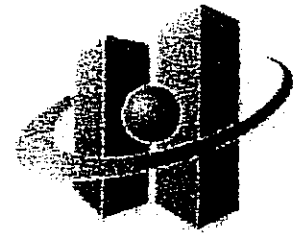


# **Katima Mulilo**

## **Household Survey Report 2000**

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TOWN & REGIONAL PLANNERS



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## ANNEXURES

### Annexure 1

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## SECTION 1: INTRODUCTION AND BACKGROUND

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### 1.1 Introduction

The rate of population growth has begun to slow down in developing countries. This decrease in the natural population growth rate is further supported by the effect of the HIV Virus which is now starting to claim a significant number of lives. Urban growth, however, continues unabated.

According to the Namibia Intercensal Demographic Survey, the level of urbanisation in Namibia increased from 28% in 1991 to 35% in 1996. Katima Mulilo is the only truly urban area within the Caprivi Region and is also the seat of government for the region. The town is located on the banks of the Zambezi River which forms the doorway with Zambia.

Over the past 3 years, two important events occurred that had a significant influence on the Caprivi Region as a whole and Katima Mulilo in particular. The first was the secessionist attempts by opposition leaders in 1998/99. The second was the spill over of the Angolan war into the Kavango and West Caprivi Regions.

Both these occurrences had an influence on rural dwellers in the affected areas, many of whom elected to move to the relative safety of urban areas.

### 1.2 Background to the Study

A perceived rapid rate of urban growth in Katima Mulilo over the past 10 years prompted the Ministry of Regional and Local Government and Housing (MRLGH) with support from the Government of Finland, to investigate the situation and to prepare a broad plan to guide future growth and to provide a framework for capacity building at local authority level.

To obtain base data for this task, Plancentre, a Finnish Consulting Firm appointed Urban Dynamics to undertake a socio-economic survey of the town to establish current population size and trends and to identify suitable directions for future urban growth.

This report details the findings of the socio-economic survey.

### 1.3 Study Design

A sample survey of approximately 10% of households in Katima Mulilo was designed to allow for accurate and random sampling from a comprehensive sample frame prepared by Urban Dynamics from maps assembled from various sources. From these, a sample of approximately 10% was drawn randomly.

Mapping for some of the areas such as Mahohoma, Old Musika, Dairy and the EPZ site was not available. In these cases, a smaller random sample was drawn on site but at the same time, all the units were counted to ensure that accurate calculations could be done on sample data.

25 Fieldworkers were recruited in Katima Mulilo and trained to conduct the interviews. A census type interview schedule was used to record the data. This schedule is attached as Annexure 1.

Fieldworkers were provided with maps on which the plots to be visited were marked. Maps also had plot numbers to further assist fieldworkers in finding the sampled households.

Fieldwork took place from 25 May 2000 to 30 May 2000. The researcher personally trained the fieldworkers and handled fieldwork control. All fieldworkers were required to visit the project office each day. All completed interview schedules were checked with each fieldworker before a schedule was accepted as complete. Schedules which were incomplete or inconsistent were rejected and the fieldworker referred back to the particular household for corrections.

A response rate of 94% was achieved with 470 plots representing some 483 households covered through the survey.

All data were entered on Statistica Software for verification and data analysis. Digital data for the survey is available from Urban Dynamics.

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## SECTION 2: CURRENT POPULATION AND HISTORICAL GROWTH

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### 2.1 Current Population

Table 1.1 reflects the findings of the study in terms of the current population size of Katima Mulilo. Data is provided for each enumeration area as defined or demarcated in Figure 1.1.

Table 1.1: Current Population of Katima Mulilo

Area	EA no	No. of units	Sample units	Sample %	Sample Population	Total Population
Katima North	1	86	7	8.14	26	319
Katima South	2	216	18	8.33	104	1248
Coloureds Camp	3	235	10	4.26	41	964
Mavuluma Ext 1	4	396	39	9.85	169	1716
Mavuluma Ext 2	5	412	40	9.71	224	2307
Ngwezi	6	372	18	4.84	97	2005
Liambai	8	344	28	8.14	117	1437
Greenwell Matonga	9	223	20	8.97	69	769
Choto	10	1543	141	9.14	539	5898
Cowboy	11	828	80	9.66	277	2867
Butterfly / Tower Area	12	154	16	10.39	56	539
Dairy	13	197	14	7.11	55	774
Old Musika	14	44	10	22.73	40	176
EPZ Site	15	71	10	14.08	30	213
Mahohoma	16	844	19	2.25	100	4442
<b>TOTAL</b>		<b>5965</b>	<b>470</b>	<b>9.17</b>	<b>1944</b>	<b>25675</b>

According to Table 1.1, the current population of Katima Mulilo is 25 675, up from 12 978 in 1991 (Population and Housing Census). The Namibia Intercensal Demographic Survey (NIDS) (1996) does not contain population estimates for towns.

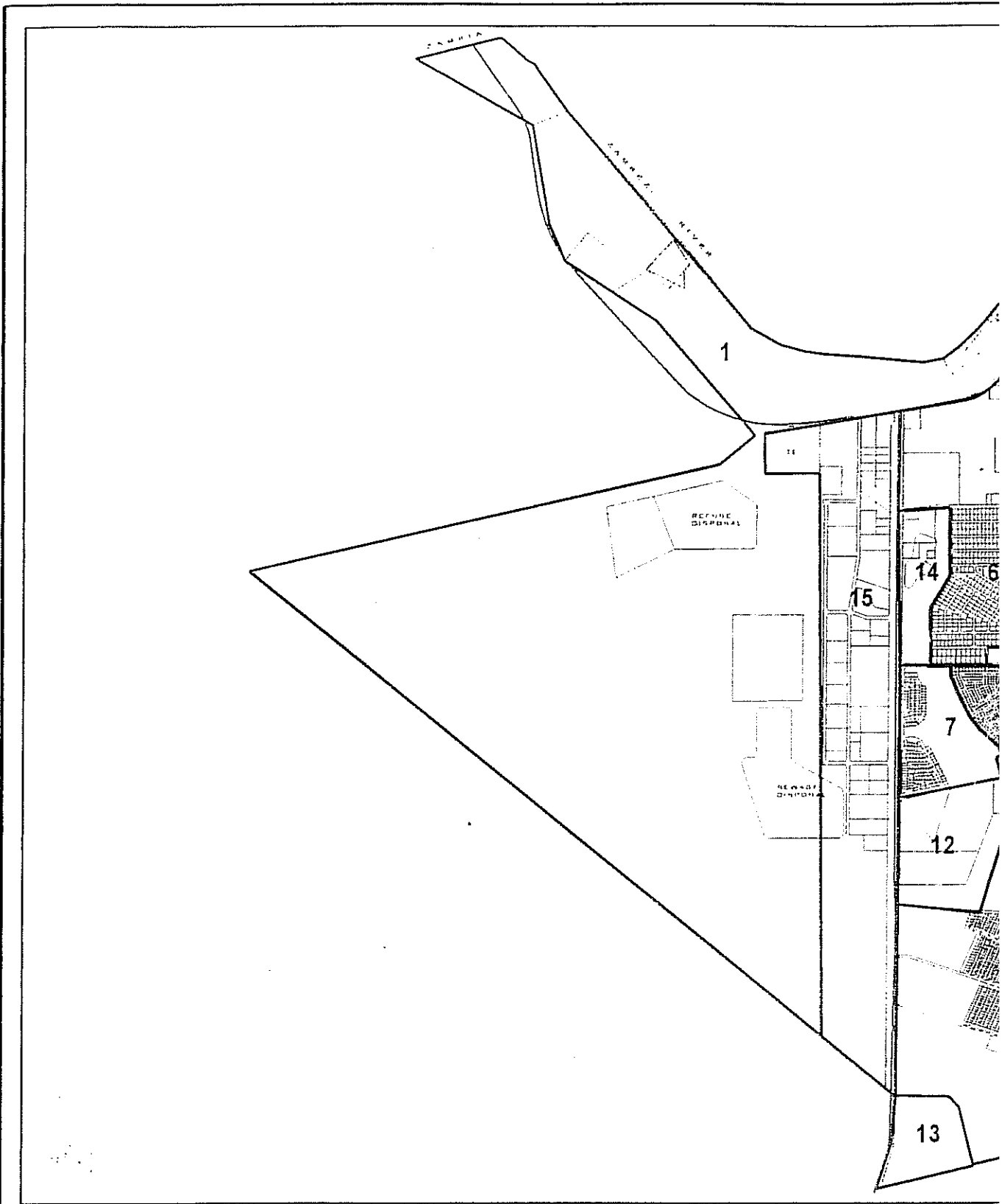
The total population of the Caprivi Region in 1991 amounted to 90 422 (1991, Population and Housing Census). The most recent official estimate from the NIDS (1996) puts the population at about 108 000. Estimates made by Mendelsohn and Roberts (1997) based on aerial counts suggest a regional population of approximately 110 700.

Figure 1.2 indicates the population figures from the 1991 Population and Housing Census by enumeration area.

### 2.2 Historic Population Growth

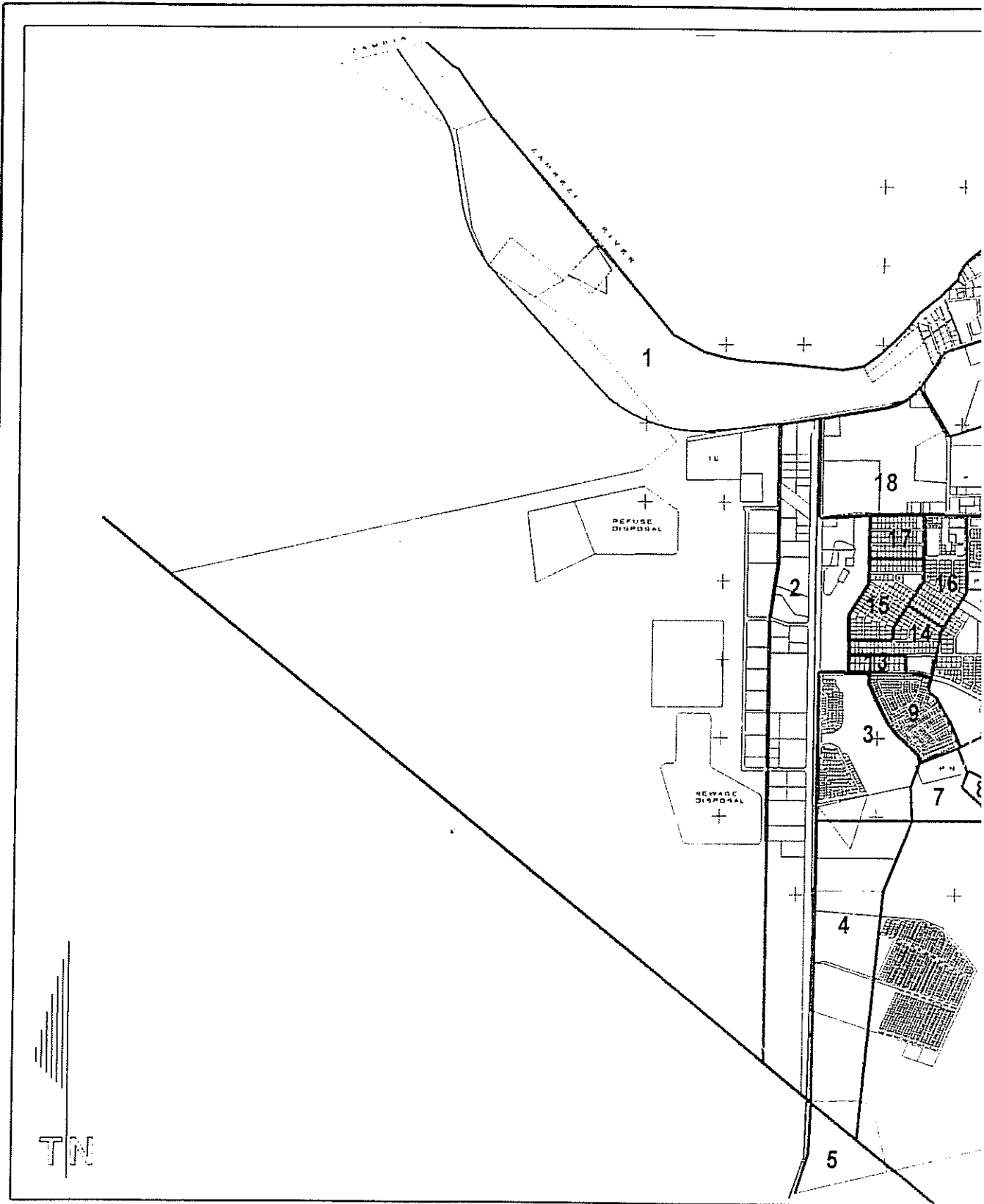
The 1981 Population Census provided limited and often unclear data on urban populations. For the Caprivi Census District, population estimates for Katima Mulilo, Ngwezi, Mafuta and settlements near Katima Mulilo were provided. The 1981 population of Katima Mulilo is, for the purpose of this study regarded as the combined population of Katima Mulilo (575), Ngwezi, a township of Katima Mulilo (3828) and settlements near Katima Mulilo (554). Mafuta is not included since it is located outside the current Katima Mulilo townlands. The total 1981 population is therefore taken as 4957.

The 1991 population was 12 978 according to raw census data related to the enumeration areas as shown in figure 1.2. This has risen to 25 675 in 2000 as determined by this survey.

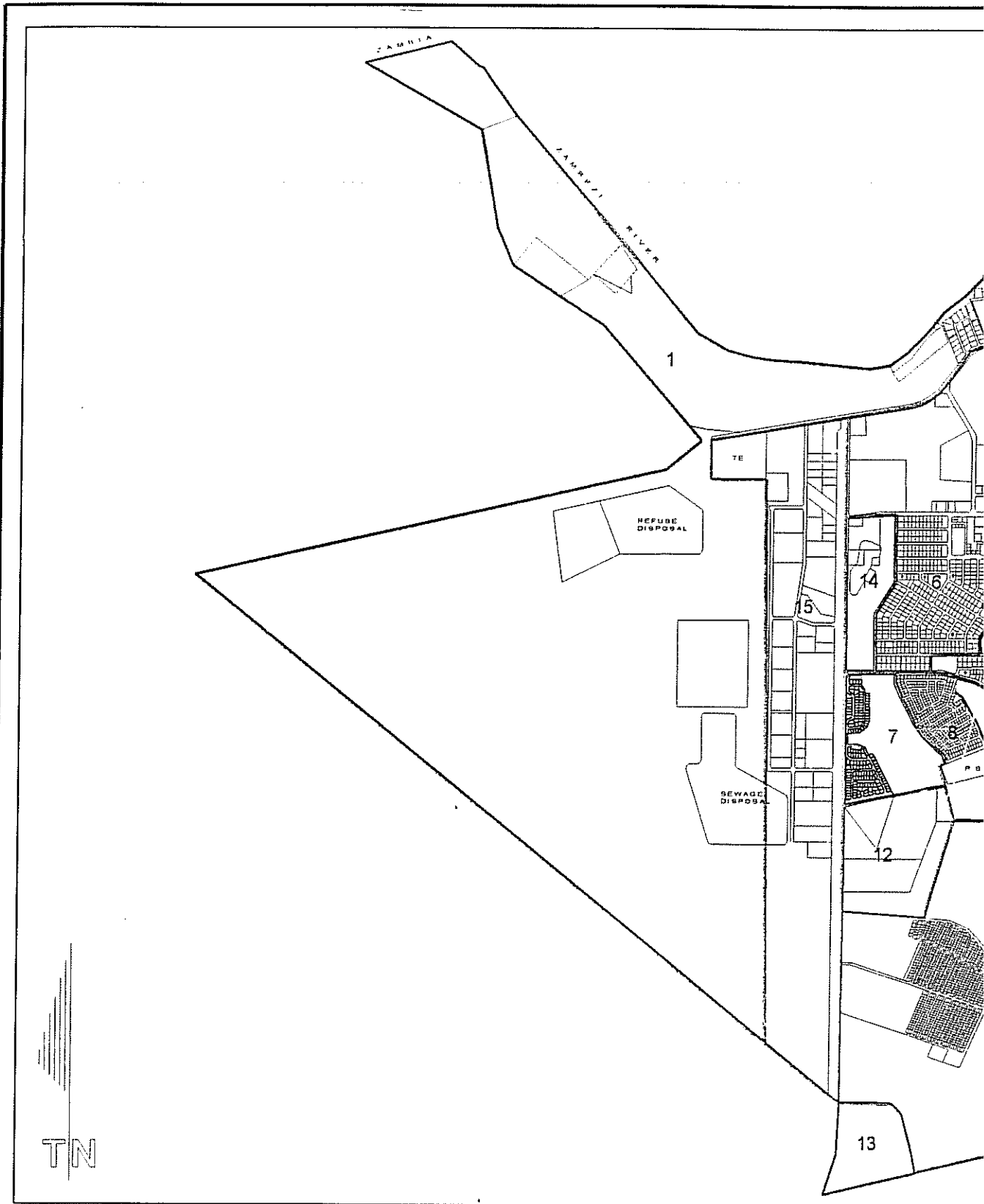


KATIMA HOUSEHOLD SURVEY 2000:

PLOTS AND POPULATION



1991 CENSUS: EA'S AND POPULATION



AREAS DEVELOPED FROM 1991-2000  
AND SHORT TERM PLANS



## SECTION 3: VITAL RATES

### 3.1 Introduction

The rate of population growth is determined by the natural growth rate, the rate of immigration and the rate of out-migration in the area concerned. This section deals with the rates that have determined natural growth and the net migration gain for Katima Mulilo.

### 3.2 Fertility and Mortality

In order to accurately project the future population of Katima Mulilo certain assumptions regarding fertility and mortality patterns need to be made. The following data provides an indication of the number of births and deaths over the past 12 months.

Table 3.1: Crude Birth and Death Rate over the last 12 months.

Area	Sample Population	No of Births Last 12 Months	Births/1000 Population	No of Deaths Last 12 Months	Deaths/1000 Population
Formal	806	11	13.64	19	23.57
Informal	1138	25	21.96	61	53.60

Note: Formal areas consist of those where the residential population mainly reside in formally planned areas. These are Katima North, Katima South, Mavuluma Exts. 1 and 2, Ngwezi, Liambai and Greenwell Matonga. Informal areas consist of the so-called Coloureds camp, Choto, Cowboy, the Tower Area, Diary, Old Musika, the EPZ and Mahohoma.

In the formal areas, 13,64 births/1000 of the sample population were recorded, while the number of deaths were 23,57/1000 population. This indicates a negative rate of natural growth in the formal areas of some 10 more deaths than births/1000 population.

In the informal areas 21,96 births and 53,6 deaths per 1000 population were recorded. This means that 31,64 more deaths than births occurred per 1000 population over the past 12 months.

Births generally tend to be underreported. However, if the sample as indicated in Table 3.2 are taken into account, then this underreporting is unlikely to be significant in this case.

Table 3.2: Age-Specific Sample Population < 6 years old.

Age Category	Number in Sample
< 1 year	36
1 year to less than 2	31
2 years to less than 3	46
3 years to less than 4	35
4 years to less than 5	54
5 years to less than 6	45

Accordingly, it seems accurate to assume that the rate of natural population growth has declined to a negative rate. The main reasons seem to be twofold. The first is related to a declining trend in fertility and the second to the impact of HIV/AIDS.

Table 3.3: Comparison of Vital Rates

Indicator	Katima 200 Household Survey	All urban areas: 1991 Census	All rural areas: 1991	Total country: 1991
Average number of children per woman	2.62	2.408	3.51	3.13
Total fertility rate	4.125	4.95	6.35	6.1
Natural growth rate (%)	-1.875	2.23	2.62	2.4

NOTE: Although all data is not supplied in the 1996 NIDS Survey Report, it does show that the Total Fertility Rate for the country has dropped considerably from 6.1 in 1991 to 4.7 in 1996. It can be expected that this tendency will also be true for Katima and will continue over the projection period.

Table 3.3 shows the significant difference in the Total Fertility Rate (TFR) between women in urban areas and those in rural areas. The 1991 Census reported TFR rates of 4.95 and 6.35 for urban and rural areas respectively. In addition, the TFR for the country declined from 6.1 in 1991 to 4.7 in 1996 (1996 NIDS Survey Report). The current TFR for Katima is estimated at 4.125 based on the information gathered in this survey.

Based on the crude birth and death rates, the natural growth rate for Katima Mulilo now stands at -1.875 % where the rate for urban areas in 1991 was 2.23 %. A survey done in Windhoek during 1995 recorded the natural growth rate for the city at 1.52 %, down from 1.71 % in 1991.

It is assumed that the effect of HIV/AIDS is particularly severe in Katima Mulilo. The Namibia Human Development Report (1998:24) indicated that one out of every four pregnant women tested in Katima Mulilo were HIV positive. Table 3.4 provides the detail.

Table 3.4: HIV infection (%) among pregnant women at selected sites. (North East Health Directorate)

Site	1994	1996	1997
Rundu	8.4	8.4	18.0
Nyangana	6.0	5.3	6.8
Andara	2.1	10.5	17.3
Katima Mulilo	24.5	24.2	25.7

The table clearly shows the high incidence of HIV in Katima Mulilo compared to other sites.

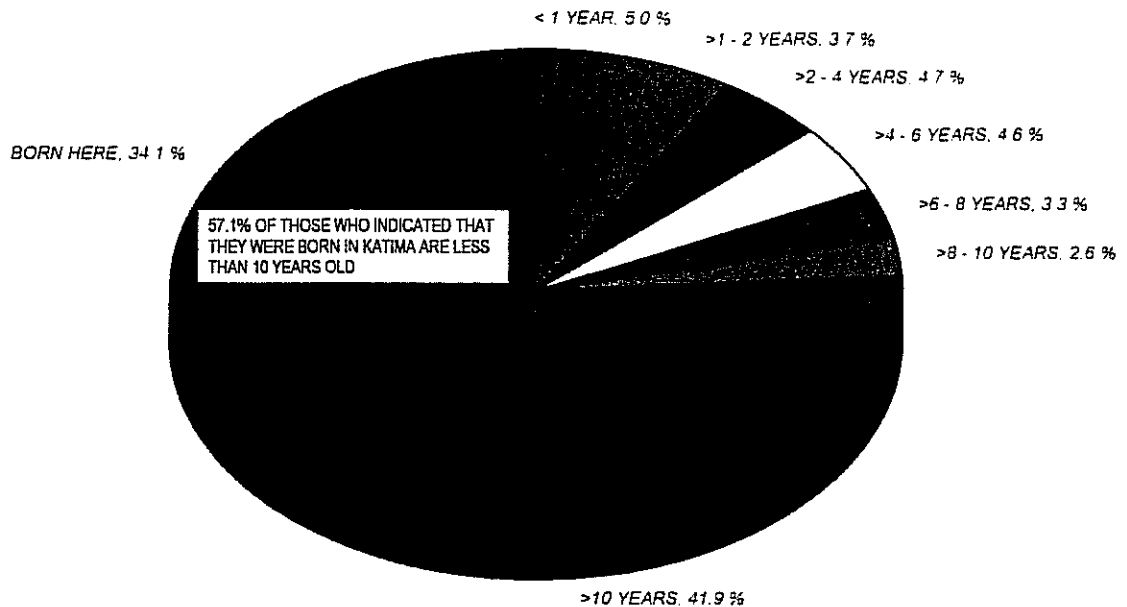
The 1997 Namibia Human Development Report predicts that all of the countries in the Southern Africa region will suffer major declines in life expectancy caused by AIDS by 2010. In Botswana, life expectancy may fall from 66.3 to 33.4, in Malawi from 56.8 to 29.5, in South Africa from 67.9 to 47.8, and in Zambia from 60.1 to 30.3 years. The 1998 report indicates that, for Namibia, life expectancy may fall from 60 years (1991) to as low as 32 years by 2010.

The 2016 population of Namibia is projected at approximately 2.7m (without Aids projection) against only 1.8m (with Aids projection). It can be assumed that the same tendency will also occur in Katima Mulilo. The tendency may even be amplified if considered in terms of the already high incidence of HIV/AIDS in Katima Mulilo.

### 3.3 Migration

It is clear that the high overall rate of growth of Katima Mulilo is due to migration to the Town. Figure 3.1 shows the duration of stay of the sample population in Katima Mulilo.

**FIGURE 3.1: DURATION OF STAY IN KATIMA MULILO**



From the figure, it becomes clear that 41.9 % of the current population has been residing in Katima Mulilo for more than 10 years. 23.9 % immigrated to Katima since 1990. Of those who indicated that they were born in Katima, 57.1 % are less than 10 years old with the remaining 42.9 % older than 10 years.

The annual rate of in-migration, given the negative natural growth rate is estimated at 9.75 % per annum.

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## SECTION 4: POPULATION PROJECTIONS

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### 4.1 Introduction

In order to plan effectively for the flow of urban migrants, it is extremely important for planners to have an indication of the future growth of the population. Only then can they accurately and effectively plan for the provision of land and services.

Underlying any projections on future population are a few general trends on urbanization. In the Caprivi context, Katima is the main urban area. The remoteness of the Caprivi Region further supports the dominant role played by the town. Katima can therefore expect to be the first choice of settlement for the majority of urban migrants especially in East Caprivi. Generally motivated by a perception of better opportunities, services and facilities, Katima is the logical destination for job seekers from the rural areas.

Secondly, urbanization in Namibia increased from 28 % of the total population in 1991 to 35 % in 1996. The level of urbanization in many developed countries is as high as 80 % and is estimated at 60 % in South Africa. Namibia, therefore, can expect the current rising trend of urbanization to continue for a long time.

Linked with these general trends, the effect of Aids on fertility and mortality further influences our projections. It should be appreciated that the current dynamics of population growth is volatile since the influence of Aids on fertility, mortality and migration is not clear at all. Projections can, at best, be clarified and motivated through clear assumptions regarding trends in fertility, mortality and migration.

### 4.2 Population Projections

In order to project the future population of Katima, three scenarios were generated to guide the estimates. Each is based on different assumptions and is generated against the background of the prominent role of Katima in the Caprivi Region and the general trend in urbanization in Namibia. The three scenarios are as follows:

#### HIGH VARIANT

The high variant projection is based on the following assumptions:

1. The current negative natural growth rate in Katima will stabilize and increase from – 1.875 % to 0 %. This would result from recent improvement in health facilities in Katima which would assist in decreasing malaria and AIDS related deaths. The continued in-migration of people from rural areas with lower levels of education and literacy and subsequent higher fertility levels would also support a higher natural growth rate.
2. The level of in-migration will remain high due especially to young people moving to Katima in search of work, the bright lights and improved opportunities. This is supported by the remoteness of the Caprivi. It will, however, decrease gradually by a total 2 % over the projection period.
3. Development programmes in the rural areas will still take time to come on-stream and will have little effect on reducing migration to Katima Mulilo.
4. Live expectancy will decrease slightly during the projection period.
5. Based on this, it can be expected that the growth rate will rise slowly from the current 7.8 % to 8.5 % in 2010.

## MEDIUM VARIANT

The medium variant projection is based on the following assumptions:

1. The natural growth rate will decline slightly to -2 % by 2010 due to the effect of Aids with lower levels of fertility and higher levels of mortality, despite improved health facilities and Aids awareness.
2. The level of in-migration will reduce as rural development projects come on stream.
3. Rural development projects currently in the pipeline such as the construction of new clinics and schools, agricultural marketing projects and the proclamation of more settlements will slow down the rate of in migration to Katima Mulilo.
4. Live expectancy will decrease slightly over the projection period
5. Based on this, it can be expected that the growth rate will decrease slightly from the current 7.8 % to 6.9 % by the year 2010.

## LOW VARIANT

The following assumptions guide the low-variant projection:

1. The effect of HIV/AIDS will be more severe with a decrease in the natural growth rate to -2.5 % despite improved health facilities. Aids awareness campaigns will only start to have a significant effect beyond the projection period.
2. There will be a slight reduction in migration to Katima Mulilo as for the medium variant projection.
3. Rural development projects will support this declining trend as for the medium variant projection.
4. Life expectancy will decrease by some 15 to 20 years over the projection period due to the effect of HIV/AIDS.
5. Based on this, it can be expected that there will be a steady decrease in population growth to 6 % in 2010.

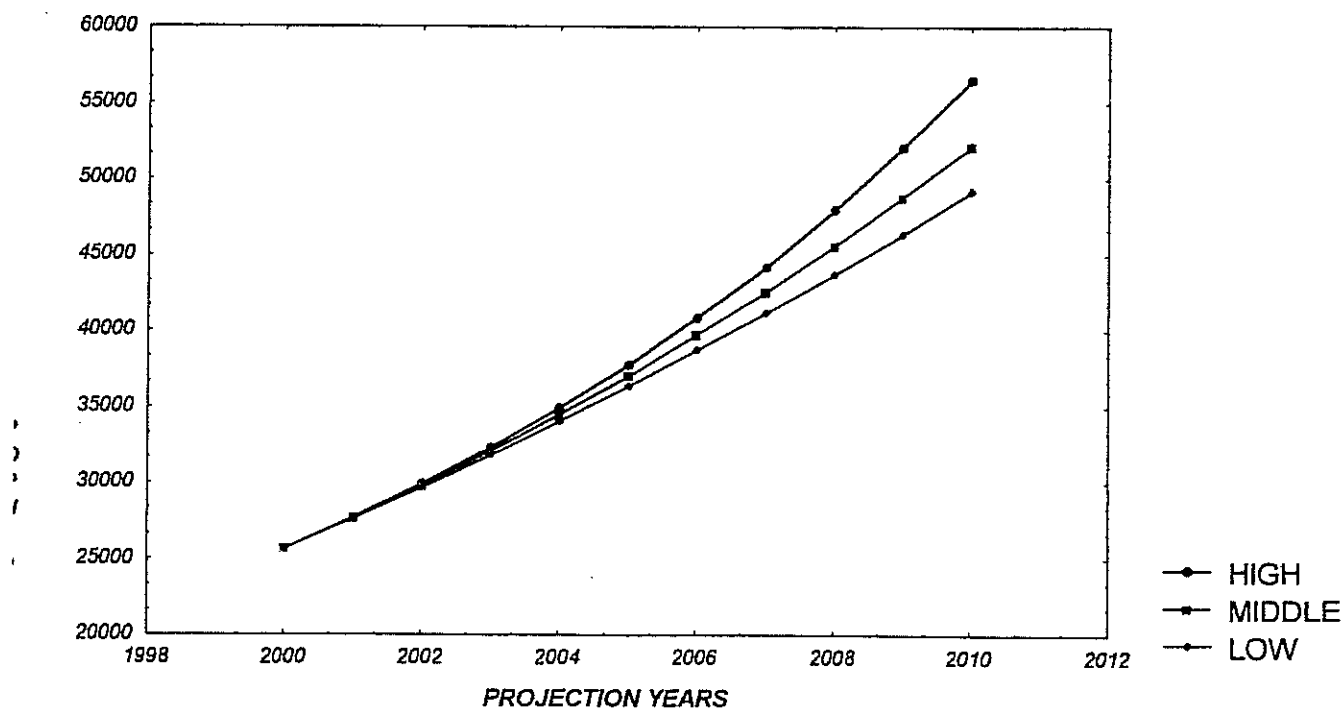
Table 4.1 provides the annual population projections over the projection period for the three variants. The medium variant is the most probable variant which should be used in planning scenarios.

**Table 4.1: Population Projections: 2000 – 2010**

Year	High variant	Medium variant	Low variant
2000	25675	25675	25675
2001	27703	27678	27626
2002	29920	29809	29671
2003	32313	32074	31807
2004	34898	34480	34033
2005	37760	37031	36348
2006	40856	39735	38747
2007	44219	42596	41226
2008	48004	45620	43782
2009	52122	48813	46409
2010	56553	52181	49194

The high variant projects the 2010 population of Katima Mulilo at 56553 resulting in slightly more than doubling of the current population. The medium variant projection is 52181 which is slightly less than double the current population, while the low variant projection for 2010 is 49194. These are graphically depicted in Figure 4.1 below. Planning should therefore, for all practical purposes, provide for a doubling of the population over the projection period.

**FIGURE 4.1: GRAPHIC  
POPULATION PROJECTIONS: KATIMA MULILO**



## SECTION 5: INCOME AND AFFORDABILITY

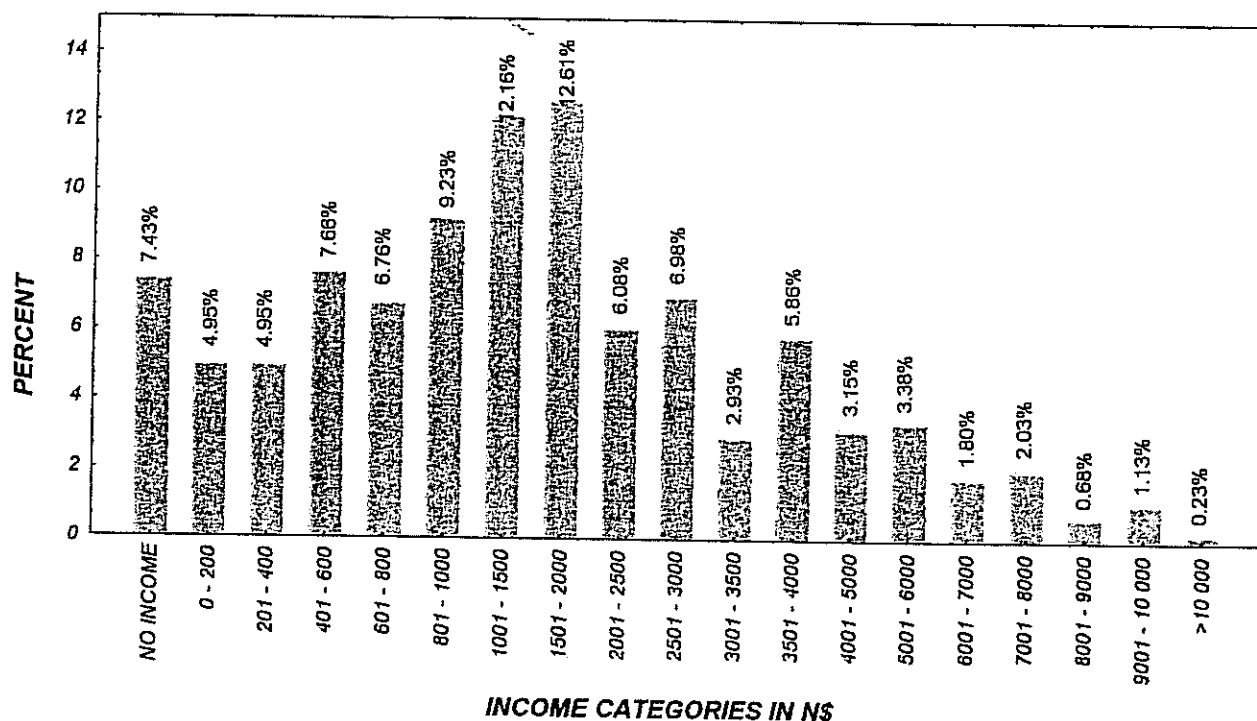
### 5.1 Introduction

Perhaps the most important planning information is related to income levels of beneficiaries for which plans and programmes are to be prepared. From available data, affordability levels have been calculated and used as a basis for planning. Although accurate data on household incomes is difficult to obtain, experience has shown that the method used in this survey provides adequate data for planning. Income data were recorded based on categories on separate sheets provided to respondents. This was done to distance interviewers from the responses where necessary. Responses were mostly backed by salary advice sheets on individual incomes with only a few respondents refusing to supply information.

### 5.2 Household Income Profile

Figure 5.1 shows the monthly household income distribution of the sample population. As is clear from the table, some 41 % of households earn less than N\$1000 per month, with 7.43 % having no income whatsoever. They survive from remittances received from other family members. Some 158 of the 483 surveyed households received remittances from family members. The average amount received is N\$294 per month. Only 28 % have a household income in excess of N\$2500 per month.

**FIGURE 5.1: MONTHLY HOUSEHOLD INCOME DISTRIBUTION**

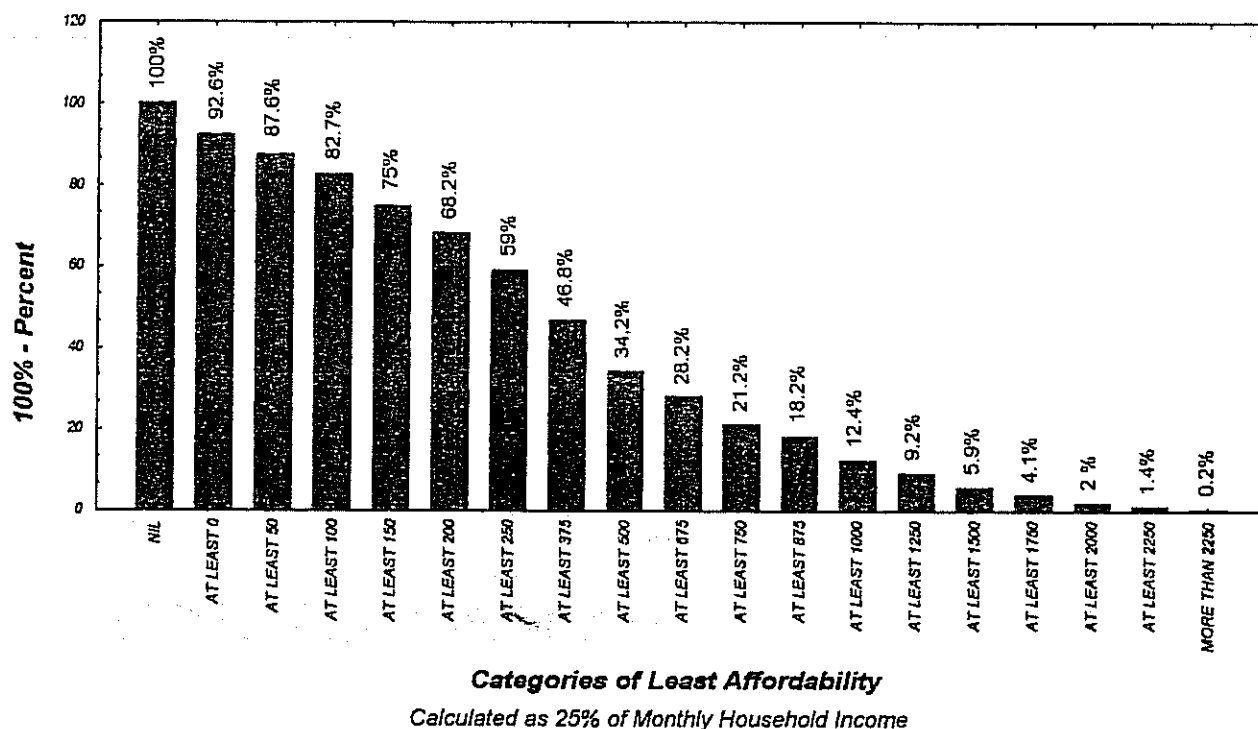


Generally, the income levels for Katima Mulilo are relatively high. This is mainly due to the high proportion of people working in the public sector. 53.81 % of heads of household and 19.54 % spouses are employed in the public sector. Some 9.38 % of the sample population aged 15 years and older indicated that they are self employed.

### 5.3 Levels of Affordability

If affordability towards the provision of housing is regarded as 25 % of monthly household income, the levels of housing affordability of the sample population can be depicted as follows:

**FIGURE 5.2: CATEGORIES OF LEAST AFFORDABILITY**



A total of 12.4 % of households can only afford less than N\$50.00 per month for housing. Some 59 % can afford to pay at least N\$250 per month, while 21.2 % can afford to pay N\$750 or more towards housing.

To put this into perspective, Figure 5.3 shows the link between affordability levels and housing levels. According to the affordability distribution, 32 % of households can only afford upgraded informal housing with a payment of between N\$0 and N\$200 per month. Some 14.5 % can afford upgraded and formalised self-build housing costing between N\$200 and N\$300 per month while 39.5 % can afford low-income high density housing with a monthly payment of between N\$300 and N\$750. A further 11.5 % of households can afford conventional medium density housing costing between N\$750 and N\$2000 per month. Only 2.5 % can afford monthly repayments in excess of N\$2000.

The above reflects the levels of affordability of housing options based on the current income profile of Katima households.

An investigation into the income profiles of households in which the head moved to Katima Mulilo over the past two years reveals that there are no significant deviation from the mean income of all households. The mean monthly income of all heads of household is N\$1739.77. The mean income of heads who have lived in Katima for less than one year is N\$1708.50. The mean income for heads who have resided in Katima for between one and two years is slightly higher at N\$2108 per month.

It may therefore be predicted that future affordability levels will remain much the same as the current profile with only inflation influencing the proportions of the categories.



