

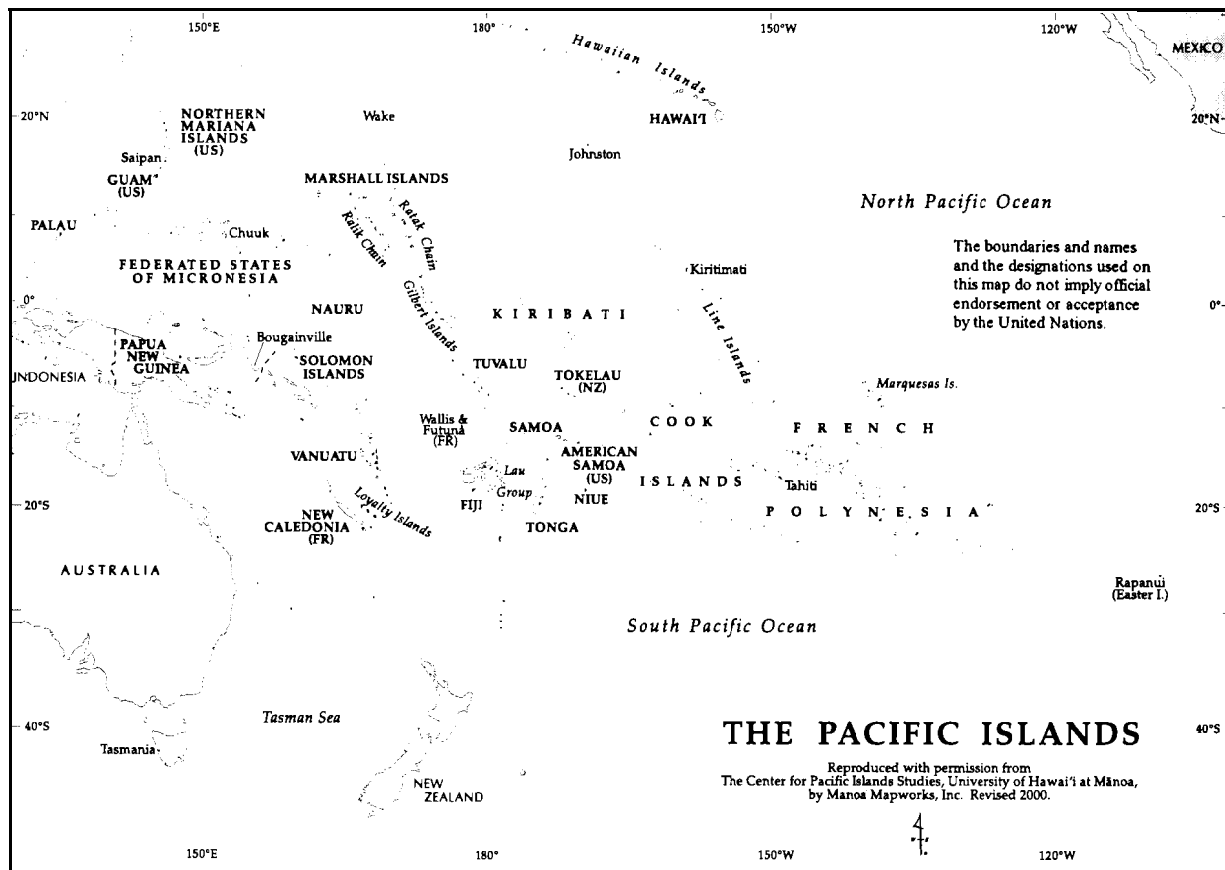
Untangling the Myths and Realities of Fertility and Mortality in the Pacific Islands

Overall, trends are positive

By Peter Pirie*

Until the 1950s, information about the levels of fertility and mortality in the Pacific islands ([see map on page 6](#)) was fragmentary and much of it was anecdotal, but there was quite a lot of it. In that era, vital registration systems and periodic population censuses were the major sources of information on fertility and mortality, and the extent of these depended on the priority that each colonial administration was prepared to give to them and to the magnitude of the task. For instance, in better developed colonies such as Fiji, vital registration and a census sequence were long established, but in the larger Melanesian societies — Papua New Guinea, Solomon Islands and Vanuatu ([see map](#)) — little had been attempted and knowledge

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of the size of the population, let alone the fertility and mortality situation, was uncertain. Metropolitan systems were transported intact, as far as possible, in the societies administered by France and the United States of America. Even in territories where vital statistics existed, they were known to be incomplete and censuses did not include the questions necessary to establish fertility and mortality levels.

In the early 1950s, the Department of Demography at the Australian National University decided to undertake a regionwide project to study the populations of the South Pacific islands. Norma McArthur undertook this task and by 1956 she had completed a series of country monographs (McArthur, 1956). In the course of the fieldwork, several governments were persuaded to take population censuses simultaneously and to include a wider range of questions than previously had been attempted, including two that would enable the derivation of fertility levels. As far as can be determined, these were the first censuses in the Pacific islands to be designed by a demographer rather than someone experienced in public administration. These achievements, together with her body of publications on Pacific populations, entitle her to be recognized as the doyen of South Pacific demography. One of the purposes of McArthur's (1967: xv) work in the Pacific was, as she put it, to discredit a myth "still echoing faintly in the halls of learning and authority", namely, the theory that the post-contact decline of population was due to "psychological causes", a concept associated with the anthropologist Pitt-Rivers (1927). This was but one of the myths concerning Pacific populations; there were, and still are, others.

The myth of sexual paradise

The earliest and one of the most durable myths was initiated early in the process of European contact. Although the Portuguese, Spanish and Dutch were the first European navigators to sail in Pacific waters, their accounts of contacts with the inhabitants were reticent. Not so with the French and British explorers. British Captain Samuel Wallis made landfall in Tahiti in 1767 and was followed a year later by the French explorer, Louis de Bougainville. Both were captivated by the beauty of the island and its people, and their reports were widely publicized at home. Wallis stayed a month and, having arrived in bad health, was restored by the massages of Tahitian women. One of his party (Robertson) records being offered "two very handsome Young Ladys" and this crew has been accused of introducing gonorrhea to Tahiti, an all too likely possibility (Snow and Waine, 1979:43-46). Bougainville (1771) dubbed Tahiti "La Nouvelle Cythere", Cythere being the birthplace of the ancient Greek goddess of

love. The 1755 work of French philosopher Rousseau (1915), in which he put forward the view that primitive cultures were noble compared with civilizations which were debasing and corrupt, was in Bougainville's mind as he enviously surveyed the Tahitians' way of life. Tahiti seemed to be proof that Rousseau's argument was valid.

Accounts of the Tahitian "discovery" inflamed the Western European imagination to the extent that it has never completely recovered. The Pacific islands became firmly fixed in their collective mythology as places as close to Paradise as can be found on Earth. Artists and writers such as Paul Gauguin, Herman Melville and Somerset Maugham, among a host of others, capitalized on the myth and embellished it. Few noticed that the early explorers were considerably less enthusiastic about some of the other Pacific islands which they came upon.

More importantly, this long-standing myth has led to a somewhat light-hearted approach to the Pacific islands and their development, a feeling that the problems of such a paradise do not have to be taken seriously. All are still bathed in the sexy, rosy glow generated two centuries ago by Tahiti. But there are now 21 separate political units and not one of them closely resembles another. This is a result of their different physical characteristics, build, size and spread; the origins of their first settlement and subsequent local evolution; the nature of their contact with foreign explorers and their subsequent colonial experience; the intensity with which they were affected and developed; and the variety of their contemporary experience. The reality is that it is now very difficult to make generalizations about them and any that are made must be qualified by exceptions. This is actually true of most of the world, but too often the Pacific islands are lumped together in ways that outrage fact.

As a preparation for doing fieldwork in Samoa, the author read Mead's 1928 work *Coming of Age in Samoa*. It gives an attractive picture of Samoan village life, but portrays a society where sexual activity begins at adolescence and is essentially guilt-free. What he actually found in Samoa was very different. Young unmarried Samoan women are relentlessly supervised, to a degree seldom achieved outside of Islam. Not only are their parents involved, but also their usually more alert and knowing brothers. Of course, accidents do happen and Samoans are not ones to cry over milk already spilt, but there is a pervasive concern with female virginity, expressed in its highest form with the institution of the *taupou*, usually translated as "ceremonial virgin". Samoa did not seem to be the same place that Mead had described.

Mead's main informants were students in a residential girls' school, sent there for the very purpose of protecting their virtue until they were chosen as brides. Nevertheless, she found them to be well informed to the point of prurience and willing to discuss sexual matters, punctuated no doubt during, and most certainly afterwards, with great hilarity. To them, Mead would have seemed exotic and impressive — someone who would appreciate the ingenuity they used in satisfying her curiosity. She probably concluded that they were more experienced than they actually were.

The mortality myths

Another durable myth concerns the effect of contact between Pacific islanders and Europeans. When the first explorers moved into the South Pacific, they found that the vast area was free of the diseases that periodically decimated their own populations. The region apparently was free, at least until they arrived, of bubonic plague, smallpox, tuberculosis, cholera, dysentery, yellow fever, leprosy, syphilis, influenza, measles, whooping cough, diphtheria, scarlet fever, typhus, typhoid fever and gonorrhea, to name some of the more destructive diseases. Several diseases specific to tropical areas, such as trypanosomiasis, or "sleeping sickness", also were absent. The exception was malaria, but this was confined then, as it still is, to western Melanesia.

There were some other diseases that Pacific islanders are known to have had, but they were few. One was yaws, a treponematoses like syphilis, but transmitted non-sexually from moist skin to moist skin in tropical rainforest climates. Filariasis, a mosquito-borne disease that leads to elephantiasis, is another, but both are slowly debilitating rather than swiftly fatal. There is no record of then unknown diseases being transmitted by islanders to the visiting ships' crews, the infection being recorded as massively in the other direction. Not too much later, visiting crews began receiving back some of the diseases that they had originally bestowed on the people of the region. Consequently, the major causes of death before contact must have been very different from the pattern familiar to European crews. It seems unlikely that the usual bacterial or viral diseases, obstructed in their dispersal by the oceanic distances, could have figured prominently.

What of the other possible causes? High fatalities in wars are sometimes cited, but this should be considered another myth. By most accounts, traditional warfare in Pacific cultures before contact seems to have been a rather protocol-laden affair, in which causing massive fatalities among the enemy was not the main objective. Europeans of the era were

not noted for their pacifism and their conflicts then were remarkable, not only for their direct loss of life but also for the vast numbers who died incidentally of wounds, disease, or starvation. Yet enough of them survived this experience, plus the normal toll of infectious disease, to show overall some recurring population increase. For warfare to assume the role of scourge in Pacific populations lacking the usual raft of contagious diseases would imply a perpetual bloodbath. The most awesome and mortal battles that survive in oral legend in the Pacific seem to be those occurring after contact, when some traditional leaders, fired by an alien monarchic ambition, had collected a few European consultants and the odd musket. There is little evidence that pre-contact conflicts were responsible for exceptional mortality, let alone the unusually high losses that might have compensated for the absence of recurring epidemic mortality.

It is rather difficult to suggest other possible explanations or possible causes of death that might offset those which are known to have been diminished. The region has its share of weather, climatic and geophysical disasters, but is not exceptional in this respect; usually the environment is among the world's more benign. Could it be that most Pacific islanders finally died on their mats of heart attack, cancer, or stroke? Demographers find such a possibility hard to accept, for it is at odds with the theory of demographic transition, which assumes that the collective lot of a pre-transitional population was usually a swift, nasty and early end. Norma McArthur (1977:273), for one, wrote that that possibility "strains credibility" when this author first put it forward, but no one has been able to come up with a more convincing alternative.

The situation found by the first Europeans to arrive was changed dramatically by the introduction of diseases that raised mortality in all populations, although to varying degrees. In some areas, where gonorrhea spread freely, fertility also was depressed. Population numbers declined, and, by the end of the nineteenth century, anthropologists, politicians and doctors were predicting that Pacific island races would die out from a combination of introduced disease and psychological causes induced by the contact with superior cultures — namely, of course, their own. But, while several populations declined to minute fractions of their former numbers, notably in the Marquesas and Mariana Islands, others, such as that of Samoa, had stabilized by the middle of the nineteenth century and, as natural immunities built up, began to show recurring increases in some years. By the 1930s, it had become obvious to even the most obtuse observer that most island populations were surging back. It also was observed that, while psychological depression might be the cause of some mortality, most populations would benefit from some medical care.

The reality of the post-war fertility bulge

The censuses taken in the 1950s and 1960s, most under Norma McArthur's general direction, showed dramatic rates of population growth in Polynesian populations and some growth in Micronesia and in Fiji. Total fertility rates, a surrogate for approximate completed family size, exceeded 7 children per woman in a few instances, with levels between 6.0 and 6.9 being quite common (see [table 1](#)).

As part of the author's research in Samoa, the 1956 census results had to be used to make a population projection. This experience taught a valuable lesson: that the words, "if present trends continue", are among the most dangerous in the social sciences. The results were electrifying. "Present trends" implied a growth rate of 3.6 per cent annually, which would have led to a total population of 195,000 by 1976 — an increase of 101 per cent in 20 years. The census taken in 1976 had counted a total of only 152,000 people. Apparently, the trends had not continued and 43,000 people had "evaporated". But what had really happened? Well, it was something that should have been foreseen.

When assisting with the checking and editing of census schedules, the author's attention was drawn to one which showed a woman stating that she had given birth to 24 children. This was either a mistake or many of the children were adopted, a not uncommon situation. When enquiries were made to the woman in person, she produced a new list of all her children, in chronological order of their birth, and was able to discuss each one, including birth dates and which were multiple births. There were two sets of twins. Yes, she had some adopted children, but they were not on the list because she knew that was not what was wanted. Each was as precious as her own children and she did not distinguish between them and those she bore herself. She did not think 24 was too many; after all, she had had four husbands, all of whom were either dead or had departed.

When asked what her children were doing now, she said the two youngest were living at home and attending high school; six were in New Zealand, of whom two were at university; Five were in Pago Pago, American Samoa; two were in Honolulu; and another two were somewhere near Los Angeles. One of the girls had married a German and lived abroad. Another five had jobs in the capital city, Apia, but often came to visit. That added up to only 23; the one not mentioned had died — a fact confirmed by checking the census schedule. Several had come from overseas to visit, but had returned to their jobs and always sent money if unable to come.

Table 1. Indices of fertility in Pacific island countries and territories

Country/territory	Year	0-14 years	Crude birth rate per 1,000		Ranked by latest total fertility rate				Decrease
					Latest		Fomer		
					Year	Rate	Year	Rate	
Palau	1995	28.2	90-95	23	1995	2.8	1973	4.3	1.4
New Caledonia	1996	30.6	1995	22	1995	2.8	1967	5.6	1.5
French Polynesia	1996	34.1	1995	23	1995	2.9	1967	6.3	1.6
Fiji	1996	43.1	1995	25	1990	3.2	1976	4.0	1.3
Tuvalu	1991	33.3	91-95	28	1995	3.3	1973	4.3	0.9
Cook Islands	1996	34.5	91-95	25	1991	3.3	1966	7.6	1.8
Northern Mariana Islands	1995	24.3	91-95	28	1995	3.4	1980	4.6	1.5
Niue	1996	37.0	91-95	15	1991	3.5	1967	6.3	1.5
Guam	1990	32.8	1995	28	1995	3.6	1970	4.7	0.8
Tonga	1996	40.6	91-94	28	1995	4.2	1966	6.8	1.0
Kiribati	1995	41.1	1995	32	1995	4.5	1973	4.3	+ 0.2
American Samoa	1990	39.0	91-95	34	1990	4.5	1974	4.9	0.5
Wallis and Futuna	1996	38.1	90-95	25	1990	4.6	1969	6.9	1.4
Papua New Guinea	1990	40.6	1990	34	1991	4.7	1966	6.2	0.8
Samoa	1991	35.8	91-95	29	1992	4.8	1971	6.3	1.0
Nauru	1992	41.7	92-95	23	1991	4.9	1966	7.0	1.1
Micronesia (Federated States of)	1994	43.5	1994	31	1994	4.9	1973	6.9	1.2
Vanuatu	1989	43.2	1989	38	1989	5.3	1967	6.3	0.7
Tokelau	1996	41.7	91-95	32	1996	5.7	1961	5.8	0.5
Marshall Islands	1988	47.9	1994	43	1994	5.7	1980	7.9	1.8
Solomon Islands ^a	1986	43.8	1986	42	1989	5.8	1970	6.6	0.7

Source: South Pacific Commission (1998). *Pacific Island Populations: Report Prepared by the South Pacific Commission for the International Conference on Population and Development, 5-13 September 1994, Cairo* (Revised edition, Noumea).

^a Excludes North Solomons Province.

What had been encountered was a spectacular prototype of a system which has since become fundamental to the economy and way of life in Samoa and which accounted for the lost 43,000. Nearly half of all Samoans now live overseas and their remittances greatly exceed the total export income of their home country. In 1956, in contrast, less than 4 per cent of Samoans resided abroad, and most of those who did were thought to be of part-European ancestry.

The myth of traditional fertility

This experience led to the identification of another myth: that these recently exposed fertility levels were “traditional”. The large family size noted in so many populations in the Pacific (see [table 1](#)) was thought to mark a return to normal levels, due to the success of departments of health in reducing diseases that had previously been so debilitating. Yet average family size approached seven children, with a third of all women with completed families reporting 10 or more children (up to 24 in the aforementioned case). Such fertility could not have been sustainable in a population in residence for something like 3,000 years, living fairly peacefully on small islands largely free of environmental and contagious disease. Some other influences as yet undiscovered must have been at work, but certainly were not operating in Samoa at that time. Men proudly proclaimed the numbers of children they had sired as evidence of virility and women derived family status from being “good breeders”. Victorian colonialism, the churches and the Samoan way of life (*fa’a Samoa*) had combined to set pronatalist standards for the population. Large family size in Samoa at that time did not impose necessarily an economic penalty, rather the reverse. Most Samoans then saw themselves as comfortably supplied with all the essentials of a good life. The government was providing health care, education and an infrastructure of a reasonable standard, certainly much better than anything that had gone before, all apparently for free.

The combination of low or moderate mortality and the levels of fertility then being described as “traditional” necessarily imply exceptionally high growth rates, leading over the centuries to excessive population densities. Instead, it has been observed repeatedly that densities in the Pacific islands never seemed to rise to the levels at which their “carrying capacities” were strained. Resources were appraised very conservatively relative to the population dependent on them and their rate of utilization; subsistence agriculture, with few exceptions, remained casual or non-intensive. The reasons for this conservative appraisal of resources were not always economic, but sometimes also social and political. The obvious

alternative explanation was that fertility must have been controlled. Given the prevailing ethos, this possibility seemed too far-fetched. However, over time, and with more reading about other cultures in the Pacific and the world, this explanation became more convincing to the author. In summary, the control of fertility involved the imposition of a variety of traditional methods to extend birth intervals and limit family size.

One of the first cases to appear in the literature was described by Firth (1936) who found such a situation on Tikopia, a Polynesian outlier in the eastern Solomon Islands. Because of limited space and resources, the need to control family size is likely to appear most obviously on such as island. Two other cases have been noted on atolls, Nukuoro and Eauripik, in the Federated States of Micronesia. Both have retrospective data of good quality that show low mortality, an expectation of life of about 60 years, and apparently low fertility to have resulted in population homeostasis over a long period up to the first decades of the twentieth century (Carroll, 1975; Levin, 1976). However, control of family size was not confined to areas of such limited possibilities for subsistence, but was prevalent - sometimes in rigorous form — in areas as diverse and as environmentally productive as the highlands of New Guinea and Tahiti.

There seems to have been a hunting and gathering stratum throughout the sequence of settlement in the Pacific. This was certainly true of the Maori who, late in the sequence, settled one of the most marginal areas of Polynesia. Although derived from an agricultural society in tropical Polynesia, the Maori who settled in non-tropical New Zealand were content in the early stages of their settlement, when population density was very low and feral resources plentiful, to depend upon a hunting and gathering mode of existence that was semi-nomadic. Only after about 1300 AD, when the large, flightless birds known collectively as “*moa*” had been rendered virtually extinct, the seal resources seriously overexploited and the Andean *kumara* (sweet potato) had been introduced, did the culture shift to the primarily agricultural mode of the classic Maori. In time, the economic advantage shifted to the mesothermal climates of the North Island, but the archaic culture persisted in the South Island until after contact (Bellwood, 1979:387).

This matter is of great demographic interest, because of the low fertility always associated with mobile hunting and gathering bands. It has been noted that, among these groups, replacement is kept deliberately low and various practices are employed, with varying degrees of emphasis, to lower average family size. These include post-partum and other taboos, prolonged lactation, customs such as bride-price which delayed marriage,

abstinence in marriage, the deprecation of sexual interest, attempted contraception, abortion and infanticide. All these practices have been observed in Papua New Guinea among peoples more recently contacted, most of whom are currently sedentary agriculturists (Buhner, 1971; McDowell, 1988).

For example, an early anthropological study of the Kunimaipa people in the highlands of Papua (present-day Papua New Guinea) by Margaret McArthur (1961) made in the 1950s illustrates the pre-transitional situation that must have been typical in much of the country. At the time, the Kunimaipa showed an age and sex structure indicating no recent natural growth. They had a child/woman ratio of only 380 per thousand, only 28 per cent of the population was aged 15 or less, and an average of fewer than 3.5 children were produced per woman of completed fertility. Prevalent abortion, a post-partum taboo and prolonged breastfeeding of up to four or five years were identified as the possible causes — with infanticide also noted — of this fertility profile. High mortality among infants (over 225 per thousand births) and toddlers (70 per thousand) was inferred. Margaret McArthur (1961:7-12) noted that, while abortion, infanticide and infant mortality were not deliberately concealed, mothers responding to fertility questions usually omitted these events as the outcomes of pregnancies that never became “people”. Although the numbers on which these indices are based are too small in this case to be statistically reliable, other studies have shown similar results and there can be no doubt of the biological situation and social reality they describe.

In New Guinea, cultures ancestral to those in the other Pacific islands are observable in their least altered form. In the areas beyond New Guinea, where contact has been more prolonged, most of these practices have been abandoned (or suppressed). Yet remnants have been noted in so many Melanesian, Micronesian and Polynesian cultures that the probability is that they were previously much more general, widespread and effective. It seems preferable, in the light of these findings, to classify the revealed fertility as “neotraditional”. The likelihood that the peoples settling the Pacific islands traditionally manipulated their fertility levels and deliberately kept replacement low would do much to explain some of the demographic anomalies found when examining the evolution of Pacific populations.

In the countries where high fertility was noted in the 1950s and 1960s, fertility decline is now well established and the surge has moved on to western Melanesia and eastern Micronesia. Even there, fertility decline has been noted in the two current champions, Solomon Islands and Marshall

Islands. Analysis of the most recent census of Papua New Guinea, imperfect as it was, suggests that in general fertility has remained moderate (Hayes, 1992: 5-6).

The doomsday myth

This is not the impression one gets from the first volume of the Pacific 2010 project, “Challenging the Future” (Cole, 1993) undertaken by Australian National University, in which the region’s population growth is described as “careering...beyond control” (Callick, 1993:8). The work is based on seven population projections by various demographers, several of them Pacific islanders, for the larger and independent countries of the Pacific, namely Fiji, Kiribati, Papua New Guinea, Samoa, Solomon Islands, Tonga and Vanuatu ([see map](#)). The computer programs for making such projections are fairly standard; the main problems nowadays are the reliability of the data input and what assumptions to build into the projections. In this case, demographers followed their usual custom of making a range of projections, “low”, “medium” and “high”, and leaving it to readers to make their own choice.

While it is possible to quibble about some minor details regarding these projections, they are not the problem. The editor of “Challenging the Future”, Rodney Cole, commissioned Rowan Callick, usually one of the more knowledgeable journalists on the Pacific, and Ken Gannicott, a respected expert on education and manpower economics. Their brief seemed to be to lighten things up somewhat, to make the message more palatable for its intended audience. The results are unfortunate. Callick (1993) takes a series of “worst cases” and extrapolates them as a “doomsday scenario” to fit all seven of the surveyed populations. Gannicott (1993), in an otherwise useful chapter on the growth of school-age populations and the workforce, betrays his ignorance of the wider field by invoking Gauguin and modern-day novelist Paul Theroux as authorities on the Pacific. He also observes that it is not surprising so little is known about the populations of the Pacific islands, since they are so small, an echo of the belittling tendency that Hau’ofa (1994) discerned among the region’s larger neighbours.

Within the ensuing 12 years, in the Callick scenario, we should see a fall in the proportion of people in paid employment, and the traditional agricultural system will be stretched to its limit to absorb an additional 3 million people. Cities will continue to grow. Port Moresby, for instance, will have half a million people by the end of the period (still only about 11 per cent of Papua New Guinea’s total population, a modest proportion for a

capital city by most contemporary standards), but much of the population will live in “squatter settlements” or “slums” and there will be beggars on the streets of every Pacific town. The private sector will not expand and government services in the region will diminish. Lawlessness will increase, along with a battery of other social ills. Narcotics, including the traditional relaxants of *kava* (a drink made from pepper root) and betel nut, will take over the agricultural export trade. *Copra* exports will collapse and logging will exhaust forest resources. Water will become unfit to drink in cities such as Port Moresby and women will be driven to cultivate almost vertical slopes in Papua New Guinea highlands. Lagoons in Micronesia will become so polluted that no one will be allowed to use them. The final insult is that, by the end of the period (year 2010), so many people will have left for jobs overseas that desperate governments will have to start “delocalizing” — recruiting expatriates to cover the skill gaps. How these governments would be able to pay expatriate salaries under these calamitous conditions is a problem which remained unexamined.

Three Pacific specialists, Geoffrey Hayes (1995), Michael Levin (1995) and this author (Pirie, 1995), reviewed this work for *The Contemporary Pacific*. Hayes observed that the book “gives the impression that the economic consequences of population growth in the Pacific have only recently come to the attention of planners, social scientists and politicians, which is quite incorrect”. There are at least 3,000 titles on various Pacific island population topics and it was remarks such as this that led some to lament about a seeming lack of institutional memory in a book produced from a university that had pioneered Pacific island demography. In the 1950s Norma McArthur found several Pacific island populations (such as Fiji) growing at annual rates of well over 3 per cent, levels which make the 2.3 per cent of the 1990s and the aforementioned “doomsday scenario” look rather tame. She did not see a necessity to “dumb down” her findings for the Pacific island leaders of the day, nor even for Australian politicians, so that they could understand demographic trends. It was not necessary then; it is not necessary now.

Besides being potentially offensive to an island readership, the overall argument of a “doomsday scenario” is academically suspect. Hayes (1995:193) points out that the results of the population projections do not support several conclusions drawn in the editorial chapters. The projections suggest that the rate of population growth for those seven countries will fall within a range between 1.6 and 2.5 per cent. Callick (1993) does not state the population growth rate underlying this scenario, but by quoting the figure of 9 million, presumably for the seven countries, he implies an annual

rate of 4.1 per cent, notably higher than suggested in the actual projections. If current trends continue for the next 12 years, then the populations for the countries studied are likely to be close to 8 million, and for the Pacific area as a whole, i.e. the 21 countries concerned, close to 9 million.

The Pacific 2010 project was intended to draw attention to serious problems looming in the Pacific and there are some situations that merit this concern. The particular aim was to focus the attention of the Australian Government, politicians and officials on the continuing financial and technical needs of several Pacific island countries, most notably Papua New Guinea. While the intention on the surface may have been laudable, a respected university should not be seen to countenance journalistic propaganda. A related, but more fundamental objection has been voiced more recently by Fry (1997), who noted that Australian politicians, academics and journalists seem to have collaborated in this instance in “a new doomsdayism”. His argument is that, like earlier “framings” of the island region, it has employed “a system of knowledge that implicitly denies self-determination while claiming to advance it, and promotes superiority and exclusion while claiming to advance equality. At the heart of this new doomsdayism is a special right to manage, steeped in old racist premises” (Fry, 1997:336). In general, the fact that fertility already has fallen from its peak in every Pacific island country seems deliberately to have been omitted, presumably so as not to weaken the message.

Conclusion

Fertility is still very high in many Pacific island countries, but in others has been shown to have changed within a relatively short time (Pirie, 1994). Overall, trends are positive and [table 1](#), derived from data provided by the South Pacific Commission (1998), illustrates the extent to which a fertility decline is characteristic of all the above-mentioned 21 countries. Despite this, it is true that most island countries have adopted family planning with reluctance. Only pressure from aid donors has moved most governments to adopt programmes or enact policies aimed at limiting family size. Pacific island women have been slow to accept family planning, the major reason being that they did not find the methods satisfactory and to some “the cure seemed worse than the disease” (e.g. Chung, 1990:208-217). This situation is now changing and contraceptive technology is currently showing some dramatic improvement.

The most disquieting demographic situation currently is in Papua New Guinea, where there is recent evidence that the fertility and mortality

transition has stalled (Hayes, 1992:2-6). But this is due mainly to administrative problems rather than to a disinclination on the part of the population to accept change, and as such it may be cured by reform, vigorous perhaps, but with well-established prescriptions. More encouraging is the notion that the current lowering of fertility throughout the Pacific is not really an innovation, but a return to a status lately given a new relevance, which these populations most certainly will not ignore. The ancient balance between low mortality and low fertility characteristic of the pre-contact Pacific looks likely, eventually, to be restored.

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Population and Sustainable Development: The Critical Role of Good Governance

Sustainable development is a distinct possibility, but one that demands the political will to put into effect radical changes

By Margaret Chung*

Many articles in the popular press and in academic journals decry the doomed state of our planet. In one recent journalistic account, “The Ends of the Earth”, the author (Kaplan, 1997) journeyed to see for himself “the corrosive effects of overpopulation and environmental degradation in the Third World”. What he found, not surprisingly, was consistent with what he had expected, based on the oft-cited statistical indicators of development — or more accurately, of the malaise of development — decay, disorder and depression. Similar indicators suggest that the news from the Pacific is not

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good either. Demographic trends particularly are invoked as harbingers of doom for these island countries and territories. The well-rehearsed scenario is a future condemned by overpopulation of under-resourced towns and depopulation of the outer islands; by agricultural communities beggared by the pressure of numbers, the degradation of their environmental resources, and the loss of their most productive members; by the inability of basic education and health services to make headway against the growing numbers of potential clients; and by economic stagnation that is deepened by the emigration of talent and the absence of jobs for the remnant of a low-skilled labour force (see, for example, Cole, 1993).

Official statistics are prone to distort the realities they describe and to help to substantiate a particular interpretation of reality. But let us say, for argument's sake, that the figures and the reality they project are correct. On the face of it, the easiest conclusion is that there is little chance other than the Pacific islands soon becoming an impoverished backwater of the global economy. But at least two things are wrong with this prognosis. First, it is driven principally by the attention given narrowly to technical relationships between population, the economy and the environment, such as the much vaunted connections between growth of population and gross domestic product (GDP), and the relationship between population density and environmental pressure. All apparently empirically defensible connections — apart from the fact that not one goes undisputed. Much less attention is given to the political relationships which link population with the social order (Taylor and Pieper, 1996) and, in particular, to McNicoll's (1980, 1993) ideas about alternative histories and the links between populations and their political domains. Yet, as this article argues, it is in this political domain where the greatest potential lies for a radically improved outlook.

Second, pessimism is a very poor guide to more viable prospects. The debate over what actions are practical is deeply divided, particularly between those who propose that economic growth must take precedence and that greater affluence will eventually benefit everyone, and those who believe that economic growth is both necessary but in itself insufficient if the true goals are equitable development, social cohesion and individual well-being. A good deal of concern has been aired over the social consequences of the latest round of economic theories — labelled impressively as “reforms” or “structural adjustments” — but these interactions are complex and the negative impacts subtle, yet significant (Taylor and Pieper, 1996; Tapinos and others, 1997; ESCAP, 1994). What these policies require, at base, is a restructuring of the state, given a feeling that the tradition of macro-economics shows scant concern for poor people

and social processes (Taylor and Pieper, 1996). Although economic reform is not the focus of this article, it is crucial to acknowledge that much discussion about governance in the current development literature is aligned with these particular economic theories.

The one point on which all parties apparently agree is that development should be “sustainable”. This word, one of the most overused in policy documents and international resolutions, is also one of the most vague and there are various interpretations of what is meant by it. The Asian Development Bank (ADB, 1996), for example, refers to “sustainable economic development” in line with the Bank’s concern about the overexploitation of natural and environmental resources and its view that living standards will improve fastest through greater prosperity. The United Nations Development Programme has entitled its mandate “sustainable human development”, by which it means an equally weighted combination of human development, environmental management, economic growth and good governance, with strong emphasis given to distributional equity (e.g. Anand and Sen, 1996). This euphemistic language might invite some cynicism, particularly among those who readily see the human element in the Pacific situation, but not any sustainable one. The problem, too, is that the debate over economic growth and human development can, and has, raged back and forth without either side making any progress towards their goals. In fact, those who proclaim economic growth as the first priority for the Pacific in one breath usually bemoan the weak sources of this growth in the second.

There is certainly little that is new in proclaiming the necessity for human development and the schools and medical services that are implied, nor economic growth, nor better environmental management. Good governance, too, is an oft-recycled idea, but one to which new attention is being given, it now being seen as possibly the primary means of achieving sustainable development. By “governance” is meant the institutional landscape within which political, social and economic activity takes place, the frameworks of rules and procedures that help govern such activity, and the organizations that carry it out (Taylor and Pieper, 1996). Much of the talk about governance, however, refers only to the second part of this definition, i.e. specifically to government, and little attention is given to the ways in which the institutional landscape links to development in general. Recent demographic literature, however, makes the connection between the state and development quite clear, and from this emerges a dynamic agenda for change.

The agency of the state in population dynamics

In recent years, some theorists and historians have demonstrated the powerful agency that the state has upon demographic change (e.g. McNicoll, 1980; Greenhalgh, 1990; Jewsiewicki, 1987; Hunt, 1988; O'Brien, 1987; Organski and others, 1984; Chung, 1991). For instance, while in theory high fertility was a universal characteristic of traditional societies, there is strong evidence that in some places it was provoked by economic and political changes connected with the expansion of capitalism and through state-run programmes to foster "modern" ideas about the behaviour that befitted good wives and mothers (e.g. Jolly and MacIntyre, 1989; Van Binsbergen and Geschiere, 1985; Manderson, 1989; Smith, 1983). Many theories of fertility change have been predicated on culture, on attitudes and on knowledge, but it is equally apparent that changing social institutions drive behavioural change by altering the circumstances of people's lives. Fertility behaviour is closely connected with structures of opportunity, which often originate in state policies and operate on fertility through their impact on individual life-courses (McNicoll, 1980). During the twentieth century in Fiji, for example, it could be demonstrated that widening opportunities for a community of Fijian women, particularly through state-directed policies affecting their chances for education, employment and mobility, were closely reflected in their fertility behaviour (Chung, 1991).

Population policies always have been predicated on the assumption that the state has power to modify demographic behaviour. Many family planning programmes, for example, rest on the general premise that "traditional" people, unsure of their real needs, can be directed towards more appropriate behaviour and thereby their "development", or that individual conduct can be modified to benefit the larger group. However, the real power of the state is not exercised so directly. Rather, the demographic behaviour of people is powerfully influenced by institutional incentives or constraints, which encourage or inhibit certain actions, often without intention. Just as there may be explicit policies to influence demographic trends, so there are "hidden" policies set in motion by existing state activities and, more generally, by the general style of local development.

In any history, it is always tempting to recount events as if their patterning were inevitable. But given the agency of the state in patterning change, we can justifiably consider what might have been — or could be — if colonial and post-colonial policies had been quite different; if structures of opportunities had been wider and more equally distributed. And if we

can raise the possibility of alternative histories, so can we also raise the possibility of alternative futures.

Population growth: what hope for accommodation?

Much of the concern over population growth has been provoked by ecologists or environmentalists, who warn of the impact of absolute population numbers on environmental sustainability. Although this is indisputable at some point, beyond that much of the accompanying discussion is sterile, for the momentum of rapid population growth means that it will be with us for some time, barring some cataclysmic event. The critical question is not whether it should or should not be accommodated, but *how* this accommodation can best be done. As the case of Tarawa in Kiribati demonstrates, links between population growth and ecological stress are affected not only by demographic and environmental circumstances, but also by social, legal and economic institutions. Modifying these institutions can open the possibility of a better future.

South Tarawa, the country's capital, is one of the most crowded places in the South Pacific. From 25,000 people in the early 1990s the population is expected to grow to between 35,000 and 46,000 by the year 2010. The lower figure can be attained only if immigration and fertility rates are sharply curtailed; the higher figure assumes that current patterns of growth continue unchanged (Chung, 1993). Population density currently averages 1,600 people per sq km, but is much higher in some localities, such as the islet of Betio, where there are 5,400 persons per sq km. The concentration of people on the South Tarawa atoll grew rapidly in the 1960s and 1970s but, even though the rate of growth has slowed since, almost twice as many people live there currently than did so 20 years ago. The population of South Tarawa still increases at an average of 3.1 per cent a year, or about one third faster than the national rate.

Many of the pressing environmental problems in Kiribati come from congested conditions on the one atoll of Tarawa, from the combination of increased population, urbanization, infrastructural development such as causeways and the airport, changes in technology and increased consumption. Poorly planned land use and overtaxed systems of water reticulation, sewage and waste disposal have together had serious environmental, economic and social consequences for South Tarawa. Crowded, unsanitary conditions contribute to a high incidence of diarrhoeal diseases and a death rate for children high by Pacific standards. Important disease vectors are inadequate sewerage, uncollected domestic garbage,

stray dogs and flies. While reticulated water supplies are safe, demand for clean water far exceeds supply, a situation made worse by wastage from deteriorating distribution mains and illegal connections, about which the financially strapped Public Utilities Board is able to do little. Many households use water from unprotected and unclean wells, while settlements encroaching onto water reserves threaten further pollution of groundwater. Living conditions are particularly poor on Betio. When cholera broke out in 1977, communal toilets were built; however, by the early 1990s with three quarters of those toilet blocks unserviceable through misuse, and an even larger population, the threat to public health had become immediate (AIDAB, 1993). If current patterns of resource and land management remain unchanged, population increase is certain to exacerbate them with congestion, public health, water supply, waste management and environmental degradation.

The challenge of accommodating population increase on South Tarawa is therefore immediate and the forerunner, it might be assumed or argued, of the future scenario for other densely populated islands in the Pacific. The growth of South Tarawa's population has been of concern to Kiribati for some time and its government already has in place well-proven policy measures — outer island development, resettlement, decentralized employment, family planning programmes - directed at modifying trends in the national population. But barring some unforeseen event, South Tarawa's population will not be contained by any of these policies, at least not over the next decade or two. A ban was placed on immigration in the 1950s, even while most new facilities — high schools, teachers' college, a new hospital and administrative centre -were built there, so that there was an influx of settlers from other islands after controls on movement were lifted in the early 1960s. Not only is the political cost of closing South Tarawa to all new immigrants unimaginable nowadays, but also, even if adopted, such a measure would not contain its growth, for immigration now accounts for only about one quarter of the growth; the larger part comes from births among the local population. The programme to increase settlement of Line Islands and Phoenix Islands was inspired partly by the need to alleviate congestion on South Tarawa, but the programme is too small and too gradual to have any appreciable effect on its population growth. Encouraging lower fertility can benefit the health and well-being of women and children, but the adoption of the necessary measures takes effect slowly. Even if fertility were to decline decisively and soon, the large number of young people in the population would mean that Tarawa's population would continue to grow under its own momentum for at least another generation.

The situation on South Tarawa is not simply the result of population growth, but of the lack of deliberate or effective government policy to counter it. These problems were accurately forecast in the late 1970s by a demographer, Sheila MacCrae, whose projections were incorporated into the 1979-1982 National Development Plan (Government of Kiribati, 1978) and by a series of United Nations Development Advisory Team for the Pacific reports on settlement conditions based on detailed field examination. These reports touched on the real issue: that crowding on South Tarawa reflected not only its growing population, but also a wasteful, fragmented and disorderly use of land. Tellingly, these reports did not bring any action to improve settlement conditions on the atoll, one reason for which is common to many places. Since the 1960s the broad thrust of settlement planning has been to stop the growth of main towns and cities. This emphasis on preventing urban growth has seemed to argue against investing in urban services in case more migrants would be attracted to town, or providing services to squatters in case that legitimized their claims to land. In South Tarawa — as in cities across the world — the result has been a proliferation of sub-standard, overcrowded housing with inadequate services, a far cry from the urban plans that were never implemented.

The second reason is also common to many places, although the specifics are uniquely linked to the politics of land ownership in Tarawa (Lodge, 1987). In Kiribati's 1990 census, 83 per cent of the people on South Tarawa said that their home island was elsewhere, even though more than half of them had been born on South Tarawa. Thus, many non-Tarawan residents are not migrants in any real sense, but reflect previous movement by parents or grandparents. There is a small land market, but in general, this is tightly controlled by Tarawans. On Betio, the most crowded islet, much of the land is leased by the government for civil servant housing, yet the widespread informal subdivision of lots is effectively ignored, as is the growing number of squatters. To this must be added areas of derelict land on government leases; the result is a highly congested, haphazard arrangement of sub-standard houses and other buildings. Any move to regularize tenure is fraught with difficulty in both modern and traditional law. The current situation, which grows ever more entrenched and complex, is characterized by divided ownership, highly fragmented holdings, scattered rights and disputed boundaries (Namai, 1987:39).

The fundamental cause of urban congestion in South Tarawa is therefore not simply population numbers, but political, legal and cultural practices which defuse the political will to improve settlement conditions. Crowding could be alleviated by better management. Overcoming the

current reluctance to use land more efficiently and improving settlement standards are essential if an inevitably larger population is to be accommodated in the future.

The employment crisis: what hope of resolution?

One of the conundrums of economic growth in the Pacific is the tightening bottleneck of employment in the formal sector. In 1991, only 370,000 such jobs were available in the South Pacific area, while the potential labour force stood at approximately 1.8 million people (UNDP, 1994). The gap between demand and labour supply is widening, driven by three processes: rapid population growth, shifts in population age-structure and a growing demand for cash incomes. These trends translate into demands for wage employment that are increasingly difficult to meet, a situation not likely to improve in the near future. There is little, if any, evidence that island countries, should they continue with current policies, will be able to create a sufficient number of paid jobs to satisfy anticipated growth in the labour force. Consequently, the semi-subsistence sector, particularly in rural areas, not only will carry the burden of absorbing most of the labour force, but will also provide their livelihood. Although slow rates of employment growth are acknowledged to challenge the sustainability of Pacific island economies and societies, in most countries labour force appraisal and planning is extraordinarily weak.

For some time, increased opportunities for self-employment and employment in the informal sector have been proposed as ways to stimulate and distribute economic activity more evenly. However, many practical problems lie in the way of putting these policies into effect. Despite a decade or so of stated commitment to private-sector development, in most countries a weak, private and very narrow informal sector continue to act as significant barriers to employment growth. Many foreign investors are discouraged by encountering a tangle of red tape — difficulties which have been identified many times over, but still are insufficiently addressed by the various government bureaucracies involved (Price Waterhouse, 1998).

The business and legal environments are particularly hostile to small-scale and informal enterprises, with outdated legal and administrative requirements placing many obstacles in the way of small business operators. For example, licensing acts, which govern permits to operate a business or to locate it in a particular place, are often administered in ways that are confusing, frustrating and defeating to individual entrepreneurs. The Public Health Act of Fiji, for instance, prohibits any place ever used as sleeping

quarters from being the location to manufacture, prepare, pack, or store articles for sale. Many small traders use their homes for business purposes instead of renting premises and thus run the risk of being outside the law. These regulations may not always be applied, but if strictly enforced at any time they make many small businesses vulnerable to abrupt closure and discourage investment in their growth (UNDP, 1997).

Systems of formal schooling continue to direct young people primarily to wage employment in the towns, another generally recognized issue on which little progress has been made in the Pacific. That parents and children most value academic success and white collar work is hardly surprising; in many countries, pay scales throughout the labour market reflect identical values. Policies to diversify employment skills through education are defeated by the institutional structure of this market. White-collar employment in Fiji, for example, is supported by wage orders which ensure that even skilled workers in some trades, such as the garment industry and the building and engineering trades, earn wages marginally above the poverty line should they happen to be the sole income earner for their household (Government of Fiji and UNDP, 1997:80).

Patterns of unemployment and underemployment in island countries are therefore not random nor inherent to human society. Rather, they reflect the institutional structure of both the labour market and the society within which it is imbedded. Consequently, it is not demographic trends that contribute most to levels of unemployment, but rather the legal, economic and social framework situated largely within and able to be changed by government agency.

The spread of poverty: what hope of avoidance?

The growth of population and the depletion of resources are often claimed to be principal factors in the growing incidence of poverty in the world. Again, it can be argued that this connection is not inevitable, but often reflects a failure or absence of government intervention, since it is possible to eradicate poverty if there is sufficient political will.

Between 1977 and 1991, there was a small trend towards more widespread and deeper poverty in Fiji (Government of Fiji and UNDP, 1997:45). Since then, no statistical data are available to measure whether or not this situation has changed, but those involved with welfare programmes believe an increased demand for their services indicates that it has worsened. While the incidence of poverty only rose slowly over 15 years, the cost of

the government's lack of intervention increased sharply, both in terms of the social and human costs of living in poverty and of the monetary costs in closing the poverty gap. Considering only the latter, the cost of closing this gap escalated from approximately F\$11.5 million a year in 1977 to F\$45.9 million a year in 1991, representing 1.9 per cent and 5.4 per cent of GDP respectively (Government of Fiji and UNDP, 1997:111).

Another sign of increased poverty in Fiji is the spreading areas of "squatter" or informal housing in all towns, with the number of people in informal housing rising more rapidly than the urban population as a whole. In 1995, a survey in the town of Ba, Viti Levu, found the squatter population to have grown tenfold since 1986 (Gibson, 1995:12). A recent national survey estimated that at least 20 per cent of all urban households live in informal situations and, as a result, are at risk of poor health, insecure tenure and other consequences of poor housing (Walsh, 1996). The Fiji Poverty Report concluded that this expansion of informal living situations demonstrates the unmet need for affordable housing, which persists despite the government's long involvement in low-cost housing programmes and, in particular, the failure of these policies to assist low-income families. In the process, many such households have become impoverished, having either to pay unaffordably high rentals and to economize on other necessary expenditures, or to continue to live in sub-standard conditions. To this extent, poor housing is a cause of poverty and a reflection of institutional failure, not a symptom of individual misfortune (Government of Fiji and UNDP, 1997:87).

The same arguments apply to other indicators of poverty, be they the failure of children to complete primary school or the inability of women to find paid work to support families. A recent study in Fiji of children who did not attend school concluded that in many cases poverty was the direct cause (SCFF, 1998). Although there is no tuition fee for primary education, a child's family must bear many other costs. Despite Ministry of Education strictures, some schools charge an array of supplementary fees that cover almost any possible form of activity and send home children who cannot pay. The inability of many households, those headed by women in particular, to support themselves adequately is related to the gender segregation of Fiji's labour market, which reflects prevailing sexist attitudes and the absence of legislation to ensure equal pay for work of equal value. As a result, many occupations are effectively the preserve of men, so that the difference between "men's" jobs and "women's" jobs finds women generally lower paid, lower ranked, less secure and less often promoted. The Fiji Poverty Report established that half of all women heads of

low-income, urban households worked in one of only two jobs: as a domestic servant or a garment factory worker (Government of Fiji and UNDP, 1997:61). These are not inevitable aspects of human society; instead, they demonstrate the absence or ineffectiveness of community and state interventions to counter poverty.

Moving forward on more optimistic grounds

Just as most attention is given to the technical or “scientific” relationships between population, the economy and the environment, so too are most population policies conceived to lie within this realm. Population-environment interactions in particular are usually considered in quantitative terms, as follows:

The size of a population and its growth determines the magnitude of needs to be fulfilled and therefore the magnitude of development that should be undertaken and the rate of such development.... The particular characteristics of a population determine the scope and range of needs that are to be met and therefore the character and scope of the development processes that need to be pursued (Kismadi, 1994:38).

Remedial policies and programmes are usually proposed along similar lines. A common plan is to define the relationships between population and environment in concrete terms, carefully monitor their progress using the technologies of specialized scientific disciplines, and develop the administrative capacity to manage this integrated planning and monitoring (Brechin and others, 1994) a strategy that is akin to constructing an elaborate structure from which to watch the ship go down. Other writers, however, regard the integration of population, environment and development policies as an expensive luxury that ill-befits developing countries such as India or China (Panadiker, 1994:33). Another conventional line of policy is to control the process of change in some way, such as to restrain the movement of people in order to avoid acute imbalances in natural resource stocks (UNFPA, 1991:112), but these types of plans have almost always failed fast.

This article has commented on the insufficient attention that is given to the relationships between the dynamics of populations and the political realm, and on the great potential therein for radical change. These dynamics include the changing distributions of urban populations, and of people’s jobs and incomes. As a recent report on urbanization in the Pacific concluded, “Governments need to consider urbanization as a crucial part of

the national economic development process and adopt a positive and proactive approach to urban growth by taking measures that enable towns to grow in an orderly way” (ESCAP, 1999:36). Addressing the impact of gender and education on the distribution of jobs is fundamental to encouraging employment growth. Governments that intend to stem the growing incidence of poverty need to consider whether state institutions, such as the school system or public housing, actually redress or exacerbate patterns of disadvantage.

The institutional perspective that this article has proposed brings the state under greater scrutiny for its influence upon change. This is a very different matter from the statist controls and monitoring devices that conventional population policies propose. From this perspective, sustainable development becomes a distinct possibility, but one that demands the political will to put into effect radical changes.

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The Institutionalization and “Medicalization” of Family Planning in Tonga

*Development of the clinical and medical
infrastructure facilitated the increase in the proportion
of family planning acceptors*

By Henry Ivarature*

This article focuses on the introduction and establishment of family planning in Tonga and argues that family planning has been medicalized. In the process of institutionalizing family planning through the formal medical structure, what has occurred is that women — the focus of this national policy — have had their reproductive and sexual environments medicalized. Also, family planning at the macro level, aside from its clinical and medical objectives, has taken up a regulatory function for the socio-economic and developmental aspirations of the state.

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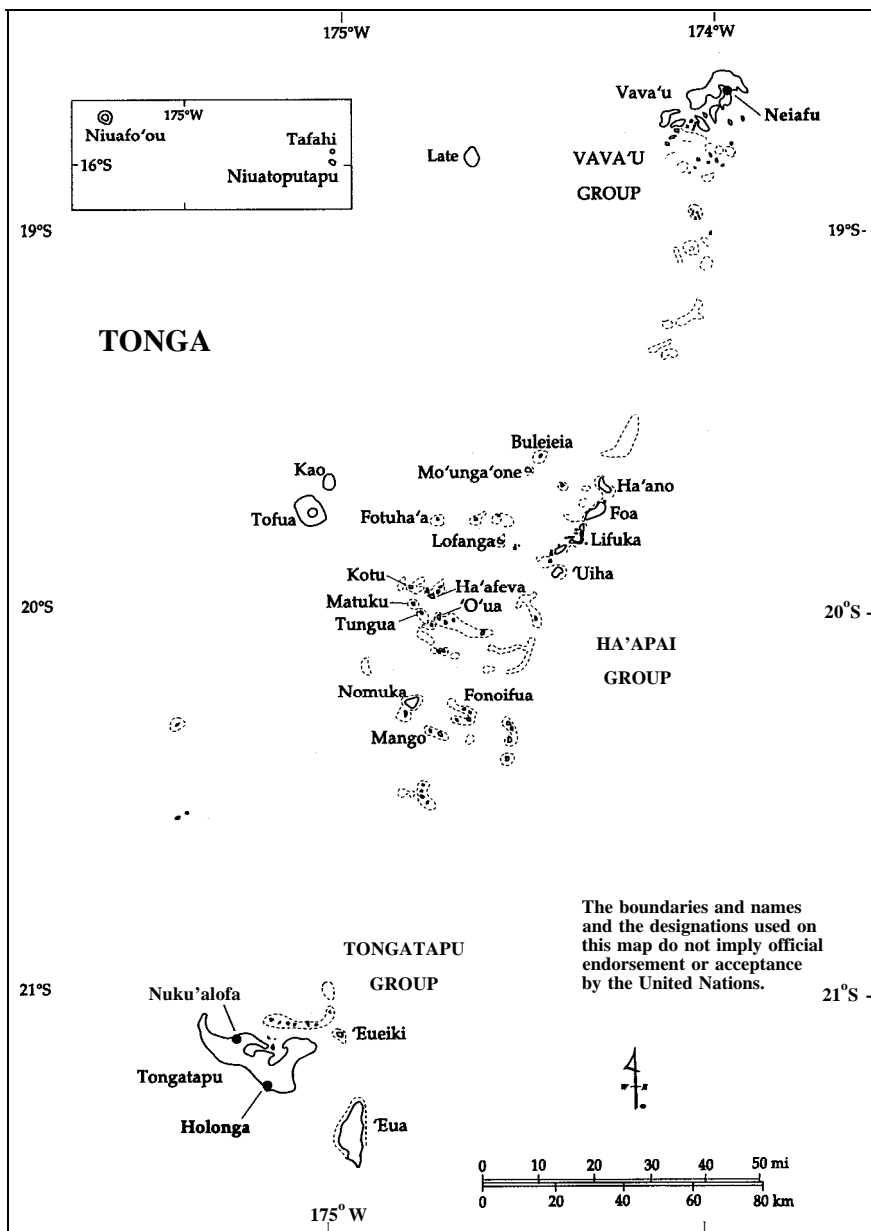


Table 1. Population size and annual rate of growth, Tonga, 1956-1986

Census year	Population	Period	Annual growth rate (%)
1956	56,836		
1966	77,429	1956-1966	3.09
1976	90,799	1966-1976	1.51
1986	94,649	1976-1986	0.49
1996	97,446	1986-1996	0.29

Source: Government of Tonga (1991). *Sixth Development Plan 1991-1995* (Nuku'alofa, Central Planning Department), p. 62, Table 4.1; Gerald Haberkorn and Christelle Lepers (1998). *Pacific Island Populations* revised edition (Noumea, South Pacific Commission), p. 66.

Tonga

Tonga is a country of limited land area, i.e. 747 sq km. Its 150 islands (see map) comprise the Tonga archipelago, also known as the Friendly Islands. Rapid population growth until the early 1970s has resulted in a high population density of 120 persons per sq km and an acute land shortage, especially with regard to the number of Tongan males who are lawfully entitled to two plots of land for agriculture and residence. Fortunately, since around 1970, emigration has alleviated temporarily whatever social, economic and demographic pressure annual rates of natural increase may exert on the country. As shown in table 1, emigration has been largely responsible for reducing the annual growth rate from 3.09 per cent between 1956 and 1966, to 0.29 per cent between 1986 and 1996. This dramatic decline has reduced the degree of overcrowding throughout the archipelago.

The social structure of Tonga consists of the royal family at the apex of the society, with King Taufa'ahau Tupou IV currently head of government. The nobility rank beneath the royal family and their significance emanates from recognition as traditional leaders, with certain rights and privileges. Their societal authority and rank is especially evident during ceremonial, cultural and other daily events. Ranked below nobles are a class of lesser chiefs known as *matapule* who, like nobles, have certain rights and privileges, but these do not override those of nobles. At the base of the social hierarchy are commoners, the majority of Tonga's population. All Tongans display their relationship to others, whether of higher, lower, or equal rank or status, through such mediums as language, dress, participation in ceremonies, cultural obligations and collective and personal behaviour. Social relations between and among these classes of people are

demonstrated through societal norms that for generations have been woven into the country's cultural, social and political fabric. The form of government in Tonga is a Western constitutional system based on the British model, but incorporating Tongan forms of authority and rank in order to acknowledge the existence and significance of various social strata in its society.

The challenges of adequately maintaining or supporting a rapidly expanding population are well known. In addressing rapid natural growth, the policy focus appears to be directed at one group of people -women — and narrowly confined to family planning services. In Tonga, the national programme of population management is gender-specific and over-emphasizes the role and position of women in its implementation. Consequently, rhetoric on the social problems of rapid population growth and its perceived consequences is narrowly defined on a gender and institutional basis. The limited focus of family planning programmes on women and their implementation by the medical establishment leads to the danger of medicalizing a small aspect of population management, when what is involved is the wider aspect of human resource development. Locating family planning services or programmes alongside health services is seen as inevitable, but the very fact of attaching population management to the overall health objectives of a government also inevitably facilitates the process of medicalizing it. To illustrate this process as it is occurring in Tonga requires a historical approach to past experiences of family planning within the medical establishment and as a development instrument of public policy.

Institutionalization of family planning

A limited family planning service was introduced in 1958 in the capital of Nuku'alofa ([see map on page 36](#)), through the activities of the International Planned Parenthood Federation (IPPF) rather than as an initiative of the Government of Tonga. The government, in particular the medical department of the Ministry of Health, was ill-prepared to introduce such a "health service". No one had been trained in family planning; further, the medical infrastructure essential for implementing such services nationwide was absent. The impetus for introducing family planning arose from demographic trends in Samoa and Tonga in the 1950s that signalled the need for measures of population regulation (Bakker, 1979), reinforced by the findings of a survey of five Pacific island countries sponsored by IPPF. Both countries had experienced high rates of population growth as a

result of better medical services and improved living standards, which had resulted in the reduction of mortality rates.

Family planning became “official government policy” in 1962, when funds were allocated in the recurrent estimates of the Ministry of Health for its implementation (Government of Tonga, 1976:276). In 1965, a programme on family planning was instituted when a Tongan medical officer with specialized training was appointed part-time medical officer in charge of the family planning clinic (Government of Tonga Annual Health Report, 1965:8; Government of Tonga, 1976:276). His appointment signalled the recognition of family planning, until then viewed by the government as a means for improving the health of mothers and their offspring. Prior to this, services were provided by a senior staff nurse, occasionally assisted by a junior staff nurse.

The start of the family planning service was marred by many administrative problems, in particular, high rates of staff turnover, lack of properly trained staff and the absence of infrastructure and skilled personnel in the Ministry of Health. Moreover, the number of people who sought family planning services was disappointingly small. In 1958, a total of only 226 visitors were recorded (Government of Tonga Annual Health Report, 1958:13), most of whom were using contraceptive devices more or less regularly, followed by 218 acceptors in 1959, of whom 36 were new acceptors (Government of Tonga Annual Health Report, 1959:13). In 1960, only 25 women were reported to have visited the clinic; in that year the senior nurse with professional training and skills was transferred from Tongatapu to Vava'u.

As a result, family planning services were temporarily suspended in 1961 due to a lack of skilled medical staff, ironically at the same time that the annual health report commented on the rapid rise in population and the need to reduce fertility by both natural and artificial methods. When services resumed in 1962, a total of 93 women visited the clinic, but only three were new aside from the 16 who came regularly. Attendance in 1963 showed more promise, with 75 women out of 196 visiting regularly (Government of Tonga Annual Health Report, 1963:7). In 1964, when clinic days increased from twice weekly to become a daily service (except for weekends), the total number of new acceptors improved slightly. In 1965, family planning services in Nuku'alofa were incorporated into the maternal and child health clinic, where those nurses undertook family planning activities (Government of Tonga Annual Health Report, 1965:8).

In 1964, a second family planning clinic was opened on the northern island of Vava'u. In the first month, attendance was very high, but subsequently declined rapidly (Government of Tonga Annual Health Report, 1964:7). During its first year, 284 married women visited the clinic for consultations, although only 36 attended regularly. By 1965, just 12 married women were clinic visitors, four of whom were new. Such low attendance was attributed to a shortage of contraceptives (Government of Tonga Annual Health Report, 1965:8) even though demand for family planning services was seen officially to be gradually increasing. Despite the irregularity of clinic hours at Vava'u, 32 sterilizations were performed in 1966 (Government of Tonga Annual Health Report, 1966:7). In Tongatapu, labour shortages meant that the family planning clinic could open for only two days each week. Appeals for assistance to overseas organizations were successful, however, and the Population Council donated 2,000 intrauterine devices (IUDs) (Lippes Loop). With two medical officers instructed in fitting the IUDs, and with their involvement in conducting clinics at Vava'u and Ha'apai hospitals ([see map on page 36](#)) it was not surprising that this contraceptive method reported relatively high usage in 1966, when a total of 469 women were fitted with IUDs (Government of Tonga Annual Health Report, 1966:7).

Family planning in formal development

Although family planning services continued to appear in recurrent budget estimates for the Ministry of Health, they received minimal reference in the country's first development plan, published on 1 July 1966. Beyond the establishment of a national programme the previous year, three somewhat coincidental events gave population issues greater visibility. The first was the publication of an article entitled "The population problem", featured in six issues of the weekly *Chronicle*, by John Rocke, a well-known gynaecologist from the United States, who was also Professor of Medicine at Harvard University (*Tonga Chronicle*, 30 April-3 June 1965). Consideration, among many themes, of the position of the Roman Catholic Church on population growth and of different religious attitudes towards biological reproduction and responsible parenthood elicited offers from heads of local churches to provide written statements of their views on family planning.

The second event, in July 1965, was the annual meeting in Nuku'alofa of the South Pacific Health Board, then executive arm of the South Pacific Health Service. The agenda item, family planning and population control, led the board to urge participating governments (Fiji, New Zealand, Samoa

and Tonga) as well as the Western Pacific High Commission to establish and develop family planning as an integral part of their public health plans (*Tonga Chronicle*, 13 August 1965). Similar advocacy was contained in the annual Ministry of Health report (Government of Tonga Annual Health Report, 1965:8); a subsequent request by the government for assistance from overseas organizations reflected the urgent need for trained medical staff and clinical supplies.

By far the most significant fact, however, was that the new King of Tonga, Tupou IV, had raised questions about population as early as 1950 at the first meeting of the South Pacific Conference. On 21 June 1966, at his first official speech to the Legislative Assembly, he called for the introduction of family planning and in doing so compared population densities in Tonga and India: "By planning their family, a husband and wife with four children would be able to ensure that they would be in a position financially to care for their children, clothe and educate them, and thus give them the opportunity of sharing in the future progress of the Kingdom" (*Tonga Chronicle*, 24 June 1966:4). He also noted the declining size of land allotments for subsistence gardens and the unavailability of land for commercial projects, the burden placed on the community by the high incidence of illegitimate children, and the decline in income from the Kingdom's major export (*copra*) just as population numbers continued to rise.

Despite fleeting mention of a family planning programme in Tonga's first development plan, proposals to expand maternal and child health services did serve as a further catalyst. The annual health report for 1966 called for the rapid establishment of family planning clinics - similar to the one in Tongatapu - in Ha'apai, 'Eua, Vava'u and the outer islands of Niuatoputapu and Niuafo'ou ([see map](#)). The sense of urgency to open clinics reflected the belief that 5,000 out of an estimated 20,000 women in the fecund age group (15-46 years) could be protected from undesired pregnancies (Government of Tonga Annual Health Report, 1966:7). An alarming increase in the number of induced abortions was further justification of the need for more clinics to prevent unwanted pregnancies.

Up to 1966, only one nurse had received brief practical training in family planning, aside from three medical officers who had had limited secondments. In an effort to increase the number of specialized personnel, in December 1967 the Kingdom and the South Pacific Commission jointly sponsored a regional seminar on maternal and child health (MCH)

including family planning, that was held in Nuku'alofa (Fanamanu, 1969:18; Simmons and Yee, 1976:3). The seminar called for the establishment of a population planning board and argued that the concept of family planning needed to be communicated far more to the adult population, through two primary approaches. The first consisted of approaching the mother and the second sought the support of women leaders of formal and informal groups. In the former, casual discussion with mothers attending MCH clinics was advocated to overcome problems of shyness and as a way of having indirect contact with husbands, while professional visits to local pastors and priests was a way to help women whose religious beliefs outweighed their willingness to use contraceptives. The latter approach, to persuade mothers to accept family planning, required the assistance of influential women, such as the wives of hereditary title-holders and church leaders, and of women leaders of *tapa*- and mat-making groups, health committees and local midwifery.

In 1968, family planning was integrated with the MCH project and a medical officer appointed to oversee its implementation (Government of Tonga Annual Health Report, 1968:10). Following submissions in 1967 for international assistance, more help arrived from IPPF and the United States Peace Corps, in the form of contraceptive supplies, skilled personnel and overseas training for Tongan medical personnel. IPPF fellowships in 1968 enabled three health workers to undertake family planning courses in Singapore (Government of Tonga Annual Health Report, 1968:3, 11). Indeed, progress throughout that year was spectacular, with staff of the Public Health Section presenting a weekly radio programme on family health and also sponsoring film shows, complemented by individual counselling and home visits by MCH nurses. The integration of family planning with MCH was a key factor in attaining the highest reported use of contraceptives since 1958 - a total of 787 acceptors, of whom around 600 were new (Government of Tonga Annual Health Report, 1968:24-25). Nevertheless, the annual health report insisted that further programmes in educational awareness were essential.

In December 1969, the establishment of the Tonga Family Planning Association further strengthened official advocacy of family planning services (Government of Tonga Annual Health Report, 1969:8). More international assistance came through a fellowship from the East-West Center, in Hawaii, for a medical officer to study family planning programmes in Hawaii, Republic of Korea and Taiwan Province of China. A tremendous increase in family planning acceptance was reported by the

Ministry of Health in 1969, largely as a result of an extensive public awareness campaign conducted in 45 villages on four of the main islands. This programme also involved several government and non-government institutions and, for that year, 846 people were said to have begun using contraceptives. Of those, only 216 discontinued, while overall 1,011 acceptors were reported to have practised contraception (Government of Tonga Annual Health Report, 1969:23). For the first time, remote islands such as 'Eua, Niuatoputapu and Niuafo'ou provided clinic reports, in turn reflecting the functional integration of family planning with maternal and child health services. Some questioned this approach to complex issues of "overpopulation", however, and one prominent educationalist considered it "a makeshift solution". In a long article in the *Tonga Chronicle* (22 August 1969), a more even distribution of wealth was one of several alternatives identified to address issues of population, food and living space.

Another family planning clinic, the Roman Catholic Mission Voluntary Family Planning Service, was opened in 1970 in Nuku'alofa by the Catholic Church to teach and assist women in using the rhythm and ovulation methods (Government of Tonga Annual Health Report, 1970:10). Early the same year, at government request, a "knowledge, attitude and practice" survey was carried out by two consultants from the School of Public Health, University of Hawaii (Wolff and De Sanna, 1970). Since the work of the Tonga Family Planning Association and the Catholic Mission Voluntary Family Planning Service was confined to Nuku'alofa, very few women on other islands used the pill or the IUD which, with condoms, were the most widely used contraceptives in Tonga (Government of Tonga Annual Health Report, 1970:29). On Tongatapu, in 1970, there were 400 acceptors of IUDs, largely owing to the provision of five new clinics with personnel trained to fit them.

With a foundation for family planning established firmly in Tongatapu, what remained was to expand and consolidate services in the rest of the Kingdom. Identified as a national objective in the second and third development plans, the Ministry of Health undertook the task of ensuring the integration of family planning into the prevailing system of public health care (Government of Tonga, 1970; 1976). Although this integration was said officially to be "recognized" from 1968 (Government of Tonga Annual Health Report, 1968:10), in fact the process was probably incomplete until around 1975. Thus, family planning, which began between 1958 and 1970 as an activity with little social and health significance, was to become between 1971 and 1980 a social and health policy of immense national importance

Table 2. Family planning acceptors in Tonga, 1958 to 1990

Years	Number of acceptors
1958-1970	7,797
1971-1980	16,477
1981-1990	14,547

Source: Compiled from Government of Tonga (1958-1990). *Annual Reports of the Ministry of Health* (Nuku'alofa, Ministry of Health).

(see table 2). The second development plan sowed the seeds for this transition, although, given highly ambitious targets, the allocated funds were a negligible 1.22 per cent of the proposed total expenditure of T\$4,778,220, or only T\$58,460 (US\$1 = T\$1.70). This budget was expected to be able to provide contraceptive protection to no less than half the married female population, as well as to achieve, by 1975, a birth rate of 20 per thousand (Government of Tonga Annual Health Report, 1978:2; Government of Tonga Annual Health Report, 1970:35). Even more ambitious was the third development plan, which proposed to increase by 75 per cent the proportion of married females protected through family planning by 1980 (Government of Tonga Annual Health Report, 1976:280).

More realistic was the implementation in 1971 of the maternal and child health/family planning project, financed primarily by the then United Nations Fund for Population Activities (UNFPA), now called the United Nations Population Fund. Post-partum family planning, which became part of the MCH framework throughout Tonga, was the most successful outcome of this project and focused on women who delivered children at Vaiola Hospital in Nuku'alofa. In 1973, there were 239 such acceptors, 113 of whom were fitted with IUDs, 42 women had sterilization operations, 16 were introduced to the pill, and 35 and 33 respectively accepted the condom and ovulation methods (see table 3). The overall total expenditure of UNFPA to implement this project between 1971 and 1978 was T\$390,111 (Government of Tonga Annual Health Report, 1977:13). Additional and complementary funds were provided by IPPF, the Peace Corps, the Pathfinder Fund, the governments of New Zealand and the United Kingdom, and through the Economic and Social Commission for Asia and the Pacific.

A preliminary review, as part of the third development plan for the period 1975-1980, found that the MCH/FP project had achieved some

Table 3. Trend of contraceptive use in Tonga, 1971 to 1990

Methods of contraception	Years		Totals
	1971-1980	1981-1990	
IUD	3,141	1,529	4,670
Pill	1,771	2,256	4,027
Tubal ligation	686	551	1,237
Vasectomy	11	-	11
Condom	3,601	2,678	6,279
Rhythm method	741	493	1,234
Depo-Provera	4,520	5,941	10,461
Others	2,006	1,100	3,106
Total	16,477	14,548	31,025

Source: Compiled from Government of Tonga (1971-1990). *Annual Reports of the Ministry of Health* (Nuku'alofa, Ministry of Health).

success. Half the population of married women in the Kingdom were receiving family planning services and there had been a decline in the birth rate (Government of Tonga, 1976:277). However, the “too ambitious” goal of achieving a birth rate of 20 per thousand by 1975 had been constrained by the increasingly rapid entry of young people into the reproductive age group and marriage. To target these fecund groups, numerous awareness activities were undertaken from 1975 to 1977 and a weekly article on family planning was published in the local newspaper. In the intermediate term, planners did not anticipate a decline in rates of population growth, but rather assumed that natural increase would remain constant at the 1972 rate of 2.4 per cent per annum (Government of Tonga, 1976:80). In fact, a mid-term review did report the birth rate as falling from 29 to 26 per thousand during the period 1975-1977, the first two years of the third development plan (Government of Tonga, 1978:4, 16). According to the then government census officer, family planning and emigration were the two factors most likely to have been responsible for this situation (*Tonga Chronicle*, 10 February 1977; Moengangongo, 1988:59), while Bakker (1979:22) attributed fertility decline from 1971 to the activities of the Tonga Family Planning Association and the Ministry of Health.

Assessments of these demographic rates received support from a survey of acceptors taken in August 1976, which showed 45.7 per cent of all married women of reproductive age to be using contraception (Government of Tonga Annual Health Report, 1976:8). The lowest reported number of such acceptors was in the district of Ha'afeva, Ha'apai with 4.8 per cent,

while the highest level of 63.3 per cent was recorded in Kolonga, Tongatapu. Overall, the island of Tongatapu reported 53 per cent of married women of reproductive age to be acceptors, followed by Vava'u with 37 per cent, 'Eua with 32 per cent, and Ha'apai with a low of 25 per cent (Government of Tonga Annual Health Report, 1976:8; Tatola, 1976b). More than half of them were younger than 30 years of age (Tatola, 1976a). Whereas the 1970 knowledge attitude and practice survey revealed that only 39 per cent of acceptors had three or fewer children (Wolff and De Sanna, 1970) by 1976, 57 per cent of acceptors belonged to the low parity group. More than half of these more recent acceptors used contraceptive methods that were highly effective (IUD, Depo-Provera, sterilization); about one third relied on somewhat unsatisfactory ones (condom); and only about one fifth practised less reliable methods (rhythm or other: [see table 3](#); Government of Tonga Annual Health Report, 1976:8). The most significant findings of this survey were that acceptors were young, had fewer children once they adopted family planning, and that most were using highly effective methods of contraception.

Application of medicalization concept to family planning in Tonga

The concept of medicalization has to be understood as a process of social control (Bilton and others, 1996:424), which occurs in three forms. The first is the incorporation and redefinition of lay approaches in dealing with illness and other natural bodily processes, such as fertility management, pregnancy, giving birth and ageing that once were handled within the confines of the community, but have since been assumed by organized medicine (Bilton and others, 1996:430). For example, unusual mental conditions traditionally interpreted as demonic possession or related to witchcraft have become redefined as psychiatric conditions. Pregnant women who present themselves at formal medical settings often undergo a variety of procedures such as regular antenatal checkups, vaginal examination before and during labour, ultrasound monitoring and hospital delivery. Seen in this context, decisions regarding family size have become a matter of public policy, now largely the responsibility of medical experts and health programmes.

The second form in which medicalization takes place is the efficacy of scientific medicine (Bilton and others, 1996:431). Better drugs, advanced surgical techniques and procedures, and antibiotic medication reflect the scientific progress of medical research and clinical practice. Should women

desire to regulate their fertility and family size, modern and effective methods of contraception can be obtained from clinics and hospitals, instead of using traditional practices such as periods of prolonged abstinence. In Tonga, confirmation of this point is seen in the dramatic rise in the number of family planning acceptors who use Depo-Provera (see [table 3](#)). The effectiveness of scientific medicine, nevertheless, has been challenged by the incidence of iatrogenic illnesses — that is, illness that develops as a result of medical intervention (Illich, 1975). Among these are the side effects of chemical and mechanically based contraceptives, of which Depo-Provera has been one of the most controversial — even in the South Pacific. Other factors that encourage the development of medicalization include self-interest and the socially engendered belief in a population of the utility of medical knowledge, technology and practice. The danger with over-emphasizing the role of the medical establishment in providing family planning services is that governments may become increasingly dependent on medical professionals, medical programmes and pharmaceuticals to manage rates of population growth and to consider far less other policy options such as formal education, waged employment and professional opportunities for women.

The third form of medicalization is the marginalization of alternative medical therapies (Bilton and others, 1996:432), including treatments such as acupuncture, homeopathy, herbalism and chiropractic that are often excluded from orthodox medical practices. These and similar treatments often exist outside the formal health care sector and are considered lay rather than expert, natural as opposed to synthetic, organic rather than chemical, and holistic as opposed to mechanistic (Bilton and others, 1996:433). The strength of orthodox medicine in Tonga has often marginalized the role of traditional healers, so that the skills of such practitioners go unrecognized, even while they continue to offer alternative services within the informal sector.

In the third world, the medicalization of public policy objectives — such as the regulation of population growth through family planning programmes — represents a rationalization and a bureaucratization of what is perceived as a “health problem”. Central to this objective is the application of the label “healthy” or “healthful” to certain valued forms of behaviour and of “sickness” or “disease” to other, devalued forms of behaviour. From a sociological perspective, these labels are used independently of whether or not there is a biological basis to that which, objectively, has given rise to a designated “sickness” or “disease”. The process of “medicalizing” or “sanitizing” reproductive behaviour, such as

having too many children without adequate spacing, becomes relevant to the state and to its broader policy objectives. Hence, people or individuals are socialized to alter their way of viewing family size, the desirability of children and biological reproduction. In this sociological perspective, medicine, medical services and medical technology hold enormous powers of socialization to serve as a form of social control, which in turn means that medical professionals, programmes and structures are undertaking an "extra-medico" function on behalf of the state. In the process, their role, expertise and functions also acquire a political function, a principal factor of which is the state's acknowledgement of the medical profession in order to serve its goal of public policy.

Four features of medicalization can be seen in the history of family planning programmes and services in Tonga. First, at the macro level, the control over reproduction is carried out through the introduction and implementation of family planning. An increasing population, with concomitant land shortages, overcrowding, unemployment and environmental degradation, necessitates the application at the national level of measures of population regulation. In other words, the unregulated biological reproduction of the population has dire economic, social, environmental and political consequences for the whole Kingdom. Hence, the implementation of family planning programmes throughout Tonga and later their integration within the MCH framework widens the scope of government regulatory policies to cover a broader mass of people, in particular women and their reproductive decisions. In assuming responsibilities for family planning and in providing clinical services, the role of the medical establishment similarly widens to include that of social control over the population at large. Consequently, the medicalization of family planning throughout the Kingdom of Tonga may be viewed as part of this regulatory process.

Second, at the micro level, the regulation by the medical establishment of the bodily functions of married women was inevitable through the implementation of family planning. Programmes such as post-partum counselling, discussions with mothers at MCH/FP clinics, women's leaders and acceptors as advocates, and traditional birth attendants all were mechanisms to target individuals to regulate their fertility. In informal settings, such as in villages, the programme had traditional birth attendants, women's groups, religious groups and traditional healers play this regulatory role. Even the use of gossip, rumour and hearsay, whether or not informative and accurate, was employed (Fanamanu, 1969:52). A policy defined by gender inevitably allowed medical professionals access to the

personal and social environments of women. Pregnancy and birthing, traditionally the domain of the female, have for health reasons become a medical process whereby pregnant women undergo prenatal, post-natal and paediatric consultations. This process has been consolidated and reinforced by the construction of medical facilities and by a physical infrastructure that caters specifically to the female population, thereby excluding the participation of males in the reproductive process. Consequently, the institutionalization of family planning in Tonga has served to medicalize women's sexual, menstrual, pregnancy and birthing functions.

Third, family planning information, education and communication campaigns in the 1970s demonstrated how the government used the media to restructure reproductive behaviour and perceptions of family size. Indirectly, such campaigns promoted the restraint of desire, such as the need to discipline and channel sexual energies. Although the programme targeted both husbands and wives, the latter became the primary focus and all members of the adult population were exposed to these awareness programmes. Furthermore, family planning was advocated to alter and influence people's lifestyles in order to prevent illness and misery, as evident in public awareness campaigns undertaken by the Ministry of Health. Essentially, and at the macro level, national "propaganda" on family planning served to regulate the bodily functions of people (notably women) for the broader socioeconomic and developmental objectives of the state.

Fourth, a redefinition of traditional views and presentations of family and sexuality has occurred, since awareness campaigns more or less served to alter the individual's conception of family, children and reproduction. The successful presentation of the self to the larger society is in having a model small family, with planned and well spaced pregnancies. The role of government in the provision of health services and in influencing health is powerful and pervasive. By providing health services such as family planning and articulating what constitutes an ideal family size, the government assumes responsibility for the control of bodily behaviour (Mathews, 1992:103). Since the control of the body is central to the control of sexuality, the goal of regulating the social order is in practice the regulation of gender sexuality and reproduction (Turner, 1984:91).

The concept of medicalization is part and parcel of this regulatory process. First, it involves the development of boundaries, in which medicine marks the social limits of gender behaviour and specifies what is considered normal and what is deviant. Second, it provides a situation of domination and negotiation, in which one gender group becomes the focus of public

policy. Third, it is an arena for the maintenance or change of personal consciousness. The implementation of family planning as population policy socially reconstructs and defines gender, in which process public health programmes — including the regulation of fertility — play a central role.

Conclusion

This article has outlined, at the institutional level, the process of medicalization for family planning. This process began in Tonga when family planning services became part of the Ministry of Health, supported through budgetary allocations and as part of the country's development agenda. In the end, the medicalization process merely consolidated itself, the statistical manifestation of which is seen in the annual increase of women who accepted various contraceptive methods at MCH/FP clinics. Family planning targets for two successive development plan periods, during the decade from 1970 to 1980, were highly unrealistic, but nevertheless provided the medical establishment with the ability to utilize highly effective (and sometimes controversial) contraceptives such as Depo-Provera to attain the projected and ideal rates of population growth. Development of the clinical and medical infrastructure also facilitated the increase in the proportion of family planning acceptors. Nevertheless, the recognition and introduction of family planning services at an early stage of the demographic transition, along with its consequent medicalization, is testimony to government attempts — however limited — to move towards a sustainable future.

Since the responsibility for family planning throughout Tonga rested with the medical establishment, medical professionals became responsible for achieving family planning targets and specified rates of population growth. Aside from the overt medical benefits of family planning itself, institutionalizing these national programmes within the medical establishment empowered its professionals to prevent the negative consequences of biological reproduction. Family planning also assumed an economic role, a developmental purpose and a demographic rationale, as opposed to the narrowly clinical objectives — all roles well fitted to the functions of the medical establishment — that is, to assist families in spacing pregnancies and to cater to women's reproductive and general health. In terms of broad national policy options, these measures are narrow, limited and overly dependent on one, admittedly important, government body. The failure to achieve programme objectives and family planning targets generally reflects the limited scope of such a policy for the wider purpose of population management.

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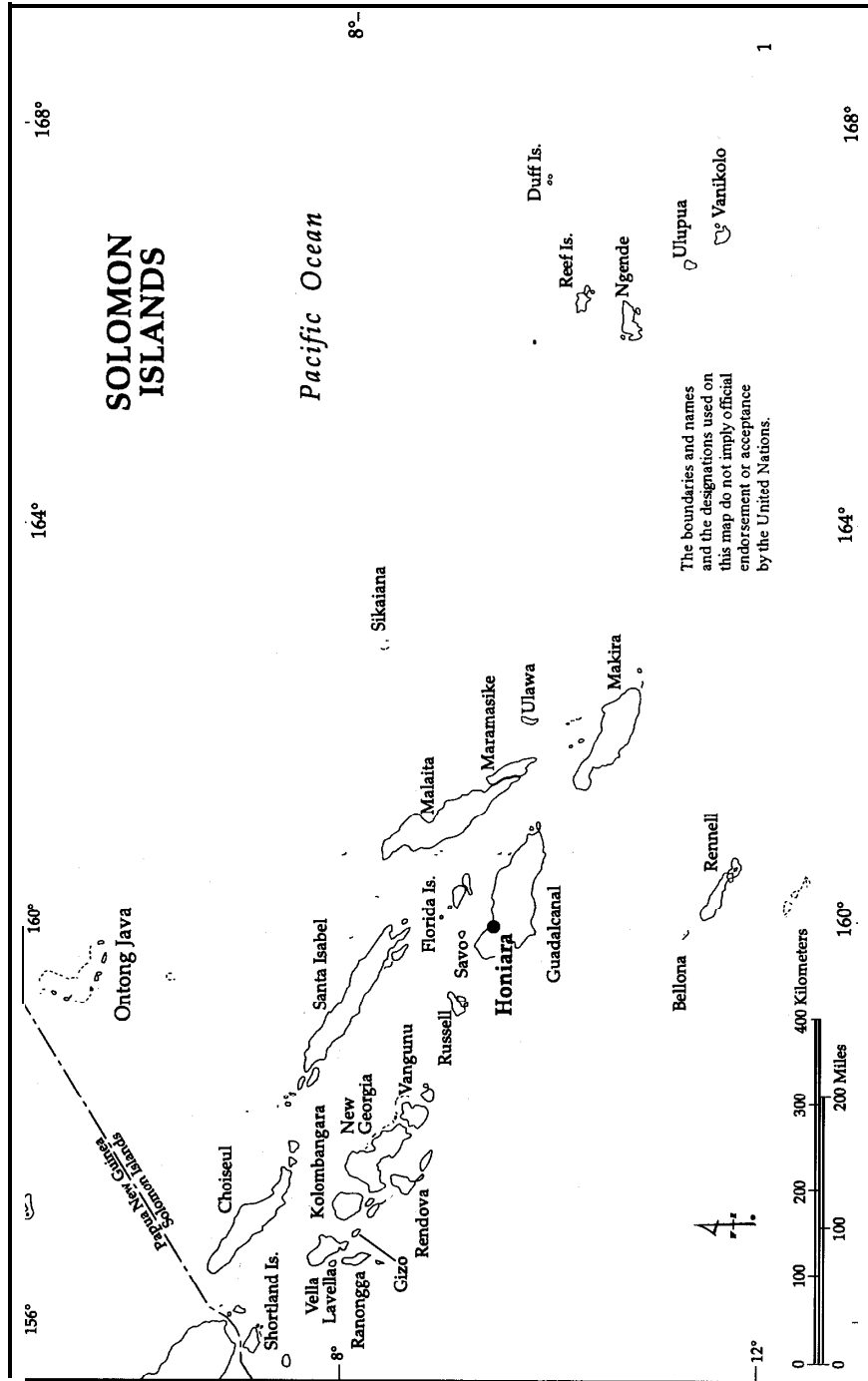
The Process of Internal Movement in Solomon Islands: The Case of Malaita, 1978-1986

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Migration, one of the three components of population change, has become an increasing focus of research and policy development in many third world countries. Internal and international movements exert varying degrees of influence on specific countries or regions, depending on a mix of political, social, economic and environmental factors. The internal movement of Solomon Islanders is more visible and increasingly far more important than external movements, which more often than not are for educational purposes. In the third world, internal migration is strongly associated with rural-to-urban drift. However, this process involves a number of different movement streams, characterized by varying patterns and processes associated with various socioeconomic factors in places of both origin and destination (Pryor, 1975).

In the past 25 years, many migration studies have been carried out in Solomon Islands and other countries of Melanesia ([see map on page 54](#)). These concluded that the mobility pattern in Solomon Islands and within the Melanesian region was dominantly *circular*, in the sense that Solomon Islanders — and Melanesians as a whole — rarely leave their rural

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homes “permanently” when they move (Bedford, 1973; Chapman, 1978). This challenged the conventional wisdom depicted by many theories. Lee’s (1966) theory of migration emphasized, for the mover, the importance of place of origin, intervening variables, place of destination and the intention to move away permanently from an established place of origin or residence. However, the new conventional wisdom on “circulation” (sometimes called “circular migration”) holds that movements into destinations are not intended to be permanent — even if they are long-lasting — and that the mover has an intention eventually to return to the original place of residence, usually the village and island of birth (Pryor, 1975).

The process of circulation involves many forms and types of mobility, usually short-term, but repetitive or cyclic in nature and commonly lacking any declared intention of a permanent or long-lasting change of residence (Zelinsky, 1971:225-226). The many forms of circulation range from brief, short-distance moves such as shopping, daily employment, schooling, or visiting, together termed “oscillation”, to medium-term and lengthy journeys such as taking business trips or contract employment, defined as circulation (Pryor, 1975; Prothero and Chapman, 1985). The intention of the mover in circulation to return to the original place of residence involves an absence of one or more months and can be reflected by the sort of arrangements made either to retain or end ties and ongoing interests at the place of origin. This makes it possible to differentiate *circulation* from *migration* (Bedford, 1973:3) through retrospective investigation of movers based on the time spent away, which is the focus of this paper.

Circulation incorporates a great many social and economic connotations. The process of circulation has been more common than migration in traditional societies and is argued to be the major form of spatial mobility in the process of modernization in third world countries (Bedford, 1973; Pryor, 1975; Chapman and Prothero, 1985). In a transitional society, where traditional patterns of living have been disrupted by such foreign intrusions as colonization, the coexistence of differently structured societies and economies often is found. As a former colony, Solomon Islands consists of a plural society sustained by a dual economy. Coexistence in a population of both semi-subsistence and introduced economies offers contrasting ways of life. Thus, migrants may maintain rural residency with its associated security and obtain the benefits of “new” economic development through the compromise of circulation between villages and the centres of wage employment. In this way, they retain an attachment and association with traditional institutions, while at the same time obtaining the benefits of paid work associated with introduced economic activities. The conclusion from much movement research in the 1970s was that, for Solomon Islands as for

Melanesia as a whole, the process of circulation was dominant. This reflected the weight migrants placed on kinship and the customary right to cultivate land and the security of maintaining a home in the rural village. In contrast, migrants considered administrative policies in town, the high cost of urban land and services, coupled with low wages, to be insufficient compensation for abandoning an active interest in rural-based economic activities (Bedford, 1973).

The circulation of wage labour from rural areas, as depicted in earlier studies in Solomon Islands and Melanesia (Chapman and Prothero, 1985), was regarded as a transitional form of mobility associated with the early stages of modernization. Consequently any shift from a subsistence to a market-based economy, coupled with changing aspirations and expectations of people through exposure to economic commercialization, could be expected to weaken ties to rural localities (Haberkorn, 1989). In Solomon Islands, as transportation and communication facilities improved from the 1950s, so the population became more mobile. The relocation in 1945 of the capital from Tulagi to Honiara, to make use of infrastructure constructed during the Second World War, saw the slow evolution of a main town and urban functions that created the necessary conditions for more extensive inward movement involving more permanent relocation. Over the years 1960 to 1980, in-migration to Honiara was a necessary factor of economic growth that indicated an interplay between mobility and structural transformation in both source and destination areas, which subsequently created the socio-economic environments within which even further movement could take place.

During the 1980s, constant changes in the processes of mobility and of settlement reflected structural transformations apparently under way in both urban and rural areas. This was reflected, first, in the increasing urbanization of Honiara and permanent relocation of migrants on the Guadalcanal plains and in the Western and Central provinces ([see map](#)); second, in the greater permanency of residence in Honiara and Gizo/Munda (Western Province) revealed by the increasing proportion of lifetime in-migrants in these destinations. As Haberkorn's (1989:v) extensive research in neighbouring Vanuatu has shown, the rapid expansion and diversification of an urban economy meant that conditions formerly favourable to temporary and rural-based circulation were transformed into a setting far more conducive to long-term and permanent relocation.

Thus, empirical research in the 1960s and 1970s established a "new conventional wisdom" that circulation was the dominant form of mobility in Solomon Islands and the rest of Melanesia. It was valid at the time, for it captured the frequent compromise which islanders adopted to take

advantage of both their rural obligations and the benefits of introduced economic development. In that respect, this argument challenged the prevailing view that rural-to-urban migration in Melanesia had been responsible for the redistribution of its population and further held that rural-to-urban drift was not an issue since Solomon Islanders, for example, were rooted firmly to their rural origin. In the 1986 census, 87 per cent of Solomon Islanders were reported to live in rural areas, but with a key difference. Nowadays, they also are involved in rural-based, monetary activities brought about by the merger of simple (traditional) and complicated (introduced) ideas and knowledge. Hence, adult Solomon Islanders can now receive the same level of socio-economic benefits without having to go away for and into wage employment, which was and still is available only in the formal sectors concentrated in urban Honiara and the provincial centres.

The past three censuses of Solomon Islands (1970, 1976, 1986) and other cross-sectional surveys reveal that the population continues to be highly mobile (Groenewegen, 1972 and 1989; Solomon Islands, 1980/1981). (A much delayed census was undertaken in November 1999, but the final results will not be known until 2001.) The magnitude of rural-to-urban movement towards Honiara is reflected in political sensitivity about spontaneous resettlement in and around the capital city, especially since at the time of the 1986 census eight out of nine adult persons were in-migrants. In addition, the cumulative effect of continued lifetime in-migration was compounded by high urban fertility, owing to the young age structure of Honiara migrants. Problems associated with urban growth, more permanent in-migration and high natural increase raised both political and administrative concerns. The most visible problems are water shortages, rapid growth of squatter settlements, overloading of transportation facilities and the rising cost of providing services to the ever-expanding suburbs of Honiara. The level of urbanization, measured by the proportion of the population resident in all urban areas in the 1976 and 1986 national censuses, was 9.3 and 13 per cent respectively - a numerical increase of 40 per cent during the 10-year period. Infrastructural change in Honiara and the provincial centres has not matched the increase in both population growth and employment or administrative functions. In a country where the land tenure system is based on communal ownership and subsistence agriculture is the main economic activity, around 87 per cent of the total population is still rural in both location and orientation. For such people, the common pattern of movement is within the province (rural to rural) or from one province to another (rural to urban, most often to Honiara).

According to previous studies, Melanesian circulation was predominantly male in both number and socio-economic character. This is no longer

the case for rural-to-urban migration in Solomon Islands, as revealed in the rising proportion of females involved in movement since independence (7 July 1978). In 1986, the proportions of lifetime in-migrants aged 15 years and older, when compared with those of all ages, were 80.0, 72.6 and 76.9 per cent for males, females and total population respectively. In contrast, the proportions of in-migrants aged 15 and older since independence, when compared with lifetime in-migrants, were 61.7 per cent (males), 66.0 per cent (females) and 63.4 per cent (total). In recent years, it is evident from these two sets of figures that the in-migration of women has overtaken the predominantly male in-migration streams of the past decades.

There is a paradox in recent changes in both population movement and socio-economic development in Solomon Islands. On the one hand, the increasing level of urbanization and economic growth has not been accompanied by infrastructural development in Honiara. On the other, since independence, an increasing proportion of both lifetime and female in-migrants has been found in urban centres and rural destinations of Guadalcanal, Western and Central provinces ([see map](#)). If such trends in society, the economy and movement suggest that a structural transformation is occurring in Solomon Islands, they pose a question to the new conventional wisdom of circulation as the dominant pattern of population mobility.

What census-based evidence exists of such key changes? This paper is guided by the proposition that, in Solomon Islands, the process of circulation is receding while permanent migration is becoming the dominant form of mobility. It focuses on both the Malaita-born population and those kinds of movements captured in the 1986 national census in order to both measure and compare levels of circulation — here synonymous with “return migration” — with those of permanent migration. The choice of Malaita Province reflects its large area and considerable population. In addition, the wide distribution in 1986 of the Malaita-born throughout all seven provinces makes it more representative of both the “mobile” and “immobile” population in Solomon Islands, while the focus on Honiara reflects its urban primacy. The analysis will consider all movements between rural origin (Malaita) and urban destination (Honiara) and between rural (Malaita) origins and other rural destinations (other provinces).

Data and methodology

For this analysis, the level of circulation and migration in Solomon Islands will be assessed in terms of the mobility of the Malaita-born at both the provincial level and for three “migration divisions” ([see map](#)): namely

Auki (urban), the rest of Malaita (Melanesian) and the Polynesian outliers of Ontong Java and Sikaiana. In the absence of direct migration statistics, data are drawn from the 1986 national census and compared with data from the 1970 and 1976 censuses. The 1986 census recorded each individual's birthplace, residence at independence (1978), and usual place of residence (1986). From these, different types of movement can be defined for the Malaita-born population. "Lifetime migration" is determined by the age of individuals involved, although the time when the move was taken and the number of possible movements are not captured in a census operation. "Migration since independence" is when residence at the time of the census (1986) was not the same as usual residence at the time of independence (1978). Again, this does not account for the time of movement nor the number of movements made by a Malaita-born individual.

For persons born prior to independence, the time-period in which they were at risk of movement is the same. This is also valid for those born after 7 July 1978, except that only lifetime and recent migration can be determined. To overcome the problems of using two different population bases to consider lifetime and post-independence migration, in this analysis the adult population aged 15 years and older was chosen to determine the pattern of movement and to enable comparative analysis of the Malaita-born population over time.

Using residence at independence as the reference period, individuals born on Malaita were placed in the categories of "lifetime migration" or "migration since independence".

Lifetime migration

For those born on Malaita before independence (Friesen, 1989:50), this includes three kinds of movers. "Past migrants" are defined as those whose residence at independence and at the time of the census was the same, but not on Malaita (the birthplace), thus showing movement before July 1978. "Recent migrants" are defined as those whose residence was the same at birth and independence, but different at the census, thus showing movement in the previous eight and one third years. "Multiple migrants" are defined as those born on Malaita, with different places of residence at independence and at the time of enumeration.

Migration since independence

The category "migration since independence" includes both recent and return migrants. "Recent migrants" are defined as those Malaita-born individuals whose residence at the time of the 1986 census was not Malaita,

Table 1. Population of Solomon Islands by province: 1970, 1976 and 1986 censuses

Province of enumeration	1970			1976			1986		
	Males	Females	Total	Males	Females	Total	Males	Females	Total
Western	16,876	14,977	31,853	21,198	18,760	39,958	28,955	25,962	54,917
Isabel	4,522	4,080	8,602	5,266	5,130	10,396	7,319	7,284	14,603
Central	5,737	5,055	10,792	7,255	6,228	13,483	9,770	8,592	18,362
Guadalcanal	12,855	10,972	23,827	16,771	14,672	31,443	26,144	23,526	49,670
Honiara	6,362	3,225	9,587	8,014	5,259	13,273	16,720	12,743	29,463
Malaita	25,470	26,096	51,566	29,614	30,308	59,922	39,553	40,391	79,944
Makira	6,636	5,710	12,346	7,755	7,083	14,838	11,155	10,619	21,774
Temotu	4,497	4,561	9,058	5,486	5,420	10,906	7,260	7,512	14,772
Total	82,955	74,676	157,631	101,559	92,860	194,219	146,876	136,629	283,505

thus showing movement in the previous eight and one third years. “Return migrants” are defined as Malaita-born individuals who, at independence, were resident elsewhere but enumerated in 1986 on Malaita as the usual place of residence — showing a return to province and place of birth. “Non-migrants” include those whose residence at birth, at the time of independence and at the 1986 national census continued to be on Malaita.

In this paper, internal migration refers to the movement of individuals and groups of people from Malaita within Solomon Islands, across political and administrative boundaries defined as province in the 1986 census ([see map](#)), plus “the taking up of residence of a non-temporary nature” captured by census questions on place of birth, residence at independence and place of usual residence. Thus, out-migration refers to Malaita Province as the place of origin, while in-migration is the movement of the Malaita-born to destinations in Malaita Province. In-migration refers to that portion of the population who lived elsewhere in the country at the time of independence, but in the 1986 census was enumerated as with usual residence being on Malaita. This paper considers only return in-migrants, that is, those who were born in Malaita Province and lived elsewhere in the country just before independence but returned to the province (place of birth) on or before enumeration in the 1986 census. In the category of out-migration, only those born in Malaita Province but resident in another province just before independence and at enumeration are included.

The Malaita population

In 1986, Malaita, which is the most populous province in Solomon Islands, comprised 28.2 per cent of the total population. Around 97.8 per cent of Malaita’s population are Melanesian, 2.1 per cent Polynesian and the rest include people of Kiribati origin (iKiribati) and ethnic Chinese. Among the total Solomon Islander population, half are younger than 15 years, which closely resembles the pattern for the whole country. The total land area of Malaita is 4,225 sq km; in the three national censuses of 1970, 1976 and 1986, Malaita was the most densely populated province and by 1986 had reached a density of 18 persons per sq km ([table 2](#)). Densities for the ward (next lower administrative unit) range from 5 per sq km in Ward 25 (Aisisi) to 977 in Ward 15 (Sulufou). Based on census data, the average annual growth rate for Malaita in 1986 was 2.7 per cent and the infant mortality rate 47 per thousand for females. The total population had grown by 33.3 per cent since 1976, of which “new” in-migration accounted for only 3.1 per cent. Had an out-migration of 22.4 per cent not occurred (see next section), then by 1986 the total population of the Malaita-born would have been 97,472 — an increase of 40.6 per cent during

Table 2. Households and population by sex and population density, Malaita Province, 1986

Migration division	Number of			Percentage distribution			Sex ratio	Area in sq km	Density (per sq km)
	House- holds	Males	Females	Total	Males	Females	Total		
Auki ^a	500	1,661	1,588	3,252	4.2	3.9	4.1	105	9.5
Malaita (rest) ^b	11,642	37,189	37,926	75,115	93.9	93.8	93.9	98	4,204.9
Ontong Java and Sikaiana ^c	275	752	913	1,665	1.9	2.3	2.1	82	10.3
Total	12,417	39,605	40,427	80,032	100.0	100.0	100.1	98.0	4,224.7

Source: 1986 population census.

^a Ward 1.

^b Wards 2 to 38.

^c Wards 39 to 41.

a period of 10.8 years. Thus, the process of population movement, coupled with mortality, provided an effective check on the provincial growth rate (2.7 per cent per annum), but the 1986 population would still double in size by the year 2012.

Another feature of Malaita's population, also characteristic of all provinces, is that half the population is in the age group 0-14 years. This youthfulness is found in all three "migration divisions" — urban (Auki), Melanesian (rest of Malaita), Polynesian (Ontong Java and Sikaiana) — and reflects a high fertility rate. The sex ratio from 1986 data for Malaita as a whole was 98.0 males per 100 females (table 2). This level reflects the apparent loss of males from the overall provincial population, since a sex ratio at birth of 109 and very similar values of life expectancy after age 25 (42.7 for males, 41.4 for females) indicate little influence from mortality. In only 12 out of 41 wards in the province were sex ratios equal to or greater than 100, whereas between the "migration divisions", only urban Auki had a ratio greater than 100. With males comparatively absent in 29 of 41 wards, the greatest deficits in the Malaita-born population suggest which areas have the highest propensity to migrate. The sex ratio for Auki, as the main town and major centre of wage employment, is not surprising.

Lifetime interprovincial migration

In the 1970, 1976 and 1986 national censuses, Malaita is outstanding as the province where most out-migration originates and little in-migration has occurred (tables 3 and 4). For many years, there has been an increasing shortage of land for agriculture (Sanders, 1983), but to associate people's movement with their overall density is too simplistic. Out-migration, which is seen as a "rite of passage" for many young people and as a means by which individuals and households diversify sources of income and improve living standards, when coupled with other social and economic factors, is important in explaining levels of movement among those born on Malaita (Frazer, 1981). In some sense, the out-migration of people from Malaita was inevitable, given inadequate avenues of paid employment on the main island, government policies of equal employment for all Solomon Islanders and improved transport service to and from the province.

In contrast, Malaita has experienced little in-migration and from 1976 to 1986 registered the highest net loss of all seven provinces (tables 3 and 4). In a decade when the Malaita-born population increased by 41 per cent, the net migration loss more than doubled to 104 per cent. Based on lifetime interprovincial migration, these losses of the Malaita-born (9,499 in the 1976 census and 17,665 in the 1986 census) were nearly matched by the net gains of Honiara and Guadalcanal (table 3).

**Table 3. Interprovincial lifetime internal migrants and non-migrants,
Solomon Islands, 1976 and 1986 censuses**

Province of birth	Province of enumeration						Total out-migrants
	Western	Isabel	Central	Guadalcanal	Honiara	Malaita	Temotu
1976							
Western	35,339	76	238	315	1,287	333	64
Isabel	122	9,532	179	114	721	62	49
Central	136	46	10,491	342	747	135	71
Guadalcanal	320	97	250	25,581	939	255	72
Honiara	515	283	482	1,643	3,092	908	220
Malaita	1,686	237	1,111	2,991	5,023	57,977	261
Makira	99	56	104	133	485	120	13,714
Temotu	63	51	583	152	554	56	359
Total	38,280	10,378	13,438	31,271	12,848	59,846	10,456
In-migrants	2,941	846	2,947	5,690	9,756	1,869	10,894
Net migrants	607	-436	1,398	3,743	5,573	-9,499	438
							-1,380
							0
1986							
Western	48,929	171	364	725	3,336	617	122
Isabel	281	13,124	366	298	1,056	70	62
Central	276	141	14,204	735	1,450	291	101
Guadalcanal	579	236	364	38,123	1,935	667	142
Honiara	1,315	470	516	1,853	8,053	2,233	378
Malaita	1,811	253	1,723	6,943	10,655	75,599	369
Makira	173	68	227	253	960	236	20,091
Temotu	266	86	524	511	1,074	94	470
Total	53,630	14,549	18,288	49,441	28,519	79,807	13,690
In-migrants	4,701	1,425	4,084	11,318	20,466	4,208	21,735
Net migrants	-710	-758	889	7,263	13,381	-17,665	1,644
							-436
							0

Source: 1986 population census.

Table 4. Rates, lifetime interprovincial percentage movement, Solomon Islands, 1970, 1976 and 1986

Province of enumeration	Out-migrants as percentage of population born in province			In-migrants as percentage of population born in province		
	1970	1976	1986	1970	1976	1986
Western	4.3	6.2	10.0	7.2	7.8	8.8
Isabel	11.2	11.9	14.3	7.8	8.2	9.8
Central	12.2	12.9	18.4	20.2	21.9	22.3
Guadalcanal	^a	7.1	9.6	^a	19.7	22.9
Honiara	5.1	57.5	46.8	29.0	76.0	71.8
Malaita	15.5	16.4	22.4	1.3	1.8	5.3
Makira	6.6	7.4	9.4	7.8	7.4	7.6
Temotu	14.0	14.8	18.1	2.0	4.1	7.2
Average	10.5	12.0	17.4	10.5	12.0	17.4

Source: 1986 population census.

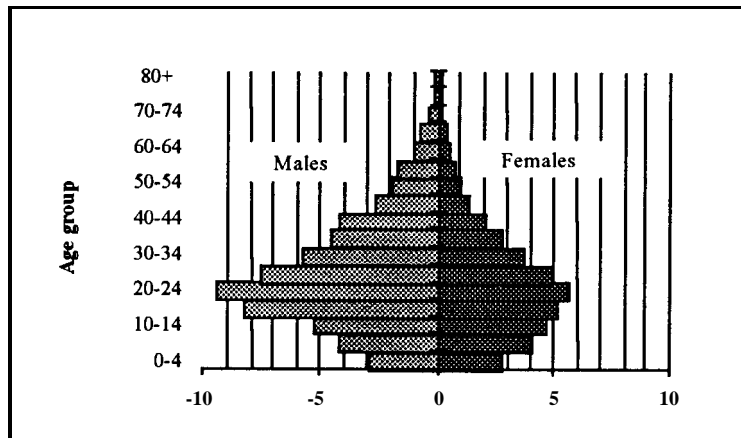
^a Rate for both Guadalcanal and Honiara combined.

The rate of lifetime interprovincial migration (table 4) reveals the impact of population movement on the Malaitan population. On the one hand, in consecutive censuses out-migrants as a percentage of those born in the province have steadily increased — second only to Honiara — while, on the other, the proportion of return in-migrants began to rise more recently but at a very much slower rate. Even so, the rate of return in-migration for Malaita is still the lowest in the country (table 4) and the reasons for the high propensity to move away are quite different from those in the Central and Western Solomons. In what the 1986 census report termed the “economic provinces (Western, Central, Guadalcanal and Honiara — the provinces with high levels of wage employment opportunities)” (Friesen, 1989), rates of out-migration reflect more the turnover effects of major or important areas of wage and professional employment. That the percentage of return migrants increased during the most recent census also indicates the beginnings of a “return home” movement and perhaps a signal for the future (table 4).

Sources of out-migration on Malaita

At the national level, Malaita is the dominant province of origin for migrants, destined mainly for the capital of Honiara and both Guadalcanal and Western provinces (table 3). Levels of out-migration for people of all ages and those aged at least 15 years show that Auki town, as a migration division, is a place of much inward and outward movement, for a great many born there subsequently return to their home villages and small islands or take up residency elsewhere in the Solomons. This phenomenon is part of a

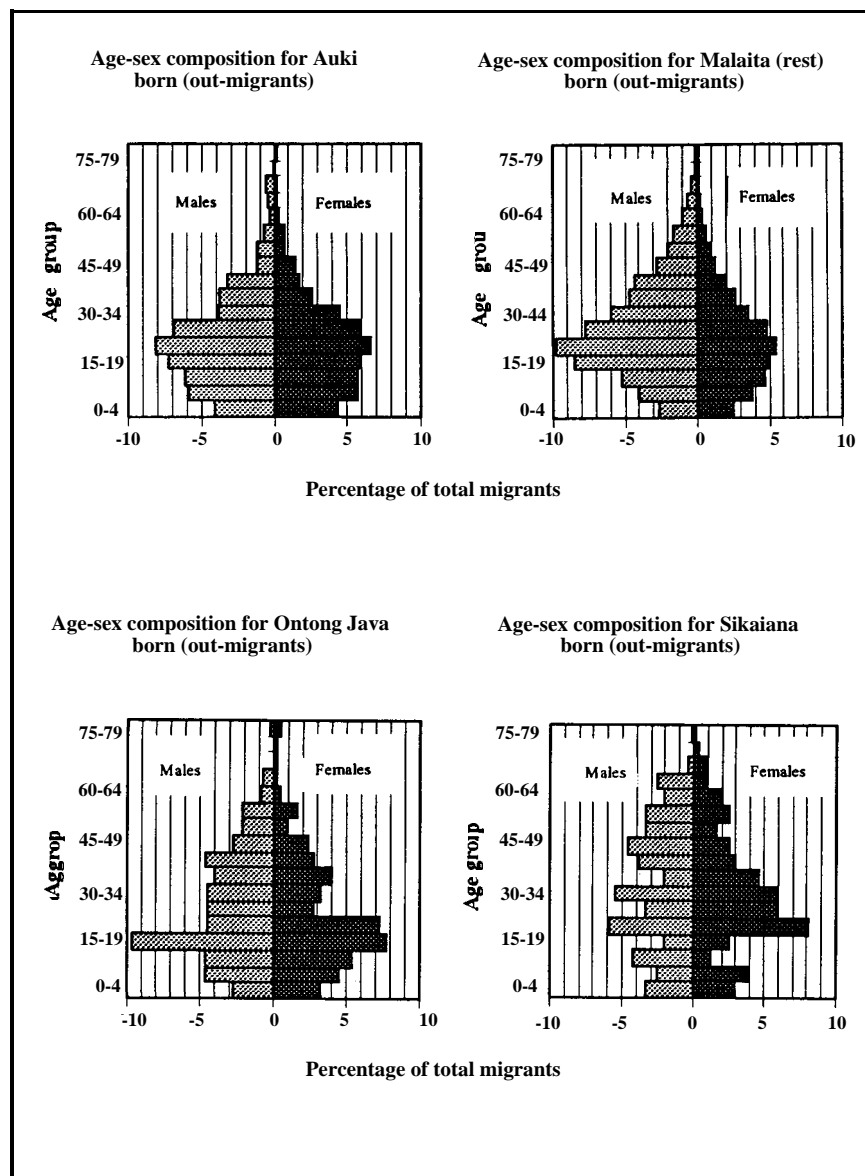
Figure 1. Age-sex structure of lifetime out-migration



national pattern found in the 1986 census, which reported the highest rates for both total and adult (15+) lifetime out-migration in the larger towns of Honiara, Auki and Gizo, and Western Province. Of the two other “migration islands”, Ontong Java and Sikaiana had the highest incidence of out-migration compared with the rest of Malaita.

Over a lifetime, men moving out from Auki slightly outnumbered women, but for the province as a whole, the rest of Malaita, and Ontong Java and Sikaiana, this process is dominated by males (figures 1 and 2). Whether expressed in terms of all ages or persons of at least 15 years, the sex ratios for the number of Malaita-born enumerated in other provinces of the Solomons and the out-migration rate for each migration division in Malaita Province are all heavily weighted towards males. This process is captured in the population structures of lifetime out-migrants for each migration division of the province (figure 2). Especially in the cohorts aged 10 to 49, males dominate in the migrant population; females dominate to a considerable extent in the non-migrant population — a pattern also found on other islands of the country (Friesen, 1989). The crucial role that adult females play in the subsistence sector of Malaita and the predominance of males in the money economy, often as migrant workers, are influential reasons for the age-sex structures of the migrant and non-migrant populations being mirror images of each other. Thus, the deficit in the number of Malaita-born for each part of the province is nearly matched by their respective populations reported in the “economic provinces” of Central and Western Solomons.

Figure 2. Age-sex structure of lifetime out-migration, Malaita Province



Compared with Melanesian Malaita, high out-migration is also characteristic of Polynesian people on the small atoll outliers of Sikaiana and Ontong Java (the migration division in [figure 2](#)). The out-migration rate for those Polynesians born in the province and aged 15 years or more is 405 per thousand — exceeded only by that for Auki town (545 per thousand). The reasons, however, are very different from the rest of Malaita and tied to population densities in atoll environments. In towns, this has meant that daily survival is heavily reliant on a vulnerable economic base of marine products, *copra*-making and subsistence agriculture (Bayliss-Smith, 1973; 1975; 1986; Christiansen, 1975), with a lack of local wage employment and other essential services being reflected in high levels of movement off Sikaiana and Ontong Java in the past three censuses (1970, 1976, 1986).

Malaitan out-migration and in-migration

Based on 1986 census data, the pattern of movement from Malaita is similar to that for lifetime migration ([table 3](#)). The province is again the single greatest source of migrants in the country but, compared with lifetime rates, levels of out-migration for those aged 15 or more years have declined since independence. The impact of the resettlement of many out-migrants in other provinces and larger islands since 1978 has also contributed to a lowering of lifetime rates. For 1986, census data and lifetime calculations show very similar degrees of movements back to Malaita (“return in-migrants”). In absolute terms, the province is the third most important destination in the Solomons, but most of this consists of a return of the Malaita-born. The level of lifetime in-migration was 5.3 per cent ([table 4](#)) and, in the eight years since independence, rates of return stood at 5.3 per cent for all those from Malaita ([table 4](#)) and 8.9 per cent for the adult population.

Place of residence at birth, at independence in 1978, and usual residence in 1986

A complete picture of Malaitan mobility requires details of all “significant” moves made by individuals. Since these are not available from national censuses, place of birth for the Malaita-born population was linked with places of residence at independence (1978) and in the next enumeration after independence (1986). Such sequences of movement not only can suggest underlying reasons but also help to assess implications for planning. This flow of migrants from Malaita Province as a birthplace ([tables 3 and 4](#)) to three provinces (Central, Guadalcanal, Western) and Honiara (the capital) for the years of independence and the 1986 census is depicted in [figure 3](#).

Figure 3. Sequence of residence at birth, independence (1978) and usual residence (1986)

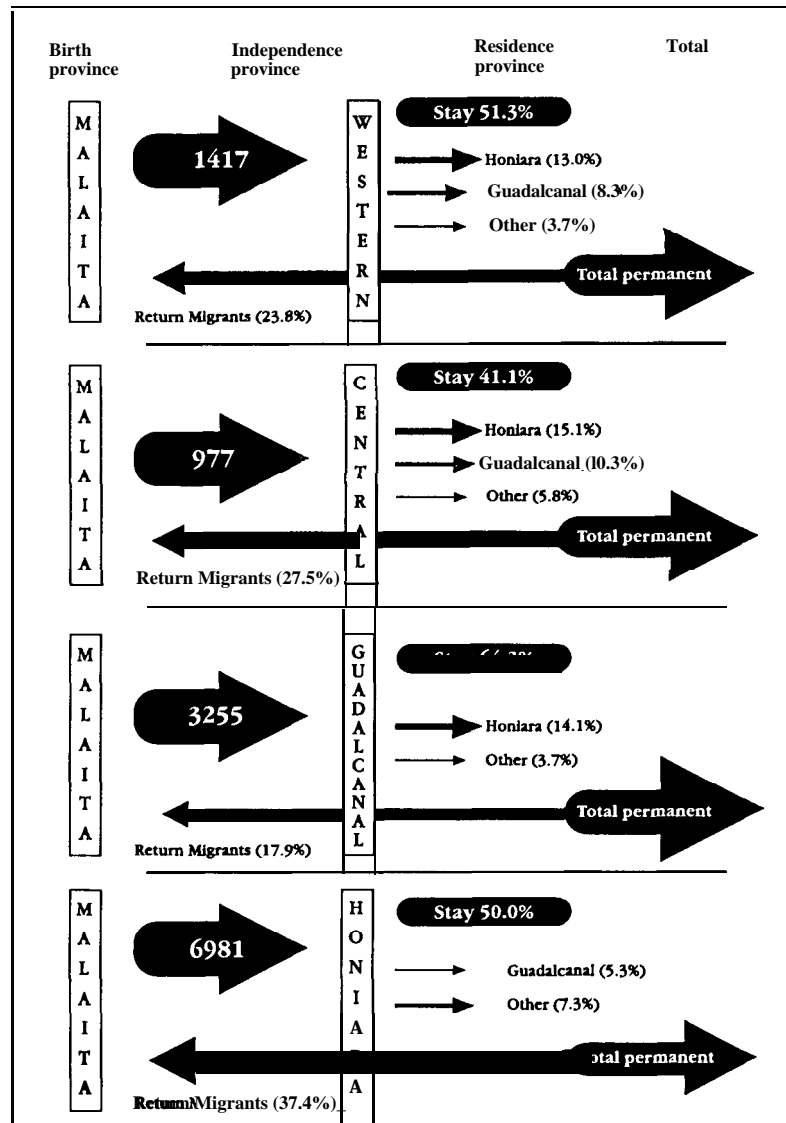


Table 5. Malaita-born 15 years and older by province at independence (1978) and by province of enumeration in 1986, classified by employment status (percentage employed) and sex

	Western		Isabel		Central		Guadalcanal		Honiara		Malaita		Makira		Temotu		Not born/ not stated		Total	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
A. Province at independence (1978)																				
Employer							0.3	0.0	0.5	0.5	0.1	0.1	0.1		0.1		1.0		0.2	0.2
Self-employed	18.2	43.8	19.4		8.5	10.7	11.2	18.5	10.6	10.7	14.5	31.1	8.6	23.5	13.5	75.0	9.3		13.1	24.9
Wage earner	80.0	47.9	80.6	100.0	91.0	88.0	87.4	79.8	88.4	86.6	83.2	65.1	91.4	70.6	86.5		87.6	100.0	85.1	71.7
Other ^a	1.8	8.3			0.5	1.3	1.1	1.7	0.5	2.1	2.2	3.7	0.0	5.9	0.0	25.0	2.1		1.5	3.2
Total	559	48	62		7	365	75	1,066	302	2,490	561	5,313	1,643	58	17	37	4	97	6	10,047
Population	1,043	281	104		26	592	290	1,816	1,087	4,087	2,279	20,534	422,430	118	86	54	23	128	41	28,476
B. Province of enumeration in 1986																				
Employer							0.0	0.3	0.5	0.4	0.0								0.2	0.2
Self-employed	14.9	44.6	19.6		5.6	8.3	6.5	6.7	14.2	7.6	2.7	26.4	53.0	13.0	31.6	12.5	80.0		13.1	24.9
Wage earner	82.6	39.3	80.4		94.4	96.1	93.5	92.4	83.8	91.2	94.3	70.5	42.8	81.2	52.6	87.5	20.0		85.1	71.7
Other ^a	2.5	16.1				0.6		0.8	1.6	0.7	2.7	3.0	4.2	5.8	15.8				1.5	3.2
Total	713	56	97		18	642	138	2,129	612	3,512	857	2,853	958	69	19	32	5		10,047	2,663
Population	1,149	359	151		50	797	413	3,105	1,939	5,151	3,211	17,927	20,437	149	105	47	29		28,476	26,543

Source: 1986 population census.

Note: M = Male; F = Female.

^a Other, plus those not stated.

Half the Malaitan-born residents in Honiara at independence were still there eight years later (1986 census), more than one third had returned to Malaita, and about 13 per cent of the original group had continued on to other provinces (multiple migrants). In terms of the numbers involved, the stream between the provinces of Malaita and Guadalcanal is the second most important, but it is less than half that of the stream to urban Honiara. Almost two thirds of Malaitan migrants who resided in Guadalcanal in 1978 were still there in 1986 (ignoring mortality); the likelihood of long-term settlement was reflected in a small percentage of return migrants (17.9 per cent); and Honiara was the destination preferred by multiple migrants, often en route to other provinces.

As with Honiara, half the Malaitan migrants to Western Province remained there (1978, 1986), almost one quarter went back to their home province, and both Honiara and Guadalcanal were the most important destinations for multiple movers. Three quarters of those who went to Western Province were males, a proportion much higher than for movement through Honiara and Guadalcanal, which involved far more females. An influential factor in this gender differential was that primary-sector projects weighted employment prospects towards males, compounded perhaps by the monetary and physical cost of travelling to these western islands.

Sequence of residence by occupation

To increase understanding of the nature of Malaitan out-migration between the years 1978 and 1986, a retrospective analysis was made of the adult population (15 years or older) in terms of census information on employment status. Both at the time of independence (1978) and the 1986 national census, four out of five Malaita-born males resident in each province were wage earners (table 5, panels A and B). Although not as dominant for females, the same employment pattern held in 1978 for all provinces (panel A). By 1986, this had changed because, in both Western and Temotu provinces, a larger proportion of out-migrant females were self-employed than earning wages (panel B). If, before the declaration of independence, all Malaitan adults were classified as either employed or non-employed in all seven provinces, less than half of the men and around three quarters of the women had no gainful employment, suggesting that most females follow their husbands to places to work.

For everyone born in Malaita Province, distinctions between “past migrants” (before 1978) and “recent migrants” (1978-1986) help to shed further light on the link between movement and economic opportunity. Migrant employers, found only in urban Honiara and Guadalcanal

Table 6. Province at independence (1978), by province of enumeration in 1986 for Malaita-born population

Province at independence	Province of enumeration in 1986							Total	Total Malaitians (per cent)	
	Western	Isabel	Central	Guadal- canal	Honiara	Malaita	Makira Tenotu			
Western	40.1	3.2	1.9	1.7	1.7	0.4	2.2	2.5	1.5	1,417
Isabel	0.2	30.0	1.0	0.1	0.2	0.0	0.0	0.8	0.1	142
Central	1.9	4.7	23.3	1.5	1.4	0.4	1.4	4.2	1.0	977
Guadalcanal	2.3	5.1	2.1	30.1	4.3	0.8	6.2	4.2	3.3	3,255
Honiara	13.4	14.6	9.6	5.3	32.8	3.5	12.2	15.1	7.2	6,981
Malaita	34.1	34.0	47.4	48.0	48.6	65.3	29.5	29.4	61.1	59,580
Makira	0.1	0.0	0.2	0.2	0.4	0.1	30.6	4.2	0.2	242
Temotu	0.4	0.4	0.3	0.1	0.3	0.1	0.8	21.0	0.1	139
Not born	7.6	7.9	14.2	12.9	10.3	29.4	17.1	18.5	25.4	24,739
Total (per cent)	1.9	0.3	1.8	7.1	10.9	77.6	0.4	0.1	100.0	97,472
Total Malaitians	1,811	253	1,723	6,943	10,655	75,599	369	119	97,472	

Source: 1986 population census.

provinces, have become lifetime migrants, since return to Malaita has been negligible (table 6). More than half those males categorized as “self employed” were past migrants, except for Central and Temotu provinces, to which Malaitan movement has been more recent. Apart from a more pronounced preference for urban Honiara, self-employed females show a similar pattern. Among the self-employed, those returning to Malaita accounted for 18.7 per cent (males) and 10.6 (females).

In all provinces, past rather than recent out-migrants from Malaita are found mainly among wage earners, the most numerous of those employed. Return lifetime migration among these workers, especially from Honiara and Makira provinces, which have a higher proportion, was 24.7 per cent for males and 13.2 for females.

Discussion

Based on analysis of the 1986 census, the movement of those born in Malaita Province shows a general pattern of longer and longer periods of time spent in the provinces to which they went. Both census data and lifetime calculations detect rates of return in-migration for Malaitan adults at only 5.3 per cent. Notable changes in the character of Malaitan movement are seen in a comparison of the 1970, 1978 and 1986 censuses. Not only have absolute numbers of out-migrants in the total natal and adult populations of Malaita Province risen substantially, but also this process has been mirrored in intercensal rates of migration and a change in age/sex ratios across three recent censuses. From a cross-sectional inspection of the Malaita-born in the 1986 census, the rate of return in-migration for the adult (15+) population (8.9 per cent) was only marginally higher than for those of all ages (5.3 per cent), indicating the influence of long-term, permanent moves undertaken during a lifetime. Malaita remains by far the most important source of migrants for all seven provinces in Solomon Islands, with urban Honiara and the provinces of Guadalcanal and Western being the most common destinations.

Overall, the location of professional and wage employment opportunities and of educational and social services beyond Malaita Province are the most obvious explanation for high rates of interprovincial out-migration among the Malaita-born. However, other factors, such as shortage of land, are more important in some parts of Malaita (“migration districts”). This is especially so in the Polynesian outlier islands of Ontong Java and Sikaiana, as well as for those living on the small, artificial islands close to the main island. The increasing proportion of out-migrant females from Malaita may signal a change in the process of internal movement, because circulation in

the Solomons is known for being dominated by males. Similarly, intercensal rates of return migration have been very low compared with those for out-migration and imply that a great proportion of residential change eventually became permanent. Conversely, the sequence of movement before independence (1978) among the Malaita-born to the capital of Honiara and three major provinces (Guadalcanal, Western, Central) document degrees of return, varying from 17.9 per cent to 37.4 (figure 3).

Despite considerable change in movement processes since the 1970s, from this census-based analysis it can be deduced that both circulation and migration remain important in the mobility patterns of Solomon Islanders. Further research is needed to determine the national influence and socio-economic significance of these two patterns in the overall mobility of the country. This would parallel movement research by Haberkorn (1989) in the neighbouring Melanesian country of Vanuatu, where migration has been suggested to have greater influence than circulation in the movement and redistribution of the ni-Vanuatu population.

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