to be the custodians of the marine resources for their common benefit. Women are increasingly involved in the fishing industry and just recently the first Solomon lady joined the School of Marine and Fisheries and trained as a deck cadet.

**Samoa**

Conservation of the marine environment has been the focus of many people. The majority of the people however are men. In government departments and with the Samoan village system, the men are considered to hold great authority in decision making. Although the men make the majority of the decisions, women tend to organise and carry out activities and plans in a more logical sequence. Some women are qualified scuba divers. Encouragement and promotional works continues to entice women to participate in marine conservation activities and decision making.

**Papua New Guinea**

The issue was not addressed as women’s contribution is regarded as trivial.

In order to understand the potential of women in fisheries development in Samoa, we must first understand the land rights of Samoan women, the organisation of Samoan society and the position of females within the fa’amatali (see diagram below), since most of the land is still held according to custom. The land registry of the Lands and Survey Department of Western Samoa shows that customary land forms 81 per cent or 567 000 acres (229 500 ha) of all the land in Western Samoa, and freehold land, which I discuss briefly towards the end of the paper, is only about four per cent or 27 400 acres (11 100 ha). I will not discuss the rest of the land which is accounted for by the Western Samoa Trust Estate or WSTEC land, approximately four per cent or 30 000 acres (12 000 ha), and Government public land, approximately 11 per cent or 77 700 acres (31 400 ha).

The core of the fa’amatali is the matai: the title or the title-holder heading the aiga, the extended family, who is the trustee of all aiga lands. The matai can be male or female. Every village in Western Samoa recognises the social structure that has been called the ‘socio-meter wheel’ on which Samoan society turns. The hub is the group of matai but we can see that the first and third spokes pertain specifically to females (see diagram).

The first spoke of the wheel represents the tamaitai, or daughters of the group of matai. They are the most privileged group within the extended family and within the village, and are known as the fea-gaiga. As female heirs to matai titles, they have rights equal to male heirs concerning access to and use of the family or customary lands held in trust by the matai. The tamaitai Samoa knows she has this right as the responsibility of the tilling and cultivation of land is not regarded as the responsibility of the daughters of the matai. But if the tamaitai marries and decides to reside with her own family she and her husband automatically have access to land for cultivation and for earning their livelihood. If a tamaitai, who has married and gone to live with her husband’s family, divorces or her husband dies, then, again, she can return to her own people secure in the knowledge that she has ready access to her aiga land and permission to build a house and cultivate for her sustenance.

The Fa’amatali

1. tamaitai
2. aumanga
3. faletua and tausi
4. tamaiti

The third spoke of the social wheel, the faletua and tausi are the wives of the group of matai, the chiefs or orators. The relative status of the females in this group depends on the status of their husbands. Since traditionally, marriage within families in a village was discouraged, the faletua and tausi are ‘aliens’ or fafine nofofotane, literally, the ‘wives of the men’. The faletua and tausi are tamaitai of other villages and other extended families who function as ‘in-laws’, spouses of the chiefs and orators in the village into which they have married.

Formally, the faletua and tausi have no land rights in the village of their husbands other than the right...
of use of land for the duration of the marriage. Any influence they might bring to bear in the matter of land is only through the personal pressure they might exert on their husbands, the matai.

The second spoke of the wheel, the aumanga, are the untitled sons of the matai group. Their wives, like the wives of the matai, have no land rights, but they are the mainstay of the maintenance functions performed by their husbands. The aumanga are the tillers and planters in Samoan society and their duties involving the preparation, cooking, and serving food, especially on formal occasions.

So far, we have seen that the rights of Samoan women to land are fairly straightforward. Ideally, they are not tillers of the soil or planters of the plantations and crops for the general economy. Their planting responsibilities are confined to plants used to make items such as the fine mats, and the siapo, the lama, and medicinal herbs and plants. As fea-gaiga, women are further removed from any manual work involved in the cultivation of land. Thus, customarily the Samoan woman does not work the land and has no access to land other than the aiga land of her family or the use of land held by her husband’s aiga. As an heir to a matai title, however, as related in the brief description of the fa’amatai, a tamaitai is also an heir to the aiga land, the titles of which are held in trust by the matai.

If a tamaitai is selected by the extended family to be the matai, or title-holder, she assumes the responsibility of seeing that the family heritage is utilised properly and allocated fairly to the heirs who require or wish to cultivate the land. She has the duty of protecting the land as well as the standing of the matai title as would a male matai, for a matai is neither male nor female but merely the trustee of the aiga heritage and aiga land.

Each extended family has its main matai title and also lesser matai titles that serve the main matai title and village or district. It does not matter how many lesser matai titles a family has, the main matai title is the head of the aiga and upon his or her head falls the burden of responsibilities, as well as the privileges of the rank of main matai. Perhaps this is the reason the average tamaitai refrains from seeking a matai title, especially the main matai title.

There has been an increase in the number of female matai in the last fifteen years, but this increase is a direct result of the imposition of the papalagi (foreign) political institution of ‘chores’ by ballot. The majority of female matai ‘for the ballot’ are lesser matai titles, or matai in name only. In between general elections, this type of matai retroverts to her usual status as tamaitai or faletua or tausi. For example, in the village of Lopa in the A’ana district, there are approximately 350 registered matai. Fewer than 20 of these matai are women and, of them, only 2 hold main matai titles. One of the main matai title-holders lives in Apia and does not participate anymore in social or political functions in the village. She wanted the matai title only to enable her to run for parliament. The other female main matai title-holder has accepted all the responsibilities as the head of her aiga and also head of a sub-branch of the top-ranking title of the village. She succeeded a male matai and has not made any changes in her distributions of aiga land; nor does she cultivate any of the family land but she has assisted financially one of the lesser matagali of her aiga to establish a piggery on part of the property.

This female matai lives in Apia on freehold land that she and her husband purchased but she also has a house in the village on the house site that is traditionally the seat of the matai title she is now holding. The name of the house site is used to distinguish the matai title-holders from others belonging to the two other sub-branches of this matai title which is the highest ranking title in the village of Lopa. The heirs to the title also refer to themselves as heirs of the house site.

Within the extended family of the female matai, six females hold lesser matai titles which were bestowed solely for the political ballot. Ordinarily, these women operate within the village as tamaitai or—in the case of one—faletua and tausi. As far as land rights are concerned, they have none other than their rights as heirs to the matai title which at present is held by their kinswoman.

In the village of Lala on the island of Savaii an interesting variation on the traditional relationship between the woman and men is when men ‘are’ female. These women are heirs to customary land in a different sense from the tamaitai heirs to matai titles.

Women landowners remain a small category. The land registry shows that fewer than 200 acres (80 ha) of the total 27 400 acres (11 100 ha) of freehold land is registered in women’s names, and that these are widows, beneficiaries of their deceased husband’s estates. Most women owners in and around Apia have been content to maintain the properties willed to them, but others have subdivided and sold the parcels of land at high prices since freehold land is so scarce. One or two, like the now legendary Aggie Grey, invested wisely and were able to extend their land assets. Today, Aggie Grey is probably the Samoan woman with the largest freehold landholdings in the country.

To conclude this section briefly: in Samoa a woman’s right to land as a tamaitai heir to her aiga
lands through matai titles is customarily strong and legally binding. This right exists, recognised by her aiga and the law alike, whether she be an unmarried mother, a divorcee, the wife of an alien, a spinster, or a school girl.

As a postcript: in 1972, the Western Samoan Parliament passed a Non-Alienation of Lands Act which details the conditions that must be fulfilled before freehold properties can be bought by aliens or continue to be held by absentee owners. The same legislation re-emphasises and firmly underwrites the non-alienation of customary or aiga land.

The most important point here is that the relationship between Samoan women and their land, as well as their position in society, affects and is similar to their roles and responsibilities as fisherwomen in Samoan society as well as the development of women in rural fisheries. Evidently the issue of women in fisheries development is complex throughout the South Pacific. However, since women's roles and responsibilities as fisherfolk are intertwined in an inextricable web of social expectations, customs, and traditions, the issue of women in fisheries development is often convoluted and oftentimes discouraging.

**Project of participation**

During this period of research, I participated in an aquacultural project that was coincidentally setting underway in Auala-Savaii, apart from the development of the Fisheries Management Plan. The village women's committee had decided to undertake an aquacultural project that improved water supplies as well as nutrition for families in Auala village. Due to the timing of the semester, I entered the project in its last stages. The following is a report on literary research and personal observations on this prawn farming project in the village of Auala.

**The setting**

Auala (population approximately 900) is a village on the Western coast of Savaii, the larger of Samoa's two main islands. The semi-subsistence economy village is cheerful and well maintained. It has a fairly small coastal frontage fringed by a reef (about 2 miles or 3 km).

**The faaSamoa system of chiefly rule**

The village, which is typical of Samoan life, lives in extended family groups under this system: the family Chief (matai) has control over family lands and allocates them for the benefit of family members. In return the family members work to maintain the prestige of the family title. All natural resources belong to the whole village under the control of the Village Council of Chiefs (fono).

**FaaSamoa** gives fierce autonomy to the village, which expects to work for its own needs in health, education and infrastructure rather than relaying on the government. All families are represented on the fono and the 100-strong Women's Committee (WCOM). WCOM's first responsibility was village health, but in recent years it has become the main provider of continuing education and a focus for development such as poultry projects and a village tourist hospitality scheme. Women are expected to join WCOM on leaving school and share in the financial and status rewards of projects.

**Cash, water and modern development**

Village families could no longer satisfy needs using only their own land and labour resources. They needed cash for school fees, seeds, fertilisers, medicines, soap and toothpaste. Yet there were few ways of earning cash in Auala. The market is too far away, and cars too few, for cash-cropping to be practical on a small scale.

Since the building of a coastal highway, families had shifted from the coastal site to the roadside to benefit from transport and pipe water. Despite the fact that the water supply is sporadic and of poor quality, such families came to depend on it instead of the abundant freshwater springs on the coastal site, which ended up polluted and unprotected. The poor quality of water led to skin disease among children in the village.

**The project: prawn farming**

Concern about fish stock depletion had been growing for many years. Tinned fish was judged to be a poor replacement. The idea grew for an aquacultural project, and it was popular both for the potential cash and the chance to eat fresh fish. The committee knew there was a demand for fish in neighbouring villages as well as the more distant market. A WCOM member was sent to the Fisheries Division, which was helpful and promised to support the project if WCOM decided to pursue it.

Reservations were expressed about the taste of freshwater fish. People preferred prawns to tilapia. There were also concerns that the project would take away fresh water. WCOM approached an aid agency for funding, which agreed to the project.

The aid officer underlined the educational benefits, learning about nutrition and new technology, and suggested that education in new recipes was also important so that people would acquire a taste for freshwater fish.
The planning group for the project comprised the WCOM executive, an aid agency officer, fisheries officers, and myself, a volunteer coordinator and observer (I actually only entered the project in its last stages). The project had been planned as a two-year learning programme incorporating a practical and an educational component; all written materials would be in Samoan. Workshops were planned, one for each stage.

1. Location and preparation of site.
2. The prawn project.
3. The addition of sea water mullet.
4. Freshwater/sea water dilemma.
5. A status report on the project.

WCOM controlled the project but men assisted with some of the heavier work.

**Location and preparation of the site**

All available supplies were plotted and their use discussed. People realised that many springs had been forgotten and some were polluted. One of the first steps WCOM took was to fence one of the best springs and designate it solely for drinking and household use. WCOM identified a large pool suitable for aquaculture, about 137 m by 9.1 m and 0.91 m deep, fed by two springs. Because it was lower than sea level, a sandbar had prevented it draining into the sea, but seawater washed into the pool at high tides. During the rainy season the rising pool would flood out to sea to cleanse itself.

The pool was full of rubbish and was unkept. The family that owned the pool and land around was quick to agree that the project was in the village interest and donated the pool. It took seven months to clear and clean the pool while fisheries extension officers tested it for oxygen content, salinity, temperature and the phytoplankton that prawns require. Then a sandbag dam was placed at the mouth to prevent sea water entering. The women realised that this site was ideal for washing and bathing: women would no longer have to walk up to the feeder springs to do so. As long as locally produced soaps were used, there was no danger to the prawns. A bathing area pool was excavated. It was superior to the previous location and people soon preferred it to the piped water supplies.

**The prawn project**

The first batch of prawns arrived, but needed to be kept in holding tanks at the Fisheries Division for two months. On release, they would be ready for harvesting after six months. Further breeding stock batches were to arrive from Fiji every three months. Two workshops were held with attendances of 35 to 50. They emphasised these instructions:

- continue to swim in the pool;
- continue to wash in the user area but use only bar soap;
- do not throw rubbish into the pool;
- do not spray ‘Grammoxene’ near the pool; and
- follow the directions of the pool manager.

All duties were shared among WCOM members, but a pool manager had been appointed to ensure that routine tasks were undertaken.

**The addition of sea water mullet**

After the prawns were established, the extension officer suggested that the pool might also support sea water mullet. Prawns were costly, many were lost and it had been discovered that they were not breeding stock, which it was illegal to import—whereas young mullet could be caught in the adjacent mangroves and their taste was preferred to that of prawns. Over a six-month period, 3500 mullets were caught and released into the pool. The women were taught to judge their quality by simple manual tests.

During the same period nutrition workers gave cookery demonstrations. They also taught that a seine net should be used for harvesting so that only mature prawns above a certain size were caught.

**Freshwater / sea water dilemma**

The mullet did not flourish, because of low salinity in the pool. The fisheries extension officer proposed a pipe with a one-way valve to introduce seawater at a controlled rate. This raised a dilemma for the women: they were excited by the prospect of raising mullet, but had also appreciated clean fresh water in which to wash and bathe their children. At the end of a prolonged debate the village decided not to introduce sea water to the pool.

**Status report on the project**

WCOM harvested two batches of prawns. For future development two problems had to be solved:

- an alternative freshwater fish was to be found, no one wanted to eat the tilapia in the pool;
- prawn breeding ponds were to be set up in local spring inlets, since importing prawns would be too expensive in the long term.

**Project evaluation**

- The village families enjoyed the addition of prawns to their diet.
- WCOM members acquired the knowledge and skills to develop the project and look after it systematically.
• WCOM and the village learnt to care for village’s natural water supplies. As a result, health may improve.
• The villagers learnt more of the need for communal responsibility over communal assets. Workshops enabled them to make informed choices about these assets.
• When considering the impact of change, they realised that modern methods, such as piped water, were not necessarily superior to traditional ways.

Why the project was successful

Three very important factors:

• WCOM worked together from planning right through to harvest and beyond.
• There was a constructive combination of skills and local responsibility between WCOM, the fisheries extension officers (giving technical expertise), and the aid officials (expanding the project from development to an educational program) which took in all opinions.
• The women learnt the effects of environmental neglect through a practical problem. As a result, their new attitudes to protecting water holes are likely to affect their other ideas about village life.

Comments on this case study

• Women gathered together to act when faced with depletion of resources.
• Official support and advice were crucial.
• The project had unexpected benefits for village life.
• Aquaculture is a difficult activity that requires good management—and the women were well able to organise supervision of the project alongside other daily concerns.

Auala village (as other villages in Samoa) could not fully accept tilapia in their diet because of its taste, yet the fisheries officials viewed it as a most suitable species. Official patience and understanding are necessary ingredients of success.

Solution & future developments

To address the imbalances and the injustices that women have experienced in the past, and to ensure successful women-in-fisheries development, it is crucial that the framework for all fisheries development be based on three important concepts: sensitivity, integration, and support the ‘SIS design’.

Sensitivity: Planners and field staff must be sensitive to local patterns and methods of work, traditional attitudes and habits and existing economic and social structures, including women’s roles. They must understand and be empathetic towards the real and perceived needs of the people the project is designed to assist. They must allow women to be involved in the decision-making process: sensitivity cannot occur if planners ignore what the women have to say.

Integration: Women’s development should not be planned separately or treated in isolation. It must be part of regional development strategies and/or local government directives. Women’s development programmes that are mounted separately often isolate women still further from the mainstream economy. Activities can be specific to women but still part of the mainstream. Our ultimate goal should be complete integration of development activities. This, however, will only occur when women have been accorded true equality within society.

Support: Women must be given appropriate organisational, technical, and financial support for their domestic, economic and social activities so that they can make better use of their time. This may mean introducing technologies that will improve the efficiency of their activities, not displace them. It may also entail providing equipment and training to bring them into the realm of modernising for advancement.

This support can be demonstrated in various ways:

• research aimed at developing improved technologies in fish processing or non-fisheries enterprises in which women are engaged;
• provision of banking services and credit facilities;
• extension services and training;
• improved facilities that will ease the burden of such domestic chores as collecting water and fuel;
• better sanitation, housing and medical facilities;
• nursery day schools;
• introduction of improved methods of food preparation and cooking; and
• ensuring women have equal legal rights to property and other assets.

Anyone proposing to establish an income-generating project with and for the women within a village will need to look at the other factors that affect the women’s lives. To achieve success within the project, consideration may need to be given to child care, sanitation and water supply. Therefore, the planning process should involve not only fisheries advisers but also rural development advisers, youth workers and, possibly health care workers. The project will thus become better integrated and address the principal factors that could contribute to its success or failure.
**Conclusion**

From this research, it is evident that women in Samoa are still being excluded from the decision-making process when it comes to rural fisheries development. Nowhere in the Fisheries Management Plan was there any mention as to how women’s actions could play a valuable part in the development of rural fisheries or in the conservation and management of the marine life in Auala. It is believed that the situation is similar in most other Samoan villages. The prawn project that followed just proved how valuable women are in rural fisheries development and how their initiative and action contributes to the sustenance of Samoa’s marine environment as well as local economy and well-being. Since women’s roles are dictated by the *fa’a Samoa* (as we have seen in their land rights), it is very difficult for them to go beyond tradition for the mere sake of change and development. Together with various organisations that support women and their efforts to sustain the local Samoan environment, terrestrial and marine, the future looks bright for women in rural fisheries development as well as the involvement of women in any environmental, social, economic, and political interests and efforts they decide to pursue in the future.

**Women in Fisheries Network focuses on successful management of marine resources**

by Phillippa Teakel, Co-ordinator of the Women and Fisheries Network

The Women in Fisheries Network was founded in 1992 by a group of women concerned with raising awareness of the importance of the role of women in semi-subsistence marine resource activities. Women in Fisheries has a Board of Trustees consisting of women who work in the areas of marine resources, environment, and women and development. The members range from fisherwomen to scientists and researchers who are concerned about the role women play in marine communities. Projects run by Women in Fisheries are conducted as issues arise in the community, and balanced between research projects and grass roots activities for women who live in both rural and coastal areas.

‘Women in Marine Resource Management’

In January 1998 the Women in Fisheries Network held a week-long workshop entitled *Women in Marine Resource Management*, which provided women from the community with an opportunity to develop skills in training others. The emphasis was on successful management of marine resources. Several women’s organisations were interviewed prior to the workshop, and participants for the workshop were selected from their members. The workshop was aimed at women who are already working in some capacity in the community. Twenty-two participants from Viti Levu, Lau, Gau, and Rotuma attended the workshop in all.

The workshop had two purposes:

1. to provide workshop participants with information on issues which affect women in marine communities, and look at some solutions to these issues; and

2. to teach some skills in training adults, so that workshop participants would be encouraged to take their information back to their communities and inform others.

The first two days of the workshop were divided into information sessions convened by skilled resource staff. They were followed by small-group discussions on issues identified as areas of concern. Sessions included the ecological functions of corals, mangroves and seagrasses, and the major issues threatening them; approaches to integrated coastal management; waste-management issues and solutions; and income-generating activities for women.

The following day was spent looking at adult education and methods of training people in the community. This provided some formal, low-key skills for women who already have experience working with community groups. On the last two days of the workshop, speakers from the community presented information to participants which would assist in providing solutions to some of the issues identified earlier in the week. Projects such as fuel-wood planting were discussed, and other speakers talked on subjects such as the impact of eco-tourism, uses of herbal medicines, and income-raising activities such as worm farming and citrus growing.

By the end of the week, the workshop participants had learned much about the issues and concerns of coastal communities. They had been provided with some solutions which they could implement in their own regions, and had been introduced to some skills in adult education which would assist them to pass on their knowledge to others. This was a very successful workshop. Follow-up sessions targeting some of the issues will be held during the year.