.

This category largely involves in the fin-fishery, concentrating on reef and outer reef species and deep sea snappers. Women in Fiji generally do not prefer long and extended hours away from home or they do not have access to such means of production or the necessary capital to invest in such gear and equipment.

They are engaged mostly in facilitating their husbands or families fishing activities such as mending nets, processing of fish or marketing of catch. For example where the husband is engaged in a full-time fishery, the wife becomes responsible for marketing the catch. In Papua New Guinea, on the island of Daugo, women engage mainly in processing and marketing of fish. "The Catch is taken by husband or wife or both to the main island market at Koki, which supplies most of the fish to Port Moresby". (ESCAP, 1985).

In the seaweed mariculture industry, women have been very active in assisting in the maintenance of family farms by preparing the planting materials, weeding, harvesting and drying of the seaweeds.

During a survey of seaweed farms in March 1992 in the Kiuva Village which lies on the South East of Tailevu, six out of twenty nine farms were owned by women who managed their own farms whereas other village women were helping in the maintenance of their family farms. The men indicated that women were often quite good in weeding the farms and preparing of the planting materials by tying the seed to the lines at intervals before putting it out in the sea. Such work is very laborious and tiring and requires a great degree of concentration. Not only in Fiji, but also in the lagoon islands in Kiribati where seaweed

provides the major source of income, women are also actively involved in all aspects of the seaweed industry, including the marketing.

Women are also actively involved in the handicraft industry using sea shells and corals to make shell jewellery such as necklaces, bracelets, earrings, ornaments, etc. for tourists who visit the village, or for sale to the local curio-vendors.

For example in Dravuni Island and Yasawa-i-rara, cruise ships often make regular visits whereby women not only spend hours cleaning the beach and preparing feast to earn income for the community, but they also derive individual income by selling shells and shell handicrafts to the tourists. In other areas of Fiji, smaller boats from resorts also visit nearby villages such as along the Coral Coast and the Kaba area. Although there is no actual survey done to determine the size of market, it is evident that women are increasingly getting involved in such trade as the number of tourists visiting the villages along the coastal areas and the outer islands increase. In the Cook Islands and Vanuatu women also sell shell ornaments and jewellery to tourists visiting the islands.

Several rural women fishing groups also exist. In an article on Uruone Fishing Co-operative it was reported that the Co-operative earned more money through fishing compared to handicrafts and Copra. "Not only did the women organise their family expeditions, but they also elected fishing managers so as to keep track of work hours, number of fish caught, money earned and spent, maintenance of boat engine and net and to consistently motivate the women to work" (Jansen, 1991: THE FIJI TIMES, MARCH 28, 1984). Another article on the same Co-operative published much later stated: "The group has now acquired a punt to increase its fishing activities and that one of the members attended the rural fisherwomens' training program and has acquired the skills of maintenance of outboard engine and basic engineering. These women are also actively involved in community work and contributing cash towards the church" (THE FIJI TIMES, APRIL 9, 1991). On the other hand, according to Jansen's report, only 16 out of the 290 participants were women in the rural fisheries training programmes in Fiji. (Jansen, 1991).

In the rural aquaculture programme, Tilapia was initially introduced to improve the nutrition of inland areas but "..... experience has indicated that more commercially - orientated Tilapia farming yields better results

in terms of sustained activity" (Fisheries Division; 1991). Tilapia now fetches a price around \$3.00 to \$3.50 per kg in the domestic market. In practice, although men are involved in the construction of ponds, women are actually involved in feeding, maintenance of ponds and harvesting of catch.

There are also some active women's fishing groups who specialise in harvesting of fresh water kai e.g. Toga Womens' Group in the Rewa area which comprises of three villages, namely Navita, Muana and Vunisea.

According to the Fisheries Division, licences have been issued to women for non-fish (reef-gleaning) since 1990. 146 licences were issued in the Northern and Western Division in 1990 and in 1991, 95 licences were issued. (Fisheries Division Annual Reports 1990 - 1991). If these women are required to have licences, they would surely be engaged in collecting fisheries products for selling at the markets.

Industrial Fisheries

This is the capital-intensive fishery requiring skilled labour and high technology for catching, processing and marketing.

The industrial fisheries in Fiji is characterised by the Pacific Fishing Co, Vo-ko Industries Ltd., IKA Corporation, Deep Sea Snapper Fishery for export and the shell button factories.

The Pacific Fishing Co. in Ovalau currently has about 850 employees of which 700 are females who are employed on a full-time basis. Most of these women are engaged in quality control such as sorting, cleaning and in packing and labelling. The Vo-ko Industries cannery employs about 250 people of which 200 are females who are basically doing the same type of work as the women at Pacific Fishing Co. The situation is similar in the Solomon Taiyo Cannery in the Solomon Islands.

The Yon Tong Button Factory in Lami has 16 workers of which 6 are females who are responsible for quality control ie. sorting.

Although the number of women employed in the two major canneries are far greater than the number of males, the nature of work is however routine and monotonous. Women either sit or stand all day doing

repetitive tasks. Furthermore they are in the lowest paid category with limited to no opportunity for progress. Part of the reason for the masses of women to represent such type of labour in canneries not only in Fiji but elsewhere is because of their unskilled nature due to lack of training opportunities. The conventional practice world wide until the last decade or so has been to focus on training and education for males in the fisheries sector. For example the major fisheries training in the South Pacific region for the last 15 years has been the Diploma in Tropical Fisheries offered by the University of the South Pacific. The programme in the initial years specified that training was limited to males, therefore discouraging females from applying.

By the end of 1990, 129 students graduated with less than 5 being females. Currently in most of the Pacific Islands these graduates provide the bulk of skilled labour for management and administration of the fisheries sector.

CONSTRAINTS FOR PROGRESS

While we can see that women are actively involved with the commercial fisheries sector, their productive roles and contribution to the sector is certainly underestimated. Much of the lack of recognition is a result of the type of development policies that are formulated in order to develop the fishery.

Emphasis has been placed on large-scale operations and production activities dominated by men. Commercial fisheries development is promoted through increasing effort by introduction of new gear and technology which often requires high investment.

Rural training programmes and extension services are also directed towards men as most of the key communicators within the extension network are males e.g. the village chief and extension workers.

Also with the dominance of the traditional culture in the rural fishing communities, the role of women is still strongly centred around the household with basic responsibility over children and house-keeping. By tradition men also are dominant in owning means of production and exercising control over wealth and property, therefore women are usually in a sub-ordinate position.

With the cultural division of labour between men and women in a household, men fish from boats in deeper seas and at nights over long periods using more sophisticated technology while women mostly glean on the reefs and fish in shallow waters close to the coast. By tradition therefore, the nature of commercial fishing generally excludes women from direct participation. Schoeffel (1989) and Matthews (1991) give more detailed accounts of cultural limitations on women in their reports. Women's work in fisheries is often of an unpaid nature which also leads to confusion over their productivity i.e. that it is non-productive activity.

Another dilemma that may affect women's effort in commercial fisheries in the near future is the fact that the Fisheries Division programmes and policies are directed towards reducing fishing effort in the coastal and inshore areas by diverting fishing activities into the outer reef and oceanic areas. This is done through various government support systems such as introduction of new vessels, gear and technology e.g. the 28 footer boats, Alias, Hartleys, and ice plants. However, experience with such projects has shown limited success with the majority of fishermen still fishing within inshore areas with improved gear and with or without ice. There are several reasons for such practice; firstly, because the social and cultural life-style is such that the need for income in rural areas is limited, which leads to lack of motivation to maximise profits and improve the fishery. As a result, fishermen are often seen to operate on a part-time basis with rest of the time spent on community activities or in agriculture. In Fiji, there is also a general preference for reef species among domestic consumers. It is however, beyond the scope of this report to discuss the other reasons for the limited success of such projects.

On the other hand, even though much of the government effort and assistance has been directed away from the inshore and coastal fishery, the largest part of the commercial sector is still dominated by the inshore resources. Consequently, the Fisheries Division has indicated that certain species like trochus, giant clams, beche-de-mer, mud crabs, etc. are being either over exploited or show signs of stress. The inshore areas being the traditional fishing grounds for women, therefore does not give a positive indication of the resource potential for commercially exploitable resources unless effort is made for alternative means to develop the fishery, such as use of aquaculture techniques and by more rational use of resources.

CONCLUSION

With the international awareness that women represent half the world's population and are as much part of the society as men, opportunities must be given to them in all sectors including fisheries to develop their productive capabilities. This will enable them to contribute towards their own welfare and that of their families and community through more effective economic participation. In fisheries women play an important role as producers, facilitators of mens' activities, in post-harvest handling, and marketing of catch. Since much of these activities relate to small-scale operations and on a part-time basis, planners often ignore their contributions and needs because priority is usually for large-scale entrepreneurial development.

In terms of womens' contribution to commercial fisheries in Fiji, they are seen to contribute a substantial portion of catch to the domestic market which mostly consists of aquatic non-fish products.

Women are also seen to facilitate mens' fishing activity, and they provide the bulk of the labour force to the export-orientated industrial-fisheries sector. Furthermore, in the rural coastal areas, not only do they contribute towards the commercial sector, but they also have a very important role as suppliers of food for the family through subsistence activities.

With the introduction of cash economy, the rural sector is gradually changing; women are increasingly seen selling their surplus catch to earn income for the family to meet the other subsistence needs.

There are various constraints which inhibit women to progress, such as cultural limitations, lack of training opportunities, extension services, attitudinal problems, lack of accessibility to improved means of production, and so on. There is a need to overcome these constraints in order to improve the socio-economic status of women and that of the community in which they live.

The Food and Agriculture Organisation has the following resolution to assist women in Fisheries which has been adopted from the Third World Conference on Fisheries Management and Development in 1984

....

"The basic goal for women in fisheries development is to make them equal partners, and productive and self-reliant participants, in the process of improving their own and their family's nutritional and living standards, and to enable them to realize their full potential as human beings in their own right and as members of their family and community". (FAO, 1988).

In light of the above statement, alternative ways must be sought to enhance womens' activities in the fisheries sector. Since the emphasis of this paper is on commercial fisheries, it leads to a more complex issue in the context of island economies of the South Pacific. On the one hand while there is an active involvement of women in the commercial sector, on the other hand women also play an important role in contributing towards family's much needed protein foods.

Thus in terms of the need for more sustainable forms of development for the island economies, planners ought be more cautious towards the role of women in terms of satisfying the family's food needs. These activities are vital for the well-being of the fishing communities as argued by Chapman (1987), in her article on Women's Fishing in Oceania. Thus commercial development should not be at the expense of these subsistence activities unless a cheaper and reliable alternative is available to the marine protein which these women provide.

Therefore providing extension services and facilitating women's subsistence activities will contribute greatly towards developing more self-reliant rural communities. For example creating an awareness on resource management issues and providing simple means of production such as canoes, nets, lines, etc. which women can maintain themselves. In such cases, commercial activities may be developed on a part-time basis to supplement the subsistence income only if the need arises and resources permit.

On the other side opportunities and assistance must be given to women who need to participate in the market economy to provide a means of sustenance. The following are some alternative strategies to assist women in commercial fisheries development in Fiji. These are also applicable to other small island economies in the region because the basic structure of fisheries and women's activities in fisheries is more or less the same or may follow similar trends:-

- (i) Improve marketing facilities for women by providing adequate stalls, shelter, ice, freshwater supply and storage facilities.
- (ii) Provide regular collection services to assist in transportation of catch to the urban markets in areas which have adequate market supplies.
- (iii) Provide access to government support systems such as credit facilities through the Development Bank or Government development fund; and availability of subsidised gear, equipment and ice.
- (iv) Provide opportunities in the rural training programmes and follow-up programmes, particularly in areas of fish handling, quality control, marketing, resource management and aquaculture techniques.
- (v) Provide regular extension services and information on various aspects of fisheries such as new techniques, research and development, resource management, marketing information, etc.
- (vi) Include women in project planning and decision making in areas which may affect their interest and activities.
- (vii) Carry out research and feasibility studies in alternative aquaculture techniques to improve the resource status of their traditional fishing grounds, particularly of commercially important species e.g. Beche-de-mer, trochus, seaweeds, crabs, clams, etc.
- (viii) Provide women with opportunities for both formal and informal training and education on various aspects of the fisheries industry in tertiary institutions. Training fisherwomen on fish processing, quality control and fishing technology.
- (ix) Carry out feasibility studies and pilot projects involving women in small-scale fish processing, marketing and aquaculture. Involve women in all aspects, from management to operations for those activities which are on trial e.g. Giant clams, Tilapia, freshwater prawns.

- (x) Carry out studies to improve the working conditions of women in canneries.
- (xi) Provide training opportunities through workshops for women in all aspects of shell craft.
- (xii) Carry out feasibility studies involving women in integrated fish farming e.g. pond culture of tilapia with chicken and ducks.

TABLE 1

**SUBSISTENCE FISHERY PRODUCTION
ESTIMATES (mt)**

Year	1987	1988	1989	1990	1991
Subsistence Fishery (mt)	15400	15600	15800	16000	16200
Total Domestic Production (mt)	29976.60	33775.86	33088.14	31564.58	32708.87
Subsistence as % of total domestic Production	51%	46%	48%	51%	50%

NOTE:

Total Domestic Production is calculated by adding subsistence catch and the artisanal fish and non-fish production plus Industrial Catch (exclude imports by PAFCO) and adding other exports (deduct exports by PAFCO which is included in Industrial Catch).

Source: Fiji Fisheries Division, Annual Report (1991)

TABLE II

ARTISANAL NON-FISH PRODUCTION AND SALES FROM 1988 TO 1991

Year	1988		1989		1990		1991	
	mt	(\$000)	mt	(\$000)	mt	(\$000)	mt	(\$000)
Municipal Markets	1217.91 1217.9	935.34 935.3	1049.65 1049.7	868.93 868.9	1298.05 1298.1	1249.92 1249.9	1360.83 1360.8	1972.61 1972.6
NMA & Other Outlets	901.67 901.7	1931.69 1931.7	559.33 559.3	1904.63 1904.6	567.34 567.3	2846.42 2846.4	690.51 690.5	2664.1
TOTAL	2119.58 2119.6	2867.03 2867.0	1608.98 1609.0	2773.56 2773.6	1865.39 1865.4	4096.34 4096.3	2051.3 2051.3	4636.7 4636.7

NMA means National Marketing Authority.

TABLE III

EXPORTS OF TROCHUS AND BEACH-DER-MER 1987-1991

Year	Beche-de-mer		Trochus Shells	
	Quantity (mt)	Value (\$000)	Quantity (mt)	Value (\$000)
1987	640.39	2233.46	250.44	986.78
1988	717.41	2852.27	398.47	2010.42
1989	365.17	1890.82	235.55	1928.67
1990	323.33	3048.86	225.77	3266.76
1991	319.40	3428.91	100.38	901.01

Source: Fiji Fisheries Division, Annual Reports.

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MARINE RESOURCES AND DEVELOPMENT

A View of the Future

G. Robin South

INTRODUCTION

The future of the Pacific Island nations lies in the Oceans:.. were I not entirely convinced of this I would not be here delivering this lecture, and I would not have spent the past two and a half years developing a Five-Year Plan for Marine Studies at the University of the South Pacific. Indeed, I would go further and say that the future of the University itself lies in the Oceans. This conviction is shared by one of our most respected ambassadors and leaders in the South Pacific, Sir Geoffrey Henry, Prime Minister of the Cook Islands, who spoke these inspiring words on the occasion of his installation as the new Chancellor of the University (Henry, 1992):

"In an almost wholly marine-oriented Region with 12 Oceanic member nations, on-one could possibly fault us for expecting our University to emphasise marine resource development, which touches the greatest of our resources, the ultimate future of Pacific Island nations.

Surely then we can lift our sights above a modest oceanic programme and imagine one that would be outstanding, that would attract students, faculty and interest from everywhere around the globe. Fisheries, aquaculture, deep sea mining, ocean thermal energy, pearl culture, reef