

2000 Housing and Population Census

Housing and Household characteristics – Main Results

1. Introduction

This issue of the Economic and Social Indicators presents a summary of the analysis of housing and household data collected at the 2000 Housing and Population Census. Projections of households and housing needs up to year 2020 are also included.

This paper precedes the publication of the detailed analysis report entitled: “Analysis Report, Volume II - Housing and household characteristics”, which will be released soon.

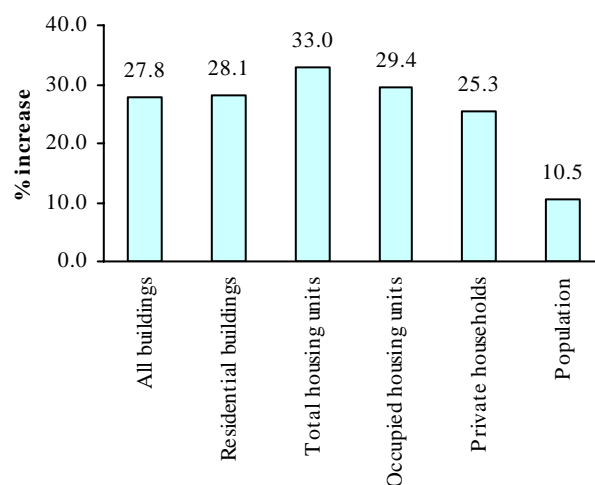
Percentages are presented at one decimal place although they have been calculated to many decimal places. Consequently, rounding errors may occur in some of the tables.

The 2000 Census enumerated 268,302 buildings (of which 240,395 residential or partly residential), 297,671 housing units, and 296,832 private households with a population of 1,165,570 for the Republic of Mauritius. Table 1 compares these figures with the 1990 Census data, while Figure 1 gives the percentage increase between the two periods.

Table 1: Buildings, housing units, private households and population, Republic of Mauritius, 1990 and 2000 Censuses

	1990	2000
All buildings	209,909	268,302
Residential buildings	187,627	240,395
Total housing units	223,821	297,671
Occupied housing units	218,103	282,158
Private households	236,885	296,832
Population	1,054,902	1,165,570

Figure 1: Percentage increase of buildings, housing units, private households and population, 1990 and 2000 Censuses



2. Buildings

2.1 Building stock

The 268,302 buildings enumerated at the 2000 Census represent an increase of about 58,400 over the 1990 Census figure of 209,909. This translates into an average growth rate of 2.5% per annum during the period 1990-2000 compared with 1.7% per annum for the previous intercensal period.

Residential and partly-residential buildings have been growing at a higher rate (2.5%) than non-residential buildings (2.0%).

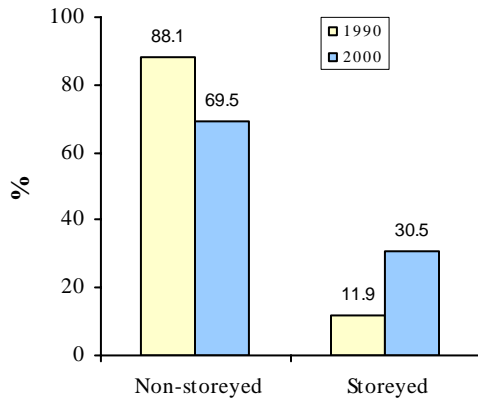
2.2 Characteristics of residential buildings

(i) Number of storeys

There has been a major shift towards the tendency to construct storeyed buildings. Figure 2 shows that the share of buildings constructed on ground floor had decreased from 88.1% in 1990 to 69.5% in 2000 while that of buildings

with storeys had increased from 11.9% to 30.5% during the same period.

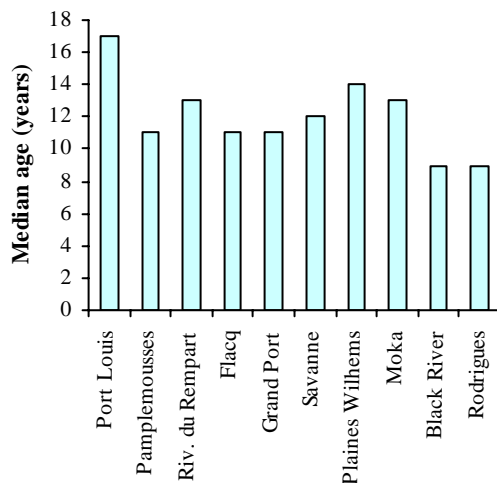
Figure 2: Non-storeyed and stored residential buildings, Republic of Mauritius, 1990 and 2000 Censuses



(ii) Age of building

The median age of all residential buildings enumerated at the 2000 Census was about 12 years. This means one half of the buildings were built from 1988 to 2000. Figure 3 shows the median age of buildings by district. It is worthwhile to note that the median age of buildings in the two urban districts, namely Port Louis and Plaines Wilhems is higher than that in the rural districts.

Figure 3: Median age by district, Republic of Mauritius, 2000 Census



Black River and Rodrigues had more than 50% of their residential buildings built during the

period 1990-2000; this explains the low median age (9 years) of residential buildings found in these two districts. Among all districts, Port Louis had the lowest share (33.1%) of its buildings constructed in the last ten years and the highest percentage (50.4%) built before 1985, hence a high median age (17 years) of buildings found in Port Louis.

(iii) Construction materials

Parallel with the increase in the stock of buildings there has been an improvement in the type of materials used for construction. Thus, some 206,200 (or 86%) of the residential and partly residential buildings enumerated in 2000 were wholly in concrete as compared to 130,900 (or 71%) in 1990. Table 2 gives the number of residential and partly residential buildings by type of construction materials for the 1990 and 2000 Censuses.

Table 2: Residential buildings¹ by type of construction materials, Republic of Mauritius, 1990 and 2000 censuses

Type of walls and roof materials	1990	2000	% change
Concrete walls and roof	130,919	206,210	57.5
Concrete walls & iron/tin roof	13,560	9,416	-30.6
Iron/tin walls and roof	33,690	19,345	-42.6
Wood walls and iron/tin/shingle roof	4,248	2,198	-48.3
Other	3,008	1,759	-41.5
Republic of Mauritius	185,425	238,928	28.9

¹ : excluding detached rooms used by part of a household (2,202 in 1990, and 1,467 in 2000)

3. Housing Units

3.1 Housing stock and growth

In 2000, a total of 297,671 housing units was enumerated compared to 223,821 in 1990. This represents an increase of about 7,400 or an average growth of 2.9% per annum. The ratio of

housing units per building works out to 1.24 in 2000 compared to 1.21 for 1990.

Figure 4: Growth rates of housing units and households between 1990 and 2000, Republic of Mauritius

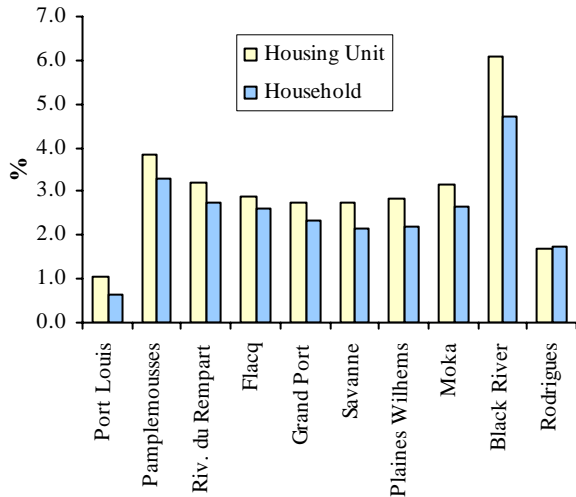


Figure 4 compares the growth rates of housing units and households in the different districts. The number of housing units grew faster than the number of households for all districts, except Rodrigues. This is just the opposite of what was observed during the intercensal period of 1983-1990 where, for all districts, the household formation rate was higher than the housing construction rate. This implies that there has been an improvement in the housing situation in terms of housing needs during the last 10 years. The growth rate for the Republic of Mauritius works out to 2.9 for housing units compared to 2.3 for households. The corresponding rates for 1990 were 1.7 and 2.0 respectively.

3.2 Ownership, mortgage status and tenure

Housing units may be privately owned, i.e. by households or private corporations, or publicly owned, i.e. by the Central or Local Government or public corporations. Table 3 shows that private ownership of housing units, although very high, increased further from 98.5% in 1990 to 99.1% in 2000. About 16% of the private housing units enumerated in 2000 were mortgaged while 81% were not. It was not possible to obtain the mortgage status for the remaining 3% since they were either vacant at

the time of enumeration, or were occupied by tenants who were unable to supply the information.

Table 3: Housing units by ownership and mortgage status, Republic of Mauritius, 1990 and 2000 censuses

Ownership	1990 ¹		2000	
	No.	%	No.	%
Private	220,550	98.5	294,849	99.1
Mortgaged	-	-	47,040	15.8
Nonmortgaged	-	-	237,666	79.9
Not stated	-	-	10,143	3.4
Public	3,003	1.3	1,265	0.4
Not stated	268	0.1	1,557	0.5
Republic of Mauritius	223,821	100.0	297,671	100.0

¹: Data on mortgage status not available for 1990 Census

The term ownership refers to the *housing unit* as to whether it is owned privately or by the public sector. Tenure is a concept that is related to the *household*, and refers to the arrangements under which the household occupies a housing unit.

Figure 5: Households by tenure, Republic of Mauritius, 1990 and 2000 Censuses

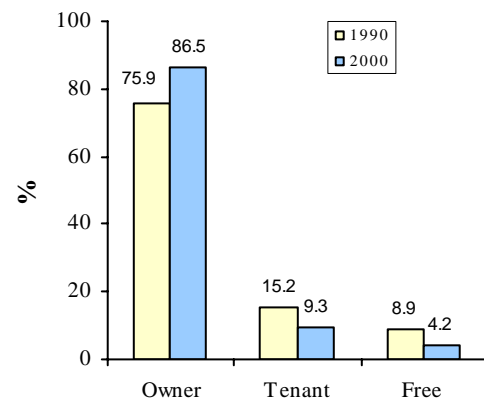


Figure 5 shows the tenure under which households occupied their residence at the last two censuses. In 2000, 86.5% of households owned the dwellings they were occupying compared to 75.9% in 1990. Conversely, the

proportion of households renting their accommodation dropped from 15.2% in 1990 to 9.3% in 2000. This indicates a positive evolution of tenure towards owner-occupied dwellings. The percentage of households living in free housing fell from 8.9% in 1990 to 4.2% in 2000.

3.3 Occupancy and vacancy

Table 4: Housing units by occupancy status and type of vacancy, Republic of Mauritius, 1990 and 2000 Censuses

Housing units	1990		2000	
	No.	%	No.	%
Occupied as Principal residence	216,246	96.6	278,226	93.5
Occupied as Secondary residence	1,857	0.8	3,932	1.3
<i>Total occupied</i>	<i>218,103</i>	<i>97.4</i>	<i>282,158</i>	<i>94.8</i>
Vacant: For rent	2,193	1.0	6,103	2.1
For sale	259	0.1	2,560	0.9
Provided by employer	887	0.4	637	0.2
Under repairs	688	0.3	1,124	0.4
Other	1,691	0.8	5,089	1.7
<i>Total vacant</i>	<i>5,718</i>	<i>2.6</i>	<i>15,513</i>	<i>5.2</i>
All housing units	223,821	100.0	297,671	100.0

At Census 2000, 94% of the 297,671 housing units enumerated were occupied as principal residence compared to 97% in 1990 while the percentage of housing units used as secondary residence increased from 0.8% in 1990 to 1.3% in 2000.

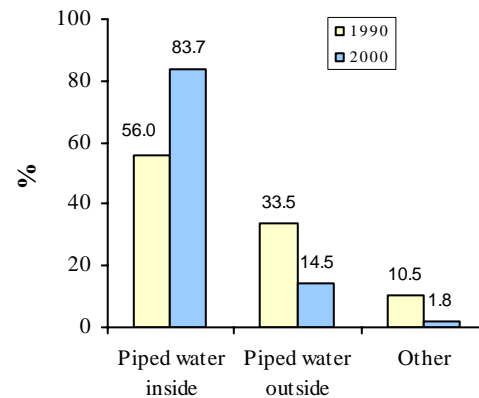
The vacancy rate, defined as the number of vacant housing units to the total number of housing units, increased from 2.6% in 1990 to 5.2% in 2000. In absolute terms this represents an increase from 5,700 to 15,500. The high rate at the 2000 Census may be due to the fact that many secondary residences have been recorded as vacant units since the occupants were staying at their principal residences at the time of enumeration.

3.4 Amenities available to households

The 2000 census data indicate a significant improvement in the living conditions of the population with regard to amenities available. The percentage of households having access to the basic amenities has increased markedly over the ten-year intercensal period. However, there are still a few households which lacked these basic amenities.

(i) Water supply

Figure 6: Private households by water supply, Republic of Mauritius, 1990 and 2000 Censuses



Nearly 84% of households in 2000 enjoyed a piped water supply inside their housing units in contrast with 56% in 1990, while the proportion of households having piped water outside their dwellings dropped from 34% in 1990 to 14% in 2000. The number of households deriving their water supply from public fountains, well, rivers, tank-wagons and other means, dropped significantly from 10% (or 25,000) to 2% (or 5000). The type of water supply was slightly better in the urban areas as shown by the fact that 99.4% of urban households were served by a piped water supply. The corresponding percentage for rural households was 97.3%.

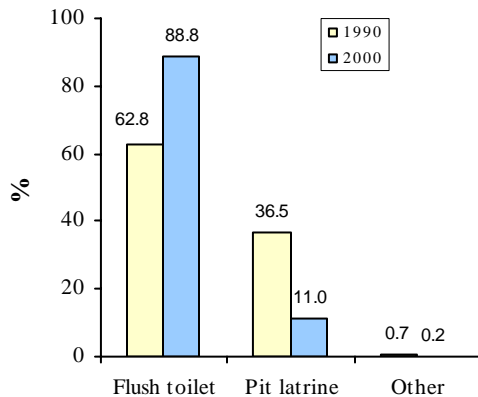
(ii) Electricity

The percentage of households which were provided with electricity increased from 96.8%

in 1990 to 99.0% in 2000. Some 98.7% of rural households had electricity in 2000 compared to 95.4% in 1990. For urban regions, the increase was from 99.0% in 1990 to 99.4% in 2000.

(iii) Toilet facility

Figure 7: Private households by type of toilet facility, Republic of Mauritius, 1990 and 2000 Censuses

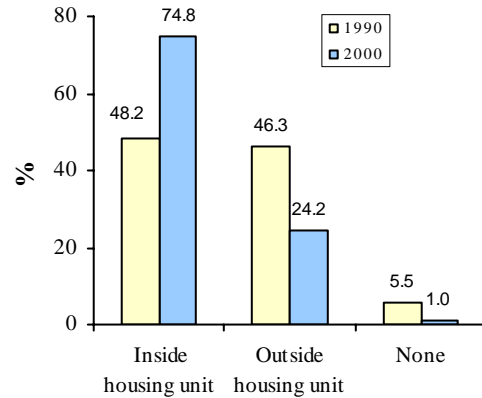


Between 1990 and 2000, there has been qualitative improvement in type of toilet facility with nearly 90% of households having flush toilet in 2000, in contrast with 63% in 1990; 11% of households were using pit latrine compared to 36% in 1990. Some 0.2% (or 600) households still had no toilet in 2000; the corresponding percentage for 1990 was 0.7% (or 1,800 households). A fairly large number of households in rural areas - 28,000 or 17% had pit latrines, compared to 5,000 or 4% in urban areas.

(iv) Bathing facility

There has been a substantial improvement in the type and availability of bathing facilities from 1990 to 2000. In 2000, 75% of households had bathrooms inside their housing units compared to 48% in 1990. The percentage of households having bathrooms outside their housing units was 24% in year 2000 compared to 46% in 1990. Only 1% of households in 2000 still had no bathing facilities against 6% in 1990.

Figure 8: Private households by bathing facility, Republic of Mauritius, 1990 and 2000 Censuses



Some 97% of bathrooms found inside the building had running water while the corresponding percentage for those found outside was 67%. Bathroom facilities differed largely between urban and rural regions. About 84% of urban households had bathrooms inside their housing units while the corresponding figure for the rural areas was 68%. Also, 96% of urban households had running water in their bathroom compared to 84% in the rural areas.

(v) Kitchen facility

Figure 9: Private households by kitchen facility, Republic of Mauritius, 1990 and 2000 Censuses

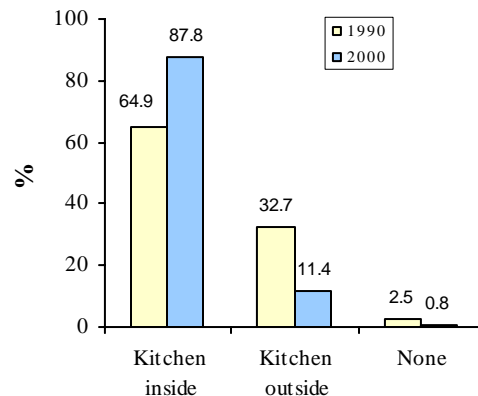


Figure 9 shows that the proportion of households having their kitchen inside the housing unit they are occupying, has increased from 65% in 1990 to 88% in 2000. Conversely, the percentage of households having their kitchen outside has dropped from 33% to 11% during the same period. There were some 2,400 or 0.8% households who did not have a kitchen in 2000 compared to 5,800 or 2.5% in 1990. A significant difference was observed between the urban and rural regions. About 94% of urban households had kitchen inside while the corresponding figure for the rural areas was 83%.

(vi) Fuel used for cooking

Figure 10: Private households by type of fuel used for cooking, Republic of Mauritius, 1990 and 2000 Censuses

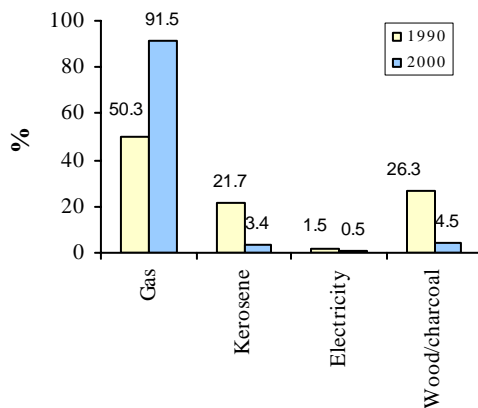


Figure 10 reveals that there had been a major shift towards the use of gas as principal fuel used for cooking purposes during the period 1990-2000. The percentage of households using gas increased markedly from 50.3% in 1990 to 91.5% in 2000, while the proportion of those using wood and charcoal dropped drastically from 26.3% to 4.5% during the same period. Furthermore, only 3.4% of households used kerosene in 2000 as compared to 21.7% in 1990. The proportion of households using electricity, which was already very low in 1990 (1.5%), further decreased to 0.5% in 2000. The majority or 80% of households using kerosene, wood or charcoal was found in rural areas.

(vii) Method of refuse disposal

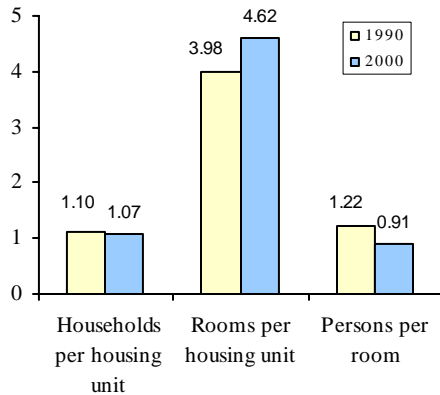
Table 5: Private households by method of refuse disposal, Republic of Mauritius, 1990 and 2000 Censuses

Method of refuse disposal	1990 (%)	2000 (%)
Receptacle with cover	30.1	-
Receptacle without cover	10.2	-
Enclosure made of bricks/stones	6.8	-
Regular collection	-	86.7
Irregular collection	-	4.8
Dumped on premises	17.1	1.7
Dumped on roadside	13.5	0.9
Ash pit	21.2	5.5
Other	1.1	0.4

A direct comparison cannot be made between the 1990 and 2000 data on method of refuse disposal. However, Table 5 shows that there has been a marked improvement in the way people dispose of their refuse. Thus, the percentage of households who had their refuse collected by authorized collectors increased from 47.1% in 1990 to 91.5% in 2000. Some 5% of these households, most of which are found in rural areas, had their refuse collected on an irregular basis. The proportion of households who dumped their refuse on the roadside or in their backyard decreased markedly from 30.6% in 1990 to only 2.6% in 2000. Some 5.5% of households reported using an ash pit to dispose of their refuse against 21.2% in 1990.

Nearly all urban households (98%) had their refuse collected by authorized collectors compared to 86% in rural areas. Ash pit was used by 9% of rural households.

(viii) Living space

Figure 11: Households per housing unit, household size and persons per room, Republic of Mauritius, 1990 and 2000 Censuses

In 1990, there were some 236,600 private households for 215,400 occupied housing units, giving a national average of 1.10 households per housing unit. In 2000, 297,900 households and 277,500 occupied housing units were enumerated, yielding an average of 1.07 household per dwelling. It can be therefore concluded that the extent to which households share housing units has improved by about 3% during the intercensal period.

Another indicator of occupancy is the average number of rooms for living purposes per housing unit. This ratio increased from 3.98 in 1990 to 4.62 in 2000 showing a substantial improvement in living space.

A better measure is the average number of persons per room used for living purposes. This ratio has decreased from 1.22 to 0.91 between 1990 and 2000, confirming the improvement in the living space available to occupants of housing units.

The density of occupation is still higher in the rural areas than in the urban areas, although the difference is less in 2000 than in 1990. The average number of persons per room in the urban and rural regions was 0.87 and 0.94 respectively in 2000. The corresponding figures for year 1990 were 1.1 and 1.3 respectively.

3.5 Rent

Table 6: Tenant households by monthly rent, Republic of Mauritius, 1990 and 2000 Censuses

Monthly rent (rupees)	1990		2000	
	No.	%	No.	%
<100	4,259	11.8	200	0.7
100 - 199	5,762	16.0	481	1.7
200 - 299	13,238	36.7	2,311	8.3
500 - 999	8,021	22.3	4,762	17.1
1000 - 1999	3,307	9.2	7,775	27.9
2000 - 2999	594	1.6	6,616	23.8
3000 +	632	1.8	5,601	20.1
Not stated	217	0.6	84	0.3
All households	36,030	100.0	27,830	100.0

The average monthly rent had increased by almost four times from Rs 580 in 1990 to Rs 2,300 in 2000. Table 6 shows that the percentage of households paying a monthly rent of less than Rs 1,000 decreased sharply from 87% in 1990 to 28% in 2000. Conversely, households with rent ranging from Rs 1,000 to less than Rs 3,000 increased markedly from 11% to 52%. Likewise, the percentage of households paying a monthly rent of Rs 3,000 and above increased from 2% to 20%.

The majority of tenant households is found in the two urban districts Port Louis and Plaines Wilhems. Black River had the highest average monthly rent (Rs 4,400), followed by Rivière du Rempart (Rs 4,000). The two districts with the lowest average monthly rent were Savanne (Rs 1,000) and Port Louis (Rs 1,400).

4. Households*4.1 Household growth*

A total of 296,294 private households (excluding 538 households consisting entirely of non-residents) was enumerated at Census 2000. The rate of growth of households (2.3% per annum) has been more rapid than that of population

(1.0% per annum) during the intercensal period 1990-2000. This has resulted in a decline in the average household size from 4.5 in 1990 to 3.9 in 2000. Household size in the urban areas was 3.8 compared to 4.0 in rural areas.

4.2 Types of private households

Table 7: Private households by type, Republic of Mauritius, 1990 and 2000 Censuses

Type of Private Household	1990		2000	
	Number	%	Number	%
One person household	12,289	5.2	18,484	6.2
Nuclear household	159,463	67.5	203,524	68.7
Extended household	64,358	27.3	73,065	24.7
Composite household				
All households	236,110	100.0	296,294	100.0

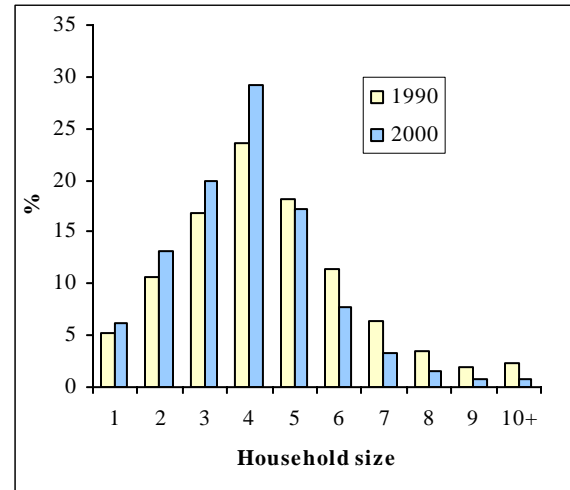
One person households constituted about 6% of all private households in 2000 compared to 5% in 1990. Nuclear households increased from 68% in 1990 to 69% in 2000. About 25% of households in 2000 were of the extended or composite types compared to 27% in 1990. It is to be noted that composite households constitute a negligible proportion of households.

4.3 Household size

Figure 12 shows the distribution of private households by household size for the last two censuses. The shares of households of sizes 1 to 4 have increased during the intercensal period, whereas a decrease is noted for all the other sizes. The share of one-person households which was 5.2% in 1990 increased to 6.2% in 2000. The percentage of households having 2 to 4 members increased from 51% in 1990 to 62% in 2000. Households of 5 to 6 persons constituted 25% of private households in 2000, the

corresponding percentage for 1990 being 30%. The share of larger households, i.e. those containing 7 persons or more, decreased significantly from 14% in 1990 to 6% in 2000.

Figure 12: Private households by household size, Republic of Mauritius, 1990 and 2000 Censuses



There has been a significant change in the structure of the mauritian household in terms of household size during the last ten years. The relatively high percentage of households of size 2 to 4 and the low share of the larger households confirms the tendency towards small nuclear households at the expense of nuclear households with large number of children living together or of extended multi-nuclear households. This tendency, together with the slight increase in single-member households, have resulted in a substantial drop (13%) in the average household size from 4.5 in 1990 to 3.9 in 2000. The most common or modal household size is 4 with a share of nearly 30% of all households.

4.4 Head of household

The head of household is any adult member in the household, whether male or female, who is acknowledged as such by the other members.

Table 8: Head of households by sex, Republic of Mauritius, 1990 and 2000 Censuses

Sex of head	1990		2000	
	No.	%	No.	%
Male	194,501	82.4	244,492	82.5
Female	41,609	17.6	51,802	17.5
Both sexes	236,110	100.0	296,294	100.0

Table 8 shows that there has been no major change in the distribution of heads of households by sex during the period 1990-2000. Out of 296,294 private households enumerated at the 2000 Population Census, 82.5% were male-headed and 17.5% were female-headed. The corresponding percentages for 1990 were 82.4 and 17.6.

Figure 13: Heads of households by age group, Republic of Mauritius, 1990 and 2000 Censuses

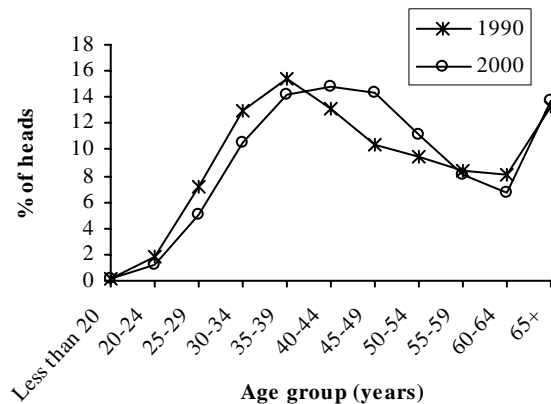
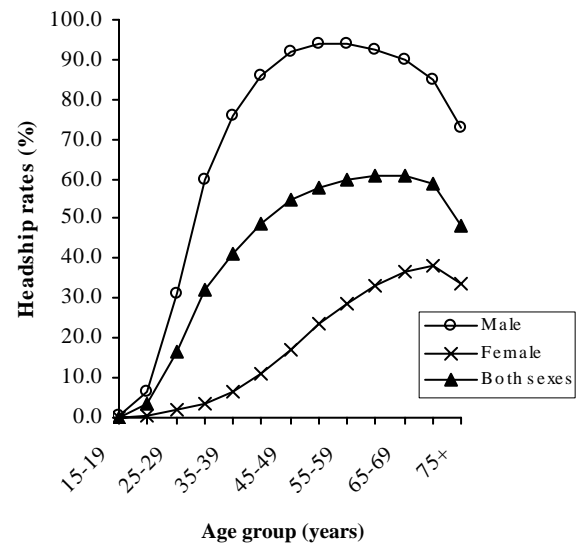


Figure 13 gives the distribution of heads of households by age group for the last two censuses. The curves indicate that there has been some ageing of the heads of households during the intercensal period. Thus the median age of heads for year 2000 worked out to 47.8 years compared to 47.3 years in 1990.

4.5 Sex-age specific headship rates

The sex-age specific headship rate is equal to the ratio of heads to the total population in the same sex and age category. The headship rates for male, female and for both sexes at the 2000 Housing and Population Census are shown in Figure 14. The proportion of heads ranges from almost zero in some age categories of the population to over 90 per cent in others.

Figure 14: Sex-age specific headship rates, Republic of Mauritius, 1990 and 2000 Censuses



The age curve for male headship rate takes the form which is found in most countries. It resembles an inverted U shape, i.e. it rises sharply to form a rounded apex and decreases thereafter, first gradually, then rapidly. The curve shows that more than 90% of males in the age group 45-64 are heads.

The curve for the female headship rates is far lower and smoother than that for the male curve. At younger ages, the rate is extremely low – less than 4% before 35 years. It then rises substantially to reach a maximum of about 38% for the age group 70-74 years.

4.6 Family nucleus

A family nucleus is a couple with or without never-married children, or a lone parent with never-married children.

Some 304,500 family nuclei were identified in the 296,294 households enumerated at the 2000 Census. This gives an average of 1.03 family nuclei per household for year 2000 compared to 1.06 for 1990, confirming the tendency towards the splitting of households consisting of more than one family nucleus. This average was higher for rural areas (1.04) than for urban regions (1.00), implying that extended families are less common in urban than in rural areas.

5. Estimation of housing needs

5.1 Factors to be considered

The most significant element to be considered in estimating future housing needs is the projected increase in the number of households during the period covered by the estimates.

Other factors underlying housing needs are:

- the existing backlog, i.e., the accumulated needs which exist at the beginning of the period covered by the estimates
- dilapidated units, i.e. the number of dwellings that will be lost from the inventory because of their age and/or lack of proper maintenance.
- the “vacancy ratio”, i.e. the proportion of vacant dwellings.

5.2 Projection of households

The projected number of households and household size up to year 2020 are given in Table 9. These figures have been derived by applying the projected sex-age specific headship rates to the population projections classified by age and sex.

According to the projections, the number of households will grow by over 40% over the next 20 years, from 296,300 in 2000 to 416,000 in 2020. This represents an annual growth rate of 1.7% over the projection period. Since the growth of households will be more rapid than that of population (projected population growth is 0.8%), a continuous fall is expected in the average household size. Table 9 shows a 15%

decrease in the average household size, from 3.93 in 2000 to 3.34 in 2020.

Table 9: Household and household size projections, Republic of Mauritius, 1990 and 2000 Censuses

		2000 Census	Projection year			
			2005	2010	2015	2020
Island of Mauritius	- Households	287,700	320,000	350,100	376,400	403,100
	- H. Size	3.93	3.77	3.59	3.46	3.34
Rodrigues	- Households	8,600	9,500	10,600	11,800	12,900
	- H. Size	4.16	3.93	3.70	3.54	3.42
Republic of Mauritius	- Households	296,300	329,500	360,700	388,200	416,000
	- H. Size	3.93	3.77	3.59	3.47	3.34

5.3 Estimation of housing needs

The projected housing needs up to year 2020, taking into consideration the factors mentioned above are shown in Table 10.

Table 10: Estimation of housing needs, Republic of Mauritius, 2000-2020

Component	Projection period				
	2000-2005	2005-2010	2010-2015	2015-2020	2000-2020
Stock at beginning of period	297,500	338,300	377,000	408,800	
New households	33,200	31,200	27,500	27,800	119,700
Backlog	6,000	6,000	3,000	3,000	18,000
Stock replacement	13,000	13,000	12,700	12,100	50,800
Vacant stock of additional housing	1,600	1,500	1,300	1,300	5,700
Total needs	53,800	51,700	44,500	44,200	194,200

The total housing needs up to year 2020 amounts to 194,200. This means that about 10,000 dwellings have to be constructed annually over the 20-year period to meet these needs.

Out of the 194,000 housing units, some 51,000 will be due to the dilapidation of existing units. Since the latter will be constructed "in situ", new housing units which will require additional land amount to about 143,000.

*Central Statistics Office
Ministry of Economic Development, Financial
Services and Corporate Affairs
Port Louis
May 2003*

According to the revised (Review 2002) National Physical Development Plan (NPDP), these new units will require some 3,240 hectares of land over the next 20 year period. Furthermore, policies should be adopted to control the "natural" trend to some extent, while increasing development in less developed regions should be adopted.

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