

Chapter 3. **WOMEN AND THE ECONOMIC ENVIRONMENT**

A. Employment and Work - General Trends

In line with long-standing trends in other Pacific countries, official statistics (including census data) in Tonga have helped to create a distorted picture of women's economic roles and development contribution, both absolutely and relative to men. Part of the problem has derived from focusing on formal cash sector activity, where women feature less. Concepts like 'economically active' have also been problematic because they have tended to negate much of women's productive and social labor (whether as household managers, subsistence farmers/fishers or managers of cultural obligations including the informal redistribution of goods).

Because most of women's work takes place in the subsistence or informal sector and involves primary responsibility for childcare and household labor, their 'work' continues to suffer from a lack of social recognition and imputed value in the national accounts. Other definitional distortions reinforce this 'invisibility' of women's productive laboring and help to perpetuate the myth that women either do not 'work' (but 'stay at home') or are not as 'economically active' as men. In the agricultural sector, the term 'farmer' in official reports means only men who are farmers; women farmers are referred to simply as 'women'. Women are, moreover, typically said to undertake 'light jobs' and play the role of 'helper' to their (working) husbands.

Under the 1986 census, women were only classified as 'economically active' if they spent **most of their time** engaged in an economic activity (these activities included unpaid subsistence work but excluded housework). This definition ensured that many women were reduced to being 'economically inactive' simply because their activity (say farming or handicrafts) was a secondary activity combined with child care/housework which claimed the larger portion of their time.

Under the latest 1996 census, the definition of 'economically active' is less exclusive (though it still discounts housework if this is not combined with some farming, fishing or handicrafts). This shift in definition needs to be taken into account when comparing data over the 1986-1996 intercensal period, because it is likely to be one of the factors underlying the higher numbers of women deemed 'economically active' in 1996. Apart from census data, the Labor Force Surveys offer some idea of workforce trends. However, it is advisable to restrict comparative analysis to the two surveys of 1990 and 1993 and not to extend it to the national censuses because of significant definitional differences. (Notable amongst these is the different age threshold used - 10 years and 15 years respectively).

While employment data on women suffers from shortages, conceptual inconsistencies and gender biases, localized research findings over the years have repeatedly established that women spend a significant number of hours a week engaged in productive activities like handicrafts, agriculture and lagoon fishing. The informal sector is pivotal to Tonga's development and women feature prominently in a wide range of activities including agriculture/agro-forestry, fishing, weaving/*tapa* making, marketing/trading and small-scale entrepreneurial activities.

The flea market in Nuku'alofa - a thriving Saturday business - is dominated by women (many from poorer families) who sell a wide variety of goods including clothing and household knickknacks. Increasingly, small stalls (sometimes a single table selling just one or two items like perfume and soap) are being erected on the roadside outside private homes. These too are organized and run by women (with the help of their children) and their proliferation has prompted local observations that 'nearly every house in Tonga has become a *fale koloa* (small shop)'. This flourishing informal sector trading not only reflects the increasing tendency for remittances to be sent 'in kind' rather than in cash, but also the enterprising spirit of ordinary women.

The gender biases in the definition of work, including the continuing exclusion of women's unpaid domestic labor, are reflected in the latest (1996) census findings. Of the total number of persons enumerated as economically active, 64 percent are men (21,695) and only 36 percent (12,213) women. (see Table 22) By the same token, only 42 percent of all women over the age of 15 years (12,213 out of 29,284) are considered economically active, compared to 75 percent of men (21,695 out of 28,818). This means that as much as 58 percent of women over 15 years (17,071) are not considered to be economically active. Table 23 confirms that the vast majority (66 percent) of these 'economically inactive' women engage in unpaid housework while the bulk of 'economically inactive' men (59 percent) are students.

Table 22: Economically Active Population aged 15 years and above by Gender, 1996

	Male	Female	Total
Total Economically Active	21,695	12,213	33,908
Total Employed	18,402	11,004	29,406
Full Time Employed	8,597	4,721	13,318
Mainly farming, fishing and handicraft production	7,986	1,051	9,037
Some farming, fishing and handicraft production	1,763	5,211	6,974
On Leave	56	21	77
Unemployed	3,293	1,209	4,502

Source: Government of Tonga, Census Report 1996

Table 23: Not Economically Active Population aged 15 years and above by Gender, 1996

Non-Economic Activity	Male		Female		Persons	
	No.	%	No.	%	No.	%
Housework only	1,264	17.80	11,312	66.3	12,576	52.00
Student	4,197	58.90	4,206	24.6	8,403	34.70
Disabled	299	4.20	246	1.4	545	2.30
Retired/Old	1,240	17.40	1,272	7.5	2,512	10.40
Not Stated	4	0.06	-	0	4	0.02
Others	1,363	19.10	1,307	7.7	2,670	11.00
Total	7,123	100.00	17,071	100.0	24,194	100.00

Source: Government of Tonga, Census Report, 1996

Women's economic marginalization in the national statistics is evident in other respects. The total number of employed women is just 11,004 compared to 18,402 men. As Table 24 shows, women's official employment in agriculture and fisheries is negligible (a total of 119 women for both industries!). The Table also shows that by far the largest proportion of employed women are found in the manufacturing sector (6,290 or 57 percent), followed by education (965 or 8.8 percent) and public administration (945 or 8.6 percent). By contrast, the largest sectoral employer of men is agriculture (8,795 or 48 percent) followed by public administration (2,756 or 15 percent).

The numbers of women in the wholesale and retail trade are not appreciably lower than those of men (848 as opposed to 1,112) and women surpass men in 'financial intermediation'. Perhaps less surprising is that women feature more prominently than men in the areas of education, health and social work, and hotels and restaurants.

Table 25, which classifies the employed population according to principal occupation, also reveals some interesting trends. One of these is the narrow gender gap for technicians (908 women compared to 1020 men). Less surprising are the higher numbers of women clerks and service workers. Confirming the indications in Table 24, the largest number and proportion of employed women are craft and related trades workers (6,274 or 57 percent) while the majority of men are skilled agricultural and fisheries workers (9,848 or 54 percent). Men also dominate (four-fold) the occupational categories of legislators, senior officers and managers (434 compared to 102 women) as well as professionals (1,256 as opposed to 880).

Table 24: Distribution of Employed Persons by Industry and Gender, 1996

Industry	Male		Female		Persons	
	No.	%	No.	%	No.	%
Agriculture, Hunting and Forestry	8,795	47.8	91	0.8	8,886	30.2
Fishing	1,039	5.7	28	0.3	1,067	3.6
Mining and Quarrying	38	0.2	5	0.0	43	0.1
Manufacturing	420	2.3	6,290	57.2	6,710	22.8
Electricity, Gas and Water	407	2.2	97	0.9	504	1.7
Construction	485	2.6	15	0.1	500	1.7
Wholesale and Retail Trade	1,112	6.0	848	7.7	1,960	6.7
Hotel and Restaurants	239	1.3	307	2.8	546	1.9
Transport, Storage and Communications	931	5.1	278	2.5	1,209	4.1
Financial Intermediation	244	1.3	292	2.7	536	1.8
Real Estate, Renting and Business Ac.	79	0.4	42	0.4	121	0.4
Public Administration and Defence	2,756	15.0	945	8.6	3,701	12.6
Education	756	4.1	965	8.8	1,721	5.9
Health and Social Work	135	0.7	375	3.4	510	1.7
Other Community, Social and Personal	864	4.7	269	2.4	1,133	3.9
Private Households with Employed Persons	74	0.4	113	1.0	187	0.6
Extra-Territorial Organisations/Bodies	28	0.2	44	0.4	72	0.2
Total	18,402	100.0	11,004	100.0	29,406	100.0

Source: Government of Tonga, Census Report, 1996

Table 25: Distribution of Employed Population aged 15 years and above by Main Occupation and Gender, 1996

Occupation	Male		Female		Persons	
	No.	%	No.	%	No.	%
Legislators, Senior Officers and Managers	434	2.4	102	0.9	536	1.8
Professionals	1,256	6.8	880	8.0	2,136	7.3
Technicians/Associated Technicians	1,020	5.5	908	8.3	1,928	6.6
Clerks	838	4.6	1,440	13.1	2,278	7.7
Service Workers, Shop & Marketing Sales	906	4.9	1,019	9.3	1,925	6.5
Skilled Agricultural & Fishery Workers	9,848	53.5	97	0.9	9,945	33.8
Craft & Related Trades Workers	1,766	9.6	6,274	57.0	8,040	27.3
Plant & Machine Operators & Assembly	1,000	5.4	37	0.3	1,037	3.5
Elementary Occupations	1,056	5.7	240	2.2	1,296	4.4
Armed Forces	278	1.5	7	0.1	285	1.0
Total	18,402	100.0	11,004	100.0	29,406	100.0

Source: Government of Tonga, Census Report, 1996

It is evident from Tables 24 and 25 that gender is a key variable influencing job distribution on the labor market and that there is a conspicuous degree of occupational segregation. As is the case in many other countries, Tongan women are typically found in a small range of occupations involving low-paid menial or subordinate jobs, or jobs involving caring/serving or traditional (manual) skills, for example clerical/secretarial, service/sales and craft work. This pattern is especially significant given the success of girls (relative to boys) at all stages of the school system. In the professional area, such as in the civil service, women are more typically found in teaching and nursing jobs and are under-represented in managerial and higher level administrative positions. (see Table 26)

As the following sections illustrate women are the preferred source of labor for a range of jobs requiring dexterity, precision and patience, including vanilla pollination, coffee bean harvesting, and fish/seaweed processing. The narrow range and type of employment available to women have no legal foundations and essentially derive from deeply rooted (and mostly patriarchal) cultural values and conventions. In fact, unlike most other countries of the region, including Fiji and Western Samoa, there are no work restrictions on women laid down by law for the simple reason that the country has no labor legislation of any kind. (The controversial Employment Bill has been awaiting Cabinet approval since 1995.)

One of the more noticeable trends on the labor market over the past 20 years has been the marked increase in the numbers of women officially estimated to be engaged in formal employment, especially during the period of the last census (1986-1996). Over the 1976-1986-1996 intercensal years, numbers have grown dramatically from 2,743 in 1976 to 11,004 in 1996,

Table 26: Women in the Civil Service, 1997

Government Ministry	Levels 1-2	Levels 3-9	Levels 10-14	Total Women at All Levels
	(senior)	(middle)	(lower)	
Agriculture and Forestry	1	9	48	58
Ministry of Ports and Marine	nil	2	7	9
Post Office	nil	3	15	18
Prime Minister's Office	3	13	51	67
Printing Department	nil	1	27	28
Audit Department	nil	3	10	13
Civil Aviation	nil	1	27	28
Central Planning Department	nil	8	7	15
Crown Law Department	1	3	4	8
Customs Department	nil	1	8	9
Ministry of Education	1	121	648	770
Ministry of Foreign Affairs	6	8	3	17
Ministry of Fisheries	nil	1	13	14
Ministry of Finance	1	7	33	41
Inland Revenue Department	nil	4	14	18
Ministry of Justice	nil	2	14	16
Labor, Commerce and Industries	nil	9	24	33
Lands, Survey and Natural Resources	nil	4	21	25
Government store supplies	nil	nil	2	2
Governor's Office Ha'apai	nil	nil	2	2
Governor's Office Vava'u	nil	1	5	6
Ministry of Health	nil	40	444	484
Palace Office	nil	nil	5	5
Tonga Traditions Office	nil	nil	2	2
Ministry of Police	1	9	66	76
Prisons Department	nil	nil	6	6
Statistics Department	1	10	18	29
Tonga Visitors Bureau	nil	5	14	19
Ministry of Works	nil	2	19	21
Total	15	267	1557	1839
Distribution of Women (%)	0.8	14.5	84.7	100

Source: Compiled from the Tonga Civil Service List, 1997

representing 14.7 percent and 37.4 percent of the total number of persons employed. While definitional changes in the census have contributed to this, a rising number of women have been entering the workforce over this period. In some occupations, such as the service industry, women's share in the labor market has risen particularly sharply (from 31.8 percent in 1976 to 53 percent in 1996). By contrast, men's employment has risen much more slowly in numerical terms from 15,833 to 18,402 and declined proportionately from 71.7 percent to 62.5 percent.

Unemployment trends have fluctuated over the past two decades covering the three national censuses partly as a consequence of changing definitions. Having improved from 13 percent to 9 percent between 1976 and 1986, the rate has again taken a downward turn to reach a high 13.3 percent in 1996. Young people between the ages of 15 and 24 years bear the brunt of unemployment but there is also a gender pattern. By 1986, women recorded the much higher rate of 18.7 percent compared to men of 6.4 percent and in the capital Nuku'alofa, women's employment rate was estimated to be 50 percent more than men's. However, the 1996 census suggests that this situation has reversed and that men face greater difficulty than women in entering the labor market. They now register an unemployment rate of 15.2 percent as opposed to 9.9 percent for women.

Income and earnings data is unfortunately piecemeal and sporadically collected so that it is difficult to come to any reliable conclusions about gender trends. Private sector companies are not required to submit details of their wages/salaries to government and the Ministry of Labor does not even collect wage data on the companies operating in its Small Industries Center. Although a Household Income and Expenditure Survey was undertaken in 1992/93, the report is incomplete and, according to the Statistics Department, it is unlikely to be released: the income data is regarded as unreliable and the expenditure data is now very outdated. Another survey is planned for 1999.

However, there have been two Labor Force Surveys undertaken to assist the national planning and policy making process and these have both included gender-desegregated earnings data. The second and latest survey was conducted in 1993/1994 and involved the enumeration of 3,300 households and 18,300 individuals. A number of observations can be made about the data collected on average earnings and hours worked as reproduced in Table 27.

First, it is evident that in the agriculture and fishing industries, women earned much less than men (\$77.91 as opposed to T\$81.51) although they worked longer hours (44.4:43.2 hours per week). They also received a larger proportion of their total earnings in kind than men. If the in-kind input is eliminated and only average cash earnings are compared, the gender wage gulf is wider (\$74.90: T\$80.96). The second observation that can be made is that in the trade, restaurants and hotels industry group where women predominate (1,011:671), and their hours of work are higher (45.5:43.3), there is a very large gender wage gap (\$62.97:82.86). A similar pattern can be found in the finance/insurance industry group.

The unregulated employment environment in Tonga, notably the lack of employment/wage legislation and the prohibition of trade unions, makes all workers, male and female, vulnerable to unscrupulous employers as well as to health and safety hazards. Until 1984, a 'maximum' wage rate applied, and although the concept of minimum wages was later approved, no minimum rates have ever been set in Tonga, largely on account of opposition from the business community.

Table 27: Average Earnings and Hours Worked by Gender and Industry, 1996

Industry Group	Number of Paid Employees			Average Earnings Per Week									Average Hours Worked		
				Cash (T\$)			Kind (T\$)			Total (T\$)					
	M	F	Total	M	F	Total	M	F	Total	M	F	Total	M	F	Total
Agriculture and Fishing	624	207	831	80.96	74.90	79.45	0.56	3.01	1.17	81.51	77.91	80.62	43.2	44.4	43.5
Mining and Quarrying	10	9	19	60.36	67.91	63.97	-	-	-	60.36	67.91	63.97	47.2	20.3	34.5
Manufacturing	205	221	426	85.13	49.47	66.61	-	-	-	85.13	49.47	66.61	40.3	36.9	38.5
Electricity, Gas and Water	308	55	363	78.95	59.78	76.03	-	-	-	78.95	59.78	76.03	38.3	43.0	39.0
Construction	679	22	701	91.30	88.92	91.23	0.18	-	0.18	91.48	88.92	91.40	43.0	40.0	42.9
Trade, Restaurants and Hotels	671	1,011	1,682	82.86	62.97	70.90	0.11	0.09	0.10	82.97	63.06	71.00	43.3	45.5	44.6
Transport, Storage and Communication	324	101	425	87.97	73.46	84.52	1.21	-	0.92	89.18	73.46	85.44	47.4	37.3	45.0
Finance, Insurance, etc.	86	140	226	110.65	68.56	84.61	8.57	1.32	4.09	119.22	69.88	88.70	37.2	40.4	39.2
Community, Social and Personal Services	5,198	3,324	8,521	108.02	103.83	106.39	0.13	0.16	0.14	108.18	104.00	106.55	39.8	36.0	38.3
Total	8,104	5,091	13,195	99.94	89.99	96.10	0.29	0.28	0.29	100.25	90.28	96.40	40.8	38.5	39.9

Source: Government of Tonga, Department of Statistics, Labor Force Survey, 1993/94, Oct. 1995

The Small Industries Center established by the Department of Labor and Commerce typifies the unregulated employment environment that prevails in the country. Businesses licensed to operate in the Center have to comply with few conditions, and health and safety standards are irregularly monitored. In the absence of legislation, there are in fact no clear guidelines as to what these standards should be. The only clear stipulation appears to be the construction of separate toilet facilities for men and women and - if a factory expects to employ a lot of women - the provision of an indoor lunch area. According to the Ministry of Labor, average daily wage levels in early 1997 ranged from T\$5 for new recruits to T\$15 for experienced skilled workers.

In an unregulated workplace environment Tongan women are probably at greater risk of discriminatory employment practices, including lower wages, because of the cultural values that influence job opportunities (viz. type and level); the gendered labor market that exists (whereby women occupy 'women's' jobs); the fewer opportunities available for training/post-secondary education; and the fact that they have to combine paid employment with a childbearing role and other family responsibilities.

The lack of legislated maternity protection (outside the civil service) is itself proof of women's inferior employment status and their greater vulnerability on the labor market. Further evidence can be found in the craft-related occupations, where the majority of women work according to the 1996 census. Long hours of employment in handicraft production do not usually result in significant incomes and delays in payments are common. According to a recent study of 'Eua, Niuaotupapu and Niuafo'ou, income levels from handicrafts amounted to less than T\$500 per annum. (Haines 1995:9)

Wages and salaries data collected by the Statistics Department for the manufacturing sector are only analyzed according to type of activity, island and institutional sector. There are no gender classifications. However, from the latest published survey findings (1994), it is interesting to note that in the predominantly male trades such as publishing and printing, chemical and chemical products, non-metallic mineral products, fabricated metal products, transport equipment and

furniture-making, average weekly wages ranged from T\$50 to T\$80 per week. By contrast, weekly earnings in trades like textile and clothing manufacture, where women are conventionally employed, were less than T\$45 per week. This pattern is reinforced by the 1993/94 Labor Force Survey results, which reveal that average weekly earnings for men and women in the manufacturing sector were T\$85.13 and T\$49.47 respectively.

In the absence of a more comprehensive picture (including data) of women's economic activity, it is impossible to know how seriously they are affected by their marginalized position on the labor market. However, the growing importance of the cash economy, women's limited land rights, and the rising number of female headed households suggest that restrictions to women's employment and their lower earnings are likely to have a social impact that reaches well beyond the negative effects for individual women.

B. Women in the Civil Service

The Civil Service is an important employer for women, and women comprise approximately 46 percent of the Civil List. In principal, the human resource management policies of the government are non-discriminatory and there is equality of employment opportunities. Both recruitment and promotion are officially based on 'merit and suitability'. There have been some encouraging developments in recent years. According to the Ministry of Finance, women today comprise 20 of the 31 senior officers in the Prime Minister's Office, and 15 out of 22 in the Central Planning Department. In other areas like law, health and engineering, women are also emerging as professionals in larger numbers. Ministry sources indicate that there are currently six women lawyers working in the Crown Law Department, a female Registrar of the Supreme Court, and 10 women doctors.

However, two of the less positive features of women's employment in the Civil Service are their limited access to the most senior levels and the shortcomings of their employment conditions. In spite of the high performance of girls right through the school years and in post-secondary education, the proportion of women in positions of seniority and authority has not improved significantly during the last two decades. Today, there is only one woman in the Civil Service who is employed at the most senior level (level 1) and this appointment is in reality level 2 since she is responsible to a male Head of Department. There are, by contrast, 22 men occupying level 1 positions. At the second most senior level (level 2), the 1998 Civil List reveals a slightly better representation of women (8) in relation to men (34).

Promotion prospects beyond a certain point can be poor even for women who have accumulated many years of experience. To take one example, a highly qualified and experienced woman has effectively remained at level 2 for over 20 years, in spite of changes to her official position. The reasons for this 'glass ceiling' on women's occupational mobility are many, and they include an apparent reluctance on the part of women themselves to apply for senior positions. Another potential contributing factor is that men dominate most of the decision-making structures relating to recruitment, appointments and promotion. The Civil Service Staff Board and the Scholarship Committee are typical of this pattern, as are the majority of statutory boards and government committees (see Table 21). Less typical is the Human Resource Management Unit of the Establishment Division whose complement of senior staff (4) includes three women.

Women's representation in the Civil Service improves in the middle levels (levels 3-9), but it is in the lower levels (levels 10-14) where they are most heavily concentrated. This pattern of distribution can be seen quite clearly in Table 26 where the distribution of women in the three (senior, middle, lower) categories is 0.8 percent, 14.5 percent, and 84.7 percent respectively. In the Ministry of Agriculture and Forestry, for instance, there is one woman employed at senior level, 9 at middle level, and 48 at lower level. In the Ministry of Fisheries, there is no woman at senior level, one woman at middle level, and 13 women at lower level.

Apart from their overall tendency to occupy lower status/lower earning jobs, women employed in the Civil Service probably enjoy better employment conditions (including job security) than they do elsewhere in the public sector or in the private sector. Under the Civil Service regulations (Estacode January 1995) women are granted maternity leave on full pay for only 30 days. However, this entitlement can be substantially increased by their right to use sick leave entitlements (42 days on full pay and 48 days on half pay) and annual leave, if they can be certified as medically ill.

Although there is some anecdotal evidence of nursing mothers being permitted time off during the working day to feed their babies (or to visit sick children) there is no formal provision for either of these practices. Nor are there childcare or nursing facilities on the job. In several other Pacific countries like Papua New Guinea and the Solomon Islands, female civil servants are now entitled to (paid) nursing breaks of a few hours a day.

C. Women in Agriculture

Women's involvement in agriculture/agro-forestry is given token acknowledgment in official data and reports. The conventional wisdom today remains that women do not engage in any substantive capacity in agricultural work. Where they do participate, it is ostensibly in a supportive or subordinate role (i.e. helping their husbands or performing less crucial, light jobs like cooking for male workers). Usually, their work takes place in the subsistence sector. This denial of women's important role in agriculture and agro-forestry is emphatically depicted in census data. According to the 1996 census, only 91 women were found to be employed in agriculture, hunting and forestry, as compared with 8,795 men. These 91 women represented 0.8 percent of employed women and just one percent of the total number of persons employed in the sector.

In some respects, women **are** actually marginalized from work in the agricultural sector. For one thing, their role is often part-time because of their traditional household-related responsibilities. More important, however, the patrilineal land system denies women the right to 'own' land and essentially vests control of their access rights with male kin. Although women have enjoyed the right in law to lease land since 1994, the distribution of leases for farming/agricultural purposes reveal that there is still a disproportionately low number of women benefiting from this land reform. Between 1992 and 1997, there were just 9 out of a total 72 farming leases issued to women.

Cultural values continue to portray most agricultural jobs (especially jobs that are perceived as *ngaue* - dirty, sweaty, and heavy work) as inappropriate for women. Yet, the idea that all *ngaue* is a male domain is a myth that flies in the face of increasing deployment of women in jobs that are demonstrably 'dirty', 'sweaty' and to some extent even 'heavy'. Several studies have indicated that women's active involvement in the agricultural sector, whether in subsistence or commercial activities, has long superseded official numbers. Today, gender roles continue to exist in agriculture

and agro-forestry but the division of labor does not preclude women from participation in *ngaue* to anything like the extent that is typically proclaimed. For example, land clearing, planting and harvesting are still assumed to be men's work, but it is only heavy physical jobs like land clearing (cutting trees and bush) and fence building that are still usually undertaken only by men.

Women (and children) participate in virtually all other farming jobs like planting and planting preparation, harvesting and post-harvest processing. These jobs can be physically strenuous, time-consuming and labor intensive. In the area of agro-forestry, gender divisions appear to relate less to jobs than to garden location and species, and even here there is a degree of flexibility or overlap.

In principle, women manage and control the cultivation of vegetables, fruit trees, and a wide range of medicinal, cultural and ornamental/fragrant (often multi-purpose) trees/plants in the immediate vicinity of the household (*'api kolo*). In addition, they are responsible for the cultural and income-generating handicraft species like the paper mulberry (*hiapo*) and pandanus, which usually grow in the male bush garden area (*'api 'uta*). They assist with the cultivation of food crops in the *'api 'uta*, usually weeding and harvesting, and they contribute to the commercial farming of vegetables (and other crops like peanuts) at all stages after the land is cleared. They also feed the pigs and raise the chickens. Men are responsible for tree/plant/crop species (with the exception of handicraft plants) in the *'api 'uta* including staple root crops and multipurpose trees like coconut, mango and breadfruit.

In today's context of more commercially oriented agriculture, high rates of male outmigration, female headed households, and greater economic pressures to meet basic needs, women have expanded their roles. They are not only 'assisting' their husbands but also taking on key roles in both cash crop and export-oriented production. On the island of Niuatoputapu, 80 percent of total income derives from women's handicrafts, including a special finely woven mat unique to the island. In Ha'apai, it is said that school fees are more often than not paid by the women of the household. The demise of the copra industry (which has put men out of work) and the unreliability of the weather (which can prevent fishing) has left women's weaving as the single most important source of income for most families.

While poorly documented, there is increasing evidence of independent women farmers, especially amongst those who are heads of households and/or leaseholders (for example widows or the wives of men who have migrated). For the small minority of women who enjoy proprietorial land rights, or who lease land in order to farm commercial crops like squash or vanilla, involvement in the agriculture sector extends beyond participation in all stages of the production process. These women are plantation managers and they have responsibility for employing farm labor.

Squash

As Tonga's premier agricultural cash crop, squash is seasonal and labor intensive. Each season extends over an eight to nine-month period and involves three consecutive planting and harvesting schedules timed to meet outward-bound shipments to Japan. Harvesting begins from around late September and runs to early December. The opportunities of women for involvement as independent farmers in squash production are limited, largely on account of their negligible land rights and, in turn, their difficulty accessing loans or credit.

Yet, the conventional projection of squash as a male industry belies the contribution which women have played in its development and success. Interestingly, the view of squash as a 'male' industry persists in the absence of any hard data. To date, there has been no attempt (whether through census analysis or sectoral/industry surveys) to investigate and quantify the role women are playing in production and marketing of this important export crop.

The Research Division of the Ministry of Agriculture believes that women would probably comprise between 5 and 10 percent of total squash producers in Tonga today. Such women would probably fall into one of three categories: women farmers who are able to access land through their husbands or natal families; women farmers who have the means to lease land and hire farm labor; and women who participate on an unpaid basis as farmers within the household production unit (organized by their husbands). This estimate therefore excludes women hired as farm labor at different stages of the production cycle.

Women undertake a variety of jobs in squash production and by participating as part of the household production unit help to subsidize the relatively high costs of production. The heavy manual jobs of land clearing (which is nowadays becoming increasingly mechanized), chemical spraying (for disease control), weeding and transporting of squash remain predominantly male activities. However, women, often accompanied by their children, participate on a fairly equal basis with men in fertilizing the land and then in the intensive planting work that has to be completed in the space of just 1-2 weeks once the land has been cleared. They also take part in the 6-week harvest period.

Another important contribution of women to squash production occurs at the post-harvest stage when the vegetables are prepared for export. Although young men are sometimes employed at harvest time, village labor gangs more commonly comprise women. In particular, women dominate the post-harvest jobs of cutting and cleaning the stalks (to get rid of insects at the stalk base), cleaning the squash, and packing them into boxes. Incomes range from T\$15 to T\$20 a day.

One of the interesting trends to emerge has been the responsibility given to women for much of the quality control of squash, including product selection and quarantine inspection. This critical process involves screening and grading in packing houses where women have to a large extent displaced the expert supervisors initially recruited from New Zealand. Quarantine officers undertake a last round of rigorous inspections. In 1997, women made up two-thirds of the quality control personnel hired by two of the largest exporting companies. They also headed two out of the three Ministry of Agriculture quarantine teams.

Vanilla

From the earliest stages of vanilla production, women were recruited for the critical job of pollination, whether as unpaid family labor or hired farm labor. Today, while men remain largely responsible for cultivating the vanilla plants, the labor intensive and highly skilled work of pollination continues to be performed exclusively by women. This delicate process is painstaking and done entirely by hand every day over a 3-4 month period. It requires patience, concentration, precision and speed.

To bear fruit, male and female vanilla flowers must be cross-fertilized which requires carefully scraping of pollen from the male flower and brushing it onto the female flower. However, the stigma is only receptive for a number of hours in a single day beginning very early in the morning. This requires close monitoring (to ascertain when flowering begins) and fast work (once flowering is underway). Women are recognized as fast, efficient workers, and farmers hiring farm labor show a clear preference for them. Average earnings for a day's work are T\$10.

During the peak years of a farm's production cycle (years 6-8), pollination contributes by far the largest number of labor hours per acre and one woman might pollinate between 200 - 400 flowers a day. Moreover, based on Tonga's 50 tons of cured vanilla exports in 1997, the Ministry of Agriculture acknowledges that a staggering 10 million flowers would have been pollinated by women during the course of the year. (This calculation is based on the fact that each flower produces one vanilla bean and there are 200 beans per kilo).

Women are also heavily involved in harvesting and post-harvest work, notably the curing and marketing of vanilla beans. Both harvesting and curing require special skills. At the harvesting stage, it is crucial that only matured beans are harvested in order to ensure effective curing and a high quality export product. Curing is a specialized process involving boiling (at a controlled temperature), fermenting, sweating, and sun drying (over a period of up to three months).

Women are not confined to jobs like pollination and curing but are increasingly becoming vanilla farmers in their own right. On Tongatapu, there are two women who run very successful vanilla farms, one of 6 acres and the other of 8 acres. In Vava'u, recent efforts by the Ministry of Agriculture to revive the vanilla industry have resulted in the formation of farming collectives which set their own targets and generally control the production process, technically assisted by agricultural extension officers. There are currently 45 such groups in Vava'u.

An interesting development in this project is that a growing number of women are becoming active group members as well as expressing a desire to farm and manage their own vanilla crops (as opposed to assisting their husbands). In Neafu, women comprise 45 percent of group membership (9 out of 20 members). They have their own vanilla plots (with 6 acres already planted) and are organizing their own loans from the Tonga Development Bank. The women hire labor as required but otherwise do the work themselves, assisted by their children.

Coffee

Coffee is a relatively new crop and is still in experimental stages although it is sold on the local market and shows significant export potential. Women have been employed to harvest coffee since the government's first research activities began 12 years ago. The harvest period lasts from 6-8 weeks and involves long hours of standing in the hot sun and performing tedious work. Not all the beans on a single branch ripen at the same time and so care must be taken to pick only the fully ripened beans. Women workers are paid 40 (Tongan) cents a kilo of beans. According to the MAF Research Division, a 'good picker' can earn around T\$20 a day although average daily earnings are closer to T\$16-T\$18.

In Ha'apai, promising developments in the coffee industry are attributed by Extension staff to the organizational and production skills of women farmers. The MAF Officer in Charge acknowledges that after two years (1995-97) of targeting men, women appear to be better suited as

growers. Eager to take on the actual planting of coffee, women in Ha'apai are organizing themselves into their own farming groups. They plant the seedlings (supplied by MAF Extension), conduct their own inspections, harvest, pulp (peel the skins) and sun dry the beans before packing and storing.

Sun-dried beans fetch T\$5 per kilo while T\$1 per kilo is paid for ripe beans. Of 96 new coffee growers registered in Ha'apai in 1997, 30 percent are women. The remaining male farmers (70 percent) are mostly assisted by their wives. The average recommended size of coffee farms is one-quarter acre, which can accommodate about 250 plants. However, farm sizes are being increased to one acre, with a view to encouraging better crop management as well as intercropping (of food crops) in the early stages.

Pandanus and Paper Mulberry

A variety of pandanus and paper mulberry (*hiapo*) species form the crucial raw material base for the skilled weaving and craft work undertaken by women in Tonga. The traditional division of labor for all species has always been heavily weighted towards them. Once men have cleared the land, women usually take charge from the initial planting of the seedlings through all subsequent stages of the production process, including marketing. However, in more recent times husbands sometimes assist their wives with certain jobs, for example by cutting down the plants in the bush, transporting pandanus to the sea for soaking (to bleach it) and beating the bark (*tutu*) for the *tapa*. On the outer islands of Ha'apai and 'Eua, there are also indications that men are beginning to grow *hiapo* as a commercial crop.

It is difficult, in the absence of further research, to know what the implications of these developments are for women producers. However, it is understood that in Ha'apai, at least, which has the lowest per capita income in Tonga, the involvement of men results from the lack of employment and income-earning opportunities. It is widely recognized that raw material and handicraft sales are almost the only means of ensuring that important cash needs like children's school fees can be met.

Both pandanus and paper mulberry suffer from regular shortages, especially in Tongatapu. These shortages are a constraint on women's weaving, *tapa* making and handicraft production. The issue of land access is of some relevance here, notably the lack of women's independent land rights and the fact that men enjoy territorial control over the *'api 'uta* where the raw materials are grown. This authority means that men make the decisions over crop selection and placement. In this regard, it is interesting to note that women's pandanus plants have traditionally been confined to the edges of a family plantation, where they are said to act both as a boundary and as a windbreak.

It is the expansion of commercial agriculture, especially squash production, that probably has the greatest potential to undermine the production of these raw materials. While not officially acknowledged, MAF extension staff in Tongatapu and Vava'u confirm that women's handicraft plants/trees are often destroyed in the process of large-scale land clearing (by bulldozers) for squash planting. In some parts of Tongatapu, where land pressure is acute, there have also been cases of *hiapo* trees being displaced by (male) food crops.

D. Women in Fisheries

As in the case of agriculture, there is little formal acknowledgment of women's involvement in the fisheries sector in Tonga. There is, for example, scant discussion of their roles and contribution to fisheries development in the 6th National Development Plan, save a cursory acknowledgment of their role as food producers. The lack of statistics make it impossible to quantify women's contribution to national economic development. Yet in the absence of adequate (gender-based) data and information, the 1996 census concludes that women make up only 4 percent of total employment in fishing activities.

Women's fisheries are both marginalized and neglected. Various factors contribute to this, not least of which is the influence of a long-standing male culture on attitudes, practices and policy in the sector; the priority attached to commercial, export-oriented fisheries (which is identified with men); and the lower regard given to subsistence or informal sector fisheries (which are associated with women).

Gender Division of Labor and Women's Inshore Fisheries

Pacific Island cultures have traditionally demarcated male and female roles within the fisheries sector, although a certain amount of overlap has sometimes occurred in practice, particularly in more recent times. In principle, men were traditionally responsible for deep sea fishing beyond the reef while women were assigned the fishing grounds of the inshore area, inside the reef or in the lagoon areas. Both roles were important as well as complementary. Certainly, women's fishing activities were an integral and valuable component of household production and - given the nutritional value of their products - contributed to maintaining the health of their families and communities.

In Tonga, the gender division of labor in fisheries more or less conforms to the Pacific pattern of a spatial division as well as a demarcation in fishing activities and methods/technology. Essentially, men engage in offshore reef and deep sea fishing, and in activities involving boats like trolling and longlining, diving or night time excursions. They use more sophisticated and less labor-intensive fishing gear like fishing nets, fish fences, spears and diving apparatus.

On the other hand, women are typically engaged in gleaning, foraging and fishing within the confines of the inshore area, primarily inside the reef, on the sandflats at low tide, and within the lagoon area. Generally they use more rudimentary utensils like knives and plastic containers, although fishnets, fishing lines and even spears are sometimes used. Language distinctions are suggestive of a gender hierarchy, with the word *toutai* (meaning fishing) used only to refer to men's activities and the word *fangota* (meaning collecting or gathering) used to describe women's fishing activities.

Women's inshore activities produce a nutritionally rich harvest including sea slugs like jellyfish (*kolukalu*), sea cucumber (*lomu*, *muli'one*, *ngou'a*) and sea urchin (*tukumisi*); octopus (*feke*) crayfish (*'uo*); edible seaweed (*limu*); and a wide variety of shellfish, ranging from ark shells (*kaloa'a*), venus clams (*to'o*) and small clams (*kaipo*) to turban shells/green snails (*'elili*), sea mussels (*kuku*), trochus (*takaniko*) and spider conches. Most of their activities are aimed at producing food for

the household, and their daily catch represents an important and popular source of family protein, especially in the outer islands where fish continues to be the main source of food. Women can spend a significant part of the day engaged in what is fairly tedious, time-consuming and labor intensive work, fitting in their fishing with their other household work and child care, and scheduling it around low tide.

To some extent, women's subsistence fisheries are not as critical to family survival and well being on the main island of Tongatapu, and more especially Nuku'alofa. The problems of pollution (particularly in the lagoon areas), urban drift, higher levels of wage employment and other features of urban lifestyles including dietary changes have also affected their activities. However, it has been estimated that urban women can still spend up to five hours a day gathering shellfish. Certainly, for the coastal communities, landless families and lower income households on the main island, the resources of the sea and women's inshore fishing remain important sources of food and income. A case in point are the squatter households settled along the coast of Nuku'alofa.

Women's fisheries not only aim to satisfy the immediate food needs of their families but are also intended to help meet important cultural obligations, including special occasions that demand generous contributions of food. Aside from the more ceremonial occasions for family 'giving', household catches are typically shared with relatives and other families in the village. These practices would seem to be significant on a number of levels. They contribute to food security and preserve the redistributive values inherent in Tongan culture. Less positively, they make additional demands on women's labor (more time has to be spent fishing in order to ensure a larger harvest) and contribute to overfishing and stock depletion.

Not all women's fish products are consumed or given away, and an increasing proportion of the catch finds its way to local markets for sale. This is particularly the case for the capital Nuku'alofa where there is a large community of wage earners more willing and able to buy fish and fish products for household consumption. Women are responsible for their own marketing and they also sell their husbands catch. Many appear to have control over household incomes. The sale of shellfish appears to be a lucrative business. At the largest market in Nuku'alofa, women sell a range of species at T\$5 per (large) bag.

While data is limited, it is evident that women's inshore fisheries are generating significant incomes for individual households (daily incomes from market sales of shellfish can tip the scales at T\$200). The failure to quantify and calculate the economic value of these informal sector transactions means that an important, albeit small-scale, area of artisanal-commercial fisheries remains excluded from the national accounts. This exclusion in turn helps to maintain the overall invisibility and marginalization of women's fisheries. The lack of research means that there is little understanding of women's needs. Marketing infrastructure on the outer islands, for example, is inadequately developed and what is available in Nuku'alofa is in need of expansion and upgrading.

Tongan women engage in various post-harvest activities ranging from simple gutting, scaling and cleaning of shellfish etc., to more complicated processing and preserving methods like salting and drying. Basic processing of fish products is done for the household as well as for sale on the domestic market. Women take responsibility for preparing their husbands catch for the family meal - cleaning, scaling and cooking - and in the outer islands, they also preserve fish (for example, salting and drying octopus) for sending to their relatives in Nuku'alofa and overseas. There appears to

be a great deal of interest amongst women to develop their skills and knowledge in fish preservation and processing.

Commercial Fisheries and Aquaculture

Contrary to popular belief, commercial fishing and aquaculture are not exclusively male domains. Women have played a critical role in the experimental development of *mozuku* seaweed exports and in the now 'deceased' *beche de mer* export trade. They have also been important players in the expansion of fresh fish exporting which lies at the heart of export fisheries development in the sector. The seaweed industry is still in its infant stages but holds considerable export potential particularly in the Japanese market where it is popular as a food. However, the greatest revenue potential lies in the pharmaceutical/medicinal properties of its oil extracts which have already been used as a core ingredient for hair cream, body lotion and face cream and are believed to cure balding, wrinkles and even cancer.

Mozuku (limu tanga'u) exports to Japan for the six month period between July 1997 and January 1998 were 420 tons and the Ministry of Fisheries is optimistic of being able to export 1,000 tons in 1998. It also sees the industry as creating employment and income generating opportunities for women. From the initial stages of the seaweed experiment, women have been recruited to harvest, clean and pack. It is laborious and wet work, and requires them to be on their feet and continuously bending for long hours.

They earn 25 (Tongan) cents per wet kilo harvested and delivered. For those women hired to process the seaweed, the work of cleaning, packing and loading is also manual and it takes place over two (day and night) shifts. Fisheries officials estimate that approximately six tons of seaweed are processed on a daily basis. Earnings are set at T\$17 per shift.

The *beche de mer* industry has also had a history of women's involvement, at least for those species found in shallow water. In some areas, for example the small island of Tuha in Ha'apai, women are known to have abandoned handicraft making in favor of collecting and drying *beche de mer* because of the relatively higher incomes. Since the ban on exports due to overfishing, the women have returned to weaving activities.

One of the most recent developments in commercial aquaculture is the cultivation of the black lip oyster (pearl farming). Exploratory work has so far been confined to Vava'u and is still at an experimental stage. The Ministry of Fisheries envisages recruiting women for pearl farming in the future although it is unlikely that they would be used for the diving jobs (to access the oyster shells suspended under rafts in deep sea). Other tasks that are important to the cultivation process and to ensuring a superior quality product and high premium (like cleaning the shells and rafts at regular intervals) are expected to be assigned to women.

Women in Tonga have already proven their ability to be leading players in the competitive world of export fisheries. The General Manager and co-owner of one of Tonga's most successful bottomfish companies, Alatini Fisheries, is a woman. Formed in 1990, the company originally began exporting deep-sea snapper but it is now beginning to move into the tuna market. The company exports eight varieties of fresh snapper and its main markets are the USA (including Hawaii) and, to a lesser extent, Japan. On the factory floor, women are strongly represented in

processing (unloading, weighing, grading and packaging as well as filleting for the local market) and in office administration.

Significantly, women in the company are not confined to subordinate jobs but represent most of middle as well as senior management. Four out of the five supervisors for the company are women (including the Financial Controller) and they are encouraged to take responsibility, and to be involved in management decisions. According to the General Manager, women are chosen because they are more reliable and committed, as well as being faster, more efficient workers. They have good organizational skills, show initiative and a capacity to solve problems. They also handle pressure well.

Coastal Fisheries and the Resource Crisis

Official fisheries policy today articulates a clear desire to forge a balance between commercial fisheries and the subsistence needs of the community. The main clash of interests is not seen as being between the demands of the commercially/export-driven economy and the needs of the conservationist-minded subsistence resource user. Rather, it is seen as being between the overzealous individual householder (keen to acquire a high-income return from the resource) and the food requirements of the rest of the community. In this sense, Tonga appears to be rather different from other Pacific Island fishing nations.

One reason for this anomaly may well relate to the fact that resource ownership rights (and by implication resource management responsibilities) are not vested in local coastal communities, as they are in other Pacific Island islands, but in the monarchy. This atypical system of fishing rights is consistent with Tonga's land tenure system and overarching social system, as well as with the cultural ethics of sharing because it effectively gives every Tongan the right to fish in any waters (while denying actual ownership rights).

Unfortunately, in today's context of market-driven production, fishing in local fishing grounds by 'outsiders' (those who do not belong to the adjacent village or island, and many of whom are commercial operators) poses serious risks to food stocks in some coastal areas. It also has adverse implications for women as the main harvesters of food in the inshore area, placing them under greater pressure to go further afield (as well as to spend more time) in search of food for their families. A 1995 survey undertaken in Ha'apai confirmed the concerns of local villagers about the impact on food stocks of operations by commercial fishers from Tongatapu as well as the perceived futility of committing themselves to a conscientious conservation regime.

In fact, environmental problems, especially resource depletion, probably pose the biggest single threat to coastal/inshore fisheries development and in turn to food security and community livelihoods today. The problems are already acute, especially in the vicinity of urban areas, and they appear to be the product of years of unregulated overfishing by an increasing number of commercial fishers (targeting both local and export markets) as well as the use of more efficient fishing technology.

It is worth noting that as early as 1992, the Bank observed that the artisanal fisheries were 'probably close to fully exploited'. The Ministry had limited information on stock levels and no systematized method of allocating or policing appropriate access rights in order to prevent overfishing and maintain sustainable stock levels. (ADB 1992:89) A similar conclusion was drawn by the World

Bank in 1993 when it observed that 'coastal fisheries has suffered from over-exploitation of traditional species...' and that 'much of the nearshore waters show signs of being over-fished' (World Bank 1993:11)

The resource crisis has called for drastic measures. These include a complete ban on the export of seven species of sea cucumber, a closed season (August-February) for turtle and mullet fishing, a prohibition on the use of diving apparatus for fishing, and minimum size stipulations for the harvest of lobsters, giant clams and *beche de mer*. Convictions (under the 1994 Fisheries Regulations) are supported by stiff penalties (fines ranging from T\$10,000 to T\$50,000) and public awareness programs have been followed by prosecutions for illegal fishing in both Vava'u and Ha'apai.

Unfortunately, there has been no gender analysis undertaken of unsustainable fishing practices. This would seem to be a major handicap. However, fishing methods and technology criticized for their over-efficiency and now subject to (formal or informal) regulation – for example, the use of diving apparatus, fish fences, fishing spears, gill nets and dynamite especially though by no means exclusively in Tongatapu – are largely controlled and used by men. Irrespective of this, it would seem to be vital that the concerns and knowledge of women, in their capacity as key resource users in the inshore area, are taken into account in any environmental education or legislation initiatives devised for local fishing communities. There are at present no regulations to cover the harvesting of most of women's inshore marine products.

The pollution of the lagoon area in Tongatapu poses another environmental threat to women's inshore fishing, and in turn to family food security. Data is limited. However, there is a wide degree of acceptance amongst public health and fisheries officers that contamination from sewerage seepage (including effluent from the main referral hospital) and other practices like land reclamation and settlement overcrowding have affected the quantity and quality of shell fish harvested from the lagoon. Anecdotal evidence suggests that the lagoon is increasingly becoming out of bounds as a source of food supply, one effect of which is to require women to find alternative fishing grounds further afield.

E. Self-Employment and Women in Business

Tongan women are very active in small-scale informal business activities but their presence is also becoming increasingly visible in medium-to-larger-scale formal sector business. In respect of the latter, the significance lies not so much in the numbers of women than in the pioneering moves being made into traditional male strongholds. The fisheries sector already has at least three sizable commercial operations owned and managed by women which have successfully taken on the challenge of seafood processing as well as the export of fresh fish.

Probably the most lucrative woman-run business is Tongasat, an enterprising venture into satellite real estate. Her Royal Highness, Princess Pilolevu, has a major stake in this. In agriculture, there are similar examples of women who are emerging as competent squash, vanilla and handicraft exporters. A few women run hotel and restaurant businesses and a young (28 year old) woman currently holds the position of Managing Director of a well-established construction company that supplies local quarrying, cement, shipping, stevedore, and heavy machinery services. She is in charge of 48 employees (43 of whom are men) and her responsibilities extend to a joint venture with a large New Zealand construction company.

The most pervasive and persistent problem facing women entrepreneurs, whatever the scale of their business, is the difficulty of accessing bank loans or credit, particularly with regard to conventional security or collateral requirements. The more economically or socially disadvantaged women inevitably encounter the most obstacles in trying to get a small business started. The skills and dedication that women bring to business and loan management are possibly their strongest 'asset', as are their unique organizational abilities nurtured in the course of performing cultural/social roles. However, there is a serious need to develop women's professional accounting skills and for their access to formal training opportunities in business and financial management. For the more established businesswomen, the lack of skilled workers is a problem that is not helped by the limited training scheme openings available to the private sector.

There are 278 registered cooperatives in Tonga (as at January 1998). Women are active members in a number of these including one of the largest, the Friendly Island Marketing Cooperative (FIMCO) which markets handicrafts, vanilla, squash and rootcrops. In keeping with the official wisdom that 'women don't go fishing', there are no women members of any of the three fishing coops. According to the Department of Cooperatives (1996), the participation of women is 'valued as one of the most potential strengths of the Cooperative Movement in Tonga'. Significantly, the most successful cooperatives are the ubiquitous village consumer stores (*fale koloa*), 80 percent of which are managed by women.

In 1996, in response to this success, the Department recruited two women cooperative extension officers, followed by a further two appointments in 1997. (The total complement of extension officers in 1998 is 23) The women's officers are assigned to promote women's involvement in cooperatives as well as to assist women members. In addition, the Department has a formal commitment to encouraging women's participation at decision-making level.

There are two cooperatives that are exclusively open to (and run by) women members. The *Paki moe To'i* (Multi-purpose Cooperative) is based in Lapaha, in the Eastern Division of Tongatapu. It was one of the earliest cooperatives to be established – registered in 1977 as a consumer store – and with a membership today of 54 members, it operates a handicraft center (which has had problems) as well as a successful store. The Women Multi-purpose Cooperative Ltd is based in Nuku'alofa (formed in 1991) and has just 34 members. It runs a very profitable consumer store.