



# STATISTICAL NEWS

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## CENSUS2007 RESULTS: POPULATION SIZE, GROWTH, STRUCTURE AND DISTRIBUTION

### 2007 CENSUS OF POPULATION AND HOUSING

This is the first release concerning the 2007 Census of Population and Housing. It deals with the most basic characteristics of the population, its size, growth, structure and distribution. Subsequent releases covering the labour force, employment and unemployment, education, training, housing and other census topics will be published shortly.

#### EXECUTIVE SUMMARY

#### 1. Population size and growth by Ethnicity and Geographic sector

- The population by ethnicity and geographic sector, enumerated during the 2007 Census and compared to the enumerated population during the previous census in 1996 is presented in the following table:

Geographic Sector	Ethnic Group	Population Size	
		P <sub>1996</sub> (Nr)	P <sub>2007</sub> (Nr)
Total Fiji	All	775,077	837,271
	Fijians	393,575	475,739
	Indians	338,818	313,798
	Others	42,684	47,734
Rural Sector	All	415,582	412,425
	Fijians	232,240	264,235
	Indians	170,783	135,918
	Others	12,559	12,272
Urban Sector	All	359,495	424,846
	Fijians	161,335	211,504
	Indians	168,035	177,880
	Others	30,125	35,462

- As during the 1986-1996 intercensal period, the population increase during the 1996-2007 intercensal period is rather small, viz. 62,194 persons. This increase amounts to an average intercensal rate of growth of 0.7 percent per year (compared to 0.8 percent per year during the previous 1986-1996 intercensal period). In other words, during the last two decades, the national population growth rate has remained almost the same.
- The enumerated citizen population aged 21 and over has been compared with the numbers on the 2006 Electoral Roll (projected forward to 16 September 2007). The census enumerated 2.4 percent more citizens age 21 and over than appeared on the projected 2007 Electoral Roll.
- Given continuation of the present growth rates for the different ethnic groups, the population of Fiji will reach the one million mark in 2030.

### **1.1. Population by ethnicity**

- During the 1996-2007 intercensal period, the Fijian population increased by 82,164 persons or at an average rate of 1.7 percent per year (compared to 1.8 percent per year during the previous 1986-1996 intercensal period).
- During the 1996-2007 intercensal period, the Indian population continued to decrease. The decrease of 25,020 persons implies an average intercensal rate of decrease of -0.7 percent per year (compared to -0.3 percent during the previous 1986-1996 intercensal period). The continuing decrease is mainly the result of two factors viz.:
  - (1) A continuing very high emigration rate for Indians. Since 1987, this is undoubtedly by far the most important factor.
  - (2) A continuing fast decrease in Indian fertility.

### **1.2. Population at the divisional and provincial level**

- Central Division
  - National population growth during the 1996-2007 intercensal period is mainly due to growth in the Central Division, and within this division in Naitasiri Province.
  - Within Naitasiri Province, growth was concentrated in Naitasiri Tikina, or more precisely in the urban sector of this tikina viz. the urban area (UA) of Nasinu and parts of the UAs Nausori and Suva. More than 50 percent of the entire national 1996-2007 intercensal growth was due to growth in the urban sector of Naitasiri Tikina. This is the result of a continuing migration trend, which started much earlier.

- The Nasinu UA is also the only major area in Fiji, which still experiences rapid growth of the Indian population. Intercensal increase of Indians was about 10,000 persons, which implies an annual rate of growth of close to 2 percent per year. In the meantime, the Fijian population of this UA increased at an even faster rate. It is likely that, in the near future many of the problems associated with rapid urbanization will continue to be in the urban sector of Naitasiri Province.
  - Population growth in Rewa Province has come to a complete standstill and is now slightly negative. As in the case of Naitasiri Province, changes in Rewa Province are concentrated in the urban sector of one of its tikinas, viz. Suva Tikina. Its population has started to decrease.
- Western Division
    - This Division has been growing at the national average rate but population change is mainly concentrated in Ba Province.
    - In spite of the very high level of out-migration of rural Indians from Ba Province, its population has been growing at about the national average rate. This is mainly due to very significant in-migration of Fijians into the urban sector of Nadi, Nawaka and Vuda Tikina (the Nadi and Lautoka UA respectively).
    - In 2007, Ba Province has still by far the largest population. However, given continuation of present trends, the population of Naitasiri will surpass that of Ba in 2033.
  - Northern Division
    - During the 1996-2007 intercensal period, the Northern Division experienced a very substantial population decrease,
    - This decrease is mainly due to the exodus of Indians from Macuata Province. During the intercensal period, this province lost 25 percent of its rural Indian population. Losses were concentrated in three tikinas viz. Macuata Tikina, Labasa Tikina and Sasa Tikina, in other words the cane belt of Vanua Levu. This will have major implications for future development of Vanua Levu, especially for the sugar cane sector.
  - Eastern Division
    - The small population of the Eastern Division, but particularly that of Lau and Rotuma, continued to decline at a rapid rate.

## **2. Change in composition**

### **2.1. Ethnic composition**

- The dramatic change of the ethnic composition of the population, which started in the 1950s and gathered further momentum after the 1987 coups, has continued during the 1996-2007 intercensal period.
- In 2007, 56.8 percent of the population is Fijian, 37.5 percent is Indian and the remaining groups constitute 5.7 percent of the population. Continuation of present trends implies that by 2030, about 68 percent of the population will be Fijian and about 26 percent Indian.
- If present trends continue, the Fijian population will overtake the Indian population in the two provinces, where in 2007, there is still a significant Indian majority, Ba and Macuata. In 1996, the Indian population of Ba Province was still 94 percent larger than its Fijian population. In 2007, this had been reduced to 33 percent and continuation of present trends implies that the Fijian population will surpass the Indian population in 2014. In Macuata, this is projected for 2016.

### **2.2. Rural-urban composition**

- During the 1996-2007 intercensal period, urbanization continued. In 2007, the urban population is larger than the rural population. The urban population is now about 51 percent of the total population.
- Continuation of present urbanization trends implies that, by 2030, 61 percent of the population will be urban. It will be noted that increase in the urban population is the result of natural increase and rural-urban migration as well as incorporation of formerly rural areas into the urban sector.

## **3. Population of urban areas and its subdivisions**

- During the 1996-2007 intercensal period, the population of the twelve urban areas of the 1<sup>st</sup> category (those with and incorporated city or town) increased very significantly, whereas the population of the seven urban areas of the 2<sup>nd</sup> category (urban areas for census/statistical purposes only) hardly changed at all.
- The total increase for urban areas of the 1<sup>st</sup> category was almost entirely due to the increase of its city/town component by 104,683 persons. Its peri-urban component decreased by 39,479 persons. The main reason for this enormous shift in the town/peri-urban composition is the incorporation of Nasinu Town, which, in 2007, had a population of 76,064. The incorporation of this town accounts for 73 percent of the total increase in the city/town population and the corresponding decrease in the peri-urban population. (It will be noted that Nasinu Town as well as its peri-urban area has been carved out of the peri-urban area of Suva.

- In 2007, we have the rather odd situation that Nasinu Town (76,064 persons) has a larger population than Suva City (74,481 persons) and a much larger population than Lautoka City (43,473 persons). This raises some questions about the meaning of the concept “city” in Fiji. Moreover, the Nasinu Urban Area is now also the largest urban area in Fiji.
- As a result of the incorporation of Nasinu Town, the population of the Suva Urban Area decreased by 49 percent and the population of its peri urban area even by 88 percent. Since the Suva Urban Area has now almost completely been “boxed in”, scope for future growth is extremely limited.
- During the 1996-2007 intercensal period the by far fastest growing urban area was that of Nausori (intercensal average growth rate of 7.1 percent per year). Growth was mainly in Nausori Town and most of this growth was the result of incorporation.
- The Nadi Urban Area continued to grow at a rate of 2,8 percent per year. Contrary to the case of Nausori, growth in Nadi was mainly in its peri-urban area. In spite of the recent extension of the Nadi Town boundary, the boundary of this town remains very conservative. In 2007, Nadi’s peri-urban population is still 72 percent of the population of the total Nadi Urban Area and consists mainly of Fijians residing in the “urban villages” of this urban area. The exclusion of Nadi’s very large peri-urban population from the town (and many of its services) is a potential developmental and health hazard.

#### **4. Change in population composition**

- Since 1966, the Fijian age-sex pyramid has gradually narrowed at the base. This is the result of the gradual decline in fertility since that time. It seems that the Fijian fertility transition has got some momentum after 1996.
- The Indian age-sex structure, which was extremely broad at the base in the 1950s, has, since that time, narrowed at a very fast rate. This is the result of a fertility transition, which rates amongst the fastest in the world.
- Indian fertility has now dropped below replacement level, which implies that, even in the absence of further emigration, the Indian population will decrease in numbers. Continuation of this trend will mean that Indian old age dependency may soon reach West European and Japanese levels. Readers are invited to look at Figure VII-4. It depicts the consequences of a probably unique fertility transition on the age-sex structure.

## **I. INTRODUCTION**

This release contains a brief analysis of some of the data collected during the 2007 Census and makes comparisons with previous censuses. The analysis is restricted to population size, growth, structure and distribution, in other words with the most basic characteristics of the population. 2007 Census will be more fully analysed in a series of Information Papers, Census Reports, Provincial Profiles, and Research Monographs etc.

The characteristics of a population at a particular point in time refer to its size, structure and distribution. Section II presents the size of the total population of Fiji at the time of all censuses since 1881 as well the rate at which the population has been growing during the intercensal periods. The next Sections III-VI are concerned with the size, growth and distribution of subgroups of the population. Section III does this for Fiji's main ethnic components. This section also draws attention to the rapidly changing ethnic composition of the population. This is followed in Section IV by a discussion of population change at the divisional, province and tikina level. Section V provides an overview of population changes that have occurred in the rural and urban sector of the country whereas Section VI does the same for individual urban areas and their subdivisions (cities/towns and peri-urban areas). The final Section VII is concerned with the age and sex structure of the population at the time of recent censuses.

The 2007 Census data on which this report is based is included in the appended basic census tabulations. Data from previous censuses is included in the published General Reports of these censuses.

The main findings and conclusions of this report are presented in the Executive Summary.

## **II. POPULATION SIZE AND GROWTH OF THE TOTAL POPULATION**

### **1. De facto and de-jure censuses**

The census is the only data source that has been designed to provide basic demographic and socioeconomic information of all persons within its defined scope at one particular point in time. In this connection, it is important to note that a census is either conducted as a *de-facto* or *de-jure* operation.

- In a *de-facto* census, all persons present in the country at a certain point in time (census night) are included in the enumeration. Moreover, all persons (with the exception of a few well-defined cases) are enumerated in the household where they happen to be on census night.
- A *de-jure* census is an enumeration of all those who are usually present in the household (or those who belong to the household). In other words, a de-jure census provides a picture of the usual composition of a household irrespective of where household members actually were on census night.

Generally, census administrators prefer the de-facto approach since it is conceptually much easier than a de-jure enumeration, because a person can only be in one place at a time. A de-jure census needs to be defined in terms of “duration of stay” and this often causes very significant problems of interpretation. As a result, it is more straightforward to organize and manage a de-facto census.

On the other hand, policy makers and planners are not only interested in a de-facto but often even more in a de-jure picture of the total population as well the population in all geographic subdivisions of the country. This of course also applies to politicians. In order to accommodate the requirements of these users to some extent, many countries that conduct their census on a de-facto basis, include a de-jure element. This de-jure element entails that all those who are covered under the de-facto rule, are asked an additional question about their “usual place of residence” on census night. However, this does not alter the fact that the census remains in principle a de-facto operation

All censuses in Fiji so far have been conducted on a de-facto basis. The 2007 Census was also a de-facto census, but it included the above-mentioned de-jure element. This means that all persons present in the country at midnight 16 September have been included in the census. They have been enumerated at the place (household) where they spent census night, irrespective of their usual place of residence. However, the usual place of residence of all these persons on Census Night was also recorded.

### **2. Historical development**

Based on the coverage rules detailed in the previous section, 837,271 persons (citizens and residents) were enumerated during the 2007 Census of Population and Housing. The historical development of the population from the time the first census (headcount) was taken in 1881 to the last one in 2007 is presented in table II-1.

**Table II-1: Total population at the time of all Censuses from 1881 to 2007**

Census		Interc. Period	Population			Sex Ratio*
Year	Date		P	M	F	
1881	4 April	-	127,486	70,401	57,085	123
1891	5 April	10.003	121,180	66,367	54,813	121
1901	31 March	9.986	120,124	66,874	53,250	126
1911	2 April	10.006	139,541	80,008	59,533	135
1921	24 April	10.060	157,266	88,464	68,802	129
1936	26 April	15.006	198,379	107,194	91,185	118
1946	2 October	10.436	259,638	136,731	122,907	111
1956	26 September	9.984	345,737	178,475	167,262	107
1966	12 September	9.962	476,727	242,747	233,980	104
1976	13 September	10.003	588,068	296,950	291,118	102
1986	31 August	9.964	715,375	362,568	352,807	103
1996	25 August	9.984	775,077	393,931	381,146	103
2007	16 September	11.060	837,271	427,176	410,095	104

\* The sex ratio is the number of males divided by the number of females times 10

Table II-1 details the change in the size of the total population since the start of census taking in Fiji in 1881 whereas Table II-2 provides an overview of population growth during all intercensal periods since that year. Population growth in this as well as in subsequent tables is expressed

- In absolute terms or as the increase in numbers during the intercensal period.
- In relative terms or as the percentage increase during the intercensal period
- As an average intercensal rate of growth per year. (This growth rate is denoted by the symbol  $r$ ).

Furthermore, the last column in Table II-2 refers to the doubling time ( $d$ ) corresponding with the growth rate ( $r$ ) in the previous column. It expresses the number of years it would take for the population to double in size, given continuation of that growth rate.

**Table II-2: Growth of the Total Population of Fiji between 1881 and 2007**

Interc. Period.		Census Population		Intercensal Pop. Change			Doubl. Time (Yrs)@
P <sub>1</sub> (Yr)	P <sub>2</sub> (Yr)	P <sub>1</sub> (Nr)	P <sub>2</sub> (Nr)	Abs. (Nr)	Rel. (%)	r* (%)	
1881	1891	127,486	121,180	-6,306	-5.0	-0.5	-137
1891	1901	121,180	120,124	-1,056	-0.9	-0.1	-791
1901	1911	120,124	139,541	19,417	16.2	1.5	46
1911	1921	139,541	157,266	17,725	12.7	1.2	58
1921	1936	157,266	198,379	41,113	26.1	1.6	45
1936	1946	198,379	259,638	61,259	30.9	2.6	27
1946	1956	259,638	345,737	86,099	33.2	2.9	24
1956	1966	345,737	476,727	130,990	37.9	3.2	21



1966	1976	476,727	588,068	111,341	23.4	2.1	33
1976	1986	588,068	715,375	127,307	21.7	2.0	35
1986	1996	715,375	775,077	59,702	8.4	0.8	86
1996	2007	775,077	837,271	62,194	8.0	0.7	99

Notes:

\* The annual rate of growth (r) has been calculated from the formula  $r = \ln (P_2/P_1)/n$ , where n is the length of the intercensal period (given in Table I).

@ The doubling time (d) has been calculated from the formula  $d = \ln 2/r$ . A minus sign means that this is a “halving” time.

The rates (r) in Table II-2 indicate that during the first decades after World War II, Fiji’s population experienced a very high growth. Since 1966, the situation started to change rapidly, mainly due to very fast decrease in Indian fertility. By 1980, the national population growth rate was down to about 1 percent per year. After 1986, the growth rate dropped below 1 percent per year mainly due to a very high rate of out migration (of the Indian component of the population) as well as further fertility decrease. During the 1996-2007 intercensal period, the growth rate decreased further, albeit very marginally, to 0.7 percent per year. It will be noted that, in spite of increased out-migration and further decline in fertility, the increase in numbers between 1996 and 2007 is still somewhat higher than between 1986 and 1996. This is probably partly due to the fact that coverage in 2007 may have been somewhat more complete in 2007 than in 1996. There is some evidence that this is the case.

Furthermore, in interpreting the present growth rate of 0.7 percent per year, it should also be remembered that even in the absence of emigration, the Indian component of the population would not contribute at all to population growth anymore. As will be explained in Section VII, the available evidence indicates that, early in the new millennium, the Indian population reached replacement level fertility. In other words, this means that the Indian population would from now onwards decrease even in the absence of emigration.

### **3. Level of completeness of the 2007 Census**

Several checks on the level of completeness (coverage) have been carried out. For two of these, data from completely independent sources has been used. These include:

- Vital statistics (birth and death registration data) for the citizen population from the National Health Information System (NHIS) of the Department of Health and net-migration (transit statistics) collected at the border checkpoints by the Immigration Department. This data refers to the intercensal period 1996-2007.
- The number of citizens age 21 and over by ethnicity included in the Electoral Roll for the 2006 Census.

### 3.1. Demographic bookkeeping

Between the 1996 and 2007 Censuses, the FIBoS has been carrying out a continuous demographic bookkeeping exercise. Taking the 1996 Census population as the base population, births were continuously added and deaths continuously subtracted. Similarly, immigration and emigration data from the Immigration Department during the same intercensal period were continuously added/subtracted. This exercise resulted in a Fijian and Indian population at the time of the 2007 Census that is close to the corresponding 2007 Census population. There is, however a significant discrepancy for the category “Others”. The discrepancy for this category is most likely related to inaccurate “change of status” data. In this connection, it is important to note that, since 1996, more than 98 percent of the “change of status” cases in the transit statistics provided by the Immigration Department concern the category “Others”.

### 3.2. Comparison of 2007 Census population with the population on the 2006 Electoral Roll

The citizen population age 21 and over by ethnicity, enumerated during the 2007 census has been compared with the number of registered voters during the last election. This is shown in Table II-3. The figures in column (2) refer to the registered voters by ethnicity in May 2006. In order to make them comparable with the 2007 census figures, they have been projected forward to 16 September 2007, assuming a growth rate for each ethnic component similar to the average 1996-2007 intercensal growth rates for the different components over a period of 1.337 years. The projected figures are shown in column (3). The citizen population age 21 and over for the same ethnic groups, enumerated in the 2007 Census is shown in column (4).

**Table II-3: A comparison of the 2007 Census population aged 21 and over by Ethnicity with the projected number of persons included on the Electoral Roll on 16 September 2007.**

Ethnic Group (1)	Registered Voters		Census Count Cit. Pop. 21+ (4)	Difference	
	May 2006* (2)	Projected to 16 Sept. 2007 (3)		Nr. (4)-(3) (5)	% (5):(3) (6)
<b>Total</b>	479,674	481,935	493,655	11,720	2.4
<b>Fijians</b>	256,014	261,950	264,367	2,417	0.9
<b>Indians</b>	204,470	200,542	204,866	4,324	2.2
<b>Rotumans</b>	5,373	5,413	6,131	718	13.3
<b>Others</b>	13,817	14,030	18,291	4,261	30.4

Note: \* From Fiji Life Elections Website 2006.

The projected number of registered voters in 2007 is for all ethnic groups lower than the corresponding 2007 Census figures. For the total citizen population aged 21 and over, the difference is 11,720 persons, or 2.4 percent of the projected electoral roll population. This difference is not alarming, the more so since 4,261 out of 11,720 (or 36 percent of all cases) concern the category “Others”.

It is particularly pleasing that there is relatively little discrepancy in the case of the Indians (about 2 percent) and particularly in the case of the Fijians (less than 1 percent). However, for Rotumans (13 percent) and especially for the category “Others” (30 percent), the discrepancy is very large. The census population for these categories is much larger than the Electoral Roll population.

#### **4. Population projection 2007-2030**

Prior to the 2007 Census, many people in Fiji expected that the total population of Fiji in 2007 would approach the one million mark. Considering the continuing high level of emigration, particularly of the Indian component of the population, this is however a totally unrealistic expectation. In fact, it would have been a miracle if the 2007 census population had been anywhere close to one million. In order to reach the one million mark, the 1996-2007 intercensal growth rate should have been 2.3 percent per year instead of the measured 0.7 percent per year. A growth rate of 2.3 percent per year for the intercensal period 1996-2007 could only have been achieved if Fiji had experienced significant immigration instead of massive emigration after 1996.

Finally, if the different ethnic components of the population would, after 2007, continue to grow at their present rates, the projected total population of Fiji in 2010, 2020 and 2030 would be as follows:

<b>Year</b>	<b>Total Population</b>
2007 (Census)	837,271
2010 (Projected)	857,000
2020 (Projected)	936,000
2030 (Projected)	1,034,000

In other words, given continuation of present trends, the total population of Fiji would reach the one million mark just before 2030.

### **III. POPULATION SIZE AND GROWTH BY ETHNICITY**

#### **1. The Variable Ethnicity in Statistics**

Fiji is a country with people from a large variety of ethnic backgrounds. For data analysts, policy makers and planners, it is very important to have a detailed picture of the ethnic composition of the population and changes in the composition over time. The reason is that in most demographic and socio-economic analysis in Fiji, ethnicity usually emerges as a principal component. Consequently, virtually all data provided by the FIBoS is cross-classified with the variable ethnicity. Demographic examples include fertility; mortality and migration analysis whereas socio-economic examples include health, labour force participation, employment, unemployment, occupation and other analysis. Ignoring the variable ethnicity, would lead to far from optimal analysis as well as data utilization. Even if the above arguments were ignored, the variable ethnicity still needs to be maintained as long as Fiji has an electoral system in which ethnicity plays such a fundamental role. Prior to the 2007 Census, it was therefore decided that the question concerning ethnicity should once again be included on the census forms. It will, however be noted that the 2007 Census also includes for the first time a question concerning “residency status”.

In the meantime, it is clear that in many countries in the South Pacific Region, including Fiji, accurate recording of ethnicity has become increasingly more difficult over time due to intermarriage etc. Reality in the 21<sup>st</sup> century is that the ethnicity of many respondents is mixed. In this respect, it is important to emphasize that in the data collection systems of the FIBoS, ethnicity is always based on reports of the respondents themselves. In other words, respondents are what they say they are.

#### **2. Population size and growth for the main ethnic groups**

Table III-1 presents the change in the main ethnic components of the population (Fijians, Indians and Others) during all intercensal periods since 1946. The main feature of this table is the dramatic decline in the growth rate of the Indian component of the population after 1966.

As already noted, until 1986, the main reason for the decline was the very vast decrease in the level of fertility of Indians. After 1986, emigration became, however a far more important contributor to the decrease in the Indian growth rate. As a result, during the last two decades, the Indian population has decreased very significantly, even in absolute terms.

**Table III-1: Growth of the Main Ethnic components of the population of Fiji between 1946 and 2007**

Interc. Period.		Census Population		Intercensal Pop. Change			Doubl Time (Yrs)
P <sub>1</sub> (Yr)	P <sub>2</sub> (Yr)	P <sub>1</sub> (Nr)	P <sub>2</sub> (Nr)	Abs. (Nr)	Rel. (%)	r* (%)	
<b>Total Population</b>							
1946	1956	259,638	345,737	86,099	33.2	2.9	24
1956	1966	345,737	476,727	130,990	37.9	3.2	21
1966	1976	476,727	588,068	111,341	23.4	2.1	33
1976	1986	588,068	715,375	127,307	21.7	2.0	35
1986	1996	715,375	775,077	59,702	8.4	0.8	86
1996	2007	775,077	837,271	62,194	8.0	0.7	99
<b>Fijian Component</b>							
1946	1956	118,070	148,134	30,064	25.5	2.3	31
1956	1966	148,134	202,176	54,042	36.5	3.1	22
1966	1976	202,176	259,932	57,756	28.6	2.5	28
1976	1986	259,932	329,305	69,373	26.7	2.4	29
1986	1996	329,305	393,575	64,270	19.5	1.8	39
1996	2007	393,575	475,739	82,164	20.9	1.7	40
<b>Indian Component</b>							
1946	1956	120,414	169,403	48,989	40.7	3.4	20
1956	1966	169,403	240,960	71,557	42.2	3.5	20
1966	1976	240,960	292,896	51,936	21.6	2.0	36
1976	1986	292,896	348,704	55,808	19.1	1.8	40
1986	1996	348,704	338,818	-9,886	-2.8	-0.3	-241
1996	2007	338,818	313,798	-25,020	-7.4	-0.7	-100
<b>Others</b>							
1946	1956	21,154	28,200	7,046	33.3	2.9	24
1956	1966	28,200	33,591	5,391	19.1	1.8	39
1966	1976	33,591	35,240	1,649	4.9	0.5	145
1976	1986	35,240	37,366	2,126	6.0	0.6	118
1986	1996	37,366	42,684	5,318	14.2	1.3	52
1996	2007	42,684	47,734	5,050	11.8	1.0	69

It is somewhat surprising that the annual rate of growth of Fijians has hardly changed after 1996. It dropped only very marginally from 1.8 percent per year (between 1986 and 1996) percent to 1.7 percent per year (between 1996 and 2007). Since more Fijians were outside the country in 2007 than in 1996 (and therefore not included in the de-facto enumeration), a more significant decrease in the Fijian growth rate was expected. Possible reasons why the 2007 Census suggests such a minor decrease in the growth rate of this component for the 1996-2007 intercensal period include:

- More complete coverage during the 2007 than during the 1996 Census
- Stagnation in the fertility transition of Fijians. In this connection, it should be mentioned that the Fijian fertility transition started much later and that the rate of decline was far more modest than that of the Indian component. Moreover, after

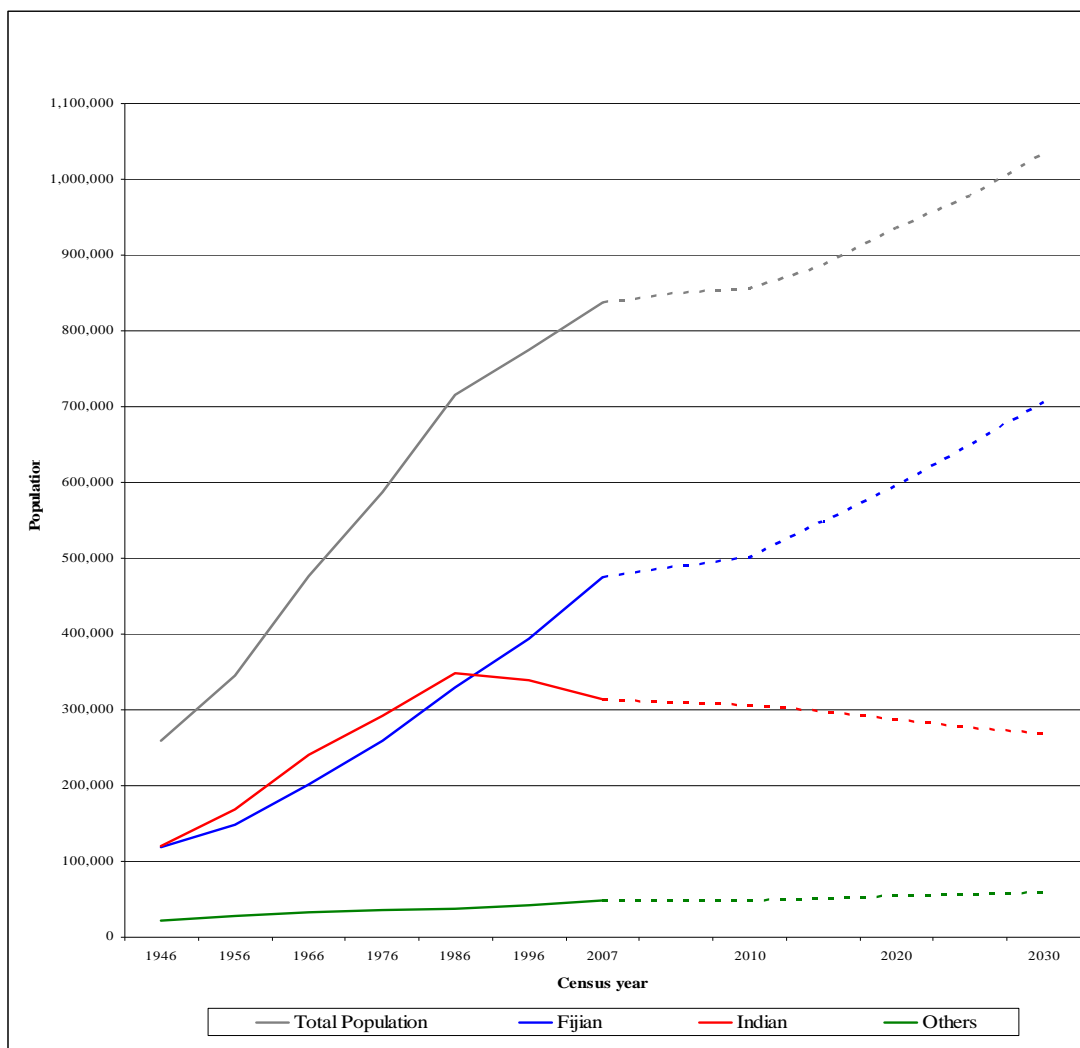
1986, there were some signs of leveling off of the Fijian fertility transition. This conclusion is based on analysis of data from the National Health Information System (NHIS), in combination with census data. This analysis suggests that the Total Fertility Rate for Fijians only dropped from 3.6 in 1986 to 3.5 in 1996. It seems, however, that this stagnation in the fertility transition of Fijians was only of a temporary nature. Section VI provides evidence that, after 1996, the Fijian fertility transition probably got some new momentum.

- A combination of these two factors.

In interpreting the present growth rate of Indians as well as Fijians, it should also be mentioned that it is very unlikely that change in mortality has had a very significant impact on the recent trend in their growth rates. Fijians as well as Indians experienced significant mortality decline prior to 1986, but during the last two decades (that is after the 1987 coups), the mortality transition has first leveled off and then came to a standstill. There are even some indications that adult mortality may have increased again somewhat in recent years. Whatever the case may be it is very unlikely that recent mortality trends have had a significant impact on the 1996-2007 intercensal growth rates.

Change in the total population of Fiji and its main ethnic components is depicted in Figure III-1.

**Figure III-1: Population Growth for the Total Population and its main Ethnic components between the 1946 and 2007 Censuses and projected until 2030 based on a “No Change” scenario.**



### **3. Change in the Ethnic Composition**

The very different trend in the growth rates of the main ethnic groups has caused a dramatic change in the ethnic composition of the population. This change (between the 1946 and 2007 Censuses) is shown in Table III-2. In this table, the size of main components of the populations is given as a proportion (%) of the total population.

**Table III-2: Change in the Ethnic composition of the Population of Fiji between 1946 and 2007**

<b>Census Year</b>	<b>Fijians (%)</b>	<b>Indians (%)</b>	<b>Others (%)</b>
1946	45.5	46.4	8.1
1956	42.8	49.0	8.2
1966	42.4	50.5	7.1
1976	44.2	49.8	6.0
1986	46.0	48.7	5.3
1996	50.8	43.7	5.5
2007	56.8	37.5	5.7

The implications of a continuation of present trends for the size and composition of the population of Fiji are shown in Table III-3. According to the base projection presented in Section II, the population would reach the one million mark by 2030. Table III-3 shows that of this projected 2030 population almost 70 percent would be ethnic Fijians and about 25 percent Indians.

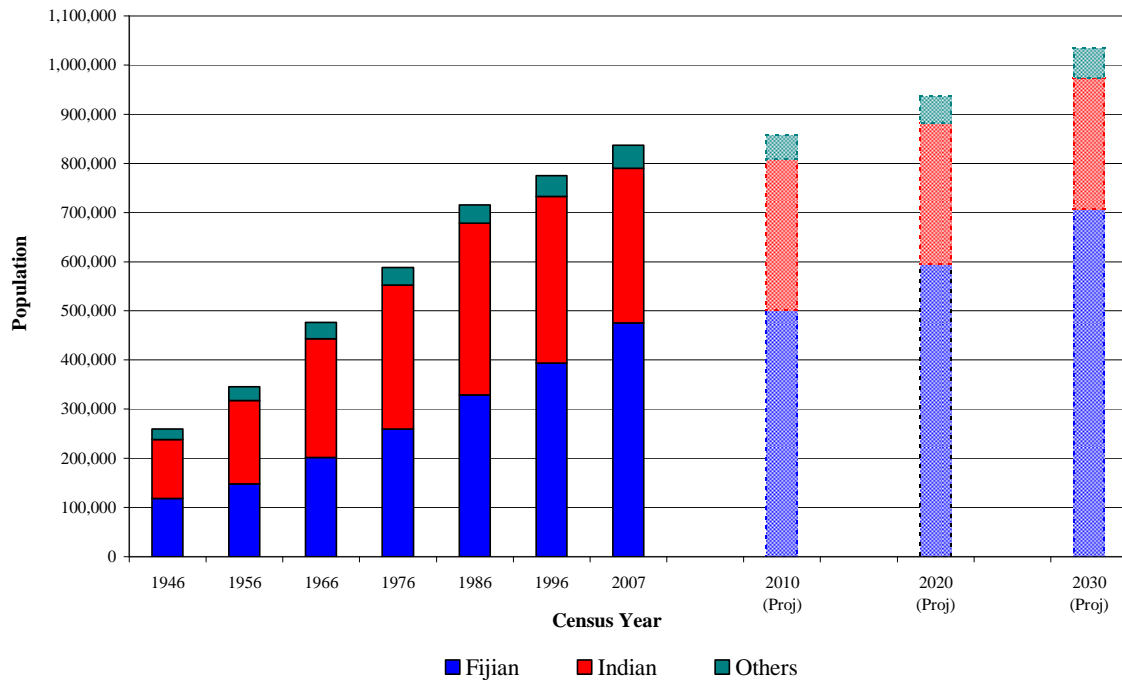
**Table III-3: Projections of the Ethnic composition of the population of Fiji from 2007 to 2030, assuming continuation of present trends.**

<b>Year</b>	<b>Total Pop.</b>	<b>Fijians</b>		<b>Indians</b>		<b>Others</b>	
		<b>Nr</b>	<b>%</b>	<b>Nr</b>	<b>%</b>	<b>Nr</b>	<b>%</b>
2007 (Census)	837,271	475,739	56.80	313,798	37.5	47,734	5.7
2010 (Projected)	857,000	501,000	58.5	307,000	35.8	49,000	5.7
2020 (Projected)	936,000	595,000	63.6	287,000	30.7	54,000	5.8
2030 (Projected)	1,034,000	706,000	68.3	268,000	25.9	60,000	5.8

Finally, the changes in the ethnic composition between 1946 and 2007 and projected over the period 2007-2030 are also shown in Figure III-2.



**Figure III-2: Change in the Ethnic composition of the population between 1946 and 2007 and projected until 2030**



## **IV. POPULATION SIZE AND GROWTH BY GEOGRAPHIC LEVEL**

### **1. Geographic subdivisions in Fiji**

Geographic levels in Fiji refer to the hierarchical framework of official geographic subdivisions in the country: divisions, provinces and tikinas (tikina vou). Apart from a small correction of the Ba-Ra provincial boundary, all these divisional, provincial and tikina vou boundaries remained unchanged since 1946. The FIBoS has further subdivided the tikinas into enumeration areas (EA). The EA is a purely statistical/census unit, which does not have any legal or administrative significance. The EAs make the geographical system flexible. It is possible to combine EAs to form any kind of larger area that is required for planning or research purposes. It is the smallest geographical unit (building block) for which census information is made available.

### **2. Population Size and Growth by Geographic Subdivisions**

Population change at the division and province level is presented in Table IV-1.

**Table IV-1: Population growth by Division and Province during the 1986-1996 and 1996-2007 intercensal periods.**

Geogr. Level	Interc Period	Census Population		Intercensal Population Change		
		P <sub>1</sub> (Nr)	P <sub>2</sub> (Nr)	Abs (Nr)	Rel (%)	r (%)
<b>Fiji</b>	<b>86-96</b>	<b>715,375</b>	<b>775,077</b>	<b>59,702</b>	<b>8.4</b>	<b>0.8</b>
	<b>96-07</b>	<b>775,077</b>	<b>837,271</b>	<b>62,194</b>	<b>8.0</b>	<b>0.7</b>
<b>Central Division</b>						
<b>Tot. Central Div.</b>	<b>86-96</b>	<b>260,110</b>	<b>297,607</b>	<b>37,497</b>	<b>14.4</b>	<b>1.3</b>
	<b>96-07</b>	<b>297,607</b>	<b>342,386</b>	<b>44,779</b>	<b>15.1</b>	<b>1.3</b>
<b>09: Naitasiri</b>	86-96	100,227	126,641	26,414	26.4	2.3
	96-07	126,641	160,760	34,119	26.9	2.2
<b>10: Namosi</b>	86-96	4,836	5,742	906	18.7	1.7
	96-07	5,742	6,898	1,156	20.1	1.7
<b>12: Rewa</b>	86-96	97,442	101,547	4,105	4.2	0.4
	96-07	101,547	100,787	-760	-0.8	-0.1
<b>13: Serua</b>	86-96	13,356	15,461	2,105	15.8	1.5
	96-07	15,461	18,249	2,788	18.0	1.5
<b>14: Tailevu</b>	86-96	44,249	48,216	3,967	9.0	0.9
	96-07	48,216	55,692	7,476	15.5	1.3
<b>Northern Division</b>						
<b>Tot. North. Div.</b>	<b>86-96</b>	<b>129,154</b>	<b>139,516</b>	<b>10,362</b>	<b>8.0</b>	<b>0.8</b>
	<b>96-07</b>	<b>139,516</b>	<b>135,961</b>	<b>-3,555</b>	<b>-2.6</b>	<b>-0.2</b>
<b>01: Bua</b>	86-96	13,986	14,988	1,002	7.2	0.7
	96-07	14,988	14,176	-812	-5.4	-0.5
<b>03: Cakaudrove</b>	86-96	40,433	44,321	3,888	9.6	0.9
	96-07	44,321	49,344	5,023	11.3	1.0

<b>07: Macuata</b>	86-96	74,735	80,207	5,472	7.3	0.7
	96-07	80,207	72,441	-7,766	-9.7	-0.9
<b>Eastern Division</b>						
<b>Tot. East. Div.</b>	<b>86-96</b>	<b>42,762</b>	<b>40,770</b>	<b>-1,992</b>	<b>-4.7</b>	<b>-0.5</b>
	<b>96-07</b>	<b>40,770</b>	<b>39,313</b>	<b>-1,457</b>	<b>-3.6</b>	<b>-0.3</b>
<b>04: Kadavu</b>	86-96	9,805	9,535	-270	-2.8	-0.3
	96-07	9,535	10,167	632	6.6	0.6
<b>05: Lau</b>	86-96	14,203	12,211	-1,992	-14.0	-1.5
	96-07	12,211	10,683	-1,528	-12.5	-1.2
<b>06: Lomaiviti</b>	86-96	16,066	16,214	148	0.9	0.1
	96-07	16,214	16,461	247	1.5	0.1
<b>15: Rotuma</b>	86-96	2,688	2,810	122	4.5	0.4
	96-07	2,810	2,002	-808	-28.8	-3.1
<b>Western Division</b>						
<b>Tot. West. Div.</b>	<b>86-96</b>	<b>283,349</b>	<b>297,184</b>	<b>13,835</b>	<b>4.9</b>	<b>0.5</b>
	<b>96-07</b>	<b>297,184</b>	<b>319,611</b>	<b>22,427</b>	<b>7.6</b>	<b>0.7</b>
<b>01: Ba</b>	86-96	197,633	212,197	14,564	7.4	0.7
	96-07	212,197	231,760	19,563	9.2	0.8
<b>08: Nadroga/Navosa</b>	86-96	54,431	54,083	-348	-0.6	-0.1
	96-07	54,083	58,387	4,304	8.0	0.7
<b>11: Ra</b>	86-96	31,285	30,904	-381	-1.2	-0.1
	96-07	30,904	29,464	-1,440	-4.7	-0.4

## 2.1. Central Division

Population growth for the different ethnic groups in the provinces of the Central Division is detailed in Table IV-2.

**Table IV-2: Growth of the main Ethnic components of the population in the provinces in the Central Division during the intercensal period 1996-2007**

Geogr. Level	Ethnic Group	Census Population		Intercensal Population Change		
		1996 (Nr)	2007 (Nr)	Abs (Nr)	Rel (%)	r (%)
<b>Central Division</b>	<b>Total</b>	<b>297,607</b>	<b>342,386</b>	<b>44,779</b>	<b>15.1</b>	<b>1.3</b>
	<b>Fijian</b>	<b>175,878</b>	<b>212,580</b>	<b>36,702</b>	<b>20.9</b>	<b>1.7</b>
	<b>Indian</b>	<b>98,660</b>	<b>103,133</b>	<b>4,473</b>	<b>4.5</b>	<b>0.4</b>
	<b>Other</b>	<b>23,069</b>	<b>26,673</b>	<b>3,604</b>	<b>15.6</b>	<b>1.3</b>
<b>09: Naitasiri</b>	<b>Total</b>	126,641	160,760	34,119	26.9	2.2
	<b>Fijian</b>	70,837	93,124	22,287	31.5	2.5
	<b>Indian</b>	49,023	58,496	9,473	19.3	1.6
	<b>Other</b>	6,781	9,140	2,359	34.8	2.7
<b>10: Namosi</b>	<b>Total</b>	5,742	6,898	1,156	20.1	1.7
	<b>Fijian</b>	5,221	6,159	938	18.0	1.5
	<b>Indian</b>	411	514	103	25.1	2.0
	<b>Other</b>	110	225	115	104.6	6.5

<b>12: Rewa</b>	<b>Total</b>	101,547	100,787	-760	-0.8	-0.1
	<b>Fijian</b>	58,893	61,973	3,080	5.2	0.5
	<b>Indian</b>	28,330	24,081	-4,249	-15.0	-1.5
	<b>Other</b>	14,324	14,733	409	2.9	0.3
<b>13: Serua</b>	<b>Total</b>	15,461	18,249	2,788	18.0	1.5
	<b>Fijian</b>	8,465	11,138	2,673	31.6	2.5
	<b>Indian</b>	6,003	5,830	-173	-2.9	-0.3
	<b>Other</b>	993	1,281	288	29.0	2.3
<b>14: Tailevu</b>	<b>Total</b>	48,216	55,692	7,476	15.5	1.3
	<b>Fijian</b>	32,462	40,186	7,724	23.8	1.9
	<b>Indian</b>	14,893	14,212	-681	-4.6	-0.4
	<b>Other</b>	861	1,294	433	50.3	3.7

As expected, during the 1996-2007 intercensal period, the Central Division is the only division whose population has increased at a rate higher than the national average of 0.7 percent. During this period, growth in this division has remained at the same level as during the previous intercensal period, viz. 1.3 percent per year, which is about double the national average rate. However, population growth in this division remains very uneven.

- Naitasiri Province

During the 1996-2007 intercensal period, about 76 percent of the population growth in the Central Division has occurred in Naitasiri Province. The growth in this province amounted to 55 percent of the total national growth. Furthermore, it will also be noted that growth in this province is almost entirely (more than 95 percent) due to growth in just one of its tikinas. This is Naitasiri Tikina.

In order to put population change in Fiji during the 1996-2007 intercensal period into perspective, it needs to be realized that more than 50 percent of the intercensal growth for the entire country was due to growth in the urban sector of this tikina alone! This is the result of a migration trend, which started much earlier.

It needs to be stressed that the urban sector of this tikina is one of the few places in Fiji, which still experiences a very high growth of the Indian population. In the meantime, the growth of the Fijian population in the urban sector of this tikina has even increased at a much faster rate. Growth is almost entirely due to massive in-migration

It will also be noted that, in 2007, the population of Naitasiri Province is still significantly smaller than that of the most populous province, Ba. However, since the growth rate of the population of Naitasiri (2.2 percent annually) is much faster than that of Ba (0.8 percent annually), Naitasiri is catching up very fast. Continuation of present rates implies that Naitasiri would become the largest province 26 years after the 2007 Census, which is in 2033. Furthermore, it is clear that the urban sector of Naitasiri Tikina has now established itself as the growth center in the eastern part of Fiji. It is likely that in the foreseeable future most of the problems related to rapid urbanization will be concentrated here.

- Rewa Province

In contrast to Naitasiri Province, population growth during the 1996-2007 intercensal period in Rewa Province has now become negative. However, in interpreting this change, it should be kept in mind that the 1996 population for Rewa was probably slightly inflated, due the presence of many Methodist Conference attendants from other provinces in Suva City at the time of this census.

As in the case of Naitasiri, changes in Rewa Province are once again largely due to changes in the urban sector of one tikina, viz. Suva Tikina. During the 1996-2007 intercensal period, the population in the urban sector of this tikina (mainly Suva City) has actually decreased. The very significant loss of Indians has only partially been compensated by gains for the Fijians. In the near future, no significant change in this trend is expected.

- Namosi, Serua and Tailevu Provinces

During the 1996-2007 intercensal period, the population of the remaining provinces of the Central Division, viz. Namosi, Serua and Tailevu continued to grow at a rate that is significantly higher than the national average but at a much lower rate than the population of Naitasiri. Moreover, the population of these provinces, particularly Namosi and Serua is only very small compared to that of Naitasiri and Rewa. Growth in Namosi Province is probably mainly due to natural increase.

## **2.2. Eastern Division**

Population growth for the different ethnic groups in the provinces of the Eastern Division has been detailed in Table V-3.

In 2007, the population of the four provinces that comprise the Eastern Division was only 4.7 percent of the total population of Fiji. During the 1996-2007 intercensal period, population decrease in the Eastern Division has continued, but this is mainly due to further very significant out-migration of Fijians from Lau Province and of Rotumans from Rotuma. During this intercensal period, Lau Province lost another 1,528 persons, which is about 13 percent of its 1996 population. The population of Rotuma has also decreased by an additional 808 persons. However, in the case of this province, it should be kept in mind that the 1996 figure for this province is somewhat inflated since participants of the Catholic Church Conference in Rotuma at the time of that census were included in the figures for Rotuma. The population of Kadavu and Lomaiviti increased marginally during the intercensal period.

**Table IV-3: Growth of the main Ethnic components of the population in the provinces in the Eastern Division during the intercensal period 1996-2007**

Geogr. Level	Ethnic Group	Census Population		Intercensal Population Change		
		1996 (Nr)	2007 (Nr)	Abs (Nr)	Rel (%)	r (%)
<b>Eastern Division</b>	<b>Total</b>	<b>40,770</b>	<b>39,313</b>	<b>-1,457</b>	<b>-3.6</b>	<b>-0.3</b>
	<b>Fijian</b>	<b>36,302</b>	<b>35,615</b>	<b>-687</b>	<b>-1.9</b>	<b>-0.2</b>
	<b>Indian</b>	<b>695</b>	<b>651</b>	<b>-44</b>	<b>-6.3</b>	<b>-0.6</b>
	<b>Other</b>	<b>3,773</b>	<b>3,047</b>	<b>-726</b>	<b>-19.2</b>	<b>-1.9</b>
<b>04: Kadavu</b>	<b>Total</b>	9,535	10,167	632	6.6	0.6
	<b>Fijian</b>	9,413	9,964	551	5.9	0.5
	<b>Indian</b>	48	49	1	2.1	0.2
	<b>Other</b>	74	154	80	108.1	6.6
<b>05: Lau</b>	<b>Total</b>	12,211	10,683	-1,528	-12.5	-1.2
	<b>Fijian</b>	12,002	10,540	-1,462	-12.2	-1.2
	<b>Indian</b>	88	88	0	0.0	0.0
	<b>Other</b>	121	55	-66	-54.6	-7.1
<b>06: Lomaiviti</b>	<b>Total</b>	16,214	16,461	247	1.5	0.1
	<b>Fijian</b>	14,719	15,022	303	2.1	0.2
	<b>Indian</b>	536	494	-42	-7.8	-0.7
	<b>Other</b>	959	945	-14	-1.5	0.0
<b>15: Rotuma</b>	<b>Total</b>	2,810	2,002	-808	-28.8	-3.1
	<b>Fijian</b>	168	89	-79	-47.0	-5.7
	<b>Indian</b>	23	20	-3	-13.0	-1.3
	<b>Other</b>	2,619	1,893	-726	-27.7	-2.9

### **2.3. Northern Division**

Population growth for the different ethnic groups in the provinces of the Northern Division is detailed in Table IV-4.

During the 1996-2007 intercensal period, the Northern Division has joined the Eastern Division as a division of out migration. It has become a division with a negative population growth rate. It seems that, for the time being, Fiji's "Looking North Policy" is clearly not yet much more than just a policy.

It will be noted that, in the case of the Northern Division, the category of out-migrants consists mainly of Indians. In fact, population losses for this division would have been far more dramatic, if it had not been for the fact that the growth of the Fijian component in this division is still very high.

**Table IV-4: Growth of the main Ethnic components of the population in the provinces in the Northern Division during the intercensal period 1996-2007**

Geogr. Level	Ethnic Group	Census Population		Intercensal Population Change		
		1996 (Nr)	2007 (Nr)	Abs (Nr)	Rel (%)	r (%)
<b>Northern Div.</b>	<b>Total</b>	<b>139,516</b>	<b>135,961</b>	<b>-3,555</b>	<b>-2.6</b>	<b>-0.2</b>
	<b>Fijian</b>	<b>64,940</b>	<b>75,358</b>	<b>10,418</b>	<b>16.0</b>	<b>1.4</b>
	<b>Indian</b>	<b>66,488</b>	<b>52,844</b>	<b>-13,644</b>	<b>-20.5</b>	<b>-2.1</b>
	<b>Other</b>	<b>8,088</b>	<b>7,759</b>	<b>-329</b>	<b>-4.1</b>	<b>-0.4</b>
<b>01: Bua</b>	<b>Total</b>	14,988	14,176	-812	-5.4	-0.5
	<b>Fijian</b>	10,992	11,183	191	1.7	0.2
	<b>Indian</b>	3,356	2,366	-990	-29.5	-3.2
	<b>Other</b>	640	627	-13	-2.0	-0.2
<b>03: Cakaudrove</b>	<b>Total</b>	44,321	49,344	5,023	11.3	1.0
	<b>Fijian</b>	31,585	35,978	4,393	13.9	1.2
	<b>Indian</b>	6,838	7,928	1,090	15.9	1.3
	<b>Other</b>	5,898	5,438	-460	-7.8	-0.7
<b>07: Macuata</b>	<b>Total</b>	80,207	72,441	-7,766	-9.7	-0.9
	<b>Fijian</b>	22,363	28,197	5,834	26.1	2.1
	<b>Indian</b>	56,294	42,550	-13,744	-24.4	-2.5
	<b>Other</b>	1,550	1,694	144	9.3	0.8

- Macuata Province

It will, also be noted that the population decrease in the Northern Division is almost entirely due to losses in Macuata Province. Macuata lost 7,766 persons, which is almost 10 percent of its 1996 population. Within this province, losses were mainly in Labasa, Macuata and Sasa Tikina.

During the 1996-2007 intercensal period, Labasa Tikina lost about 8 percent of its 1996 population. However, it is the change in the composition of the population of this tikina, which is even more significant. During the intercensal period, a very large number of Indians left Labasa Tikina. Of these, more than 90 percent were rural dwellers. Although at this stage, it is not yet possible to establish the destination of all these out-migrants, it is likely that some have emigrated whereas others moved to the UA Savusavu. It is, however assumed that the majority moved to the urban sector of Naitasiri Tikina (the UAs of Nasinu and Nausori).

It will also be noted that all these Indian out-migrants have partially been replaced by Fijian in-migrants. However most of these Fijian in-migrants moved to the urban sector of this tikina, that is the UA of Labasa. The implications of this for the sugar cane sector as well as overall development in Macuata Province are clearly very important.

In addition to the exodus of Indians from the rural sector of Labasa Tikina, a very large number of Indians have also left the rural sector of Macuata Tikina. Contrary to the situation in Labasa Tikina, Indians in this tikina have, however not (partially) been replaced by Fijian rural-urban migrants. It will be noted that the urban sector of Macuata Tikina (the unincorporated township of Seaqaqa) is very small.

Rural Sasa Tikina also lost a large proportion of its Indian population. Moreover, a large number of Fijians also left this tikina. All in all, during the 1996-2007 intercensal period, this tikina lost more than 30 percent of its population.

Finally, in 2007, Macuata Province is (apart from Ba Province) still a province with a predominantly Indian population. However, during the 1996-2007-intercensal period, the ethnic composition in this province has changed dramatically. In 1996, Indians still comprised 70 percent of the population of this province but in 2007, this had been reduced to 59 percent. Given continuation of present trends, the Fijian population of Macuata will surpass the Indian population by 2016.

- Cakaudrove Province

Contrary to Macuata Province, Cakaudrove Province is a predominantly Fijian Province. Population growth in this province during the 1996-2007 intercensal period remained almost the same as during the previous intercensal period, viz. 1.0 percent per annum. The population of most tikinas in this province is relatively small. Most of the intercensal growth in this province occurred in the three largest tikinas, Cakaudrove, Nasavusavu (including the Savusavu Urban Area) and Wailevu. During this period, most of the other tikinas experienced marginal population growth or some loss.

- Bua Province

During the 1996-2007 intercensal period, Bua Province has also remained an out-migration Province. Net migration of Indians was -990, in other words, about 30 percent of the 1996 Indian population left the province.

## **2.4. Western Division**

Population growth for the different ethnic groups in the provinces of the Western Division is detailed in Table IV-5. During the 1996-2007 intercensal period, the population of the Western Division was growing at the national average rate of 0.7 percent.

**Table IV-5: Growth of the main Ethnic components of the population in the provinces in the Western Division during the intercensal period 1996-2007**

Geogr. Level	Ethnic Group	Census Population		Intercensal Population Change		
		1996 (Nr)	2007 (Nr)	Abs (Nr)	Rel (%)	r (%)
<b>Western Div.</b>	<b>Total</b>	<b>297,184</b>	<b>319,611</b>	<b>22,427</b>	<b>7.6</b>	<b>0.7</b>
	<b>Fijian</b>	<b>116,455</b>	<b>152,186</b>	<b>35,731</b>	<b>30.7</b>	<b>2.4</b>
	<b>Indian</b>	<b>172,975</b>	<b>157,170</b>	<b>-15,805</b>	<b>-9.1</b>	<b>-0.9</b>
	<b>Other</b>	<b>7,754</b>	<b>10,255</b>	<b>2,501</b>	<b>32.3</b>	<b>2.5</b>
<b>01: Ba</b>	<b>Total</b>	212,197	231,760	19,563	9.2	0.8
	<b>Fijian</b>	69,902	96,852	26,950	38.6	3.0
	<b>Indian</b>	135,492	126,142	-9,350	-6.9	-0.7
	<b>Other</b>	6,803	8,766	1,963	28.9	2.3



<b>08: Nadroga/Navosa</b>	<b>Total</b>	54,083	58,387	4,304	8.0	0.7
	<b>Fijian</b>	28,180	35,075	6,895	24.5	2.0
	<b>Indian</b>	25,244	22,140	-3,104	-12.3	-1.2
	<b>Other</b>	659	1,172	513	77.9	5.2
<b>11: Ra</b>	<b>Total</b>	30,904	29,464	-1,440	-4.7	-0.4
	<b>Fijian</b>	18,373	20,259	1,886	10.3	0.9
	<b>Indian</b>	12,239	8,888	-3,351	-27.4	-2.9
	<b>Other</b>	292	317	25	8.6	0.7

- Ba Province

In spite of the very significant decrease in its Indian population, the total population of Ba Province is still growing at a rate close to the national average. This is due to the very fast increase of its Fijian population. About 87 percent of growth in the Western Division occurred in Ba Province. As in the case of Naitasiri Province, this growth is highly localized. It is due to the dramatic increase of the Fijian population in the urban sector of Nadi Tikina, Nawaka and Vuda Tikina (the Nadi and Lautoka UAs). Growth of the Indian population in these tikinas, with the exception of the urban sector of Nadi Tikina is now close to nil.

In the meantime, Ba Tikina experienced a very significant decrease in its rural Indian population and the same applies to Tavua Tikina.

In spite of the massive emigration of Indians, Ba remains, in 2007, the province with by far the largest population in Fiji. However, as already mentioned, given continuation of present trends, the population of Ba will be surpassed by that of Naitasiri in 2033.

As in the case of Macuata Province, changes in the population of Ba Province have altered the ethnic composition dramatically. In 1996, there were still 94 percent more Indians than Fijians in this province but in 2007, this had been reduced to only 30 percent. Given continuation of the present growth rates of Fijians and Indians implies that the Fijian population will overtake the Indian population 7 years after the 2007 Census, that is in 2014.

- Nadroga/Navosa Province

During the 1996-2007 intercensal period, the population of Nadroga/Navosa Province also increased at about the national average. As in the case of Ba Province, its Indian population decreased very significantly but this was cancelled out by a large increase in the Fijian population. The substantial increase in the category "Others" is probably related to the relative abundance of Coral Coast freehold leases.

- Ra Province

During the 1996-2007 intercensal period, the population of Ra Province continued to decrease but at a faster rate than during the 1986-1996 intercensal period. Losses for the Indian component, many as a result of expired leases, were very significant.

## **V. POPULATION SIZE AND GROWTH BY GEOGRAPHIC SECTOR**

### **1. Geographic Sectors in Fiji**

As most countries, Fiji is also subdivided into a rural and an urban sector. Countries differ greatly in their definition of what is considered as “urban”. Prior to the 1966 Census, statistical boundaries for all urban areas in Fiji were for the first time officially delineated. Subsequently, before the 1976 Census, these urban boundaries were reviewed. Unfortunately, no urban boundary revision was carried out before the 1986 Census. During the twenty-year period between 1976 and 1996, very significant developments in the public and private sector occurred and these have affected the rural-urban divide very significantly. Consequently, the 1996 Census was preceded by a major revision of the urban boundaries. The delineation of urban areas in Fiji prior to the 1996 Census was based on a set of five statistical criteria. Prior to the 2007 Census, the boundaries of some UAs areas have again been revised. The revision was once again based on the same five criteria as in 1996.

It is important to note that studies of rural-urban migration, urbanization, urban growth etc. should be based on the census/statistical urban areas and not on the official cities and towns. The reason is that the delineation of cities and towns is not based on statistical criteria.

### **2. Population Size and Growth by Geographic Sector**

Table V-1 provides an overview of population change for the rural and urban sector during the intercensal periods 1986-1996 and 1996-2007. It will be noted that, in 2007, the urban population has surpassed the rural population.

**Table V-1: Population growth in Fiji by geographic sector during the 1986-1996 and 1996-2007 intercensal periods.**

Interc. Period	Geogr Sector	Census Population		Intercensal Population Change			Doubl. Time (Yrs)
		P <sub>1</sub> (Nr)	P <sub>2</sub> (Nr)	Abs (Nr)	Rel (%)	r (%)	
86-96	All	715,375	775,077	59,702	8.3	0.8	86
	Rural	438,350	415,582	-22,768	-5.2	-0.5	-130
	Urban	277,025	359,495	82,470	29.8	2.6	27
96-07	All	775,077	837,271	62,194	8.0	0.7	99
	Rural	415,582	412,425	-3,157	-0.8	-0.1	-1,005
	Urban	359,495	424,846	65,351	18.2	1.5	46

During the 1996-2007 intercensal period, the population of the rural sector has continued to decrease, albeit at a somewhat lower rate than during the previous intercensal period. The opposite has happened in the urban sector: its population has continued to increase. Once again, the increase between 1996 and 2007 has been somewhat lower than during the previous intercensal period. In interpreting these changes, it should be kept in mind that the somewhat lower rate of decrease for the rural and the somewhat lower rate of increase for the urban sector during the 1996-2007 intercensal period as compared to the previous intercensal period 1986-1996, is largely the result of the very substantial revision of several

urban boundaries prior to the 1996 Census. Consequently, a large part of the decrease in the rural population and increase in the urban population between 1986 and 1996 is due to incorporation of formerly rural areas into the urban sector and not to rural-urban migration.

In comparison, the urban boundary revisions prior to the 2007 Census have been relatively modest. Prior to this census, only the urban boundaries of Nadi and Lautoka required extension.

### 3. Change in the Rural-Urban Composition

Table V-2 shows the change in the rural-urban composition between the 1966 and 2007 censuses. It also shows the projected rural and urban population for 2010, 2010 and 2030 based on a “no change” scenario.

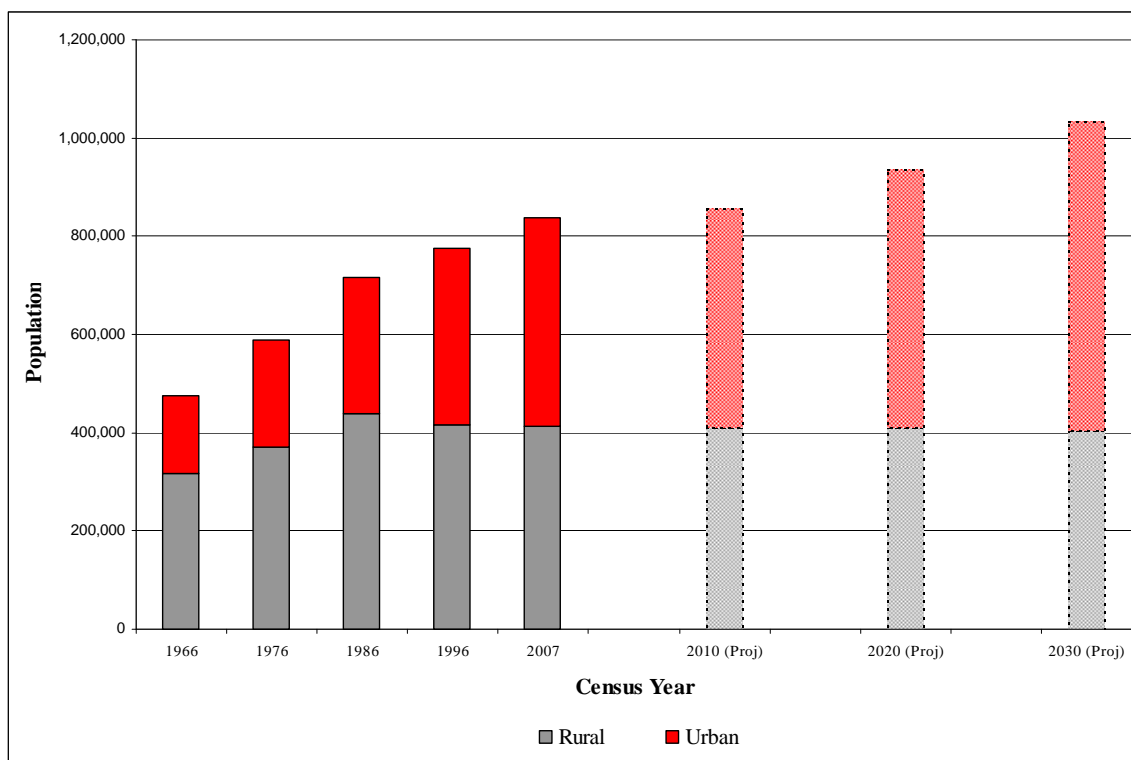
**Table V-2: Change in the Rural-Urban composition of the population of Fiji between 1966 and 2007 and the projected composition, based on a “no change” scenario between 2007 and 2030**

Year	Total	Rural		Urban	
		Nr	%	Nr	%
1966 (Census)	476,727	317,468	66.6	159,259	33.4
1976 (Census)	588,068	369,573	62.8	218,495	37.2
1986 (Census)	715,375	438,350	61.3	277,025	38.7
1996 (Census)	775,077	415,582	53.6	359,495	46.4
2007 (Census)	837,271	412,425	49.3	424,846	50.7
2010 (Projected)	857,000	411,000	48.0	446,000	52.0
2020 (Projected)	936,000	409,000	43.7	527,000	56.3
2030 (Projected)	1,034,000	405,000	39.2	629,000	60.8

It will be noted that the data suggests that, based on trends between 1966 and 1986, the proportion of urban people increased faster than expected during the 1986-1996 intercensal period. In interpreting this, users are again reminded that, prior to the 1986 Census, the boundaries of the urban areas were not reviewed and revised. It is therefore likely that the rural-urban composition presented by the 1986 Census data is affected by a rural bias. In other words, prior to the 1986 Census, certain parts of the rural sector adjacent to some urban areas should probably have been included in the urban sector. This example emphasizes again that it is important that all urban boundaries are reviewed at a regular interval, and at least prior to all censuses.

As already mentioned, prior to the 1996 Census a major revision of all urban areas was carried out and some new census urban areas were created. Consequently, the 1996 Census provides almost certainly a far more accurate picture of the rural-urban divide in Fiji than the 1986 Census. All urban boundaries were once again reviewed and in a number of cases revised prior to the 2007 Census. It is therefore assumed that change in the rural-urban composition between 1996 and 2007, as shown in Table V-2 provides a realistic picture of the urbanization process in Fiji. Change in the rural-urban composition between 1946 and 2007, and projected growth until 2030 based on a “No-Change” scenario is also depicted in Figure V-1.

**Figure V-1: Change in the Rural-Urban composition of the population between 1946 and 2007 and projected until 2030**



## **VI. POPULATION SIZE AND GROWTH FOR URBAN AREAS**

### **1. Urban Areas and their subdivisions in Fiji**

At the time of the 1996 Census, Fiji had eighteen urban areas (UA). Eleven of these were UAs of the first category. These UAs consist of an incorporated (gazetted) city/town and a peri-urban area that surrounds it. The eleven UAs of the first category included Suva, Lautoka, Lami, Nausori, Nadi, Ba, Tavua, Sigatoka, Labasa, Savusavu and Levuka. It will be noted that two of these UAs included an incorporated (gazetted) city, i.e. Suva and Lautoka. The remaining nine UAs included an incorporated (gazetted) town. All cities and towns are further subdivided into wards.

After 1996, the main change in the above picture was the incorporation of another town, viz. Nasinu. As noted before, the entire urban area of Nasinu (Nasinu Town as well as its peri-urban area) has been carved out of the peri-urban area of Suva. This brings the total number of UAs of the first category in 2007 to twelve.

In addition, prior to the 2007 Census, the urban boundary of Lautoka and Nadi was also extended. Finally, during this period, some town boundaries were also extended. This applies first and foremost to the town boundary of Nadi. Recently, the town boundary of Labasa has also slightly been extended to the west.

Apart from the above urban areas of the first category, there were, at the time of the 1996 Census, seven UAs of the second category. These UAs do not include an incorporated (gazetted) town. The urban areas in this category are urban areas for census/statistical purposes only. They are also referred to as unincorporated towns. In 1996, this second category included the urban areas (unincorporated towns) Vatukoula, Rakiraki, Korovou, Navua, Pacific Harbour, Nabouwalu and Seaqaqa. During the 2007 Census, the boundaries of all these unincorporated towns were the same as during the 1996 Census. Moreover, after 1996, no new urban areas of the second category have been created.

### **2. Population Size and Growth of Urban Areas and their Subdivisions**

Table VI-1 presents population change during the 1996-2007 intercensal period for the urban areas of the first and second category, as well as for the subdivisions (incorporated city/town and peri-urban area) of the first category.

It appears that during the 1996-2007-intercensal period, the total population residing in an urban area of the first category has increased dramatically, whereas the total population residing in an urban area of the second category has hardly changed at all.

**Table VI-1: Population growth for the Urban sector and its subdivisions during the 1986-1996 and 1996-2007 intercensal periods.**

Urban Area (UA)	Interc Period	Census Population		Intercensal Population Change			Doubl Time (Yrs)
		P <sub>1</sub> (Nr)	P <sub>2</sub> (Nr)	Abs (Nr)	Rel (%)	r (%)	
All UAs (Total urban sector)	86-96	277,025	359,495	82,470	29.7	2.6	27
	96-07	359,495	424,846	65,351	18.2	1.5	46
1. All UAs of the 1 <sup>st</sup> category	86-96	265,760	340,486	74,726	28.1	2.5	28
	96-07	340,486	405,690	65,204	19.2	1.6	44
a. Incorp. cities/towns	86-96	136,755	158,352	21,597	15.8	1.5	47
	96-07	158,352	263,035	104,683	66.1	4.6	15
b. Peri-urban areas	86-96	129,005	182,134	53,129	41.2	3.5	20
	96-07	182,134	142,655	-39,479	-21.7	-2.2	-31
2. All UAs of the 2 <sup>nd</sup> category	86-96	11,265	19,009	7,744	68.7	5.2	13
	96-07	19,009	19,156	147	0.8	0.1	995

It will, however be noted that the dramatic increase for the first category is entirely due to increase in the total city/town population by 104,683 persons. The peri-urban population has actually decreased by 39,479 persons. The main reason for these drastic changes is obvious. During the 1996-2007 intercensal period, Nasinu Town has been incorporated. At the time of the 2007 Census, this was a town with 76,064 inhabitants. This accounts for 73 percent of the total increase in the city/town population and the corresponding decrease in the total peri-urban population. Prior to the incorporation of Nasinu, the inhabitants of Nasinu Town were part of the peri-urban population of Suva.

a. Urban Areas of the 1<sup>st</sup> category and their subdivisions

The next Table VI-2 homes in on population change during the intercensal periods 1986-1996 and 1996-2007, for the twelve individual urban areas of the first category. It will be noted that the twelve urban areas have been listed in alphabetical order and not by province or by size.

**Table VI-2: Population growth for Urban areas of the first category (those with an incorporated city/town) during the 1986-1996 and 1996-2007 intercensal periods.**

Urban Area	Interc. Period	Census Population		Intercensal Population Change			Doubl. Time (Yrs)
		P1 (Nr)	P2 (Nr)	Abs. (Nr)	Rel. (%)	r (%)	
<b>Total</b>	<b>86-96</b>	<b>265,760</b>	<b>340,486</b>	<b>74,726</b>	<b>28.1</b>	<b>2.5</b>	<b>28</b>
	<b>96-07</b>	<b>340,486</b>	<b>405,690</b>	<b>65,204</b>	<b>19.2</b>	<b>1.6</b>	<b>44</b>
<b>Ba</b>	<b>86-96</b>	10,260	14,716	4,456	43.4	3.6	19
	<b>96-07</b>	14,716	18,526	3,810	25.9	2.1	33
<b>Labasa</b>	<b>86-96</b>	16,537	24,095	7,558	45.7	3.8	18
	<b>96-07</b>	24,095	27,949	3,854	16.0	1.3	52
<b>Lami</b>	<b>86-96</b>	16,707	18,928	2,221	13.3	1.3	55
	<b>96-07</b>	18,928	20,529	1,601	8.5	0.7	94
<b>Lautoka</b>	<b>86-96</b>	39,057	43,274	4,217	10.8	1.0	68
	<b>96-07</b>	43,274	52,220	8,946	20.7	1.7	41
<b>Levuka</b>	<b>86-96</b>	2,895	3,746	851	29.4	2.6	27
	<b>96-07</b>	3,746	4,397	651	17.4	1.5	48
<b>Nadi</b>	<b>86-96</b>	15,220	30,884	15,664	102.9	7.1	10
	<b>96-07</b>	30,884	42,284	11,400	36.9	2.8	24
<b>Nasinu</b>	<b>86-96</b>	-	-	-	-	-	-
	<b>96-07</b>	-	87,446	87,446	-	-	-
<b>Nausori</b>	<b>86-96</b>	13,982	21,617	7,635	54.6	4.4	16
	<b>96-07</b>	21,617	47,604	25,987	120.2	7.1	10
<b>Savusavu</b>	<b>86-96</b>	2,872	4,970	2,098	73.1	5.5	13
	<b>96-07</b>	4,970	7,034	2,064	41.5	3.1	22
<b>Sigatoka</b>	<b>86-96</b>	4,730	7,862	3,132	66.2	5.1	14
	<b>96-07</b>	7,862	9,622	1,760	22.4	1.8	38
<b>Suva</b>	<b>86-96</b>	141,273	167,975	26,702	18.9	1.7	40
	<b>96-07</b>	167,975	85,691	-82,284	-49.0	-6.1	-11
<b>Tavua</b>	<b>86-96</b>	2,227	2,419	192	8.6	0.8	84
	<b>96-07</b>	2,419	2,388	-31	-1.3	-0.1	-594

The information in Table VII-3 supplements that of Table VII-2. It takes the analysis one step further since it also looks at population change for the subdivisions (incorporated city/town and peri-urban area) of the twelve urban areas of the first category. However, this analysis is limited to the most recent intercensal period 1996-2007.

**Table VI-3: Population growth for individual Urban areas of the first category  
(those with an incorporated city/town) during the 1996-2007 intercensal period.**

Urban Area	Subdiv. of Urban Area	Census Population		Intercensal Population Change			Doubl. Time (Yrs)
		1996 (Nr)	2007 (Nr)	Abs. (Nr)	Rel. (%)	r (%)	
<b>Total</b>	<b>All</b>	<b>340,486</b>	<b>405,690</b>	<b>65,204</b>	<b>19.2</b>	<b>1.6</b>	<b>44</b>
	<b>City/Town</b>	<b>158,352</b>	<b>263,035</b>	<b>104,683</b>	<b>66.1</b>	<b>4.6</b>	<b>15</b>
	<b>Peri-Urban.</b>	<b>182,134</b>	<b>142,655</b>	<b>-39,479</b>	<b>-21.7</b>	<b>-2.2</b>	<b>-31</b>
<b>Ba</b>	All	14,716	18,526	3,810	25.9	2.1	33
	Town	6,314	6,826	512	8.1	0.7	98
	Peri-Urban	8,402	11,700	3,298	39.3	3.0	23
<b>Labasa</b>	All	24,095	27,949	3,854	16.0	1.3	52
	Town	6,491	7,706	1,215	18.7	1.6	45
	Peri-Urban	17,604	20,243	2,639	15.0	1.3	55
<b>Lami</b>	All	18,928	20,529	1,601	8.5	0.7	94
	Town	10,556	10,752	196	1.9	0.2	417
	Peri-Urban	8,372	9,777	1,405	16.8	1.4	49
<b>Lautoka</b>	All	43,274	52,220	8,946	20.7	1.7	41
	City	36,083	43,473	7,390	20.5	1.7	41
	Peri-Urban	7,191	8,747	1,556	21.6	1.8	39
<b>Levuka</b>	All	3,746	4,397	651	17.4	1.5	48
	Town	1,096	1,131	35	3.2	0.3	244
	Peri-Urban	2,650	3,266	616	23.3	1.9	37
<b>Nadi</b>	All	30,884	42,284	11,400	36.9	2.8	24
	Town	9,170	11,685	2,515	27.4	2.2	32
	Peri-Urban	21,714	30,599	8,885	40.9	3.1	22
<b>Nasinu</b>	All	-	87,446	87,446	-	-	-
	Town		76,064	76,064			
	Peri-Urban		11,382	11,382			
<b>Nausori</b>	All	21,617	47,604	25,987	120.2	7.1	10
	Town	5,744	24,919	19,175	333.8	13.3	5
	Peri-Urban	15,873	22,685	6,812	42.9	3.2	21
<b>Savusavu</b>	All	4,970	7,034	2,064	41.5	3.1	22
	Town	2,652	3,285	633	23.9	1.9	36
	Peri-Urban	2,318	3,749	1,431	61.7	4.4	16
<b>Sigatoka</b>	All	7,862	9,622	1,760	22.4	1.8	38
	Town	1,597	1,634	37	2.3	0.2	335
	Peri-Urban	6,265	7,988	1,723	27.5	2.2	32
<b>Suva</b>	All	167,975	85,691	-82,284	-49.0	-6.1	-11
	City	77,366	74,481	-2,885	-3.7	-0.3	-202
	Peri-Urban	90,609	11,210	-79,399	-87.6	-18.9	-4
<b>Tavua</b>	All	2,419	2,388	-31	-1.3	-0.1	-594
	Town	1,283	1,079	-204	-15.9	-1.6	-44
	Peri-Urban	1,136	1,309	173	15.2	1.3	54

As during the previous intercensal period 1986-1996, it appears that during the 1996-2007 intercensal period, growth of individual urban areas has continued to be very unequal.



Firstly, the enormous decrease in the population of the Suva UA is almost entirely due to the fact that this city lost virtually all of its peri-urban area when Nasinu was incorporated. As a result, the Suva UA has lost its position as the largest urban area in Fiji to Nasinu. Even more significant is that Suva City has a smaller population than Nasinu Town. We now have the odd situation that the largest incorporated place in Fiji is not a city but a town and that the second city in Fiji, Lautoka has a population that is only about 57 percent of that of Nasinu Town.

During the 1996-2007 intercensal period, the urban sector as a whole has been growing at an average rate of 1.6 percent per year. Of the urban areas that already existed in 1996, growth in the urban area of Nausori has been by far the fastest, viz. at an average intercensal rate of 7.1 percent per year. By far the largest proportion of this growth (about 74 percent) occurred in Nausori Town. However, it must be stressed that most of this growth is not due to rural-urban migration but to incorporation. During the 1996-2007 intercensal period, the town as well as the urban area boundary of urban of Nausori has been extended very drastically, once again at the expense of the Suva peri-urban area. The Nausori UA now includes Nakasi, Davuilevu Housing Estate and Wainibuku.

During the 1996-2007 intercensal period, the Nadi UA also continued to experience rapid growth at a rate of 2.8 percent per year. However, contrary to the case of Nausori, growth in Nadi mainly (about 78 percent) occurred in its peri-urban area. Much of this growth is due to in-migration of Fijians.

Savusavu, experienced an average intercensal growth rate of 3.1 percent per year and almost 70 percent of this growth occurred in its peri-urban area. Growth in the Savusavu UA is, however far more ethnically balanced than in the case of Nadi. Intercensal growth of the population of the UAs Lautoka, Sigatoka and Ba continued at a rate slightly above the national average rate for the urban sector.

Growth in the urban areas of Lami has been at a much lower rate than that for the entire urban sector. The stagnation in the population growth rate of the Lami UA comes as a bit of a surprise. Moreover, whatever growth has occurred in this UA, is almost entirely due to growth in its peri-urban area. The population of Lami Town has hardly changed during the 1996-2007 intercensal period. The question that needs to be answered is why the Lami UA does not contribute to the rapid population growth of the Lami-Nausori corridor or in other words, why it is that growth in this corridor is almost entirely restricted to the area north of Suva City and not to the area west of Suva City. One important factor is probably the lack of space. Due to the mountainous character of the Lami hinterland, there is relatively little scope for further extension inland. Moreover, the possibilities for the development of low-cost housing areas are also limited. However, it is unlikely that this is the entire explanation.

As already mentioned, during the 1996-2007-intercensal period, the main loser has been the Suva UA. During this period, the Suva UA lost 49 percent of its population (and 88 percent of its peri-urban population) to Nasinu and Nausori. Apart from Suva, the only UA with a decreasing population is the very small UA of Tavua.

Not only growth but also the structure of the urban areas of the 1<sup>st</sup> category in Fiji is very different. More precisely, the variation in the ratio town population to peri-urban population is extreme. On the one hand, some urban areas have a peri-urban population that is many times larger than its town population. Urban areas that include a town with rather conservative boundaries include Sigatoka, Labasa, Levuka and Nadi.

The Nadi UA is probably the most unbalanced urban area in Fiji. Right from its inception, Nadi Town has had a very conservative boundary. During the 1996-2007 intercensal period, this town boundary has finally been extended somewhat. This boundary extension was long overdue. More importantly, it has done little to rectify the unbalanced structure of this urban area. In 2007, Nadi's peri-urban population still accounts for 72 percent of the total urban area population. A very large proportion of this peri-urban population are Fijians, residing in one of the many "urban villages". The developmental and particularly the health implications of a continuation of this undesirable situation for the Nadi UA have been discussed since 1976, but so far, no action has been taken.

On the other hand, some urban areas mainly consist of its incorporated city/town and their peri-urban population is only a small fraction of the city/town population. This applies first and foremost to the three largest urban areas of Fiji viz. Nasinu, Suva and Lautoka. In all three cases, the city/town population is far more than 80 percent of the total urban area population.

b. Urban Areas of the 2<sup>nd</sup> category

Table VI-4 details population change during the intercensal periods 1986-1996 and 1996-2007, for the seven urban areas of the second category. As already mentioned, these townships have not (yet) been incorporated, but they are considered as urban areas for census (statistical) purposes.

During the 1996-2007 intercensal period, population growth in most of these unincorporated townships has been minimal. One of them, Vatukoula, actually experienced a significant population loss due to the problems associated with the Emperor Gold Mine. Navua, which, prior to the 1996 Census, was already considered for incorporation, but still maintains its incorporated status, experienced some growth. Growth in the UA of Rakiraki, which has also been considered for incorporation, has come to a standstill. The only UA in this category that grew at a rate higher than the national average rate for the urban sector is the small UA of Seaqqa.

**Table VI-4: Population growth for unincorporated towns (urban areas for census purposes) during the 1986-1996 and 1996-2007 intercensal periods.**

Urban Area	Interc. Period	Census Population		Intercensal Population Change			Doubl. Time (Yrs)
		P1 (Nr)	P2 (Nr)	Abs. (Nr)	Rel. (%)	r (%)	
<b>Total</b>	<b>86-96</b>	<b>11,265</b>	<b>19,009</b>	<b>7,744</b>	<b>68.7</b>	<b>5.2</b>	<b>13</b>
	<b>96-07</b>	<b>19,009</b>	<b>19,156</b>	<b>147</b>	<b>0.8</b>	<b>0.1</b>	<b>995</b>
<b>Korovou</b>	<b>86-96</b>	340	318	-22	-6.5	-0.7	-103
	<b>96-07</b>	318	349	31	9.8	0.8	82
<b>Nabouwalu</b>	<b>86-96</b>	-	592	592	-	-	-
	<b>96-07</b>	592	592	0	0.0	0.0	-
<b>Navua</b>	<b>86-96</b>	2,775	4,183	1,408	50.7	4.1	17
	<b>96-07</b>	4,183	5,048	865	20.7	1.7	41
<b>Pacific Harbour</b>	<b>86-96</b>	-	1,607	1,607	-	-	-
	<b>96-07</b>	1,607	1,819	212	13.2	1.1	62
<b>Rakiraki</b>	<b>86-96</b>	3,361	4,836	1,475	43.9	3.6	19
	<b>96-07</b>	4,836	4,952	116	2.4	0.2	323
<b>Seaqaqa</b>	<b>86-96</b>	-	394	394	-	-	-
	<b>96-07</b>	394	816	422	107.1	6.6	11
<b>Vatukoula</b>	<b>86-96</b>	4,789	7,079	2,290	47.8	3.9	18
	<b>96-07</b>	7,079	5,580	-1,499	-21.2	-2.2	-32

## **VII. POPULATION COMPOSITION: AGE AND SEX STRUCTURE**

The size, growth and distribution of the population of Fiji, its geographic subdivisions, geographic sectors and main ethnic groups have been covered in Section II to VI. Section VII deals with the composition or structure of the population but this is restricted to the variables age and sex. These two variables can be considered as the key or central variables in all demographic as well as socio-economic analysis. In fact, virtually all attributes of a population can only adequately be described when they are related to age and sex.

As a result, all data collection systems, but particularly censuses, place enormous emphasis on the correct reporting and recording of age and sex. This has also been the case during the preparation and field operation of the 2007 Census. Generally, establishing the sex of respondents poses few problems. The same cannot be said with regards to the accurate reporting of age. Reporting and recording of age is almost universally imprecise. Age accuracy tests indicate that, although accuracy of age reporting was notoriously imprecise during the early censuses, this is not the case anymore during recent censuses. These tests confirm that age reporting during censuses has now reached a very reasonable level of accuracy.

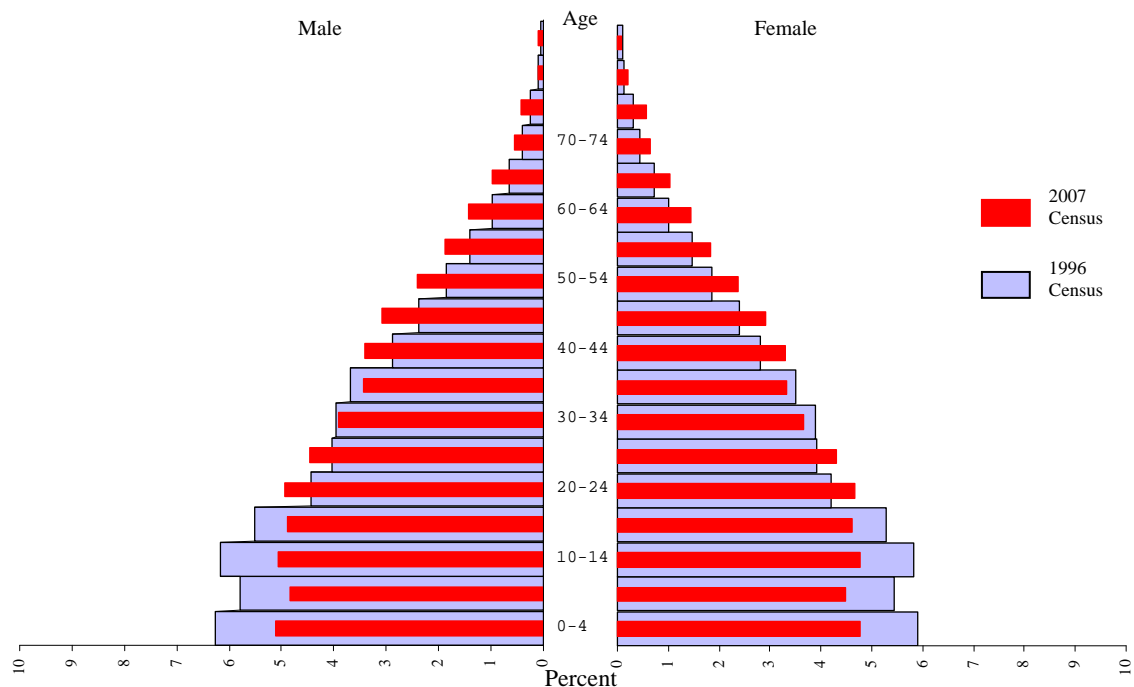
### **1. Changes in the age-sex structure**

The age-sex structure of a population is commonly represented in the form of an age-sex pyramid. Age-sex pyramids can be based on numbers and proportions (%) in subsequent age groups. The proportional age-sex pyramids for the total population, for the main ethnic groups (Fijians and Indians) as well as for the rural and urban population in 1996 and 2007 are presented in the following sections. The basic data for 2007 from which the 2007 pyramids have been constructed can be found in the attached appendices.

#### **1.1. Total population**

In Figure VII-1, the age-sex structure of the total population in 2007, is compared with that in 1996. It appears that the trend that started some 50 years ago has continued during the 1996-2007 intercensal period. The age-sex structure has continued to narrow at the base, because of a continuing decline in fertility. However, changes in the age-sex structure of the total population represent changes in the age-sex structure of all components of the population, particularly the two major components, the Fijians and Indians. Analysis of all previous census age-sex structures has shown that the impact of the demographic processes (fertility, mortality and migration) on the age-sex structures of the component populations has been very different. The same applies to the impact of these demographic processes on the rural and urban age-sex structure. This differential impact is discussed in the following sections.

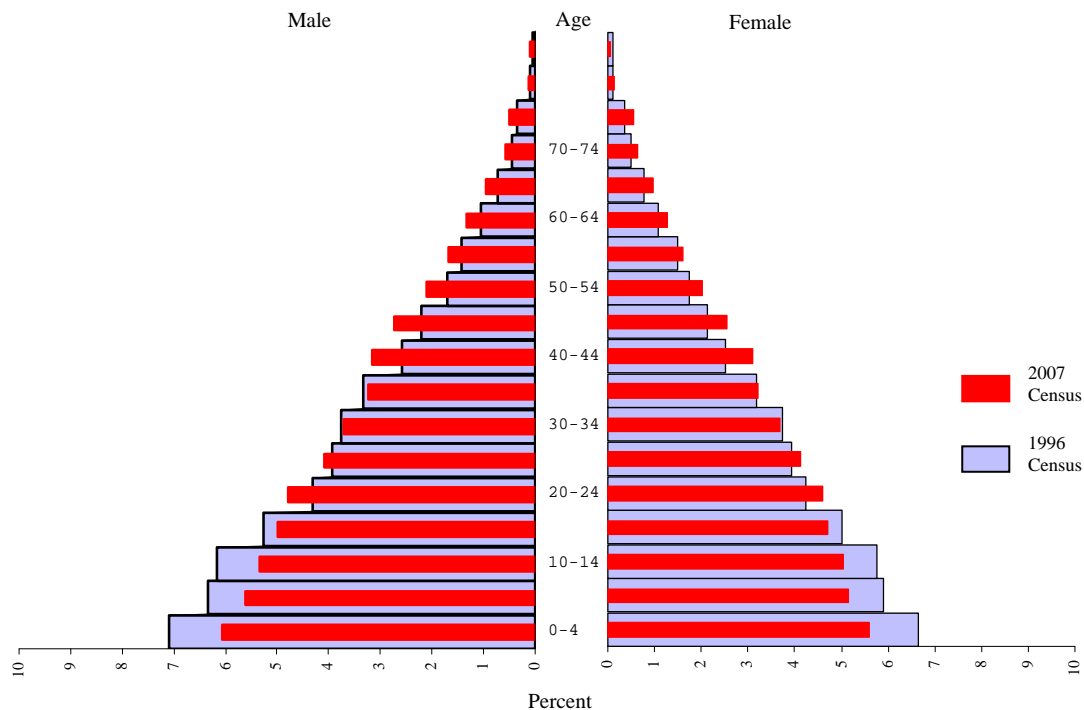
**Figure VII-1: Comparison of the proportional (%) Age-Sex structure of the total population in 1996 and 2007**



**1.2. Main ethnic groups**

Until 1966, the Fijian age-sex pyramid was broad at the base. This was the result of a very high level of fertility at that time. In that year, the Fijian fertility transition had not yet started. Figure VII-2 shows that thirty years later, in 1996, the Fijian age-sex pyramid has clearly become narrower at the base because of the gradual decrease in fertility during the 1966-1996 interval. In 2007, the age-sex pyramid has further narrowed at the base, because of the continuing fertility transition.

**Figure VII-2: Comparison of the proportional (%) Age-Sex structure of the Fijian component in 1996 and 2007**



Because of a very high level of fertility, the Indian age-sex pyramid in 1966 was even broader at the base as compared to that of the Fijian. In fact, the Indian level of fertility at the time was amongst the highest in the world. Moreover, at that time the Indian fertility transition had already started. The Indian fertility transition proceeded at a very fast rate by any standard. It will also be noted that a very significant part of this transition has been achieved when family planning clinics were still non-existent and the concept reproductive health had not yet been invented. Figure VI-3 shows that, by 1996, the Indian age-sex pyramid had become very narrow at the base and has continued to narrow after that. At the beginning of the third millennium, the Indian Net reproduction Rate dropped below zero, indicating that replacement level had been reached. This implies that from now onwards, the Indian population will decline in numbers, even in the absence of emigration.

**Figure VII-3: Comparison of the proportional (%) Age-Sex structure of the Indian component in 1996 and 2007.**

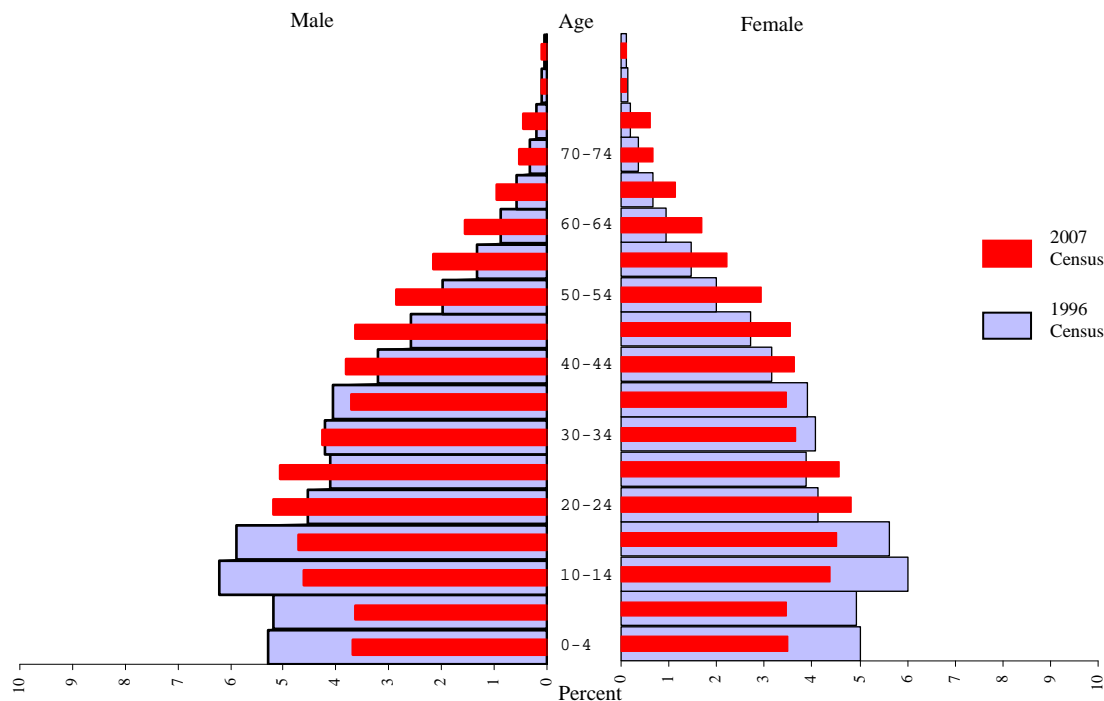
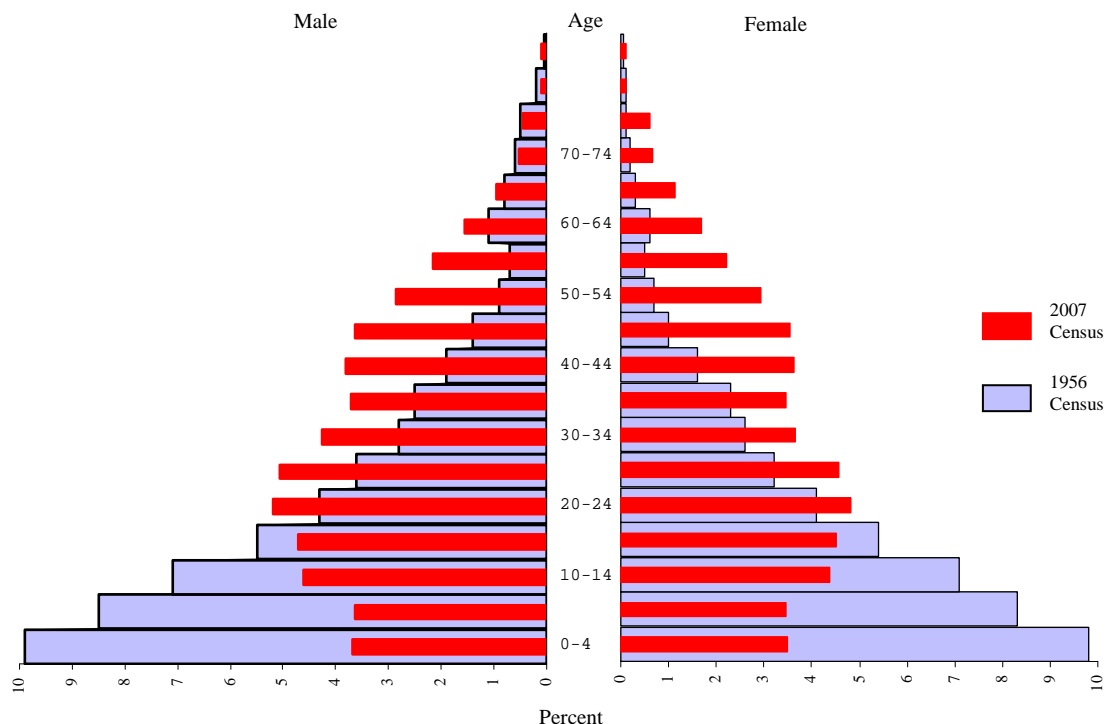


Figure VII-4 demonstrates the impact on the age-sex structure of the probably unprecedented fast decline in Indian fertility since the inception of their fertility transition in the 1950s. In the early years of the third millennium, the Indian Net Reproduction Rate (NRR) dropped below 1.0. This means that Indian fertility has reached below replacement level. It implies that, even in the absence of further emigration, the Indian population will, like most European populations, decline in numbers. It will also be noted that a very significant part of this fertility transition has been achieved at a time when family planning services in Fiji were close to non-existent and the concept reproductive health had not yet been invented. Continuation of the trend, depicted in Figure VII-4, will soon lead to a level of old-age dependency amongst Indians that is equal to that of most European populations as well as the Japanese population.

**Figure VII-4: Comparison of the proportional (%) Age-Sex structure of the Indian component in 1956 and 2007.**

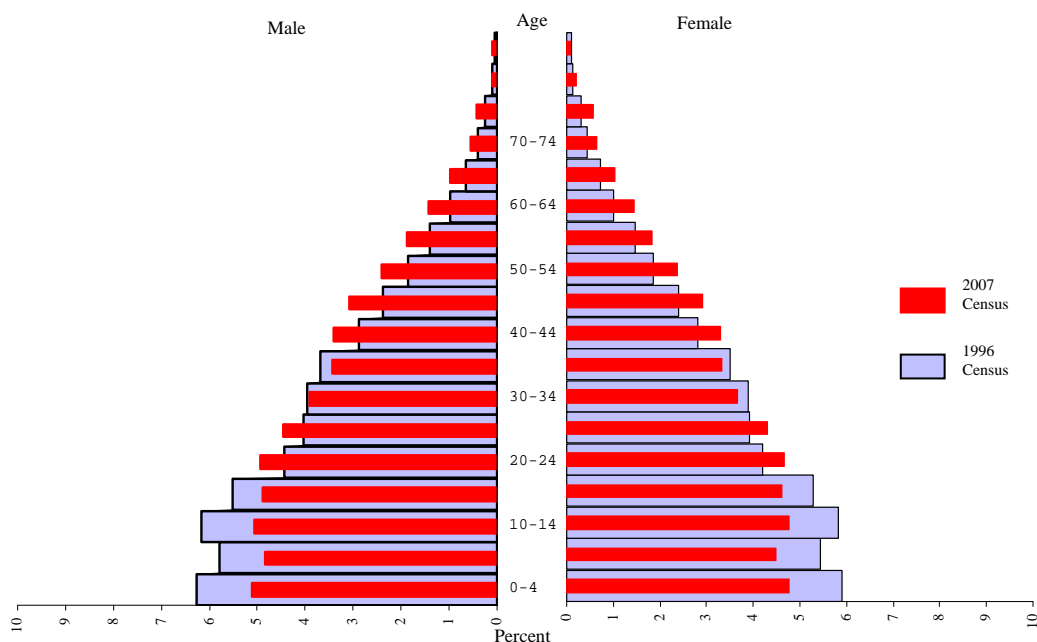


### 1.3. Geographic sectors

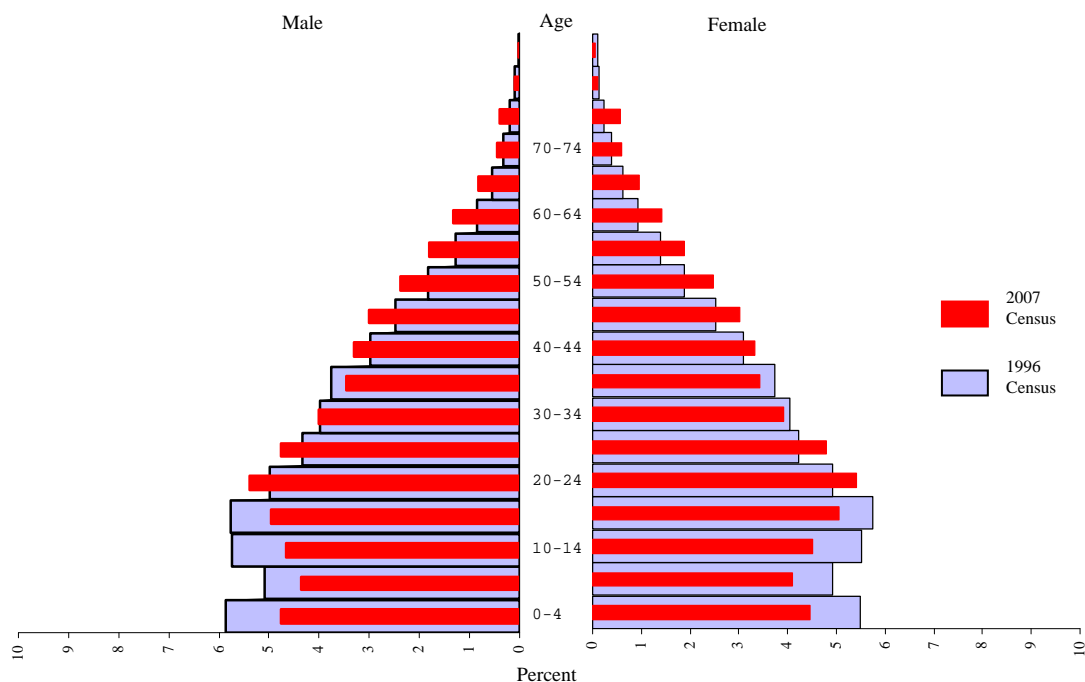
Figure VII-5 and 6 present the change in the rural and urban age-sex pyramid during the 1996-2007 intercensal period. In 2007, the rural age-sex structure is only slightly broader at the base than the urban one. It will be remembered that, in 2007, 51 percent of the total population is urban and that a significant part of the population in the rural sector is living in places with relatively easy access to an urban area and its services.



**Figure VII-5: Comparison of the proportional (%) Age-Sex structure of the rural population in 1996 and 2007**



**Figure VII-6: Comparison of the proportional (%) Age-Sex structure of the urban population in 1996 and 2007**



**2. Indices derived from the Age-Sex structure**

Some of the most common indices derived from the age-sex structure include the Dependency Ratio (DPR), the Child-Woman Ratio (CWR) and the Median Age Me). These indices for the total population as well as Fijians and Indians for all census years since 1946 are shown in Table VII-1.

**Table VII-1: Dependency Ratios, Child-Woman Ratios and Median ages for the total population by ethnicity for all census years sine 1946.**

Census Year	Dependency Ratio			Child-Woman Ratio			Median Age		
	Total	Fij.	Ind.	Total	Fij.	Ind.	Total	Fij.	Ind.
1946	91.6	79.7	109.1	81.4	64.5	104.7	17.9	19.7	15.7
1956	97.1	83.8	114.1	83.2	71.2	97.2	16.8	18.9	14.8
1966	96.6	89.5	105.2	77.9	77.6	79.2	16.5	17.8	15.2
1976	77.1	80.2	74.5	55.9	60.8	51.6	17.8	18.2	17.5
1986	70.4	74.8	66.7	55.5	61.5	50.4	20.6	20.2	20.9
1996	62.6	70.5	54.6	46.7	55.4	37.4	21.2	20.1	22.4
2007	50.8	59.6	38.9	36.9	44.9	25.4	25.1	23.0	27.9

## **2.1. Dependency Ratio**

The Dependency Ratio (DPR) is defined as the sum of the population 'less than 15' and the population '65 and over' ('dependent' population) divided by the population '15 to 64' ('working population') times 100.

The DPR for Fijians reached its highest level in 1966. As already mentioned, at the time Fijian fertility was high, resulting in a high level of youth dependency. With gradually decreasing fertility after 1966, youth dependency also decreased. It appears that after 1996, youth dependency for Fijians has dropped significantly.

Between 1946 and 1966, the Indian DPR was extremely high, reflecting the extremely high fertility level of those days. However, in 1966, Indian fertility had already started to decrease at a very fast rate resulting in a low level of youth dependency by 1976. After that fertility continued to decrease. In 2007, youth dependency has reached a very low level. Since 1986, old age dependency has become an increasingly larger part of overall dependency of the Indian component and this will undoubtedly continue in the future.

## **2.2. Child-Woman Ratio**

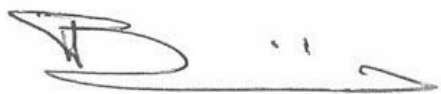
The Child-Woman Ratio (CWR) is defined as the number of children (of both sexes) under the age of five divided by the number of females in the reproductive age span times 100. In order to maintain comparison with already published CWRs in the past, the reproductive age span is defined as age 15 to 49. In a population that has not experienced significant age and sex differential under enumeration as well as migration, the CWR serves as a proxy index of the level of fertility. In populations where these ideal conditions are not met, (i.e. the Indian population of Fiji since the coups in 1987), the CWR should only be used as an index of fertility with the utmost caution. The CWRs for the total population, Fijians and Indians for all census years since 1946, are also presented in Table VII-1.

At the national level, the CWR for the Fijian component increased between 1946 and 1966. As already mentioned, during this period, Fijian fertility reached its highest level. The fertility transition for Fijians started after 1966 and this is reflected in the decreasing CWR. It seems that, after 1996, the Fijian fertility transition has got some momentum.

The extremely high level of fertility for the Indian component in the past is reflected in the very high CWR of 104.7 in 1946. After that fertility started to decrease. The rate of decrease between 1956 and 1976 has been extremely fast by any standard. After the coups of 1987, the downward trend in Indian fertility got new momentum. In 2007, a very low CWR of 25.4 has been achieved. It should also be mentioned here that analysis of census data in combination with that of birth registration data collected by the National Health Information System (NHIS) of the Department of Health suggests that, at the beginning of the 21<sup>st</sup> century, the Indian component of the population reached replacement level. The analysis of data from these sources suggests that the Total Fertility Rate (TFR) of this component, dropped from 2.7 in 1986 to 2.4 in 1996 and next to 2.0 in 2001. Once again, this applies that from now onwards; the Indian population will decrease even in the absence of emigration.

### **2.3. Median Age**

The median age (Me) is that age where 50 percent of the population is younger and 50 % older. The median ages for the total population and its main ethnic components derived from all censuses since 1946 are also shown in Table VII-1. In 1946, because of the very broad based age sex structure in that year, the Median Age for Fijians was low and that for Indians very low. After 1956, fertility decline for Indians resulted in a fast increase in their median age. As expected, for Fijians, the increase in the median age started much later. Nevertheless, before 1986, due to the high level of fertility, the median ages for Fijians as well as Indians were still below 20 years. After that, the median age continued to increase at a moderate pace for Fijians and at a fast rate for Indians.



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