

Population growth in Solomon Islands : signs of slowing?

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The results of the 1976 Solomon Islands Census of Population were alarming. The average annual growth rate for the period 1970-76 was 3.4 per cent per annum.¹ The total fertility rate (TFR) was estimated at 7.3 children per woman. In Makira and Western provinces it reached 8.1, equalling that of the fastest growing African countries.² Estimated average life expectancy at birth was only 54 years, indicating a potential for further increases in the growth rate as health programs improve.

While the country could not be considered over-populated in 1976, opportunities for earning cash incomes were limited.³ It was also apparent that continuous rapid population growth would soon put pressure on the agricultural sector. Only 12.5 per cent of the total land area is suitable for commercial agriculture.⁴ In the subsistence sector sustained population increase leads to a reduction in fallow periods and more time spent travelling to gardens at increasing distances from settlements.

The preliminary results from the 1986 census paint an even more alarming picture. The total population has increased from 196,823 to 285,176, an average annual growth rate of 3.5 per cent. Continued growth at this rate would double the population in 20 years.

However, the forthcoming demographic analysis of the 1986 census suggests there may be some cause for optimism. Although the overall average annual growth rate of 3.5 per cent for the period 1976-1986 is higher than that derived from the 1976 census, the data indicate that there has been a noticeable decline in the reported fertility rate.

Indications of slower growth

The 1986 report states the TFR for the whole country was 6.1 in the period 1984-86, 16 per cent less than that reported for 1971-75.⁵ Table 1 shows that the fertility decline has occurred throughout the country, with those provinces which had the highest rates in 1971-75 experiencing the greatest decline. Calculations of

1 Solomon Islands, *Report on the Census of Population: Volume 2: Demographic Analysis*, Honiara, Statistics Division, Ministry of Finance, 1981, p.11.

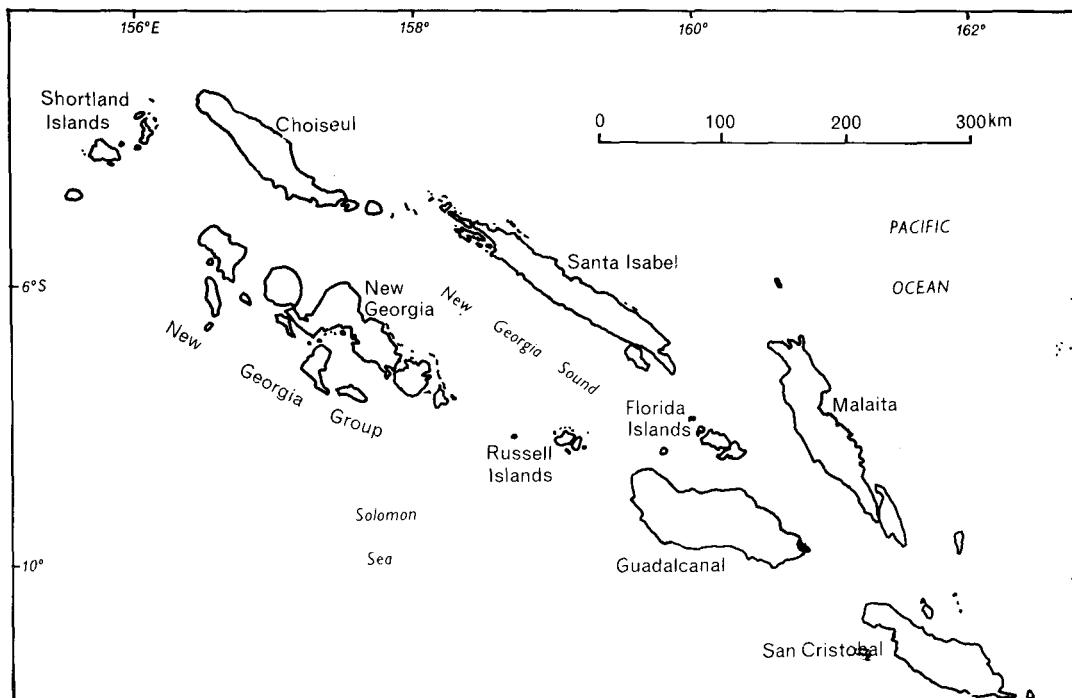
2 *ibid.*, p.93.

3 UNFPA, *Solomon Islands: Report of Mission on Needs Assessment for Population Assistance*, Report No 43, New York, United Nations Fund for Population Activities, 1981, p.10.

4 Solomon Islands, *Solomon Islands Population Policy*, Honiara, Ministry of Health and Medical Services, 1987, p.9.

5 Solomon Islands, *Report on the Census of Population 1986: Report 2B Data Analysis*, forthcoming, p.275.

Solomon Islands



TFRs based on three-year moving averages indicate that fertility peaked at 7.42 in 1974 and has been declining steadily since then.⁶

Diagram 1 shows the percentages in each age group for each sex in 1976 and 1986. As

noted on the figure, some of the variation could be due to the different methods of estimating the age structure. None the less there is still a marked reduction in the percentage in the youngest age groups and an increase in the

Table 1 Total fertility rate (TFR) and crude birth rate (CBR) by province, Solomon Islands, 1976 and 1986

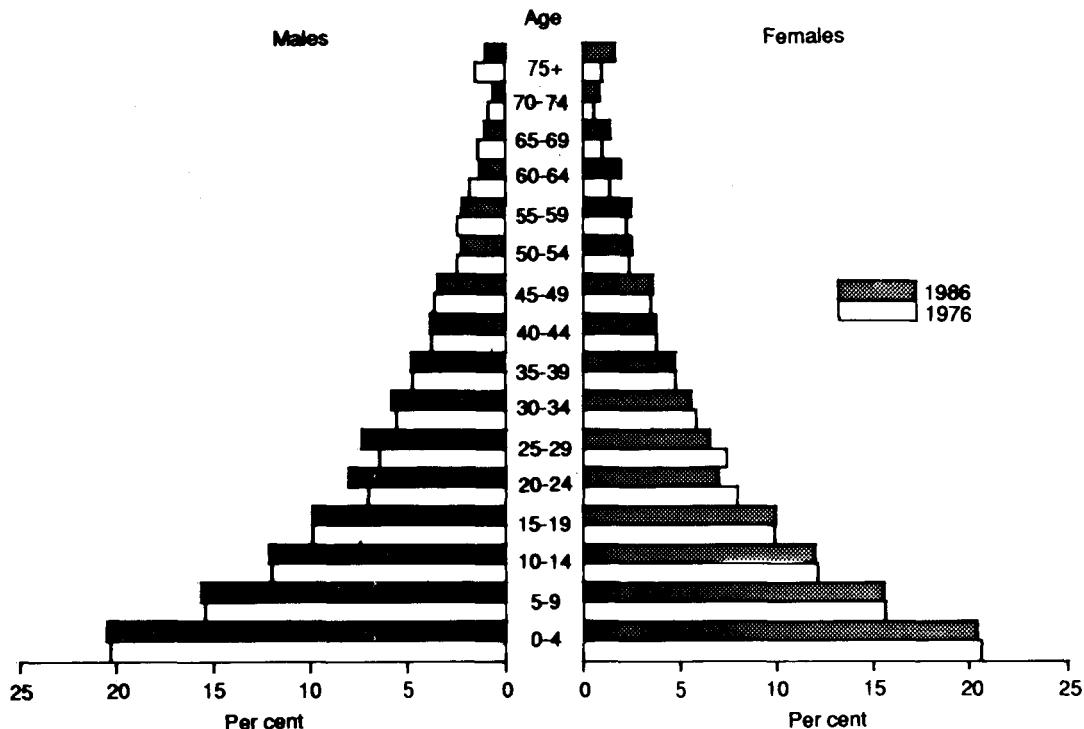
Province	1971-75 ^a		1984-86 ^b	
	TFR	CBR	TFR	CBR
Western	8.1	46	6.1	39.7
Isabel	7.7	48	6.1	39.5
Central	7.1	43	6.0	37.8
Guadalcanal	8.0	47	6.1	40.2
Honiara	6.8	47	5.1	38.3
Malaita	6.9	46	6.3	40.3
Makira	8.1	50	6.5	42.7
Temotu	7.2	45	5.8	39.7
Solomon Islands	7.4	45	6.1	40.2

^aBased on 1976 census.

^bBased on 1986 census.

Source: Solomon Islands, *Report on the Census of Population 1986, Report 2B Data Analysis*, forthcoming, p.105.

Diagram 1: Age/sex pyramids for total population, Solomon Islands, 1976 and 1986



Source: The age distribution for 1976 was taken from Solomon Islands, 1981, *Report on the Census of Population: Volume 2, Demographic Analysis*, Honiara, Statistics Division, Ministry of Finance, 1981, p.57. That for 1986 was derived from Solomon Islands, *Report on the Census of Population 1986: Report 2B Data Analysis*, forthcoming, p.254. Percentages were calculated from the base year data for projection N.3.F.

percentages aged ten and over. This is additional evidence of a decline in the fertility rate.

The reported decline in fertility is paralleled by a substantial reported decline in mortality. The average life expectancy at birth has increased from an estimated 54 years for both males and females in 1976 to 59.9 years for males and 61.4 years for females in 1986.⁷ The infant mortality rate (IMR) per thousand live

births was already low in 1976, at 50 for males and 41 for females. Despite a resurgence of malaria in the 1980s, the IMR declined even further to 40 for males and 36 for females in 1986.⁸ These improvements can be related to improvements in health services, especially expansion of the immunization program, and better management of tuberculosis and malaria.⁹

⁷ *ibid.*, p.275.

⁸ *ibid.*, p.275.

⁹ Solomon Islands, *Solomon Islands Epidemiological Report*, Issue No 3, Honiara, Ministry of Health and Medical Service, 1989, p.15.

Both the 1976 and 1986 census found negligible international migration, although there was considerable movement within the country.¹⁰ Thus, almost all population growth was due to the excess of births over deaths.

Causes of fertility decline and increased life expectancy

Reliability of demographic estimates largely depends on the quality of the data upon which they are based; some of the differences reported above could be due to census errors. It is not easy to collect accurate data in a country such as Solomon Islands, where many settlements are isolated by rugged terrain. Both the 1976 and 1986 census reports acknowledge the possibility of errors in enumeration and consequent non-comparability of statistics.¹¹ However, as the same techniques were used to estimate fertility in both census reports, the direction of change, if not the levels of the estimates, is probably indicated reliably. This opinion is supported by the further observation that the reported shift in fertility is distributed across all age groups. Similarly, few would question the reported improvement in life expectancy. The 1986 census report attributes the decline in fertility to a lower proportion of women marrying between ages 15 and 24 and

the use of some methods of family planning among women aged 35 and over.¹² The proportion of females aged 15 and over and never married increased from 24.1 per cent in 1976 to 27.4 per cent in 1986, mainly because of a reduction in teenage marriages.¹³ Increasing numbers attending school and increasing participation of young women in economic activity are possible causes of the reduction in marriages among 15-19 year olds. Although there were fewer teenage marriages in 1986 than in 1976, the mean age at marriage in 1986 was slightly lower, at 25 years for males and 21 for females, compared with 25.5 and 21.4 in 1976.¹⁴

Diagram 2 plots the average number of births to women in each five-year age group in 1972-74, 1978-80 and 1984-86.¹⁵ It shows a clear trend towards consistently lower fertility in every age group.

The decline has been greatest for the age groups 15-19 and 30 and over. Thus, the tendency to defer marriage seems to explain part of the fertility decline. The decline has been least for the age group 20-24, with the 1984-86 level still 95 per cent of that in 1972-74. The mean age at child bearing has fallen slightly, from just over 30 to 29.5 years. It must be remembered that it is possible for the women

Table 2 Family planning new acceptors, female methods

Method	1981	1982	1983	1984	1985	1986	1987
Rate per 100 currently married women (15-44 years)							
Tubectomy	0.4	0.5	0.6	0.6	0.6	0.2	0.3
Pill	2.4	2.2	1.8	1.8	1.9	2.4	3.0
Injection	3.4	2.2	2.1	2.4	2.5	3.0	4.6
IUD	0.4	0.3	0.4	0.3	0.3	0.3	0.2
Ovulation	0.3	0.2	0.4	0.5	0.5	0.6	0.7
All female methods	7.0	5.5	5.3	5.6	5.8	6.5	8.8

Source: Solomon Islands, *Solomon Islands Epidemiological Report 1988*, Honiara, Ministry of Health, 1988, p.24.

10 Solomon Islands, *Report on the Census of Population*: Volume 2, Demographic Analysis, Honiara, Statistics Division, Ministry of Finance, 1981, p.22; and Solomon Islands, *Report on the Census of Population 1986*: Report 2B Data Analysis, forthcoming, p.273.

11 Solomon Islands, *Report on the Census of Population*: Volume 2, Demographic Analysis, Honiara, Statistics Division, Ministry of Finance, 1981, p.14; and Solomon Islands, *Report on the Census of Population 1986*: Report 2B Data Analysis, forthcoming, p. 273.

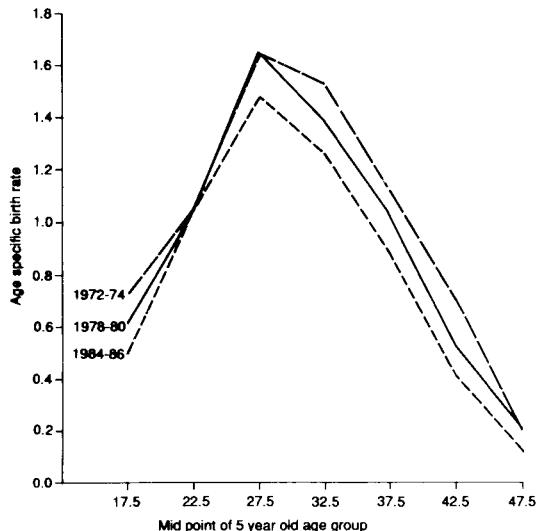
12 ibid., p.275.

13 ibid., p.274.

14 ibid., p.274.

15 ibid., p.97.

Diagram 2: Age specific birth rates for five year age groups, Solomon Islands, 1972-76, 1978-80, 1984-86



in the 15-19 age group to 'catch up' later on by having more births at older ages. It will be more than twenty years before the completed fertility of these women aged 15-19 in 1986 is known, so their apparent fertility decline should still be treated with caution.

It is difficult to explain the reported reduction of fertility amongst women aged 35 and over without a detailed demographic survey. However, some guesses can be made. Table 2 shows the family planning new acceptors for women in the years 1981-87. An unusual feature of Solomon Islands new acceptor statistics is that the rates for condom use and vasectomy are related to the numbers of currently married men aged 15-59 rather than to currently married women aged 15-44. However, in every year of the 1981-87 period these rates were less than 0.1 per cent for vasectomy and less than 1.0 per cent for condom use and so are unlikely to have much association with fertility.

One general limitation of family planning service statistics is that for most methods an

individual can be counted as a new acceptor whenever they resume use of contraception after a break, such as after a birth. This makes it difficult to distinguish new users from continuing users, and to estimate the number of current users at a given time. In 1979 the Solomon Islands family planning acceptance rate was estimated at less than seven per cent by the World Bank¹⁶ while the United Nations Fund for Population Activities (UNFPA)¹⁷ stated, 'It has been estimated, however, that about 10 per cent of women aged 15 to 44 years are currently practising family planning'. Given that these estimates and those for new acceptors prior to the census are low, it seems unlikely that the reported decline in births to older women is due to the use of modern methods of contraception.

The effectiveness of most traditional remedies to prevent conception is doubtful, with the exception of separation of husbands and wives. Generally the periods of separation in villages tend to shorten or disappear with the breakdown of traditional society. However, one possible explanation for lower fertility among older women could be that increasing levels of internal migration could be causing periods of separation. Another is that, as the country modernizes, some customs and obligations which encourage large families may be breaking down. For example, traditionally Solomon Islanders pay substantial bride prices, and it is often necessary for young men to borrow from friends and relatives. According to custom, every person who has contributed to the bride price in this way must be honoured by the couple naming a child after them. Possibly the cash economy is providing more of the bride price, or else older women who have already filled part of this obligation may feel there is no need to continue reproducing until everyone has a namesake.

It is interesting to consider the relationship of the substantial increase in female life expectancy reported for 1986 and the decrease in the TFR. In the early 1970s Solomon Islands was one of the few countries in the world where female adult mortality was higher than that

16 Cited in J. Connell, *Migration, Employment and Development in the South Pacific*. Country Report No 16: Solomon Islands, Noumea, South Pacific Commission, 1983, p.21.

17 UNFPA, op. cit., p.41.

Table 3 Population projections, Solomon Islands, 1976-2021

Projection title	Assumptions ^a				Projected population		
	TFR Start	TFR End	life expectancy (M/F) Start	life expectancy (M/F) End	1986	2001	2021
1976 N.1	7.3	8.3	54/54	64/64	286.6	542.3	-
1976 N.2	7.3	7.3	54/54	54/54	276.7	476.3	-
1976 N.3	7.3	5.8	54/54	64/64	275.0	457.6	-
1976 N.4	7.3	4.3	54/54	59/59	270.1	412.8	-
1986 N.1.F	6.1	6.1	59/61	59/61	285.2	469.4	932.6
1986 N.2.F	6.1	3.0	59/61	72/77	285.2	446.5	721.9
1986 N.3.F	6.1	2.2	59/61	72/77	285.2	401.7	566.4

^aThe assumed rates for the first and last years of each projection are shown as Start and End.

Sources: Solomon Islands, *Report on the Census of Population: Volume 2: Demographic Analysis*, Honiara, Statistics Division,

for males. The International Labour Office¹⁸ stated that the majority of women's health problems were due to malaria, anaemia from too many closely spaced births, poor nutrition and spinal fusion from many years of lifting heavy loads. These health problems were cited as contributing to their lower life expectancy. If this is true, women's health should improve as fertility declines. Although it is generally assumed that improvements in life expectancy affect individuals already past the reproductive ages, this may not be true of Solomon Islands women. Rather, the higher female life expectancy reported in 1986 could be a reflection of earlier cessation of child bearing. At the time of writing, however, data on age specific death rates were not available to allow further investigation of this relationship.

Prospects for future population growth

The forthcoming demographic analysis of the 1986 census¹⁹ contains a set of population projections for the period 1986-2021. Different fertility and mortality assumptions are used for each projection, but all are based on the assumption that international migration will continue to be negligible. Table 3 shows the

projections and their underlying assumptions, and compares them with the projections made from the 1976 census results, which covered the period 1976 to 2001. Both sets of projections were made by Groenewegen, on each occasion using the FIVFIV computer software package.²⁰

Population projections, 1976 and 1986

It is clear from the projections that the Solomon Islands population can be expected to at least double and probably triple by 2021. Even a sharp decline in fertility would have little effect in slowing population growth in the short term.

An unusual feature of both sets of projections is that the base populations in the census years, 1976 and 1986, differ by a few thousand between projections. This is presumably because they are in turn derived from other projections. Table 3 uses the actual census count as the base rather than the figures shown in the projections.

The assumptions of constant and increasing fertility used in projections N.1 and N.2 may have seemed pessimistic when they first appeared in 1981. However, Table 3 shows that

18 International Labour Office, *Pacific Intercountry Consultancy on Safety and Health at Work and Health and Welfare of Working Women*, Suva, ILO Office for the South Pacific, 1984, p.33.

19 An unusual feature of both sets of projections is that the base populations in the census years, 1976 and 1986, differ by a few thousand between projections. This is presumably because they are, in turn derived, from other projections. Table 3 uses the actual census count as the base rather than the figures shown in the projections.

20 F. Shorter and D. Pasta, *Computational Methods for Population Projections*, New York, The Population Council, 1974.

projection N.1 most closely estimated the actual population in 1986. Table 3 also shows that the assumptions underlying the 1986 projections have been modified considerably from those used in 1976. Projection N.3.F postulates a dramatic fertility decline over the 35 year period which would be matched by few contemporary countries. Even the 1986 projection N.1.F, which assumes constant fertility and mortality, takes 35 years to double the population, compared with 20 for projection N.1. made in 1976.

Whether or not one of these projections proves to be a close approximation to reality 10 or 20 years hence is most likely to be determined by its fertility assumptions. The IMR is already quite low, so future mortality improvements are not likely to have a major impact on population growth. Although migration could have a major effect, it has not occurred on a large scale to date in Melanesia and may not do so in the time period covered by the projections. The potential for Melanesian migration to Australia is discussed in McMurray and Lucas.²¹ The following discussion of future population growth in Solomon Islands will thus focus on likely trends in fertility.

Mauldin and Segal²² found that, in most countries, there was a negative relationship between the prevalence of family planning and fertility rates. Although, historically, some countries have reduced fertility using traditional methods of birth spacing, it is unlikely that Solomon Islands could achieve a major decline in fertility without widespread adoption of modern methods of family planning.

In the past there have been periods of considerable opposition to family planning in Solomon Islands. Lloyd and Winn²³ observe that the idea of 'population control' is unacceptable in Solomon Islands because the great depopulation that occurred last century,

through disease and removal of labourers to plantations in Fiji and Queensland, has left its mark on the mentality of the people'. Another contributing factor may be the losses sustained in 1942 and 1943 when some of the fiercest battles of the Second World War took place on Guadalcanal.

Despite this sensitivity, some members of the Government have been conscious for more than a decade of the rapid rate of population increase and of the consequences if it remains unchecked. The first National Development Plan 1975-79 set the extremely ambitious target of reducing the annual rate of population increase to 2 per cent by the 1980s.²⁴ The Draft National Development Plan of 1980-84 stated that the annual population growth rate should be reduced to 3 per cent per annum.²⁵ However, in the ensuing period of political instability the Government veered away from any suggestion of population control.

Connell²⁶ notes some conflicting public statements on population limitation made in 1982 and 1983. They include a statement from the Governor General that the country was 'blessed with a high birth rate of 3.4 per cent' and remarks from the Duke of Edinburgh and the Governor of the Central Bank to the effect that the country urgently needed to take steps to control the rapid rate of population growth. In 1983 Mamaloni, then Prime Minister, responded in a press statement, saying '...to discourage the growth of population in Solomon Islands by medicating mothers is a slow form of genocide...Solomon Islands is grossly underpopulated and needs more of its own people to develop the vast resources of the country'.²⁷

However, when the release of the preliminary results from the 1986 census suggested that the population growth rate had actually increased, the Government appeared to

21 C. McMurray and D. Lucas, 'Pacific islander migration to Australia: the 1980s and beyond', *Pacific Economic Bulletin*, 4(1), 1989, pp.29-34.

22 P. Mauldin and S. Segal, 'Prevalence of contraceptive use: trends and issues', *Studies in Family Planning*, 19(6), 1988, pp.335-53.

23 C. Lloyd and M. Winn, *Final Report on Women's Reproductive Health and Family Planning in the South Pacific*, Sydney, Australian Federation of Family Planning Associations, 1985, p.14.

24 UNFPA, op. cit., p.40.

25 ibid., p.11.

26 Connell, op. cit., p.21.

27 ibid., p.22.

moderate its attitude. In 1987 the Ministry of Health and Medical Services prepared an official population policy. This document discusses the population growth rate and states as one of its goals that the TFR should be gradually reduced to 3 or 4 over the next decade.²⁸ The main mechanisms for achieving this reduction are education and promotion of family planning. The very existence of such a population policy document represents an important shift in the official attitude to family planning.

The Solomon Islands Planned Parenthood Association (SIPPA), was established in 1973 with IPPF support, 'to improve health and quality of life of Solomon Islands people by providing information on the benefits of family planning... (and to promote) Family Health through Principles and Practices of Family Planning'.²⁹ During the early 1980s its activities were severely curtailed by the lack of any official support for family planning, but since 1987 it has embarked on a widespread campaign to encourage child spacing.

The basis of this campaign is the promotion of better health for mothers and children. For the first time SIPPA has been permitted to use radio to spread its message, and it has also targeted husbands at its education group meetings. The SIPPA education officer estimates that the campaign has reached about 70 per cent of the population.³⁰ While focusing on family planning education, SIPPA also offers some clinical services. Other clinical services are offered by the Ministry of Health and Medical Services and the Catholic Ovulation Method Programme.

Conclusion

Although still cautious, the Solomon Islands Government now seems to be giving tacit

approval to family planning. This is not to say that a rapid fertility decline is a certainty in the near future. As shown in Table 2, the number of new family planning acceptors 1987 was still low. However, the existence of a vigorous, public, family spacing campaign since 1987, compared with the restricted activities prior to this date, sets the scene for further fertility decline in the future.

Despite the increased promotion of family planning, there are, as yet, no clear guidelines concerning family size. The targets for fertility decline in the Solomon Islands Population Policy are expressed in terms of a reduction in the growth rate to 3 per cent and the TFR to 3 or 4 children per woman.³¹ Fertility reduction campaigns tend to be more successful when they express a fertility target in terms of an ideal number of children in each family, which is more meaningful to the public.

However, the significance of the accelerated family planning campaign is that it is giving people the means to control family size when, and if, they choose to do so. Studies in other countries have shown that choosing to control fertility tends to be associated with factors such as increasing education levels, increasing participation of women in the workforce and a reduced dependency on children for labour and support of the aged.³²

It is difficult to say how much credence should be given to the decline in fertility reported in the forthcoming demographic analysis of the 1986 census. The change in the official attitude towards family planning and the reduction of the population growth rate is more important. In view of this, it is just possible that, as assumed in projection N.2.F, Solomon Islands could attain a TFR in the vicinity of 3 children per woman by the year 2021.

28 Solomon Islands, *Solomons Islands Population Policy*, Honiara, Ministry of Health and Medical Services, 1987, p.14.

29 Solomon Islands Planned Parenthood Association, *SIPPA*, Honiara, SIPPA, 1989, p.1.

30 Education Officer, Personal Communication.

31 Solomon Islands, *Solomons Islands Population Policy*, Honiara, Ministry of Health and Medical Services, 1987, p.14.

32 See, for example, the collection of papers in J. Caldwell (ed.), *The Persistence of High Fertility*, Canberra, Department of Demography, Australian National University, 1977.