

Fertility Decline in Sri Lanka: Are All Ethnic Groups Party to the Process?

Ethnic differentials in family planning acceptance and practice are diverse in Sri Lanka, with the Sinhalese demonstrating the highest rate

By P. Puvanarajan and W. Indralal De Silva*

Sri Lanka has played the role of a virtual laboratory in understanding the process of demographic transition in low-income countries. The advanced stages of demographic transition in any context entail irreversible population growth patterns that affect the population growth components of fertility, mortality and migration. The significant demographic transitional effects are the fertility changes that these communities undergo, tending towards achieving replacement or below replacement fertility levels (De Silva, 1994). It would therefore be of interest to investigate the course of such changes occurring in a heterogeneous society.

* P. Puvanarajan, Senior Lecturer, Department of Geography and W. Indralal De Silva, Professor and Head, Department of Demography, University of Colombo, Colombo, Sri Lanka.

Sri Lankan society is diverse, as it is composed of a multiracial, multireligious and multilinguistic population. The Sinhalese, as the majority group, predominate. The Tamil and Moor communities form the other major ethnic groups. Malays and Burghers form minorities of insignificant proportions. The majority of the Sinhalese are Buddhists, while the majority of the Tamils are Hindus. However, Christianity prevails among the Sinhalese, Tamil and Burgher ethnic groups, while the Moors are followers of Islam.

The ethno-religious composition of the population and the relative numerical strengths and balances of each group during the process of demographic transition are important factors. These factors should be considered when investigating fertility levels and patterns of selected ethnic groups as they will have differential effects on fertility performance. Tables 1 and 2 indicate the relative numerical strength of the different ethnic and religious groups in terms of their fertility, mortality and migration behavioural patterns. The information presented in these tables, except for 1994, is based entirely on census data collected since 1881. It should be noted that data obtained from the 1994 Demographic Survey do not include the Northern and Eastern provinces. Therefore, in terms of ethnic balance, the numbers presented, as well as the rates, ratios and percentage distributions calculated for 1994 should be interpreted with caution, especially when those measures are compared with previous years.

Table 3 indicates the percentage distribution of the Sri Lankan population by ethnicity and religion in 1981. The data confirm that, although Sri Lankans form a heterogeneous society, there is a unique ethno-religious relationship in each ethnic group as a large majority in each ethnic group adheres largely to a particular religion. For example, at least 93 per cent of Sinhalese are Buddhists, about 85 per cent of Tamils are Hindus and approximately 93 per cent of Moors are Muslims.

While differentials exist among the ethnic groups in respect of the levels and patterns of fertility decline, there may also be substantial differences in the socio-economic and cultural determinants that affect such a decline (Abeykoon, 2001). Based on the relative declining trends and patterns of fertility, mortality and migration of the various ethnic groups, concern may arise among some groups experiencing a decline in their numbers. The current ethnic conflict, which is largely ethno-based, might add to such concern, especially among the Tamil, Moor and Sinhalese communities. Therefore, an ethno-based analysis of fertility changes among the Sri Lankan ethnic groups and associated research could bring clarity to the issue. It could also be deemed a contribution to the current knowledge of the transitional theory.

Table 1. Numerical and percentage distribution of population by ethnicity, 1881-1994

Ethnicity	1881	1891	1901	1911	1921	1946	1953	1963	1971	1981	1994
All groups	2,944,280	3,007,789	3,565,754	4,106,350	4,497,854	6,657,339	8,097,895	10,582,064	12,689,897	14,846,750	15,022,000
Sinhalese	1,846,614	2,041,158	2,330,807	2,715,420	3,015,970	4,620,507	5,616,705	7,512,915	9,131,241	10,979,561	12,598,000
Sri Lankan Tamils ^{a/}	687,248	723,853	951,740	528,024	517,189	733,731	884,703	1,164,689	1,423,981	1,886,872	809,000
Indian Tamils				530,983	602,510	780,589	974,098	1,122,961	1,174,606	818,654	544,000
Sri Lankan Moors ^{a/}	185,542	197,166	228,034	233,901	251,925	373,559	463,963	625,301	828,304	1,046,926	954,000
Indian Moors				32,724	32,923	35,624	47,462	56,913	27,420	-	-
Burghers	17,886	21,231	23,482	26,663	29,403	41,926	45,950	45,944	45,376	39,374	41,000
Malays	8,895	10,133	11,902	12,990	13,395	22,508	25,464	33,430	43,459	46,963	46,000
Others	14,553	14,248	19,789	25,645	34,539	48,895	39,550	19,911	15,510	28,398	30,000

Source: Various reports of the Registrar General's Department and the Department of Census and Statistics, Sri Lanka.

^{a/} In the censuses of 1881, 1891 and 1901, the Indian Tamils were included in the Sri Lankan Tamils category, while the Indian Moors were included in the Sri Lankan Moors category.

Table 2. Numerical and percentage distribution of population by religion, 1881-1994

Religion	1881	1891	1901	1911	1921	1946	1953	1963	1971	1981	1994
All religions	2,759,800	3,007,700	3,565,900	4,106,400	4,498,600	6,657,400	8,097,700	10,582,000	12,689,600	14,846,700	15,021,500
Buddhist	1,698,100	1,877,000	2,141,400	2,474,200	2,769,800	4,294,900	5,209,400	7,003,300	8,536,800	10,288,300	11,752,000
Hindu	593,600	615,900	826,800	938,300	982,100	1,320,400	1,610,500	1,958,400	2,238,600	2,297,800	1,127,800
Muslim	197,800	212,000	246,100	283,600	302,500	436,600	541,500	724,000	901,700	1,121,700	1,008,600
Christian	268,000	302,100	349,200	409,200	443,400	603,200	724,400	884,900	1,004,300	1,130,600	1,127,600
Others	2,300	700	2,400	1,100.0	800	2,300	11,900	11,400	8,200	8,300	5,500

Source: Various reports of the Department of Census and Statistics, Sri Lanka.

The present study attempts to examine a number of objectives. First, it investigates the relative size of the various ethnic groups in Sri Lanka and changes in them over past decades. Second, it compares fertility trends and levels within each ethnic group, as well as ethnic differentials in levels and patterns of fertility decline. Ethno-religious differences in the context of social, economic and cultural determinants of fertility decline among various communities are also highlighted. Third, the determinants of fertility trends and levels of various ethnic groups are investigated. Such an investigation throws light on the demographic transition process under way and provides a better understanding of the socio-cultural milieu determining the process of fertility decline in respect of the various ethnic identities. The determinants under review in this study are those of age at marriage and contraceptive use within the different ethnic groups.

Ethnic groups in Sri Lanka and their origins

The origins of the Sinhalese, according to the historical chronicles, *Mahawansa* and *Thupawansa*, can be traced back to the early Aryan Period of *Rig Vedic Janapadas* in northern India. At that time, Prince Vijaya, exiled from a *Janapada* in northern India, migrated to Sri Lanka and started the Sinhala *Janapada* in the north of the country.

The Tamils of Sri Lanka have their origins rooted in the Dravidians of southern India, who migrated to Sri Lanka from time to time. They introduced southern Indian cultural patterns into Sri Lankan society and are located largely in the northern and eastern parts of the country. A second wave of the Dravidian population and their cultural traits came into the country when, in the middle of the nineteenth century, the British imported Tamils to work on the newly founded plantations in the central parts of the country. The latter now form a segment of the naturalized population located in the central highlands of Sri Lanka.

The origins of the Moors in Sri Lanka can be traced back to the early Anuradhapura period, when Arabian traders migrated to Sri Lanka and became the forefathers of the Moor Islamic culture. Those ancient Arab traders, called *Yavanas* or *Yonas*, are referred to in the *Mahawansa*. The Moor settlements as well as the pre-Moor Arabian settlements, were initially located around the ports of Sri Lanka.

At a later stage, other groups of Moors migrated to Sri Lanka from the Malabar coast of India and settled largely in the south-western quadrant of the island. Census data pertaining to recent geographical locations of Sri Lankan Moors show that they comprise a substantial proportion of the population in the districts of Colombo, Mannar, Batticaloa, Trincomalee and Kurunegala. Moor

Table 3. Religious composition of ethnicity, 1981

Religion	Ethnicity						
	Sinhalese	Sri Lankan Tamils	Indian Tamils	Sri Lankan Moors	Burghers	Malays	Others
Buddhist	93.3	1.8	1.8	0.2	2.9	2.1	7.5
Hindu	0.1	80.7	90.0	6.7	0.4	3.4	15.3
Muslim	0.1	0.7	0.5	92.6	1.6	89.2	48.7
Roman Catholic	6.1	14.3	6.2	0.4	79.3	2.2	11.6
Christian	0.4	2.4	1.4	0.1	15.3	0.6	12.1
Other	0.1	0.1	0.1	0.1	0.5	2.5	4.8
Total %	100	100	100	100	100	100	100
Total numbers	10,979,561	1,886,872	818,656	1,046,926	39,374	46,963	28,398

Source: Department of Census and Statistics, Sri Lanka (1986).

culture, as much as the cultures of other ethnic communities in the country, has an ancient history and is woven into the cultural fabric of Sri Lanka.

The Malays, who arrived at a later stage in Sri Lankan history, have close connections with the Moors. Their origin can be traced back to Java; they are followers of Islam and are distributed throughout the island. The origins of the Burghers can be traced back to Western rule by the Portuguese and Dutch from the fifteenth to the eighteenth century. They are largely descendants of the civil and military employees of the former Western rulers.

Ethnic groups: their relative sizes

Tables 1 and 2 show the relative strength of the various ethnic groups in Sri Lanka. The two groups that comprise the Sinhalese population, that is, the low-country Sinhalese and the Kandyan Sinhalese, accounted for nearly 74 per cent of the total population in 1981. In 1881, the Sinhalese accounted for approximately 67 per cent of the total population. During the subsequent 100 years, the Sinhalese community increased by 7 percentage points. In the twentieth century, their proportionate share in the total population increased from 65 per cent in 1901 to 74 per cent in 1981 (table 1).

The proportionate share of the Tamil community (both Sri Lankan and Indian) in the total population showed only a slight decline of 0.8 of a percentage point during the final decade of the nineteenth century. Nevertheless, the percentage share of the community had increased to 27 per cent by the beginning of the twentieth century. Subsequently, the proportionate share of the Tamil population declined to 18 per cent, according to the 1981 census.

In the final decade of the nineteenth century, the Moor population comprised about 7 per cent of the total population. However, the proportionate share of this ethnic group declined to 6.4 per cent in the first quarter of the twentieth century. From 1946 to 1981, the proportion of the Moor community in the total population increased from 6.1 to 7.1 per cent. By 1971, the Moors formed the fourth largest ethnic group in the country (table 1).

Calculations based on the census data presented in table 1 also show that between 1946 and 1971 there was an overall population increase of 121.7 per cent in the Sri Lankan Moor community while during the same period the overall increase for the Sinhalese population was 97.6 per cent. The rate of population increase among the Sri Lankan Tamils during the same period was 94.1 per cent, although from 1911 to 1953 a steady growth in the Sri Lankan Tamil and Indian Tamil communities had been observed. Of the two ethnic groups, the Indian Tamils was the largest at that time. Nonetheless, between 1963 and 1971, Sri Lankan Tamils outnumbered Indian Tamils (table 1).

The 1911-1971 inter-censal increase in the Malay population was relatively moderate. For example, from 1911 to 1946, the increase was in the region of 73.2 per cent, while from 1946 to 1971 it amounted to 93.1 per cent, showing that the inter-censal increase had been on the rise. Between 1911 and 1946, the inter-censal rate of increase among the Burghers amounted to 57.2 per cent, while subsequent censuses up until 1971 revealed a decreasing rate. That trend was substantiated by a very sharp drop in the rate to 8.2 per cent in 1971. Malays comprised 0.3 per cent of the total population in the 1981 census (table 1). Despite being a minority, Malays have a stronger footing because they are aligned to the Moor community through the Islamic faith.

The declines seen in the population of the Sri Lankan Tamils and the Indian Tamils can be attributed to different sets of reasons. The former showed a rise in keeping with the growth rates prevalent in the country. Nonetheless, a significant kink observed in the trends in 1994 was owing to the fact that a national census was not held in 1991 and the figures were drawn from the Demographic Survey of 1994. That survey did not cover the Northern and Eastern provinces, the inhabitants of which are predominantly Sri Lankan Tamils. Apparently, the figures fail to portray the true picture. In accounting for the rather significant declines observed among the Indian Tamils, the determinants are political rather than demographic, since the reversal was largely due to the repatriation of Indian Tamils as agreed upon and concluded in October 1964 between the Governments of India and Sri Lanka under the Sirima-Shastri pact. Under the agreement, 525,000 persons of Indian origin were to be repatriated to India over a 15-year period. Hence, the consequent out-migration would account for the decline in their numbers.

Ethnic groups and their fertility trends

The effective fertility of any society, observed through the number of births that would have occurred during a given period of time, is influenced by various factors, such as the relative number of child-bearing females and males, their nuptial behaviour, attitudes towards child-bearing outside marriage, conception control practices and attitudes, the related sociocultural and biological characteristics of the population, and, above all, the religious attitudes of and health facilities available to the communities.

The rate at which a population adds to itself by births during any given period of time is a measure of the fertility performance of that population. This measure may be in relation to the total population of the country, a particular religious or ethnic group, or a population representing a region of the urban and rural sectors. The fertility trends of Sri Lanka and its ethno-religious fertility behavioural differentials are discussed below, utilizing the various measures of fertility.

Crude birth rate

The simplest and most common measure of fertility is the crude birth rate (CBR), which is defined as the number of live births for a given year per 1,000 population. Usually, the mid-year population is taken as the denominator. CBRs for Sri Lanka and its various ethnic groups, computed on the basis of mid-year data collected since the early 1960s, show the demographic transition that is in force in Sri Lanka and reflect a decline in the fertility levels of all ethnic groups. Between 1955 and 1989, the CBR of Sri Lanka fell from 37.9 to 21.6 per 1,000 population, indicating a decline of almost 40 per cent (table 4). It would be of interest to examine whether each ethnic group in Sri Lanka was involved in this process of decline.

From 1958 to 1989, data for the Sinhalese, Sri Lankan Tamils, Sri Lankan Moors and Malays all indicated a similar percentage decline in CBR (table 4). The Burgher and Indian Tamil communities show a relatively low level of decline in CBR during the same period. Throughout the reference period, the Burghers recorded the lowest fertility of all the ethnic groups. The low percentage decline in fertility among the Indian Tamil community could be explained by the fact that they started with a relatively low CBR and, for that reason, only experienced a 23 per cent decline during the period under review.

In order to investigate the change in CBR among the different ethnic groups during the 1980s, the percentage change from 1981 to 1989 was computed. During that period, the Sri Lankan Tamils experienced the highest decline in CBR (25.9 per cent). The Sinhalese and the Sri Lankan Moors reported declines that placed them in second and third positions, respectively,

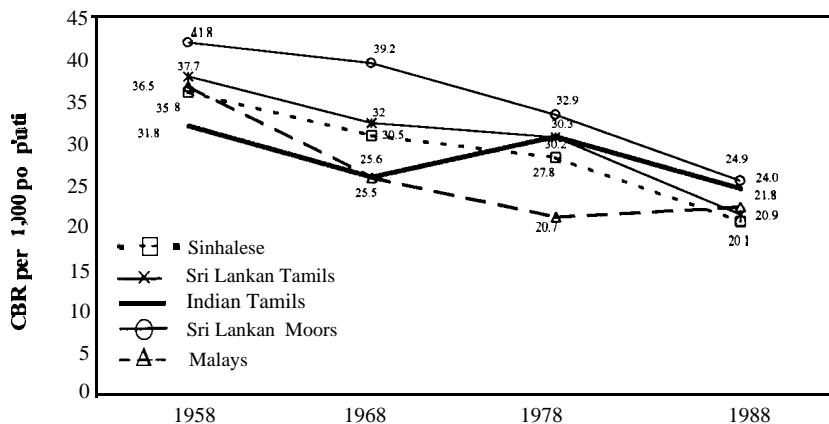
Table 4. Crude birth rate by ethnicity, 1955 to 1989

Year	All races	Sinhalese	Sri Lankan Tamils	Sri Lankan Moors	Burghers	Malays	Indian Tamils
1955	37.9	38.3	37.2	40.7	—	—	36.9
1956	36.4	36.8	35.4	41.0	—	—	34.7
1957	36.5	36.9	36.2	42.0	—	—	32.6
1958	35.8	35.8	37.7	41.8	26.2	36.5	31.8
1959	37.0	37.1	39.7	43.5	—	—	32.0
1960	36.6	36.5	38.8	42.7	—	—	33.1
1961	35.8	35.7	38.4	42.9	—	—	31.4
1962	35.5	35.0	39.7	43.9	—	—	31.4
1963	34.1	34.1	36.9	41.7	—	—	29.1
1964	32.2	32.7	37.2	42.9	—	—	27.7
1965	33.1	33.1	36.5	40.9	—	—	27.1
1966	32.3	32.1	35.4	42.3	20.7	29.6	26.3
1967	31.6	31.3	34.6	40.9	19.9	26.5	27.1
1968	30.0	32.2	33.7	40.9	19.1	26.4	26.4
1969	30.4	30.5	32.0	39.2	19.0	25.5	25.6
1970	29.4	29.2	31.5	38.8	17.5	23.2	25.8
1971	30.4	29.7	31.3	36.9	22.9	27.2	30.5
1972	30.0	29.5	31.0	35.6	21.9	24.5	29.5
1973	28.0	27.6	28.2	33.4	20.3	22.8	28.0
1974	27.5	26.8	28.8	32.2	17.4	24.8	29.7
1975	27.8	26.9	29.4	32.1	17.5	20.8	32.0
1976	27.8	26.7	29.9	32.8	17.6	22.3	31.3
1977	27.9	27.3	28.2	32.6	17.4	20.8	30.6
1978	28.5	27.8	30.2	32.9	15.5	20.7	30.5
1979	28.9	27.9	30.8	35.2	15.3	19.1	32.1
1980	28.4	27.3	31.7	33.2	14.6	20.0	31.2
1981	28.2	27.6	29.9	31.8	19.4	18.1	30.0
1982	26.9	26.3	27.2	31.3	25.3	20.2	29.7
1983	26.3	25.7	25.2	29.4	18.2	18.9	33.7
1984	25.1	24.3	24.3	27.8	19.5	17.2	34.7
1985	24.6	23.9	23.2	28.6	20.5	24.1	33.5
1986	22.4	21.6	21.3	27.3	17.6	21.4	30.2
1987	21.8	21.4	20.3	26.2	20.2	23.4	26.1
1988	20.7	20.1	20.9	24.9	16.2	21.8	24.0
1989	21.6	21.0	22.1	25.5	18.8	21.6	24.4
Percentage change 1958-1989	39.7	41.4	41.2	39.0	28.2	40.8	23.4
Percentage change 1981-1989	23.5	24.0	25.9	20.0	3.4	-19.2	18.9

Source: Various reports of the Registrar General's Department and the Department of Census and Statistics, Sri Lanka

Note: Crude death rates for different ethnic groups after 1989 cannot be computed due to the lack of availability of relevant data.

Figure 1. Crude birth rate, 1958, 1968, 1978 and 1988



whereas CBR of the Burghers indicated the lowest decline (3 per cent). However, the Malays, one of the smallest ethnic groups in Sri Lanka, reported an increase in CBR, possibly due to their limited number (46,000 in the 1981 census). Calculations based on such a small base population frequently tend to report significant fluctuations in CBR.

These trends clearly indicate the extreme diversity in the fertility levels that prevailed half a century ago in the various ethno-religious communities in Sri Lanka, but which was later narrowed down significantly (figure 1). Ethnic differentials of fertility reduction show that, commencing in the latter part of the 1950s, a significant decline occurred in fertility among the Sri Lanka Moors. Nevertheless, by 1989, CBR of the Moor community was 25.5 live births per 1,000 population. That was the highest rate for any ethnic group in Sri Lanka. The next highest CBR was reported for the Indian Tamils while the Sinhalese and Malay groups each recorded 21 live births per 1,000 population during the same year.

Distribution of births by ethnic group

The distribution of the total population for the country by ethnic group is not available for the period following 1989. Nevertheless, births reported by the different ethnic groups are routinely recorded and published by the birth registration system in Sri Lanka. Such data on live births, collected by the Registrar General's Department, has been used in this study in order to establish the pattern of fertility change among the different ethnic groups.

Table 5. Number of live births by ethnicity, 1981, 1986, 1991 and 1995

Ethnicity	1981	1986	1991	1995	Percentage change (1981-1995)
Sinhalese	304,336	258,796	252,609	243,835	-19.88
Sri Lankan Tamils	52,313	43,556	46,356	44,200	-15.51
Sri Lankan Moors	33,625	32,161	36,532	36,884	9.69
Indian Tamils	30,959	24,987	18,611	16,057	-48.13
Burghers	953	723	803	747	-21.62
Malays	907	983	1,169	1,048	15.55
Indian Moors	—	236	123	73	—
Others	700	293	390	380	-45.71
Total	423,793	361,735	356,593	343,224	-19.01

Source: Various reports of the Registrar General's Department and the Department of Census and Statistics, Sri Lanka.

Table 5 shows that approximately 424,000 live births were reported among all ethnic groups in Sri Lanka in 1981. However, by 1995, the figure had declined to 343,000. This trend indicates that Sri Lankan fertility, in terms of total live births, declined by 19 per cent between 1981 and 1995. However, it is necessary to investigate whether this declining trend is common to all the ethnic groups in the country.

The number of live births reported by different ethnic groups, that is, Sinhalese, Sri Lankan Tamils, Indian Tamils and Burghers, from 1981 to 1995, shows a declining trend (table 5). A deviation in this trend is shown by the Sri Lankan Moors and Malays, among whom an increase in live births was recorded during that period. The highest decline in live births during the same period, reported for the Indian Tamils, could be attributed to the process of repatriation and the consequent decline in their numbers from the 1970s (table 1).

Birth order

Apart from reckoning the age of the mother, another dimension of the analysis of fertility is to look at the "birth order" of the child, with the aim of understanding the behavioural patterns of fertility. For the purposes of analysis, the definition of the term "birth order" is the number of children born alive to the mother, including the present child.

Fertility trends indicated by birth order analysis suggest that a relatively lower number of women in the present generation have moved to higher parities compared with earlier generations. For the country as a whole, the percentage of first order births (when compared with all other orders of birth) increased from approximately 40 per cent in 1992 to 46 per cent in 1996, while the percentage of higher order births, such as seventh and over, showed a steady decline during the same period (table 6).

Table 6. Percentage distribution of births by birth order and ethnic group, 1992-1996

Year and ethnicity	Birth order						
	First	Second	Third	Fourth	Fifth	Sixth	Seventh and over
1992							
Sri Lanka	39.72	28.57	16.88	8.43	3.46	1.65	1.30
Sinhalese	42.06	28.91	15.95	7.35	3.21	1.43	1.09
Sri Lankan Tamils	32.96	28.41	19.03	12.44	3.78	1.91	1.47
Sri Lankan Moors	34.72	25.44	18.66	10.45	4.90	3.05	2.79
Burghers	47.08	27.25	14.23	8.52	1.95	0.36	0.61
Malays	43.14	32.55	14.76	5.38	2.52	0.87	0.78
Indian Tamils	33.07	30.22	21.57	9.47	3.32	1.38	0.97
1993							
Sri Lanka	39.25	28.81	17.13	8.32	3.66	1.54	1.29
Sinhalese	40.88	29.28	17.02	7.41	3.12	1.31	0.98
Sri Lankan Tamils	35.10	26.52	16.66	12.29	5.60	1.99	1.84
Sri Lankan Moors	34.31	26.52	17.75	10.25	5.44	2.81	2.93
Burghers	44.71	33.99	12.55	5.92	1.27	1.13	0.42
Malays	42.83	33.76	14.34	5.07	1.85	0.78	1.37
Indian Tamils	35.61	32.78	19.64	7.04	2.96	1.16	0.79
1994							
Sri Lanka	40.90	27.93	16.81	7.85	3.64	1.63	1.24
Sinhalese	42.56	28.74	16.50	6.96	3.03	1.31	0.89
Sri Lankan Tamils	36.78	24.34	16.70	11.46	5.94	2.60	2.18
Sri Lankan Moors	35.83	25.58	18.77	9.82	5.30	2.75	2.55
Burghers	43.24	32.30	15.44	5.15	2.19	0.90	0.77
Malays	42.04	32.61	14.73	6.72	1.73	1.08	1.08
Indian Tamils	37.97	30.81	19.29	6.91	2.91	1.27	0.84
1995							
Sri Lanka	42.75	27.94	16.28	7.18	3.17	1.45	1.24
Sinhalese	45.48	28.78	15.59	5.99	2.40	1.03	0.73
Sri Lankan Tamils	34.38	25.02	17.45	11.53	5.54	3.03	3.05
Sri Lankan Moors	35.63	25.82	19.09	9.66	4.89	2.52	2.39
Burghers	47.26	28.38	13.39	6.83	2.41	0.54	1.20
Malays	46.33	28.41	14.87	5.82	2.57	1.05	0.95
Indian Tamils	40.04	27.99	17.32	7.69	4.40	1.19	1.36
1996							
Sri Lanka	45.85	28.79	14.73	6.25	2.46	1.06	0.86
Sinhalese	48.19	29.38	14.10	5.08	1.84	0.79	0.62
Sri Lankan Tamils	40.33	27.81	14.91	10.28	3.90	1.56	1.21
Sri Lankan Moors	37.39	26.13	18.32	9.32	4.60	1.40	2.05
Burghers	44.77	30.21	13.32	7.02	2.86	1.04	0.78
Malays	49.12	30.51	12.00	5.49	2.05	0.47	0.37
Indian Tamils	46.58	28.91	15.49	4.90	2.42	1.02	0.69

Source: Various reports of the Registrar General's Department and the Department of Census and Statistics, Sri Lanka.

The analysis was pursued in order to identify whether individual ethnic groups in Sri Lanka experienced the same pattern of fertility change in respect of birth order achievements. The percentage distribution of births by order of births for some ethnic groups clearly indicates a substantial variation. For all the years investigated, the frequency of births for some ethnic groups was different from what had been previously observed (table 6). The percentage of first order births in 1992 was highest among the Burghers, followed by the Malays and Sinhalese, while the lowest percentage (33 per cent) was identified among both the Sri Lankan and Indian Tamils (figure 2). In contrast, the percentage of higher order births was relatively high among the Sri Lankan Moors followed by the Sri Lankan Tamils. For example, about 21 per cent of the total Moor births in 1992 were reported as being fourth or higher order births.

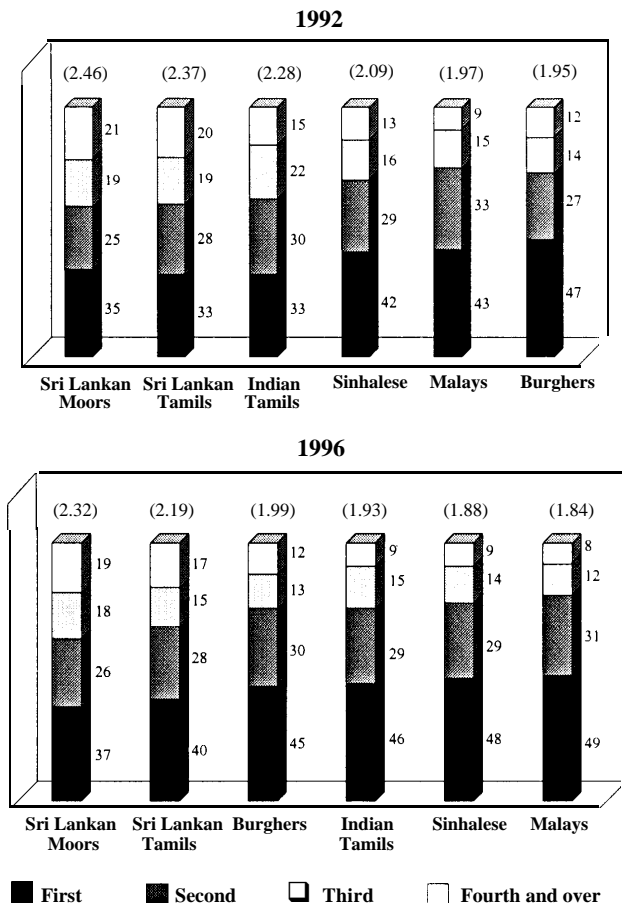
The analysis clearly established that all ethnic groups had contributed to the process of fertility decline in Sri Lanka. The proportion of higher order births for all ethnic groups declined between 1992 and 1996, while the percentage of fourth or higher order births among the Indian Tamils declined from 15 to 9 per cent. Even the Moors experienced a decline, from 21 to 19 per cent, during that period, while the proportionate decline among the Sinhalese was from 13 to 9 per cent.

By 1996, the relative contribution of first order births had increased for all ethnic groups. Sinhalese, Burghers, Malays and Indian Tamils all indicated a higher percentage of first order births than any other birth orders. Only the Sri Lankan Tamils and the Sri Lankan Moors had a relatively low level of first order births. The achieved fertility behaviour of the different ethnic groups, as indicated by the birth order analysis, suggests that at present the highest fertility levels in Sri Lanka are experienced by the Sri Lankan Moor and Tamil ethnic groups.

The level and change in ethnic fertility was further examined by computing the mean birth order for each ethnic group, which is reported in parentheses in figure 2. In 1992, the highest mean birth order, that is, 2.46, was observed for the Sri Lankan Moors, followed by 2.37 for the Sri Lankan Tamils. The estimate for the Sinhalese was 2.09, while the Burghers recorded the lowest mean birth order.

The mean birth order for Sri Lankan Moors amounted to 2.32 in 1996, suggesting that they still had the highest fertility. The figure for the Sinhalese declined from 2.09 in 1992 to 1.88 in 1996. Only in the case of the Burghers was a marginal increase recorded between 1992 and 1996; nevertheless, their level of fertility remained low (figure 2).

Figure 2. Percentage distribution of births by order and ethnicity

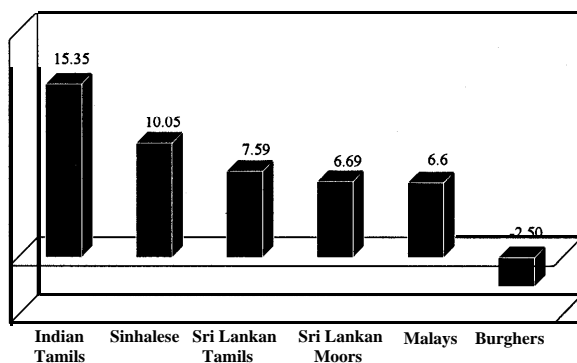


Note: Figures in parantheses indicate the mean birth order per woman.

The relative contribution of the different ethnic groups to fertility decline, as reflected in the changes that occurred in the mean birth orders (figure 3), illustrates that the Indian Tamils experienced the highest decline in the change of mean birth order among the different ethnic groups.

In that regard, Puvanarajan (1994) observed similar declining trends in the fertility of Indian Tamils, which he attributed to negative factors, poor nutritional levels and the resultant infecund state of the Indian Tamil women of

Figure 3. Percentage decline in mean birth order by ethnicity, 1992-1996



childbearing age. However, the decline now observed is an outcome of the beneficial effects of the amelioration programmes mooted thereafter, which paved the way for a healthy transition to lower fertility.

Figure 3 shows that the Indian Tamils experienced the highest decline, at over 15 per cent in mean birth order. The Sinhalese had the second highest decline, while the Sri Lankan Tamils were in third position. Although the highest figures for both 1992 and 1996 were recorded for the Sri Lankan Moors, it is evident from figure 3 that there was a decline in fertility of about 7 per cent among Sri Lankan Moors during the same period.

Child-woman ratio

A more useful and simpler summary measure of fertility, which is particularly useful in projecting subnational populations, is the child-woman ratio (the ratio of young children to women of reproductive age group at a given period of time). A commonly used age category of women and children that is applied to compute this ratio is the number of children aged under five years and women who are aged 15 to 49 years. The ratio does not directly refer to any actual number of births in the incidence of childbearing, but rather to the child population between the ages of 0-4 years; assuming that the children were enumerated correctly by age, they ought to be the survivors of births during the five-year period preceding the census.

This ratio can be computed using census or large sample data. The data required to compute the child-woman ratio for the entire country, as well as the different ethnic groups are presented in tables 7 and 8. In table 7, the

Table 7. Distribution of population aged 0-4 years by ethnicity, 1963-1994

Year	Total	Sinhalese	Sri Lankan Tamils	Sri Lankan Moors	Burghers	Malays	Indian Tamils	Other ^{a/}
1963	1,599,140	1,134,980	178,430	118,870	5,440	3,610	151,630	6,180
1971	1,664,677	1,190,059	183,447	129,403	4,374	5,479	146,310	5,605
1981	1,854,738	1,325,314	244,038	154,301	3,418	5,466	118,965	3,236
1981 ^{b/}	1,562,389	1,284,689	62,304	97,486	2,842	5,268	106,915	2,885
1994 ^{b/}	1,322,661	1,088,482	69,640	107,680	2,673	5,044	47,242	1,900

a/ Indian Moors included.

b/ Excludes northern and eastern provinces.

population aged 0-4 years in different ethnic groups from 1963 to 1994 is presented. Table 8 provides data on the female population aged 15-49 years for the same period. In this regard, it should be noted that the last population census was taken in 1981. Figures reported for 1994 were obtained from the 1994 Demographic Survey, which did not cover the entire country since it excluded the northern and eastern provinces.

Child-woman ratios computed for the period from 1963 to 1994 suggest that, commencing from the early 1960s, there had been a gradual decline in Sri Lankan fertility. In 1963, for every 1,000 women aged between 15 and 49 years there were 680 children aged 0-4 years (table 9). The ratio declined to 489 per 1,000 women in 1981. If the 1963 figure is taken as 100 (680 = 100), the estimated figure for 1981, (when the last census was held in Sri Lanka) is 72. The above analysis also confirms that during the 1963-1981 period Sri Lanka fertility, measured in terms of the child-woman ratio, declined by 28 per cent.

Table 8. Distribution of female population aged 15-49 years by ethnicity, 1963-1994

Year	Total	Sinhalese	Sri Lankan Tamils	Sri Lankan Moors	Burghers	Malays	Indian Tamils	Other ^{a/}
1963	2,352,770	1,670,730	252,520	137,070	10,970	5,260	268,860	7,360
1971	3,015,198	2,176,313	330,303	182,235	11,346	10,602	295,945	8,454
1981	3,800,062	2,826,155	468,617	253,759	10,210	11,857	222,480	6,984
1981 ^{b/}	3,301,118	2,768,953	131,329	168,040	9,036	11,493	205,739	6,528
1994 ^{b/}	4,201,707	3,526,488	228,566	265,430	10,921	13,764	148,820	7,718

a/ Indian Moors included.

b/ Excludes northern and eastern provinces.

Table 9. Child-woman ratio by ethnicity, 1963-1994

Year	Total	Sinhalese	Sri Lankan Tamils	Sri Lankan Moors	Burghers	Malays	Indian Tamils	Other ^{a/}
1963	680 (100)	679 (100)	707 (100)	867 (100)	496 (100)	686 (100)	564 (100)	840 (100)
1971	552 (81)	547 (81)	555 (79)	710 (82)	386 (78)	517 (75)	494 (88)	663 (79)
1981	489 (72)	469 (69)	521 (74)	608 (70)	335 (68)	461 (67)	535 (95)	463 (55)
1981 ^{b/}	473 (100)	464 (100)	474 (100)	580 (100)	315 (100)	458 (100)	520 (100)	442 (100)
1994 ^{b/}	315 (67)	309 (67)	305 (64)	406 (70)	245 (78)	366 (80)	317 (67)	246 (56)

Notes: The child-woman ratio is the ratio of young children (0-4 years) to women in the reproductive age group (15-49 years).

^{a/} Indian Moors included.

^{b/} Excludes northern and eastern provinces.

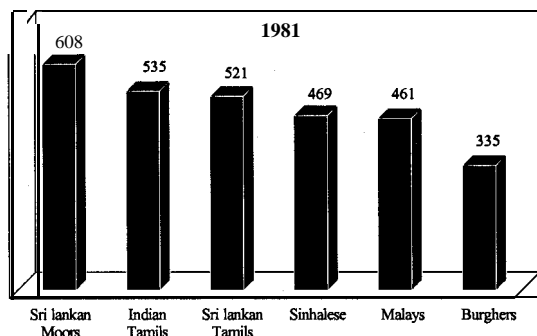
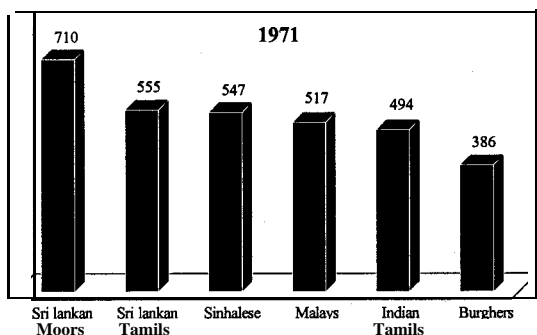
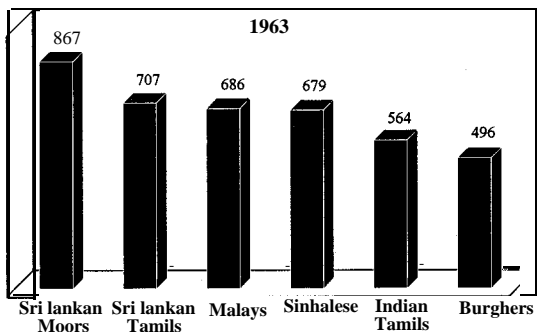
The trend in fertility behaviour, as reflected in the child-woman ratios after 1981, was examined by using the data collected from the 1994 Demographic Survey. Since the survey excluded the Northern and Eastern provinces, for the purpose of comparison a special computation was made of the child-woman ratio excluding the two provinces. As noted in column 1 of [table 9](#), the child-woman ratio declined from 473 to 315 per 1,000 women during the 1981- 1994 period. In other words it declined from 100 to 67. The estimated child-woman ratio for Sri Lanka when the northern and eastern provinces were excluded was 473. This was found to be lower than the calculated ratio for the entire country in 1981. This indicates that the northern and eastern provinces together demonstrated, on average, a slightly higher level of fertility than the rest of Sri Lanka (De Silva, Gajanayake and Dissanayake, 1986).

It would be interesting to examine whether the fertility decline in Sri Lanka during the past four decades was similar among all ethnic groups. As noted in [figure 4](#) and [table 9](#), the child-woman ratio was highest among the Moors in 1963, while the Burghers recorded the lowest ratio. Even in 1971, the same pattern of fertility persisted among those communities.

In 1981, only 335 children were born per 1,000 Burgher women of reproductive age, while 608 children were born per 1,000 women of the Sri Lankan Moor community. The figure for the Sinhalese, who comprise the main ethnic group, was 469 children per 1,000 women.

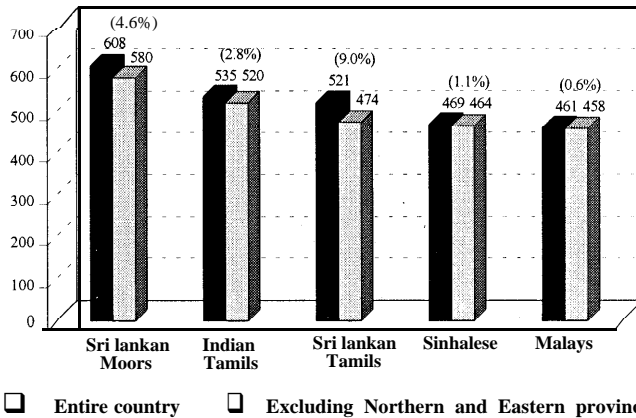
The supposition that the population in the northern and eastern provinces represents a higher level of fertility than the population living in other parts of the country is worth examining. Taking into consideration the ethnic variable in 1981, estimates of fertility that exclude the northern and eastern provinces

Figure 4. Child-woman ratio by ethnicity



Note: The child-woman ratio is the ratio of young children (0-4 years) per woman in the reproductive age group (15-49 years).

Figure 5. Child-woman ratio for the entire country and excluding the Northern and Eastern provinces by ethnicity, 1981



Note: Figures in parantheses indicate the difference in terms of percentage.

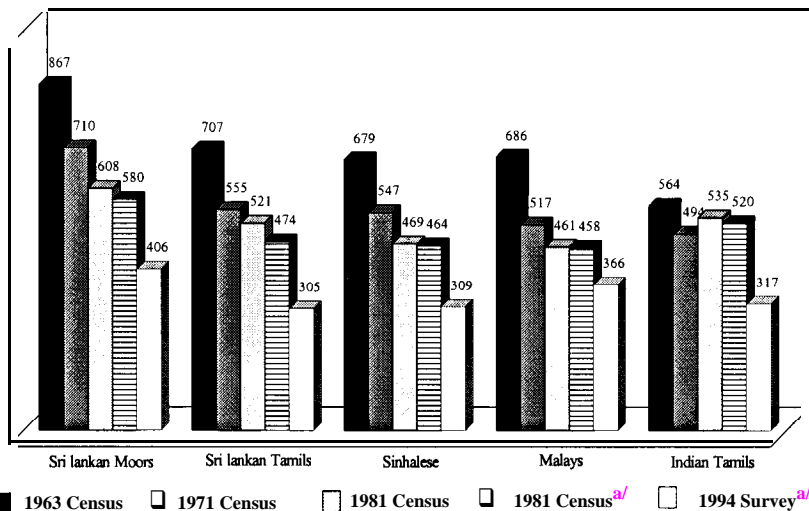
show that all the ethnic groups surveyed had experienced somewhat lower levels of fertility compared with the figures for the whole country (figure 5). Among all the ethnic groups, Sri Lankan Tamils and Sri Lankan Moors reported the highest differences. In other words, Sri Lankan Tamils and Sri Lankan Moors who largely lived in the northern and eastern provinces in 1981 reported higher levels of fertility than their counterparts in the rest of the country. Interestingly, the members of the Sinhalese community, irrespective of where they lived, did not show any significant difference.

The level of fertility decline after 1981 among the different ethnic groups in Sri Lanka is examined, using data presented in the last two rows of table 9. Each ethnic group indicated a substantial decline in fertility during the 1981-1994 period. Even though the Sri Lankan Moors and Malays had the highest levels of fertility, both groups reported a steady decline. The Sri Lankan Tamils, Sinhalese and Indian Tamils demonstrated greater declines in fertility than did the other groups. For example, the decline in the child-woman ratio of those groups, taking 100 as the base, was at a low level of 64-67 in 1994.

However, the decline of the Sri Lankan Moors is not very different, as fertility dropped from the base 100 in 1981 to 70 in 1994. The Malay population reported the smallest decline over that period (table 9).

A comparison of all five ethnic groups in terms of their fertility change is presented in figure 6. The Sri Lankan Moors started with a very high level of fertility in 1963, but had shown a significant drop by 1994. Nevertheless,

Figure 6. Change in child-woman ratio by ethnicity, 1963-1994

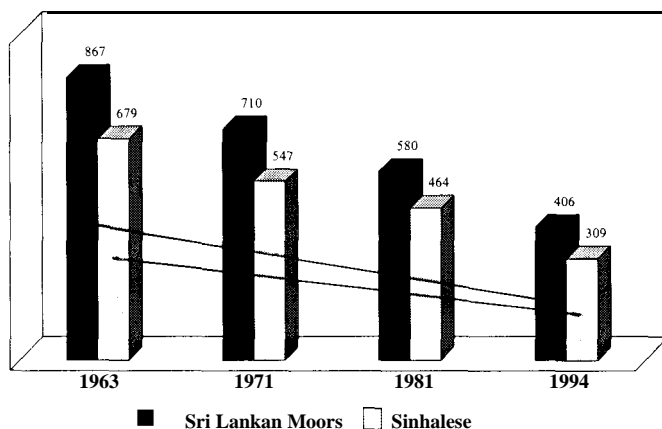


^{a/} Excludes northern and eastern provinces.

compared with the levels in other ethnic groups, even in 1994 the fertility level of the Moors was notably higher. From 1981 to 1994, the three main ethnic groups (the Sinhalese, Sri Lankan Tamils and Moors) reported a fertility reduction exceeding 50 per cent. For example, the level of fertility of the Sinhalese denoted by the child-woman ratio (table 9) dropped from 679 children per 1,000 women in 1963 to 309 in 1994, indicating a decline of 54 per cent. Similarly, measured by the same ratio for the said period, the fertility of the Sri Lankan Tamils dropped from 707 to 305 children per 1,000 women, indicating a decline of 57 per cent, while the fertility of Sri Lankan Moors showed a similar decline, from 867 to 406 per 1,000 women, constituting a decline of 53 per cent. In the case of the Sinhalese, the fertility level dropped by 54 per cent, while the Malay and the Indian Tamil groups reported falls in fertility of 47 and 44 per cent, respectively (figure 6).

The analysis undoubtedly establishes that all ethnic groups in Sri Lanka have experienced fertility declines of various levels, which is reflected in the current fertility transition occurring in the country. Notably, the previous ethnic disparities in the level of fertility have now narrowed significantly. For example, in 1963 the difference between the child-woman ratio of the Sri Lankan Moors and the Sinhalese was 188 per 1,000 women, but by 1994 that difference had narrowed to 97 per 1,000. The comparatively high level of

Figure 7. Child-woman ratio for Moors and Sinhalese, 1963-1994



fertility now observed among the Sri Lankan Moor community should therefore follow the same pattern in the coming years, thereby aligning their level with the other ethnic groups who currently demonstrate a relatively low level of fertility (figure 7).

Some correlates of fertility to the transition

Having discussed the declining trends among the different ethnic groups in the country, it is now pertinent to look at some correlates that have contributed to effect this transition. This study highlights two major correlates, the rise in age at marriage and contraceptive use associated with the process of fertility decline.

Declining patterns of fertility due to increasing mean age at marriage have been described as the forerunner to irreversible fertility decline in a society. Historical evidence for a rise in age at marriage in Sri Lanka supports the supposition that due to social development during the past decades, the conceptualization of the “appropriate age” to enter marriage has steadily increased for both genders. For example, during the early twentieth century, the general marriageable age in Sri Lanka for a female was 12 years and for a male, 16 years. Any marriage agreement among persons of such ages was deemed proper. According to the 1981 Census of Population, the singulate mean age at marriage for females and males had increased to 24 years and 28 years, respectively. Due to exposure to various sociocultural agents of change as well as legal enactments defining adulthood and minimum marriage age, the age at marriage has substantially risen for both men and women (De Silva,

1997). The marriage laws have been amended to define the “lawful age of marriage” as 18 for both sexes. However, there are other non-demographic factors that have contributed to delayed marriage in Sri Lanka, most notably economic constraints (Puvanarajan, 1994).

Given the levels of stress prevalent in modern society it becomes socially and morally wrong for those of a very young age, and who need to be educated, to be burdened with the stress and sexual responsibilities of marriage as well as early childbirth.

Women of the Sri Lankan Moor community have been exposed to the afore-mentioned process of sociocultural development, in keeping with patriarchal-oriented social guidance. Consequent to such patrilineal guidance, Moor women were the least affected by the ongoing social change. For example, their singulate mean age at marriage (SMAM) was the lowest among all other communities. Consequently, fertility differentials of ethnicity suggest that the Moor community had experienced higher rates of fertility. One explanation that has been put forward is that Moor women enter marriage at an earlier age than women in other communities and, therefore, are exposed to effective fertility for a longer period of time than women of other communities. The mean age at marriage computed for various districts shows that it is comparatively low for districts that constitute a higher proportion of the Moor community (Department of Census and Statistics, 1986). For example, in Amapara, where 42 per cent of the district population are Moors, SMAM is 21.8 years, while in Mannar, which has a 26 per cent Moor population, SMAM is 21.9 years. Batticaloa has a Moor population of approximately 24 per cent and a SMAM of 22.3 years, while the Moor population in Trincomalee is 29 per cent with a SMAM of 21.3 years. Nevertheless, it should be noted that the mean age at marriage in those districts has increased during the past three decades. This could be attributed to an increased exposure of Moor women to higher education, thereby delaying marriage.

Moreover, awareness, acceptance and the use of various traditional and modern family planning practices can be identified as important correlates of irreversible fertility decline within the institution of marriage. Family planning was introduced to Sri Lankan society during the 1950s with the help of the United Nations and local non-governmental organizations such as the Family Planning Association, which initiated nationwide family planning projects (United Nations, 1976).

In the initial stage, when family planning was being introduced, strong resistance was voiced by various religious and political groups. Objections were put forward, especially against modern methods such as sterilization, that directly affected the fertility component of population growth (De Silva, 1992). However, the catalysts that have brought about changes in the prevalent

pattern, such as educating the community about family planning, have gone far to clear up misconceptions about the use of various contraceptive methods.

Ethnic differentials in family planning acceptance reveal diverse behaviour. The current user rates of family planning methods among the Sinhalese are higher than in the other communities. The lower user rates in communities such as the Tamils and Moors indicate that family planning has not been practised to any great extent by them.

As reported in the 1982 Contraceptive Prevalence Survey (CPS), the highest use of contraceptives was by the Sinhalese, at 60.2 per cent, while the Moors and others recorded the lowest rate of 37 per cent (Department of Census and Statistics, 1983). It should be noted that the 1982 CPS, which was the last survey in Sri Lanka, covered the entire country and provides estimates on ethnic differentials in contraceptive use. The other large surveys on fertility and contraception, that is, the Demographic and Health Surveys of 1987 and 1993, did not include samples from the northern and eastern provinces, where a significantly large proportion of Sri Lankan Tamils and Moors live. Therefore, estimates from those two surveys were not prepared for ethnic differentials in contraceptive use.

The difference observed in the ages at marriage among the ethnic groups and the differentials shown in respect of adopting contraceptive practices may well account for the ethnic disparities seen in fertility performance.

Policy implications

Sri Lankan society is diverse as it is composed of a multiracial, multireligious and multilingual population. Since the 1960s, the overall fertility of the country has shown a significant decline. However, a pertinent question is whether all ethnic groups are party to the fertility declining process. If all the groups have contributed to the decline, it has to be regarded as a successful outcome of the family planning programmes and activities that were initiated about five decades ago. Alongside the programmes aimed at curbing fertility, the ongoing social change in the country has enhanced the receptivity and acceptance rates of those efforts.

All the measures applied in the present study have established that all ethnic groups in Sri Lanka have experienced significant fertility declines at various levels, as reflected in the current fertility transition occurring in the country. Over the past two decades, ethnic disparities in the levels of fertility have narrowed significantly. The two main factors that have directly contributed to this decline among the ethnic groups is the increase in the average age at marriage and the increasing use of contraception. Although the Moor women seem to be least affected by ongoing social change, together with

the other ethnic groups they have shown a marked increase in the average age at marriage, a change observed particularly among the females.

The provision of free education since the 1940s and the associated change in aspirations, particularly among females, could be regarded as the most powerful single agent related to ongoing social change. It could strongly influence further narrowing of the ethnic differences in fertility.

There have been claims that the population size of some ethnic groups is increasing faster than others and that, consequently, the present ethnic balance in the country could change considerably. This argument has been levelled in particular against the Moor community, whose level of fertility is still higher than all other ethnic groups in the country. However, it has been demonstrated that the Moors have also participated in the fertility transition, even though they have been slower than the others to enter the transition process.

However, among all the ethnic groups in Sri Lanka there are pockets of population where a significantly higher level of fertility could be identified that may contribute to the concern among the other ethnic groups over high fertility behaviour and the consequent effect on the prevalent ethnic balance. Therefore, it is important from a policy point of view to identify such pockets of relatively high fertility performance and implement specially designed family planning activities suitable for such cultures in order to complement and strengthen acceptance of ongoing social change. This would be a step in the right direction as it would allay any misconceptions and concern among ethnic groups, which could be an impediment to ethnic harmony in the country.

References

- Abeykoon, A.T.P.L. (2001). "Demographic trends among major ethnic groups in Sri Lanka", *Sri Lanka Journal of Population Studies*, 4:27-39.
- De Silva, W.I. (1997). "The Ireland of Asia: trends in marriage timing in Sri Lanka", *Asia-Pacific Population Journal*, 12(2):3-24.
- _____ (1994). "Ahead of target: Achievement of replacement level fertility in Sri Lanka before the year 2000", *Asia-Pacific Population Journal*, 9(4):3-22.
- _____ (1992). "Do fertility intentions and behaviour influence sterilization in Sri Lanka?" *Asia-Pacific Population Journal*, 7(4):41-60.
- _____ I. Gajanayake and D.M.S.S.L. Dissanayake (1986). "Fertility levels and trends in Sri Lanka, 1971-1981", *Sri Lanka Population Digest*, 1(3):11.
- Department of Census and Statistics (1986). *Census of Population and Housing 1981, Annual Report*, Vol. 3, Colombo.
- _____ (1983). *Sri Lanka Contraceptive Prevalence Survey, 1982*, Colombo.
- Puvanarajan, P. (1994). "Social change and fertility transition in Sri Lanka", unpublished Ph.D. Thesis, University of Durham, Department of Geography, Durham, United Kingdom.
- United Nations (1976). *Population of Sri Lanka*, Country Monograph Series, No. 4 (Bangkok, Economic and Social Commission for Asia and the Pacific).