



REPUBLIC OF KENYA

# **Analytical Report on Housing Conditions and Household Amenities**

**Volume X**



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# **Kenya 1999 Population and Housing Census**

## **Analytical Report On Housing Conditions and Social Amenities Volume X**

**Central Bureau of Statistics  
Ministry of Finance and Planning  
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## Foreword

The Kenya 1999 Population and Housing Census was the fourth to be carried out since independence and the sixth since 1948 when the first census was conducted in Kenya. It was carried out on a de facto basis with the night of 24/25 August being taken as a reference date under the provision of the Statistics Act (Cap. 112) of the Laws of Kenya and Legal Notice No. 121 of 11 September 1998 and amendment No. 25 of 22 February 1999.

The main objective of this census was to collect demographic and socio-economic data required for policy formulation and decision making in planning processes. This objective was emphasized by the 1999 census theme, "Counting Our People for Development". Basic results of the 1999 census were published in Volumes I and II in January 2001. This second set comprising nine analytical reports addresses topics of Fertility and Nuptiality, mortality, migration and urbanization, population projections, education, Labour force, housing and gender dimensions. Highlights of the demographic indicators are presented in the Population Dynamics monograph.

Preparation of the analytical monographs involved collaborative efforts of both local and external experts, the Population Studies and Research Institute (PSRI), and various government ministries and departments. The monographs were authored under supervision of a lead consultant. The authors and consultants were recruited on competitive basis, ensuring that such persons had adequate knowledge of the subject they were to analyse and were familiar with Kenya demographic data. For the first time, university students in demography were attached to lead monograph authors.

Scanning technology was used for the first time to capture census data. This method reduced the data processing period to a record 6 months. In an effort to achieve internal consistency and minimise errors to acceptable levels, rigorous editing and validation of the data were carried out before analyzing the results. The information presented in these reports is therefore based on more cleaned data sets, and is to be preferred in case there are differences in the results published in Volumes I and II.

This monograph analyses the housing and social amenities data collected during the 1999 census. The results show that the median household size decreases slightly from 4.0 persons in 1989 to 3.6 persons in 1999. Over the same period, the percentage of female-headed households increased from 35.0% to 36.7%. There were 10.4 million dwelling units, out of which 81.5% were in the rural areas. The quality of housing has improved over the last 10 years as reflected by an increasing proportion of dwelling units with iron roofs and a declining proportion of units roofed with grass and *makuti*. The results further show that the majority of households use water from rivers and streams and the proportion of households with access to electricity for lighting improved from 8.7% in 1989 to 13.5% in 1999.

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## **Acknowledgement**

The Kenya 1999 Population and Housing Census, with the theme "counting our people for development", was conducted in August 1999. It was the sixth national census, after those conducted in 1948, 1962, 1969, 1979 and 1989. Provisional results were released in February 2000, and basic reports were subsequently released in two volumes in January 2001 after a rigorous data processing exercise. This monograph is one of the nine that are a culmination of an ambitious, synchronized and all-inclusive in-depth analysis process addressing various topical areas regarding the demographic, social and economic profiles of the Kenyan population.

The census, being an enormous, complex and costly operation, was accomplished through concerted efforts of many organizations, institutions, government ministries and individuals who assisted in a variety of ways to prepare, collect, compile, process, analyze and publish the results. The Government of Kenya, through the Central Bureau of Statistics of the Ministry of Finance and Planning, wishes to thank them all for their inputs into this noble process.

The Government extends sincere gratitude to the development partners, particularly United Nations Population Fund (UNFPA), United Nations Development Programme (UNDP), United States Agency for International Development (USAID) and the Department for International Development (DFID) for providing technical and/or financial support. Very special thanks are extended to UNFPA and DFID for providing further technical and financial support for the compilation and dissemination of the nine monographs, and also to USAID, in collaboration with the United States Bureau of the Census, for supporting further data processing and the compilation of two sets of United Nations style tables and a census data sheet.

Further gratitude is due to the authors of the nine monographs, the technical support staff and other national and international professionals for their commitment and tireless efforts to successfully undertake the in-depth analysis exercise. Last but not least, all Kenyans deserve special thanks for their patience and willingness to provide the requisite information.

We sincerely hope that the data contained in this monograph will be fully utilized in the national development planning process by all stakeholders for the welfare of the people of Kenya.

**David S. O. Nalo**  
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## **Executive Summary**

It has been evident in Kenya over the years that there are serious data gaps in the housing sub-sector. Apart from the 1983 Urban Housing Survey and the 1989 and 1999 Population and Housing Censuses, there have not been any surveys and related statistical inquiries conducted. Other data collection instruments, which could be used to supplement census results, have also not functioned well over the years. Instruments such as the records of approvals and completions of buildings in the various local authorities have not been up-to date and therefore cannot provide statistics on recent housing developments and the types and sizes of the houses constructed.

The available information on housing and shelter is not always in a format consistent with the needs of various partners in shelter development including international agencies such as the UN-HABITAT (United Nations Human Settlements Program) among others. It is in recognition of this void that attempts have been made in producing this volume to publish the results in a format that is consistent with the expectations of users of housing data. Attempts have been made in this analysis to generate information at city level to facilitate the constitution of the National Urban Observatory for Kenya in line with endeavors at the international level to generate information for the Global Urban Observatory of the UN-HABITAT. It should be noted that the urban data presented in this volume covers only the core urban components of the centres and not the local authority boundaries which in some cases include rural areas.

Results of the Kenya 1999 Population and Housing Census reveal that the composition and structure of households in the country has remained consistent in the last ten years. Household heads at the national level were aged 25 - 29 years. The female-headed households accounted for 36.7 percent of households. Nyanza, Western and Eastern provinces recorded the highest percentage of female-headed households. The mean and median household sizes at the national level stood at 4.44 and 3.56 respectively.

Dwelling unit counts reflected a concentration of the housing stock in rural areas as opposed to urban areas: 10.4 million dwelling units were recorded out of which 81.5 percent were in the rural areas. The average room per dwelling unit was 1.74, the urban areas recording 1.65 rooms per dwelling unit. In terms of congestion measured by number of persons per room, an average of 1.55 persons per room was reported at the national level while the urban areas reported 1.72 persons per room indicating higher congestion in urban areas. Most households occupied single rooms especially in the urban areas where 58.9 percent of households resided in single rooms. Majority of urban households preferred single rooms partly due to high rents associated with dwelling units with two or more units.

It was evident that most households (74.9 percent) in the urban areas are renters while in the rural areas, most households (87.3 percent) own their dwellings, a majority of which are constructed. Public housing accounted for only 4 percent of the dwellings at the national level. Most of the public housing are concentrated in the urban areas. A very

small proportion of households (3.8 percent) lived in purchased dwellings, indicating inability of most households to purchase dwelling as a result of high house prices.

The construction materials for most dwellings units were conventional, notably; iron sheets and cement. For roofing materials, most households (63.9 percent) reported iron sheet roofs reflecting an improvement over the 51.5 percent recorded in 1989. Grass thatched roofs significantly reduced from 40.2 percent of households recorded in 1989 to 24 percent of households in 1999, reflecting a shift to better roofing materials owing to environmental conditions that have made grass unavailable in most parts of the country. Interestingly, 46.6 percent of households at the national level had mud/wood walls. A substantial proportion, i.e. 14 percent, 12 percent and 11.5 percent, lived in brick/block, stone and wood only walls respectively. The floor materials for most households were basically cement and earth; 35 percent of households had cement floor at the national level compared to 63 percent with earth floor.

On social amenities, there was no improvement in the proportion of households with access to piped water implying that attaining the goal of "water for all by the year 2000" has remained elusive. Only 30 percent of households had piped water connection in 1999 compared to 31.9 percent recorded in 1989. Coast province had the highest percentage (52.4) of households with access to piped water; this may be attributed to the fact that coast province is more urbanized compared to the other provinces except Nairobi. On sanitary facilities, 82.6 percent of households had access to decent sanitary facilities (defined in this context to mean access to main sewer, septic tank, cess pool and pit/bucket latrines) at the national level. Improvements were recorded in access to main sewer and pit latrines between 1989 and 1999 attributed to implementation of health programs over the period with a focus on sanitary. Nairobi, Central and Western provinces recorded a better access to decent sanitary facilities while North Eastern province recorded a poorer access to decent sanitary facilities.

Considering lighting and cooking fuels, there was marked dependence on paraffin. For lighting, 77.7 percent of households used paraffin lamps (tin lamp, pressure lamp and lanterns) at the national level slightly below 81.1 percent recorded in 1989. Access to electricity for lighting improved from 8.7 percent in 1989 to 13.5 percent of households in 1999. The proportion of households using electricity for lighting in urban areas was 40.0 percent compared to only 3.8 percent in the rural areas. The main cooking fuel for majority of households (68.6 percent) at the national level was firewood with a significant proportion (88.4 percent) in the rural areas. Paraffin and charcoal were the dominant source of cooking fuel in major towns

The Kenya 1999 Population and Housing Census results confirmed that while there is greater proportion of the housing stock in rural areas, there are more serious quality problems in these areas than there is in the urban areas. Only 8.1 percent of households in the rural areas lived in housing described as either of high or good quality compared to 66.2 percent in the urban areas. Nairobi, Central and Coast provinces had relatively better housing quality as compared to other regions.

The results of the Census with regard to the indicators covered is consistent with socio-economic developments observed since 1989 e.g. using levels of poverty, declining household incomes. Observed improvements in some areas seem to be the result of policy interventions that were implemented over the last ten years.

# **Chapter 1**

## **Introduction**

### **1.1 Background**

Population and housing censuses are principal means of collecting basic population and housing statistics as part of an integrated program of data collection and compilation. The censuses provides a comprehensive source of statistics required for social and economic development, for assessing conditions in human settlements, and for use in policy making, planning and for research purposes. The collected data also facilitates comparison over time and to monitor and evaluate progress made in policy interventions. The Kenya Population and Housing Census 1999 was the fourth census to be carried out in the country since independence. It collected data on a variety of demographic attributes including data on housing and social amenities. Housing data collected during the census could be supplemented by the current building and construction statistics generated from the administrative records to assess the housing conditions in the country. These can be complemented by other related survey results, for instance, welfare survey. Since no comprehensive housing census or surveys have been conducted in the recent past, data contained in this monograph provide the basic framework within which other housing indicators can be derived, comparisons can be made, housing indices computed and further statistical inquiries or surveys planned. It should be understood that the urban data presented in this report only covers the core urban (Enumeration Areas that were mapped as codes 2 and 4) and not local authority boundaries.

### **1.2 An Overview of Housing Standards in Kenya**

The quality of housing in Kenya is governed by the Building Code and the Public Health Act which specify the building standards that should be observed. The building by-laws and planning regulations are thus a pre-requisite for safe, healthy and sustainable living environments. In the past few years there has been laxity in the enforcement of both the building code and the public health act leading to poor housing standards. This situation is particularly worse in urban areas where there has been very limited adherence to regulations. None adherence to the existing code has lately given credence to the need to enacting a comprehensive housing act that would effectively consolidate the enforcement of housing standards especially in urban areas. Unfortunately, the existing pieces of legislation that regulate the housing sector are administered by different arms of the government, making it difficult to effectively coordinate and regulate the building sector.

In the recent past, the safety issues as well as poor environmental and housing conditions in slum and informal settlements have been of great concern to both the government and other partners in shelter and human settlements development. Residents of these settlements are exposed to extreme environmental and health risks.

The up-grading efforts currently underway should adequately address the issues of standards in line with the existing instruments.

In December 1996, following the disaster arising from the collapse of a commercial building in the city centre, His Excellency, the President constituted a commission to examine the building laws, by-laws and regulations. The Commission's report entailed a proposal on the setting up of an authority to guide the building sector.

After assessing the local situation and identified problems as well as possible solutions, the commission made comparative studies internationally to understand the safety of built environments. Based on local evaluation and comparative studies internationally, the commission held the view that comprehensive review of building laws and control mechanisms as opposed to piecemeal reviews and amendments would be desirable. The commission thus recommended that:

- a comprehensive legislation be put in place to guide the building sector;
- an independent Planning and Building Authority be established; and
- up-to date building regulations be adopted and enforced

The commission observed that there were serious problems of enforcement of building regulation and that there were buildings that did not meet the required building standards as set in the building by laws of local authorities. There were also specific concerns about the safety of residential buildings in particular estates in Nairobi that were mentioned in the report. Thus, the commission's findings were extensive and comprehensive enough to guide the building sector into the millennium.

### **1.3 Overview of the Housing Policy of Kenya**

The main objective of the Government over the past years has been to provide an enabling environment to promote the development and provision of housing to its population both in the urban and rural areas. Adequate shelter entails houses and the related facilities as well as supportive and facilitative infrastructure and services all developed within sustainable living environments. This explains why housing is a very important component of sustainable development. Thus, adequate housing improves health and environmental standards, reflects improved living standards and also stimulates economic growth through increased investment and employment generation. Access to quality and affordable housing is therefore a credible indicator of poverty levels and welfare status of a given population.

To achieve the above objective, the Government has endeavoured over the years to review its policies and programmes with a view to addressing the shelter needs and challenges of its citizens. Based on a report prepared by a UN mission commissioned by the Government of Kenya in 1964, the government prepared the first post-independence *Housing Policy - Sessional Paper No. 5 of 1966/67*. Although the Policy has been overtaken by socio-economic developments, it remains the official housing policy document. However, since the beginning of 1990s, the government has put in place a process to review the Housing Policy. This process has culminated in a draft housing policy, which has since been approved by the Cabinet and passed to Parliament for consideration. The relevant committee of Parliament has also considered the draft.

Meanwhile, final consultations are underway in translating the draft into a Sessional paper.

Some of the issues addressed by the draft housing policy that have emerged since 1967 include among others:

- Up-grading of slums and informal settlements
- Housing needs of vulnerable groups
- Legislative and institutional regimes that affect the housing sector
- Disaster management and preparedness in human settlements
- Infrastructural development
- Appropriate building materials and technologies
- Innovative sources of housing finance such as the secondary mortgage markets

Besides this attempt to revise the official housing policy document, the Government has from time to time articulated housing policy matters through other policy instruments such as the development plans, sessional papers and Poverty Reduction Strategy Paper among others. This has also been done in various form including the Habitat II Conference (the Second United Nations Conference on Human Settlements) held in Istanbul, Turkey in June 1996, when Kenya National Plan of Action on Shelter and Human Settlements was presented.

#### **1.4 Constraints to Housing Development**

Housing development in Kenya over the years has been constrained by various factors, mainly land, finance, building materials and the regulatory system. These factors have hindered housing development with varying degrees in urban and rural areas. In the urban scene, the main hindrances have been land, finance and the regulatory systems while in the rural areas the problems revolve around finance and building materials.

**Access to housing finance:** The housing finance system in Kenya has evolved since independence from a public-steered one to private sector led. In the post-independence period the main players in housing finance were National Housing Corporation (NHC) and Housing Finance Company of Kenya (HFCK). Currently, there are over four housing finance institutions. These housing finance institutions have, however, not been able to adequately respond to the housing needs of most Kenyans especially the middle and low income both in urban and rural areas and have remained inaccessible to most potential home owners. They have concentrated their services in major urban areas excluding small urban centres and rural areas where the majority of the population live. The main factors that have contributed to this scenario include:

- Very high interest rates that make mortgage servicing beyond the reach of most people.
- Insistence of these institutions on collateral especially land.
- Non-acceptance by the financiers of appropriate building material and technologies.
- Legislative instruments such as the Retirement Benefits Act that inhibit the use of pension funds in housing development.

It is worth noting that the services of most of these housing finance institutions have tended to be geared towards home ownership, ignoring the potential role that can be played by housing finance for rental housing. This is despite the fact that census results since 1989 have shown that most households especially in urban areas are renters.

**Land and infrastructure:** Land has been a major constraint to housing development mainly in urban areas. The land factor in urban areas has been worsened by the fact that most public land reserves have dwindled and are now almost exhausted. This scenario has contributed to such a significant rise in prices of serviced land in urban areas to an extent that the land prices contribute even up to 20 per cent of house prices, and even more in some cases. Most of the available land in urban areas are under the local authorities; lacks planning and basic infrastructure and is located far from the work places. The slow pace of processing land documents, especially in urban areas, has also affected housing development. It is therefore important that partnerships emerge between the key players: the Housing Department, the Association of Housing Finance and Building Societies, the Local Authorities, Physical Planning Department and the Commissioner of Lands. Such partnerships could spur innovative approaches to issues pertaining to land for housing development. The current infrastructural network of roads, sewers, drains especially in urban areas cannot adequately support redevelopment and expansion of housing estates; nor has it facilitated the full participation of the private sector in housing development and investment.

**Building materials:** The cost of conventional building materials in Kenya in the wake of macro economic liberalization has comparatively been high thus impacting negatively on both quality and quantity of housing developed in urban and rural areas. This has contributed to slow growth in housing development. Although efforts have been undertaken by various partners in the building sector to advocate for enabling housing standards, most local authorities have not fully embraced the revised building by-laws and regulations that recognize use of low-cost building materials and technologies.

**Regulatory instruments:** Some regulatory instruments in place have hindered housing development. In particular, some legislative interventions have negatively affected housing development. These legislative impediments include the Banking Act, Retirement Benefit Act and the Land Act among others.

**Inadequate information:** Inadequate information on innovative building technologies for cheap and affordable housing as well as comprehensive information (data) on the housing sector continues to hinder development in the sector. Since the 1983 Urban Housing Survey, no other survey has been conducted to provide comprehensive data required for planning and policy formulation and revision in housing development. As a result of this void, the housing markets are not fully understood by most players and thus investments are either misdirected or insufficient.

**Government budgetary allocation:** Government austerity measures coupled with reduction in foreign development support have contributed to minimal public sector investment in housing. The budgetary allocation through the exchequer for housing development has not only been inadequate but also declining. The inadequate budgetary allocations has also affected the operations of the National Housing

Corporation (NHC), the main Government agency charged with the responsibility of implementing Government housing policies and programs, especially for the low and middle-income households.

### **1.5 The Kenya Population and Housing Census 1999**

The census was conducted using a single schedule. This enabled the information on population and housing to be matched and relate housing census data to information on demographic and other socio-economic characteristics of the households. This approach reduced burden on the respondent's time and also reduced the cost of the census operations. In the early stages of the census preparations, key users of the census housing data provided useful contributions to the information most required for assessing housing conditions and formulation of housing programmes. The questionnaire included recommended topics for housing census aimed at meeting national needs and international comparison. The 1999 census contained two questions about number of dwelling units and rooms not considered during the 1989 census. It is worth noting that although the information generated from the 1999 census will greatly enrich the existing information on housing, this analysis could not be undertaken up to the level of slums/informal settlements. This is because the enumeration areas that fall within these settlements were not uniquely coded during the mapping exercise. The details of the questions covered are contained in part D of the census questionnaire (see Appendix I).

### **1.6 International Developments in Shelter and Human Settlements**

Kenya like many developing countries has been experiencing rapid urbanization, which has over-stretched urban services. The effect of this has been the increased population living in informal settlements without access to basic services, a situation compounded by exacerbating absolute poverty. This trend has given credence to the approach in international forum such as the United Nations that the challenge of sustainable development has more to do with how we manage our cities and towns and the resultant rural urban linkages. This approach encompasses housing management as part of the wider attempt to manage our cities, towns and villages.

Habitat II Conference (the Second United Nations Conference on Human Settlements) held in Istanbul, Turkey in June 1996, adopted the Istanbul Declaration and the Global Plan of Action on Shelter and Human Settlements, otherwise referred to as *The Habitat Agenda*. The Habitat Agenda aptly captures the challenges of urbanization thus "According to projections, by the turn of the century, more than three billion people - one half of the world's population - will live and work in urban areas..." (Habitat Agenda para 8). The Habitat Agenda rightly enumerates the challenges of this reality among them being spreading homelessness and expansion of squatter settlements, increased poverty, growing insecurity and crime rates, inadequate and deteriorating building stock and infrastructure, environmental degradation, increased vulnerability to disaster and uncoordinated development.

It is in recognition of these challenges posed by rapid urbanization that the world leaders assembled at the Millennium Summit of the United Nations General Assembly in New York, adopted the Millennium Declaration. The Millennium Declaration included a target of achieving by the year 2020, a significant improvement in the lives of at least 100 million slum dwellers, as proposed in the "Cities Without Slums Initiative".

### 1.7 Evaluation of Data

The data on housing and related social amenities were obtained from responses from either the household head or the most responsible member of the household. In some instances, the enumerator could obtain the required data for floor finish as well as wall and roof materials by observation. From the results, there are indications that the responses were genuine and accurate given that most of the questions were not personal and responses could be easily be verified by the enumerator. A few inappropriate responses might have been caused by conceptual difficulty on the part of the respondent; for instance cases of *reeds* as opposed to *wood* for walls, *well* as opposed to *borehole* for water and *cess pool* as opposed to *sewer* for sanitation.

The results of the 1999 census can be described as largely accurate owing to the fact that the indicators were consistent with the last census and other surveys such as the Welfare Monitoring Survey. The resultant indicators were also consistent with existing international estimates in United Nations publications especially for Africa and developing countries.

### 1.8 Definitions

**Conventional Households:** usually consist of a person or a group of persons who live together in the same homestead/compound but not necessarily in the same dwelling unit, have common housekeeping arrangements, and are answerable to the same household head. It is important to note that members of a household are not necessarily related (by blood or marriage).

**Dwelling unit:** This is a place of abode or residence occupied by one or more households with a 'private entrance'. For the purposes of the census, a dwelling unit is a structure that a household uses for sleeping, eating and entertaining guests.

**Habitable Room:** This is a room in the dwelling units that are used mainly for living and exclude stores, granaries, offices, toilets and garages.

**Spring:** A place where water springs from the earth.

**Well:** A human-made shaft dug in the ground from which water is obtained. Water is drawn using buckets.

**Borehole:** Same as the well as defined above but deeper than a well and has pump for drawing the water into a tank, buckets etc.

**Piped water:** this is water drawn through pipes installed in a dwelling unit and originally in a central (public) source.

**Main sewer:** Sewerage and liquid waste from the structure is drained by pipes into a main trunk sewer-line. This type of sewage disposal is common in a number of urban centres.

**Septic tank:** A tank into which an individual household's sewage is conveyed and remains there until it is emptied.

**Cess pool:** A pool where liquid waste is drained into communally from the dwelling until before it is emptied.

**Urban centre/town:** These two words will be used inter-changeably in this report and refers to areas/ Enumeration Areas that were mapped as urban by the Cartographic Section of the Central Bureau of Statistics. It should be noted that reference to towns/urban centers in this report is not necessarily congruent to the local authority boundaries.

**Makuti:** This is a building material from the grass family that is longer and thicker and is common in the coastal region of Kenya. It is mostly used for roofing.

**Rented housing:** This refers to housing that is not owned by the occupant but is rented from the owner (public or private) normally at a given fee for a specified period. This kind of housing is common in the urban areas.

**Owned/owner occupied housing:** This refers to houses whereby the owners are at the same time the occupants.

**Public housing:** This refers to housing that has been developed and managed by the public sector mainly the central government, local authorities or parastatals.

**Private housing:** This refers to houses that have been developed and managed by a private entity either individual or corporate.

## **1.9 Methodology**

The field of housing and related information has not benefited from time tested analytical techniques and models, as has been the case with the demographic fields, particularly fertility and mortality. In the absence of appropriate analytical techniques and models, basic cross-tabulation and indirect as well as direct methods of analysis were applied in this monograph.

## **1.10 Organization of the Report**

The report is arranged into eight chapters. Chapter 1 presents the introduction covering an overview of housing standards in Kenya, overview of housing policy of Kenya, constraints to housing development, international dimensions of shelter and human settlements development, and definitions used. Census findings are presented in chapter 2 through 8. Chapter 2 presents results on housing and household characteristics. Chapter 3 analyses the housing stock by tenure. Chapter 4 discusses housing quality by construction materials. Chapter 5 focuses on housing quality by basic social amenities such as water, sanitation, lighting fuel and cooking fuel. Chapter 6 presents an analysis based on a consolidated approach to housing quality using house rank quality indices. Chapter 7 summarizes an assessment of Kenya's housing policy challenges. Chapter 8 presents conclusions and recommendations. Finally, appendices including tables follow.

## **Chapter 2**

### **Housing and Household Characteristics**

The composition of households determines the adequacy of a house in which they live. For instance, households with certain ages of children and of certain sizes will not be adequately catered for in a dwelling unit consisting of a single room. There is therefore an inter-linkage between the compositions of households and the housing characteristics of the dwelling in which they live. It is against this background that various aspects of housing and household characteristics are discussed together in this chapter.

#### **2.1 Household Characteristics**

Household composition and structures form the main basis for determining housing needs as well as other related social amenities and infrastructure. Provision and planning for urban services such as water, sanitation and housing should be able to cope with the rate at which households form and grow in order to achieve sustainable development.

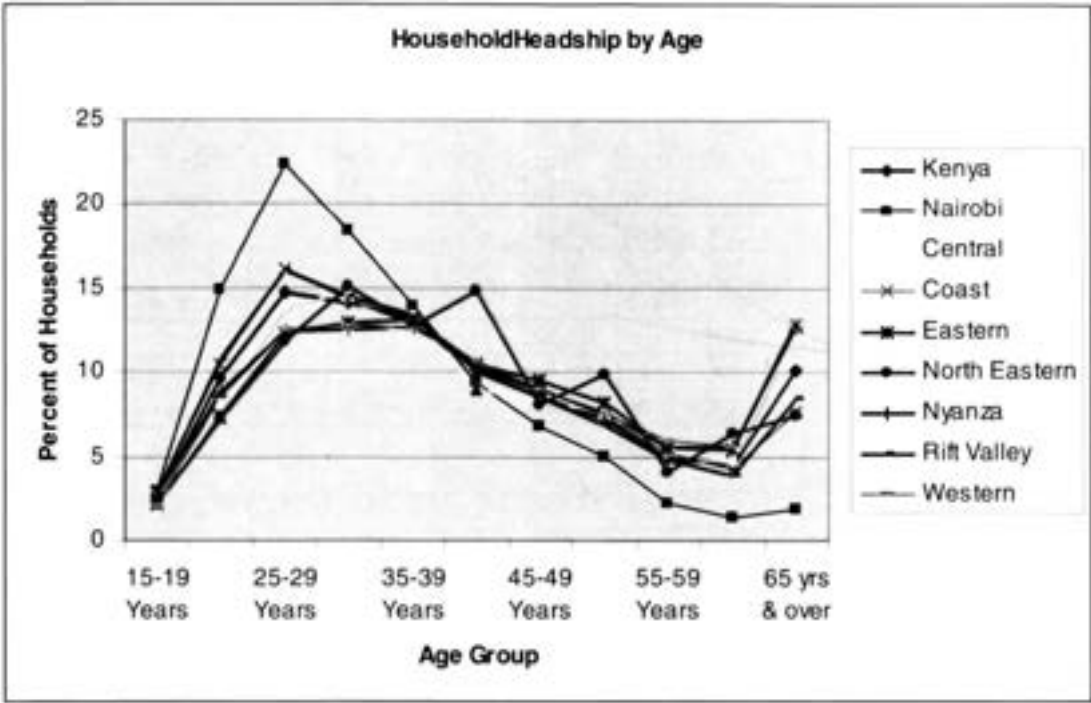
##### **2.1.1 Household Heads by age and sex**

Analysis of household heads by ages indicate that most of the provinces displayed uniform trends in headship through the age groups, with most provinces recording majority heads in ages 25 - 39 years. This was also consistent with the national figures, which recorded majority heads in ages 25 - 29 years; however, Nairobi and North Eastern Provinces displayed slight variations on this trend (figure 2.1). For Nairobi headship peaked at ages 25 - 29 years and diminishes at age group 45 - 49 years. The latter is attributable to heavy out migration trends for advanced ages and the former to high in-migration at lower ages in the province. On the other hand, North Eastern Province registered a higher percentage of headship for age groups 40-44 and 50-54 compared to the other provinces and national trends this may not be easily explained but may be attributed to age distribution in the province, (see Table 2.1.)

Table 2.1 Distribution of Households by Age and Sex

| Province      | Sex    | 15-19<br>Years | 20-24<br>Years | 25-29<br>Years | 30-34<br>Years | 35-39<br>Years | 40-44<br>Years | 45-49<br>Years | 50-54<br>Years | 55-59<br>Years | 60-64<br>Years | 65 yrs &<br>over | Total     |
|---------------|--------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|------------------|-----------|
| Kenya         | Total  | 157,992        | 606,057        | 931,177        | 893,983        | 829,518        | 641,375        | 542,269        | 458,383        | 314,061        | 285,375        | 641,635          | 6,301,825 |
|               | Male   | 79,975         | 356,279        | 612,229        | 600,054        | 546,287        | 422,802        | 354,979        | 295,894        | 194,288        | 168,483        | 360,287          | 3,991,557 |
|               | Female | 78,017         | 249,778        | 318,948        | 293,929        | 283,231        | 218,573        | 187,290        | 162,489        | 119,773        | 116,892        | 281,348          | 2,310,268 |
| Nairobi       | Total  | 19,098         | 95,399         | 143,578        | 118,209        | 89,466         | 60,434         | 44,293         | 32,346         | 14,574         | 9,053          | 12,478           | 638,928   |
|               | Male   | 11,372         | 66,473         | 108,593        | 92,241         | 69,591         | 47,476         | 34,987         | 25,867         | 11,365         | 6,892          | 8,512            | 483,369   |
|               | Female | 7,726          | 28,926         | 34,985         | 25,968         | 19,875         | 12,958         | 9,306          | 6,479          | 3,209          | 2,161          | 3,966            | 155,559   |
| Central       | Total  | 18,463         | 75,106         | 127,519        | 133,369        | 121,402        | 82,170         | 74,480         | 69,208         | 48,246         | 44,402         | 118,395          | 912,760   |
|               | Male   | 9,954          | 43,670         | 82,811         | 89,385         | 79,882         | 54,280         | 48,523         | 44,970         | 29,350         | 25,578         | 61,035           | 569,438   |
|               | Female | 8,509          | 31,436         | 44,708         | 43,984         | 41,520         | 27,890         | 25,957         | 24,238         | 18,896         | 18,824         | 57,360           | 343,322   |
| Coast         | Total  | 14,423         | 53,890         | 83,548         | 74,423         | 66,837         | 54,194         | 47,374         | 38,168         | 26,954         | 21,725         | 39,511           | 521,047   |
|               | Male   | 7,727          | 34,324         | 59,675         | 54,484         | 47,556         | 37,416         | 33,583         | 26,361         | 18,938         | 14,450         | 27,294           | 361,808   |
|               | Female | 6,696          | 19,566         | 23,873         | 19,939         | 19,281         | 16,778         | 13,791         | 11,807         | 8,016          | 7,275          | 12,217           | 159,239   |
| Eastern       | Total  | 21,111         | 69,582         | 116,582        | 123,156        | 125,121        | 100,444        | 90,362         | 78,007         | 53,022         | 51,789         | 121,389          | 950,565   |
|               | Male   | 10,569         | 35,348         | 68,217         | 76,728         | 78,073         | 63,022         | 56,608         | 48,302         | 32,857         | 31,302         | 71,968           | 572,994   |
|               | Female | 10,542         | 34,234         | 48,365         | 46,428         | 47,048         | 37,422         | 33,754         | 29,705         | 20,165         | 20,487         | 49,421           | 377,571   |
| North-Eastern | Total  | 3,096          | 10,592         | 17,269         | 22,105         | 18,745         | 21,726         | 11,763         | 14,557         | 6,022          | 9,292          | 11,009           | 146,176   |
|               | Male   | 1,123          | 6,069          | 11,732         | 15,643         | 13,570         | 16,002         | 8,909          | 9,896          | 4,459          | 6,298          | 7,312            | 101,013   |
|               | Female | 1,973          | 4,523          | 5,537          | 6,462          | 5,175          | 5,724          | 2,854          | 4,661          | 1,563          | 2,994          | 3,697            | 45,163    |
| Nyanza        | Total  | 25,594         | 84,559         | 118,685        | 120,092        | 121,642        | 99,606         | 85,320         | 73,169         | 53,178         | 53,241         | 121,893          | 956,979   |
|               | Male   | 12,118         | 43,881         | 69,610         | 71,925         | 72,565         | 59,630         | 50,535         | 42,994         | 29,421         | 27,486         | 60,362           | 540,527   |
|               | Female | 13,476         | 40,678         | 49,075         | 48,167         | 49,077         | 39,976         | 34,785         | 30,175         | 23,757         | 25,755         | 61,531           | 416,452   |
| Rift Valley   | Total  | 41,777         | 158,173        | 236,912        | 213,495        | 198,514        | 148,393        | 126,582        | 101,018        | 70,814         | 56,939         | 125,737          | 1,478,354 |
|               | Male   | 20,356         | 93,067         | 156,300        | 143,060        | 130,090        | 98,224         | 83,105         | 65,661         | 43,965         | 34,099         | 73,898           | 941,825   |
|               | Female | 21,421         | 65,106         | 80,612         | 70,435         | 68,424         | 50,169         | 43,477         | 35,357         | 26,849         | 22,840         | 51,839           | 536,529   |
| Western       | Total  | 14,430         | 58,756         | 87,084         | 89,134         | 87,791         | 74,408         | 62,095         | 51,910         | 41,251         | 38,934         | 91,223           | 697,016   |
|               | Male   | 6,756          | 33,447         | 55,291         | 56,588         | 54,960         | 46,752         | 38,729         | 31,843         | 23,933         | 22,378         | 49,906           | 420,583   |
|               | Female | 7,674          | 25,309         | 31,793         | 32,546         | 32,831         | 27,656         | 23 366         | 20,067         | 17,318         | 16,556         | 41,317           | 276,433   |

Figure 2.1 Household headships in Kenya, 1999



### 2.1.2 Female Headed Households

The analysis shows that in 1999 female-headed households at national level constituted 36.7 per cent of the total households compared to 35.2 per cent recorded in 1989. This does not reflect a major departure though it implies a slight increase, over the past ten years. Regional proportions by most provinces were close to the national figure, with the exception of Nyanza, Eastern and Western provinces which recorded the highest percentage of female-headed households of 43.5, 39.7 and 39.7 percent respectively. This result compares closely with the 1989 results in which the three provinces recorded 43.5, 39.0 and 38.8 percent respectively. On the other hand, Nairobi recorded the least percentage of female-headed households of 24.3 percent a rise of 5 percentage points from 19.5 per cent recorded in 1989 for the province. The scenario in the four provinces of Nyanza, Eastern, Western and Nairobi tallies with the migration patterns in these provinces: Nyanza and Western provinces registered the highest male out-migration hence the high percentage of female-headed households while Nairobi registered the highest male in-migrants hence the relative lower percentage of female-headed households. The slight increase of female-headed households in Nairobi may be attributed to increased female in-migrants in Nairobi over the past decade as a result of increased job opportunities for women in urban areas (Table 2.2). At district levels, Samburu recorded the highest percentage of female-headed households of 58.0 percent followed by Siaya (54.6 percent) the latter being a well-known out-migration area. Mombasa and Bureti districts recorded the least female-headed households 23.7 and 26.5 percent respectively attributable to non-migration.

Table2.2: Household Headships by Sex, Residence and District

|                  | Male      |      |           |      |           |      | Female    |      |         |      |           |      |
|------------------|-----------|------|-----------|------|-----------|------|-----------|------|---------|------|-----------|------|
|                  | Total     |      | Urban     |      | Rural     |      | Total     |      | Urban   |      | Rural     |      |
|                  | Number    | %    | Number    | %    | Number    | %    | Number    | %    | Number  | %    | Number    | %    |
| Kenya            | 3,951,557 | 63.3 | 1,149,534 | 73.7 | 2,842,023 | 60.4 | 2,310,268 | 36.7 | 449,604 | 26.3 | 1,860,664 | 39.6 |
| Nairobi          | 483,369   | 75.7 | 483,369   | 75.7 | -         | -    | 155,559   | 24.3 | 155,559 | 24.3 | -         | -    |
| Central          | 569,438   | 62.4 | 106,558   | 67.6 | 462,880   | 61.3 | 343,322   | 37.6 | 51,068  | 32.4 | 292,254   | 38.7 |
| Kiambu           | 125,456   | 67.1 | 30,356    | 67.8 | 95,100    | 66.8 | 61,574    | 32.9 | 14,414  | 32.2 | 47,160    | 33.2 |
| Kirinyaga        | 75,599    | 66.6 | 6,020     | 61.8 | 69,579    | 67.1 | 37,839    | 33.4 | 3,720   | 38.2 | 34,119    | 32.9 |
| Murang'a         | 43,805    | 51.9 | 2,172     | 55.7 | 41,633    | 51.7 | 40,663    | 48.1 | 1,727   | 44.3 | 38,936    | 48.3 |
| Nyandarua        | 63,091    | 61.2 | 8,792     | 61.8 | 54,299    | 61.1 | 40,056    | 38.8 | 5,443   | 38.2 | 34,613    | 38.9 |
| Nyeri            | 99,229    | 59.5 | 15,896    | 60.4 | 83,333    | 59.3 | 67,531    | 40.5 | 10,408  | 39.6 | 57,123    | 40.7 |
| Thika            | 111,131   | 65.8 | 41,495    | 74.9 | 69,636    | 61.3 | 57,795    | 34.2 | 13,912  | 25.1 | 43,883    | 38.7 |
| Maragua          | 51,127    | 57.5 | 1,827     | 55.9 | 49,300    | 57.5 | 37,864    | 42.5 | 1,444   | 44.1 | 36,420    | 42.5 |
| Coast            | 361,808   | 69.4 | 178,089   | 74.4 | 183,719   | 65.2 | 159,239   | 30.6 | 61,214  | 25.6 | 98,025    | 34.8 |
| Kilifi           | 58,421    | 65.4 | 12,342    | 68.2 | 46,079    | 64.7 | 30,874    | 34.6 | 5,766   | 31.8 | 25,108    | 35.3 |
| Kwale            | 59,788    | 65.2 | 11,487    | 68.5 | 48,301    | 64.4 | 31,948    | 34.8 | 5,280   | 31.5 | 26,668    | 35.6 |
| Lamu             | 10,296    | 69.4 | 2,427     | 68.2 | 7,869     | 69.8 | 4,538     | 30.6 | 1,130   | 31.8 | 3,408     | 30.2 |
| Mombasa          | 137,692   | 76.3 | 137,692   | 76.3 |           |      | 42,747    | 23.7 | 42,747  | 23.7 |           |      |
| Taita Taveta     | 35,521    | 62   | 7,718     | 66.8 | 27,803    | 60.8 | 21,789    | 38   | 3,834   | 33.2 | 17,955    | 39.2 |
| Tana River       | 22,708    | 63.4 | 2,101     | 67.5 | 20,607    | 63.1 | 13,085    | 36.6 | 1,013   | 32.5 | 12,072    | 36.9 |
| Malindi          | 37,382    | 72.4 | 11,289    | 73.1 | 26,093    | 72.1 | 14,258    | 27.6 | 4,155   | 26.9 | 10,103    | 27.9 |
| Eastern          | 572,994   | 60.3 | 52,447    | 65.3 | 520,547   | 59.8 | 377,571   | 39.7 | 27,913  | 34.7 | 349,658   | 40.2 |
| Embu             | 43,483    | 68.3 | 6,969     | 66.2 | 36,514    | 68.7 | 20,177    | 31.7 | 3,553   | 33.8 | 16,624    | 31.3 |
| Isiolo           | 12,339    | 55.3 | 4,097     | 56.9 | 8,242     | 54.5 | 9,985     | 44.7 | 3,105   | 43.1 | 6,880     | 45.5 |
| Kitui            | 51,436    | 53.3 | 2,848     | 63.4 | 48,588    | 52.8 | 45,131    | 46.7 | 1,647   | 36.6 | 43,484    | 47.2 |
| Makueni          | 79,851    | 55.7 | 5,063     | 63.2 | 74,788    | 55.2 | 63,533    | 44.3 | 2,946   | 36.8 | 60,587    | 44.8 |
| Machakos         | 105,430   | 57.1 | 13,970    | 67.8 | 91,460    | 55.8 | 79,128    | 42.9 | 6,626   | 32.2 | 72,502    | 44.2 |
| Marsabit         | 15,478    | 53.2 | 1,538     | 61.3 | 13,940    | 52.4 | 13,641    | 46.8 | 973     | 38.7 | 12,668    | 47.6 |
| Mbeere           | 21,579    | 58.5 | 517       | 67.8 | 21,062    | 58.3 | 15,294    | 41.5 | 246     | 32.2 | 15,048    | 41.7 |
| Meru Central     | 80,863    | 67.6 | 10,028    | 67.2 | 70,835    | 67.7 | 38,734    | 32.4 | 4,892   | 32.8 | 33,842    | 32.3 |
| Moyale           | 5,934     | 59.2 | 1,072     | 64.9 | 4,862     | 58.1 | 4,083     | 40.8 | 580     | 35.1 | 3,503     | 41.9 |
| Mwingi           | 30,694    | 52.5 | 2,122     | 62.8 | 28,572    | 51.9 | 27,761    | 47.5 | 1,259   | 37.2 | 26,502    | 48.1 |
| Meru North       | 81,443    | 68.4 | 2,852     | 68.9 | 78,591    | 68.4 | 37,567    | 31.6 | 1,286   | 31.1 | 36,281    | 31.6 |
| Tharaka          | 12,682    | 62.9 |           |      | 12,682    | 62.9 | 7,492     | 37.1 |         |      | 7,492     | 37.1 |
| Nithi ( Meru S ) | 31,782    | 67.9 | 1,371     | 63.2 | 30,411    | 68.1 | 15,045    | 32.1 | 800     | 36.8 | 14,245    | 31.9 |
| North eastern    | 101,013   | 69.1 | 13,210    | 59.2 | 87,803    | 70.9 | 45,163    | 30.9 | 9,106   | 40.8 | 36,057    | 29.1 |
| Garissa          | 32,517    | 68.8 | 6,618     | 61.4 | 25,899    | 71   | 14,744    | 31.2 | 4,156   | 38.6 | 10,588    | 29   |
| Mandera          | 30,080    | 66.6 | 4,520     | 57.1 | 25,560    | 68.7 | 15,065    | 33.4 | 3,402   | 42.9 | 11,663    | 31.3 |
| Wajir            | 38,416    | 71.4 | 2,072     | 57.2 | 36,344    | 72.5 | 15,354    | 28.6 | 1,548   | 42.8 | 13,806    | 27.5 |
| Nyanza           | 540,527   | 56.5 | 78,620    | 69.5 | 461,907   | 54.7 | 416,452   | 43.5 | 34,538  | 30.5 | 381,914   | 45.3 |
| Gucha (S KISII)  | 56,793    | 64   | 1,635     | 72.2 | 55,158    | 63.8 | 31,987    | 36   | 628     | 27.8 | 31,359    | 36.2 |
| Homa Bay         | 35,312    | 53.3 | 5,243     | 63.9 | 30,069    | 51.8 | 30,886    | 46.7 | 2,959   | 36.1 | 27,927    | 48.2 |
| Kisii Central    | 61,316    | 61.7 | 4,837     | 71.1 | 56,479    | 61   | 38,116    | 38.3 | 1,968   | 28.9 | 36,148    | 39   |
| Kisumu           | 71,716    | 58.8 | 36,416    | 70.5 | 35,300    | 50.2 | 50,249    | 41.2 | 15,260  | 29.5 | 34,989    | 49.8 |
| Kuria            | 17,101    | 61   | 1,635     | 68.3 | 15,466    | 60.4 | 10,920    | 39   | 759     | 31.7 | 10,161    | 39.6 |
| Migori           | 61,601    | 55.2 | 8,741     | 68.4 | 52,860    | 53.4 | 50,075    | 44.8 | 4,033   | 31.6 | 46,042    | 46.6 |

Contd.

|                    |                |             |                |             |                |             |                |             |               |             |                |             |
|--------------------|----------------|-------------|----------------|-------------|----------------|-------------|----------------|-------------|---------------|-------------|----------------|-------------|
| N. Kisii (Nyamira) | 62,380         | 63.1        | 5,457          | 71.8        | 56,923         | 62.4        | 36,408         | 36.9        | 2,147         | 28.2        | 34,261         | 37.6        |
| Rachuonyo          | 35,484         | 52.5        | 1,582          | 66.4        | 33,902         | 52          | 32,145         | 47.5        | 800           | 33.6        | 31,345         | 48          |
| Siaya              | 53,165         | 45.4        | 3,150          | 59.7        | 50,015         | 44.7        | 63,894         | 54.6        | 2,126         | 40.3        | 61,768         | 55.3        |
| Suba               | 18,756         | 55.5        | 1,525          | 66.6        | 17,231         | 54.7        | 15,019         | 44.5        | 766           | 33.4        | 14,253         | 45.3        |
| Bondo              | 28,917         | 51.6        | 2,109          | 65.3        | 26,808         | 50.8        | 27,116         | 48.4        | 1,121         | 34.7        | 25,995         | 49.2        |
| Nyando             | 37,986         | 56.2        | 6,290          | 76.1        | 31,696         | 53.4        | 29,637         | 43.8        | 1,971         | 23.9        | 27,666         | 46.6        |
| <b>Rift Valley</b> | <b>941,825</b> | <b>63.7</b> | <b>182,656</b> | <b>68.7</b> | <b>759,169</b> | <b>62.6</b> | <b>536,529</b> | <b>36.3</b> | <b>83,180</b> | <b>31.3</b> | <b>453,349</b> | <b>37.4</b> |
| Baringo            | 32,513         | 58.3        | 2,859          | 65.7        | 29,654         | 57.7        | 23,210         | 41.7        | 1,493         | 34.3        | 21,717         | 42.3        |
| Bomet              | 42,936         | 61.3        | 1,126          | 71.1        | 41,810         | 61.1        | 27,057         | 38.7        | 457           | 28.9        | 26,600         | 38.9        |
| Keiyo              | 20,083         | 67          | 788            | 66.4        | 19,295         | 67          | 9,893          | 33          | 399           | 33.6        | 9,494          | 33          |
| Kajiado            | 59,284         | 62.1        | 16,788         | 71.1        | 42,496         | 59.2        | 36,153         | 37.9        | 6,815         | 28.9        | 29,338         | 40.8        |
| Kericho            | 69,262         | 70.9        | 7,355          | 74.2        | 61,907         | 70.5        | 28,483         | 29.1        | 2,555         | 25.8        | 25,928         | 29.5        |
| Koibatek           | 18,312         | 66.1        | 3,918          | 66.2        | 14,394         | 66.1        | 9,397          | 33.9        | 2,004         | 33.8        | 7,393          | 33.9        |
| Laikipia           | 45,539         | 58.8        | 12,337         | 64.1        | 33,202         | 57          | 31,916         | 41.2        | 6,904         | 35.9        | 25,012         | 43          |
| Marakwet           | 20,269         | 65          |                |             | 20,269         | 65          | 10,924         | 35          |               |             | 10,924         | 35          |
| Nakuru             | 187,118        | 63.9        | 71,307         | 68.7        | 115,811        | 61.2        | 105,717        | 36.1        | 32,440        | 31.3        | 73,277         | 38.8        |
| Nandi              | 78,800         | 70.6        | 4,580          | 71.4        | 74,220         | 70.5        | 32,867         | 29.4        | 1,833         | 28.6        | 31,034         | 29.5        |
| Narok              | 42,328         | 56.2        | 4,199          | 61.7        | 38,129         | 55.6        | 32,996         | 43.8        | 2,603         | 38.3        | 30,393         | 44.4        |
| Samburu            | 13,608         | 42          | 3,316          | 48.6        | 10,292         | 40.2        | 18,811         | 58          | 3,502         | 51.4        | 15,309         | 59.8        |
| Trans Mara         | 19,355         | 59.3        | 1,164          | 65          | 18,191         | 59          | 13,261         | 40.7        | 626           | 35          | 12,635         | 41          |
| Trans Nzoia        | 77,521         | 67.3        | 8,559          | 73.1        | 68,962         | 66.6        | 37,653         | 32.7        | 3,145         | 26.9        | 34,508         | 33.4        |
| Turkana            | 37,566         | 51.6        | 3,537          | 60.3        | 34,029         | 50.8        | 35,303         | 48.4        | 2,327         | 39.7        | 32,976         | 49.2        |
| Uasin Gishu        | 91,377         | 68.6        | 37,430         | 72.1        | 53,947         | 66.4        | 41,748         | 31.4        | 14,493        | 27.9        | 27,255         | 33.6        |
| West Pokot         | 39,147         | 61.7        | 2,367          | 67.7        | 36,780         | 61.4        | 24,252         | 38.3        | 1,127         | 32.3        | 23,125         | 38.6        |
| Buret              | 46,807         | 73.5        | 1,026          | 69.2        | 45,781         | 73.6        | 16,888         | 26.5        | 457           | 30.8        | 16,431         | 26.4        |
| <b>Western</b>     | <b>420,583</b> | <b>60.3</b> | <b>47,678</b>  | <b>66.2</b> | <b>372,905</b> | <b>59.7</b> | <b>276,433</b> | <b>39.7</b> | <b>24,315</b> | <b>33.8</b> | <b>252,118</b> | <b>40.3</b> |
| Bungoma            | 112,309        | 64.6        | 15,865         | 67.3        | 96,444         | 64.2        | 61,548         | 35.4        | 7,702         | 32.7        | 53,846         | 35.8        |
| Busia              | 44,534         | 54.9        | 4,500          | 62.6        | 40,034         | 54.2        | 36,536         | 45.1        | 2,683         | 37.4        | 33,853         | 45.8        |
| Mt. Elgon          | 17,682         | 69.8        | 940            | 69.9        | 16,742         | 69.8        | 7,646          | 30.2        | 404           | 30.1        | 7,242          | 30.2        |
| Kakamega           | 76,351         | 60.9        | 10,061         | 67          | 66,290         | 60.1        | 48,945         | 39.1        | 4,946         | 33          | 43,999         | 39.9        |
| Lugari             | 24,842         | 59.6        | 1,360          | 58.5        | 23,482         | 59.7        | 16,823         | 40.4        | 966           | 41.5        | 15,857         | 40.3        |
| Teso               | 23,789         | 62.5        | 3,325          | 63.7        | 20,464         | 62.3        | 14,295         | 37.5        | 1,891         | 36.3        | 12,404         | 37.7        |
| Vihiga             | 58,025         | 55.3        | 3,869          | 59.2        | 54,156         | 55          | 46,928         | 44.7        | 2,662         | 40.8        | 44,266         | 45          |
| Butere/Mumias      | 63,051         | 59.1        | 7,758          | 71.7        | 55,293         | 57.6        | 43,712         | 40.9        | 3,061         | 28.3        | 40,651         | 42.4        |

2.1.3 Household Formation rates

In development planning including urban planning and service provision, households are normally the main units of consideration. The annual rate of growth of households (household formation rate) is therefore pertinent in the development planning strategies of the urban centres in order to improve the services in tandem with household growth. Looking at Table 2.3 below, Nairobi recorded a higher growth rate (2.28) of households compared to the rate recorded for national urban (2.09). Mombasa on the other hand has a lower household formation rate compared to the national urban rate. Looking at the provinces, the emerging picture is consistent with other demographic considerations; the in-migration provinces such as Nairobi recorded a high growth rate of households while known out-migration provinces such as Nyanza recorded the lowest household

growth rates. The high growth rate registered in North Eastern could mainly be attributable to the refugee influx between 1989 and 1999.

**Table 2.3: Household formation rates**

| Province/Region | Number of Households |           | Growth Rate |
|-----------------|----------------------|-----------|-------------|
|                 | 1989                 | 1999      |             |
| Kenya           | 4,343,004            | 6,335,295 | 1.653       |
| Kenya Rural     | 3,366,155            | 4,733,251 | 1.519       |
| Kenya Urban     | 976,849              | 1,602,044 | 2.085       |
| Nairobi         | 382,698              | 642,906   | 2.279       |
| Central         | 663,209              | 918,475   | 1.430       |
| Coast           | 360,379              | 523,880   | 1.638       |
| Eastern         | 669,747              | 954,201   | 1.547       |
| North Eastern   | 70,069               | 147,082   | 3.225       |
| Nyanza          | 700,738              | 962,869   | 1.392       |
| Rift Valley     | 1,007,128            | 1,487,059 | 1.704       |
| Western         | 489,036              | 698,823   | 1.561       |
| Town            |                      |           |             |
| Nairobi         | 382,698              | 642,906   | 2.28        |
| Mombasa         | 124,386              | 181,849   | 1.67        |

### 2.1.4 Household Sizes

At the national level, the results revealed that most households were composed of one to six persons, with the a significant proportion (15 percent) being single-person households. This pattern was evident in Nairobi, Rift Valley, Coast, and Central provinces. In Western, Nyanza, North Eastern and Eastern provinces majority of households consisted of 4 to 5 households. Nairobi Province recorded the highest percentage of single person households (26 percent) followed by Central (18 percent) while North Eastern recorded the least (4 per cent).

The analysis further indicate that at the national level and in Nairobi, Central, and Coast provinces significant proportions of the single-person households were headed by men, while majority of households with two to six persons were headed by females. Households composed of more than 6 persons were mostly headed by males.

Analysis of median household sizes, shown in Table 2.4, indicates that the national median household size was 3.56. By regions, the household median sizes varied between 2.19 and 5.2. Nairobi had the least median household size of 2.2 while Wajir District recorded the highest median household size of 5.2.

### 2.1.5 Homelessness

Given the social and cultural structure of most households and in view of the relatively better housing stock in rural areas, there were not many real cases of homeless population captured in the rural areas. This analysis will thus assess the homeless population by urban centers. Homelessness in this analysis therefore refers to the number of people per thousand of the urban population who sleep outside dwelling units

(e.g. on streets, parks, under bridges and so on). The 1999 Census results revealed a fairly low prevalence of homelessness (an average of 2 per thousand of the urban population) presumably because the homeless population was captured at mid-night and hence only genuine cases were recorded. There are some towns which recorded results above the national average for urban centers. Taveta town recorded the highest cases of homelessness (32), perhaps because the town generally has a small housing stock, which results in high congestion rates (1.9 persons per room) in the town. Most of the towns that registered significant rates of homelessness are transit points. They include Mtito-Andei (14), Maralal (13), Kisii (10), Mwingi (8), Isiolo (7), Nakuru (7), Mandera (7), Kitui (7), Embu (6) and Naivasha (5). Most other towns registered the prevalence of homelessness of 3 and below.

## **2.2 Housing Characteristics**

### **2.2.1 Housing Stock**

The dwelling unit counts indicate that there were 10.4 million units in Kenya in 1999, with a high concentration in the rural areas, accounting for 81.5 per cent of the housing stock in the country. Among the regions, Rift Valley and Eastern provinces had the highest number of dwelling units. This was consistent with population size and area of the two provinces. North Eastern province had the least number of slightly less 200,000 dwelling units. Among the districts, Nakuru and Machakos recorded the highest number of units of 449,593 and 370,255 units respectively (Table 2.4).

Table 2.4: Distribution of Dwelling Units, Rooms and Households by District

|                        | Number of Dwelling Units | Number of Rooms   | Number of Households | Population        | Rooms per Dwelling Unit | Average Household Size | Average Persons per Room | Median Household size |
|------------------------|--------------------------|-------------------|----------------------|-------------------|-------------------------|------------------------|--------------------------|-----------------------|
| <b>Kenya</b>           | <b>10,419,558</b>        | <b>18,144,232</b> | <b>6,335,295</b>     | <b>28,159,922</b> | 1.74                    | <b>4.44</b>            | <b>1.55</b>              | <b>3.56</b>           |
| Kenya Urban            | 1,924,249                | 3,173,120         | 1,602,044            | 5,456,476         | 1.65                    | 3.41                   | 1.72                     | 3.96                  |
| Kenya Rural            | 8,495,309                | 14,971,112        | 4,733,251            | 22,703,446        | 1.76                    | 4.80                   | 1.52                     | 2.31                  |
| <b>Nairobi</b>         | <b>722,243</b>           | <b>1,183,605</b>  | <b>642,906</b>       | <b>2,083,509</b>  | <b>1.64</b>             | <b>3.24</b>            | <b>1.76</b>              | <b>2.19</b>           |
| <b>Central</b>         | <b>1,552,846</b>         | <b>3,123,861</b>  | <b>918,475</b>       | <b>3,683,003</b>  | <b>2.01</b>             | <b>4.01</b>            | <b>1.18</b>              | <b>3.22</b>           |
| Kiambu                 | 292,158                  | 594,800           | 188,304              | 737,535           | 2.04                    | 3.92                   | 1.24                     | 3.12                  |
| Kirinyaga              | 209,623                  | 406,890           | 113,682              | 454,231           | 1.94                    | 4.00                   | 1.12                     | 3.20                  |
| Murang'a               | 144,555                  | 323,653           | 84,592               | 348,089           | 2.24                    | 4.11                   | 1.08                     | 3.41                  |
| Nyandarua              | 201,240                  | 381,113           | 103,897              | 468,458           | 1.89                    | 4.51                   | 1.23                     | 3.74                  |
| Nyeri                  | 294,794                  | 588,688           | 167,782              | 647,887           | 2.00                    | 3.86                   | 1.10                     | 3.10                  |
| Thika                  | 255,604                  | 479,621           | 170,141              | 641,503           | 1.88                    | 3.77                   | 1.34                     | 2.86                  |
| Maragua                | 154,872                  | 349,096           | 90,077               | 385,300           | 2.25                    | 4.28                   | 1.10                     | 3.53                  |
| <b>Coast</b>           | <b>776,684</b>           | <b>1,393,275</b>  | <b>523,880</b>       | <b>2,442,056</b>  | <b>1.79</b>             | <b>4.66</b>            | <b>1.75</b>              | <b>3.45</b>           |
| Kilifi                 | 163,980                  | 315,943           | 89,755               | 540,861           | 1.93                    | 6.03                   | 1.71                     | 4.78                  |
| Kwale                  | 148,350                  | 284,415           | 92,087               | 490,973           | 1.92                    | 5.33                   | 1.73                     | 4.35                  |
| Lamu                   | 24,215                   | 46,268            | 14,895               | 71,215            | 1.91                    | 4.78                   | 1.54                     | 3.80                  |
| Mombasa                | 219,601                  | 351,994           | 181,849              | 643,168           | 1.60                    | 3.54                   | 1.83                     | 2.36                  |
| Taita Taveta           | 84,362                   | 172,689           | 57,411               | 241,963           | 2.05                    | 4.21                   | 1.40                     | 3.31                  |
| Tana River             | 48,443                   | 72,001            | 36,080               | 178,609           | 1.49                    | 4.95                   | 2.48                     | 4.10                  |
| Malindi                | 87,733                   | 149,965           | 51,803               | 275,267           | 1.71                    | 5.31                   | 1.84                     | 4.01                  |
| <b>Eastern</b>         | <b>1,910,783</b>         | <b>3,178,585</b>  | <b>954,201</b>       | <b>4,591,175</b>  | <b>1.66</b>             | <b>4.81</b>            | <b>1.44</b>              | <b>4.02</b>           |
| Embu                   | 112,395                  | 231,299           | 63,696               | 273,545           | 2.06                    | 4.29                   | 1.18                     | 3.45                  |
| Isiolo                 | 29,885                   | 44,228            | 22,497               | 98,971            | 1.48                    | 4.40                   | 2.24                     | 3.48                  |
| Kitui                  | 231,050                  | 329,790           | 96,930               | 509,140           | 1.43                    | 5.25                   | 1.54                     | 4.53                  |
| Makueni                | 317,380                  | 552,061           | 143,779              | 766,214           | 1.74                    | 5.33                   | 1.39                     | 4.63                  |
| Machakos               | 370,255                  | 650,547           | 185,553              | 896,785           | 1.76                    | 4.83                   | 1.38                     | 4.09                  |
| Marsabit               | 33,862                   | 48,400            | 29,834               | 119,935           | 1.43                    | 4.02                   | 2.48                     | 3.18                  |
| Mbeere                 | 74,821                   | 123,279           | 36,933               | 170,271           | 1.65                    | 4.61                   | 1.38                     | 3.86                  |
| Meru Central           | 226,610                  | 417,919           | 119,848              | 495,495           | 1.84                    | 4.13                   | 1.19                     | 3.33                  |
| <b>Moyale</b>          | <b>16,606</b>            | <b>21,596</b>     | <b>10,270</b>        | <b>52,582</b>     | <b>1.30</b>             | <b>5.12</b>            | <b>2.43</b>              | <b>4.23</b>           |
| Mwingi                 | 128,147                  | 185,062           | 58,661               | 301,695           | 1.44                    | 5.14                   | 1.63                     | 4.40                  |
| Meru North             | 232,502                  | 344,774           | 119,166              | 600,905           | 1.48                    | 5.04                   | 1.74                     | 4.23                  |
| Tharaka                | 44,453                   | 57,558            | 20,180               | 100,779           | 1.29                    | 4.99                   | 1.75                     | 4.17                  |
| <b>Nithi (Meru S.)</b> | <b>92,817</b>            | <b>172,072</b>    | <b>46,854</b>        | <b>204,858</b>    | <b>1.85</b>             | <b>4.37</b>            | <b>1.19</b>              | <b>3.60</b>           |
| <b>North eastern</b>   | <b>199,113</b>           | <b>253,103</b>    | <b>147,082</b>       | <b>828,577</b>    | <b>1.27</b>             | <b>5.63</b>            | <b>3.27</b>              | <b>4.92</b>           |
| Garissa                | 65,763                   | 96,408            | 47,582               | 262,997           | 1.47                    | 5.53                   | 2.73                     | 4.74                  |
| Mandera                | 59,099                   | 71,074            | 45,400               | 248,154           | 1.20                    | 5.47                   | 3.49                     | 4.78                  |
| Wajir                  | <b>74,251</b>            | 85,621            | <b>54,100</b>        | 317,426           | <b>1.15</b>             | 5.87                   | 3.71                     | 5.20                  |
| <b>Nyanza</b>          | <b>1,677,253</b>         | <b>3,042,223</b>  | <b>962,869</b>       | <b>4,344,770</b>  | <b>1.81</b>             | <b>4.51</b>            | <b>1.43</b>              | <b>3.70</b>           |
| Gucha (S. Kisii)       | 189,108                  | 351,443           | 89,282               | 458,285           | 1.86                    | 5.13                   | 1.30                     | 4.40                  |
| Homa Bay               | 111,803                  | 179,701           | 66,670               | 285,936           | 1.61                    | 4.29                   | 1.59                     | 3.45                  |
| Kisii Central          | 187,896                  | 404,340           | 99,843               | 485,798           | 2.15                    | 4.87                   | 1.20                     | 4.17                  |
| Kisumu                 | 171,149                  | 293,005           | 122,412              | 495,464           | 1.71                    | 4.05                   | 1.69                     | 3.10                  |
| Kuria                  | 64,523                   | 110,358           | 28,738               | 150,156           | 1.71                    | 5.22                   | 1.36                     | 4.46                  |
| Migori                 | 191,454                  | 334,322           | 113,363              | 506,779           | 1.75                    | 4.47                   | 1.52                     | 3.63                  |

**Contd.**

|                    |                  |                  |                  |                  |             |             |             |             |
|--------------------|------------------|------------------|------------------|------------------|-------------|-------------|-------------|-------------|
| N. Kisii (Nyamira) | 197,762          | 430,941          | 99,343           | 496,095          | 2.18        | 4.99        | 1.15        | 4.29        |
| Rachuonyo          | 113,916          | 209,034          | 67,807           | 305,068          | 1.83        | 4.50        | 1.46        | 3.71        |
| Siaya              | 199,626          | 307,700          | 117,343          | 477,415          | 1.54        | 4.07        | 1.55        | 3.19        |
| Suba               | 55,217           | 88,270           | 33,849           | 154,673          | 1.60        | 4.57        | 1.75        | 3.70        |
| Bondo              | 87,951           | 144,682          | 56,140           | 235,959          | 1.65        | 4.20        | 1.63        | 3.31        |
| Nyando             | 106,848          | 188,427          | 68,079           | 293,142          | 1.76        | 4.31        | 1.56        | 3.44        |
| <b>Rift Valley</b> | <b>2,373,002</b> | <b>3,770,451</b> | <b>1,487,059</b> | <b>6,845,642</b> | <b>1.59</b> | <b>4.60</b> | <b>1.82</b> | <b>3.94</b> |
| Baringo            | 88,359           | 120,448          | 56,409           | 263,968          | 1.36        | 4.68        | 2.19        | 4.12        |
| Bomet              | 121,377          | 190,866          | 70,434           | 378,923          | 1.57        | 5.38        | 1.99        | 3.69        |
| Keiyo              | 53,378           | 88,862           | 29,996           | 143,179          | 1.66        | 4.77        | 1.61        | 4.48        |
| Kajiado            | 123,139          | 224,779          | 96,046           | 395,954          | 1.83        | 4.12        | 1.76        | 3.92        |
| Kericho            | 163,412          | 281,044          | 98,290           | 461,651          | 1.72        | 4.70        | 1.64        | 4.31        |
| Koibatek           | 51,930           | 74,442           | 27,844           | 136,622          | 1.43        | 4.91        | 1.84        | 3.91        |
| Laikipia           | 127,021          | 218,277          | 77,657           | 316,897          | 1.72        | 4.08        | 1.45        | 3.96        |
| Marakwet           | 52,595           | 68,754           | 31,204           | 139,838          | 1.31        | 4.48        | 2.03        | 3.63        |
| Nakuru             | 449,593          | 753,020          | 294,582          | 1,177,537        | 1.67        | 4.00        | 1.56        | 2.26        |
| Nandi              | 201,120          | 349,379          | 112,358          | 569,590          | 1.74        | 5.07        | 1.63        | 4.25        |
| Narok              | 99,561           | 153,498          | 76,052           | 360,551          | 1.54        | 4.74        | 2.35        | 3.97        |
| Samburu            | 40,915           | 47,481           | 32,678           | 142,065          | 1.16        | 4.35        | 2.99        | 3.57        |
| Trans Mara         | 51,439           | 88,743           | 33,029           | 169,160          | 1.73        | 5.12        | 1.91        | 4.32        |
| Trans Nzoia        | 195,885          | 297,397          | 115,622          | 568,498          | 1.52        | 4.92        | 1.91        | 4.03        |
| Turkana            | 143,352          | 177,240          | 73,440           | 389,319          | 1.24        | 5.30        | 2.20        | 4.53        |
| Uasin Gishu        | 214,971          | 361,496          | 133,504          | 613,485          | 1.68        | 4.60        | 1.70        | 3.63        |
| West Pokot         | 88,630           | 108,410          | 63,538           | 305,583          | 1.22        | 4.81        | 2.82        | 4.03        |
| Buret              | 106,325          | 166,315          | 64,376           | 312,822          | 1.56        | 4.86        | 1.88        | 3.94        |
| <b>Western</b>     | <b>1,207,634</b> | <b>2,199,129</b> | <b>698,823</b>   | <b>3,341,190</b> | <b>1.82</b> | <b>4.78</b> | <b>1.52</b> | <b>3.94</b> |
| Bungoma            | 294,688          | 512,296          | 174,051          | 870,761          | 1.74        | 5.00        | 1.70        | 4.12        |
| Busia              | 142,042          | 197,807          | 81,463           | 367,910          | 1.39        | 4.52        | 1.86        | 3.69        |
| Mt. Elgon          | 45,161           | 56,905           | 25,418           | 134,897          | 1.26        | 5.31        | 2.37        | 4.48        |
| Kakamega           | 220,602          | 436,003          | 125,445          | 599,199          | 1.98        | 4.78        | 1.37        | 3.92        |
| Lugari             | 75,209           | 144,565          | 41,683           | 215,018          | 1.92        | 5.16        | 1.49        | 4.31        |
| Teso               | 78,393           | 102,670          | 38,107           | 180,253          | 1.31        | 4.73        | 1.76        | 3.91        |
| Vihiga             | 168,245          | 443,969          | 105,434          | 497,306          | 2.64        | 4.72        | 1.12        | 3.96        |
| Butere/Mumias      | 183,294          | 304,914          | 107,222          | 475,846          | 1.66        | 4.44        | 1.56        | 3.63        |

**2.2.2 Rooms per Dwelling Unit**

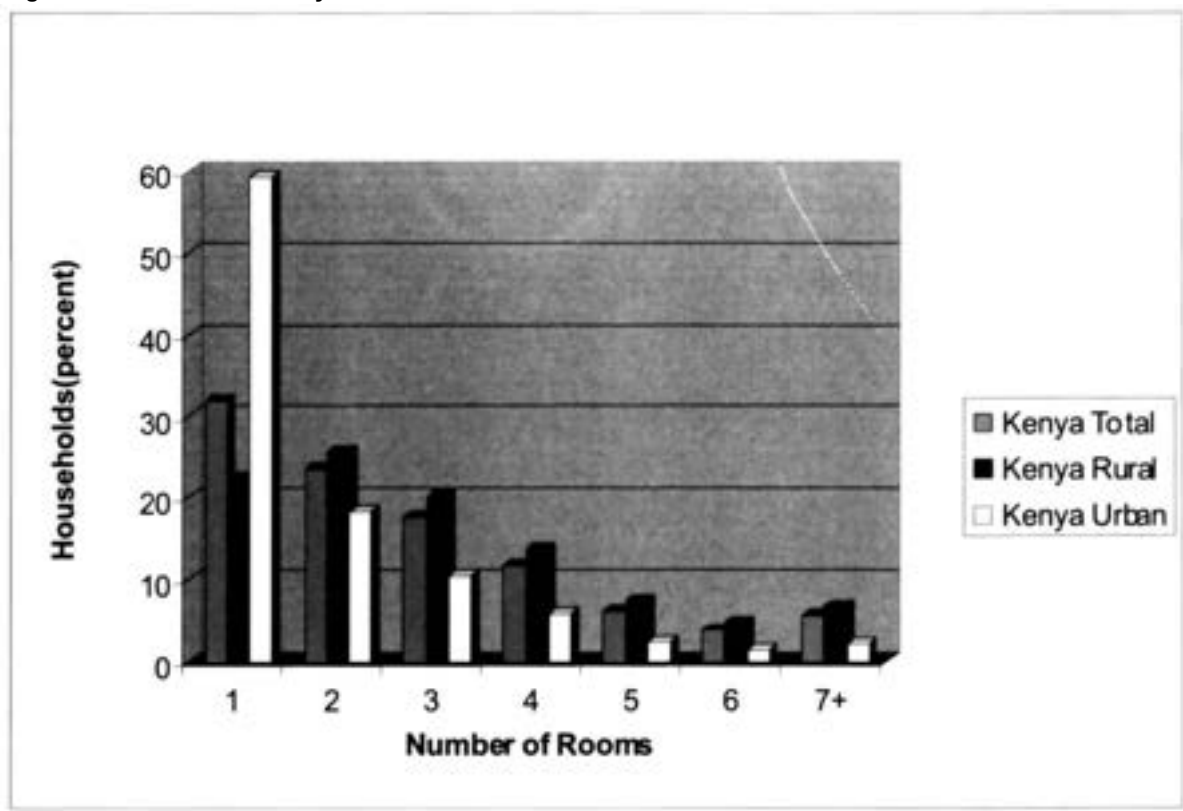
The results revealed that the rural areas recorded a higher number of rooms per dwelling unit (1.76) compared to urban areas (1.65). Nairobi, Eastern, Nyanza and Western provinces recorded number of rooms per dwelling unit above the national level of 1.74; Samburu district in Eastern Province recorded the least rooms per dwelling unit (1.16); and Vihiga District (rural) in Western Province recorded the highest number of rooms per dwelling unit of 2.64. Most arid and semi-arid districts recorded lower rooms per dwelling unit, especially in the rural areas mainly due to the nomadic nature of some of the communities residing in these areas. (Table 2.4)

2.2.3 Persons per room

Arid and semi-arid districts recorded the highest average persons per room with Wajir District in North Eastern recording the highest average persons per room of 3.71. Muranga District in Central Province recorded the least average persons per room of 1.08. Comparatively, the rural areas registered a lower average persons per room vis- vis the urban areas. This is as a result of the fact that the number of rooms per dwelling unit is also higher in rural areas as compared to the urban areas.(refer to Table 2.4)

The census results also indicated that most households in the urban areas (59 percent) lived in single rooms. In most provinces, the urban population living in one room ranged from 37% in Western to 67% in Nairobi. The households living in one room whether in urban or rural areas reflected a consistent pattern in all provinces except in North Eastern where the percentage of the urban households living in one room was higher than that of rural areas. This is a reflection of the general characteristics of dwelling units in most arid and semi-arid areas which are in most cases one room (Figure 2.2 and Table 2.6).

Figure 2.2: Households by Number of Rooms



In the urban centres (towns) as presented in Table B1 in Appendix II and Table 2.6 below, most households, over 50 percent lived in single-room dwellings. Averagely, 88 percent of the households occupied 3 rooms and below. Matuu had the highest proportion (77.1 percent) of households in single-rooms while Vihiga had the least (13.4 percent). Considering the selected towns presented in Table 2.5 below, Thika had the

highest proportion (69.6 percent) of households living in single rooms while Kakamega had the least (32.7 percent).

**Table 2.5: Percentage distribution of households by number of rooms occupied - selected towns**

| Town     | 1 room | 2 rooms | 3 rooms | 4 rooms | 5 rooms | 6 rooms | 7 rooms |
|----------|--------|---------|---------|---------|---------|---------|---------|
| Nairobi  | 66.6   | 14.1    | 8.7     | 5       | 2.3     | 1.2     | 2.2     |
| Mombasa  | 62.8   | 15.3    | 9       | 6.2     | 2.3     | 1.8     | 2.6     |
| Nakuru   | 60.8   | 19.6    | 10.6    | 4.4     | 1.9     | 1       | 1.7     |
| Kisumu   | 50.9   | 24.5    | 14      | 5.9     | 2.3     | 0.9     | 1.6     |
| Eldoret  | 59.7   | 22      | 9.5     | 4.8     | 1.7     | 0.8     | 1.5     |
| THIKA    | 69.6   | 15.2    | 7.8     | 3.5     | 1.2     | 0.6     | 2       |
| Ruiru    | 60.9   | 19.2    | 7.5     | 4.6     | 2.6     | 1.7     | 3.4     |
| Nyeri    | 54.1   | 19.6    | 12      | 7.6     | 2.9     | 1.5     | 2.4     |
| Malindi  | 58.8   | 15.3    | 11      | 7.2     | 2.9     | 1.9     | 2.9     |
| Kakamega | 32.7   | 28.6    | 17.4    | 11.1    | 4.5     | 2.2     | 3.5     |

**Table 2.6: Households by Number of Rooms**

|                  |       | NUMBER OF ROOMS |      |           |      |           |      |         |      |         |      |         |     |         |     | Total     |
|------------------|-------|-----------------|------|-----------|------|-----------|------|---------|------|---------|------|---------|-----|---------|-----|-----------|
| REGION/URBAN AND |       | 1               |      | 2         |      | 3         |      | 4       |      | 5       |      | 6       |     | 7+      |     |           |
| RURAL            |       | Number          | V.   | Number    | %    | Number    | %    | Number  | %    | Number  | %    | Number  | %   | Number  | %   |           |
|                  | Total | 2,004,704       | 31.6 | 1,484,897 | 23.4 | 1,108,000 | 17.5 | 735,914 | 11.6 | 387,618 | 6.1  | 241,889 | 3.8 | 372,273 | 5.9 | 6,335,295 |
|                  | Rural | 1,061,836       | 22.4 | 1,192,601 | 25.2 | 938,551   | 19.8 | 640,221 | 13.5 | 347,191 | 7.3  | 219,373 | 4.6 | 333,478 | 7   | 4,733,251 |
| Kenya            | Urban | 942,868         | 58.9 | 292,296   | 18.2 | 169,449   | 10.6 | 95,693  | 6    | 40,427  | 2.5  | 22,516  | 1.4 | 38,795  | 2.4 | 1,602,044 |
| Nairobi          | Total | 428,123         | 66.6 | 90,575    | 14.1 | 55,880    | 8.7  | 31,956  | 5    | 14,644  | 2.3  | 7,644   | 1.2 | 14,084  | 2.2 | 642,906   |
| Central          | Total | 199,593         | 21.7 | 164,993   | 18   | 185,512   | 20.2 | 153,236 | 16.7 | 87,727  | 9.6  | 53,404  | 5.8 | 74,010  | 8.1 | 918,475   |
|                  | Rural | 115,842         | 15.3 | 133,260   | 17.6 | 165,954   | 21.9 | 141,230 | 18.6 | 81,986  | 10.8 | 50,402  | 6.7 | 68,899  | 9.1 | 757,573   |
|                  | Urban | 83,751          | 52.1 | 31,733    | 19.7 | 19,558    | 12.2 | 12,006  | 7.5  | 5,741   | 3.6  | 3,002   | 1.9 | 5,111   | 3.2 | 160,902   |
| Coast            | Total | 213,350         | 40.7 | 111,338   | 21.3 | 71,910    | 13.7 | 54,185  | 10.3 | 25,631  | 4.9  | 18,181  | 3.5 | 29,285  | 5.6 | 523,880   |
|                  | Rural | 69,699          | 24.7 | 71,562    | 25.3 | 47,917    | 17   | 37,674  | 13.3 | 19,365  | 6.9  | 13,722  | 4.9 | 22,686  | 8   | 282,625   |
|                  | Urban | 143,651         | 59.5 | 39,776    | 16.5 | 23,993    | 9.9  | 16,511  | 6.8  | 6,266   | 2.6  | 4,459   | 1.8 | 6,599   | 2.7 | 241,255   |
| Eastern          | Total | 210,982         | 22.1 | 217,303   | 22.8 | 180,091   | 18.9 | 130,489 | 13.7 | 79,828  | 8.4  | 52,271  | 5.5 | 83,237  | 8.7 | 954,201   |
|                  | Rural | 165,454         | 19   | 199,689   | 22.9 | 171,071   | 19.6 | 126,015 | 14.4 | 77,861  | 8.9  | 51,187  | 5.9 | 81,118  | 9.3 | 872,395   |
|                  | Urban | 45,528          | 55.7 | 17,614    | 21.5 | 9,020     | 11   | 4,474   | 5.5  | 1,967   | 2.4  | 1,084   | 1.3 | 2,119   | 2.6 | 81,806    |
| North Eastern    | Total | 91,816          | 62.4 | 35,594    | 24.2 | 11,797    | 8    | 3,867   | 2.6  | 1,191   | 0.8  | 600     | 0.4 | 2,217   | 1.5 | 147,082   |
|                  | Rural | 80,430          | 64.7 | 29,461    | 23.7 | 8,945     | 7.2  | 2,648   | 2.1  | 810     | 0.7  | 370     | 0.3 | 1,710   | 1.4 | 124,374   |
|                  | Urban | 11,386          | 50.1 | 6,133     | 27   | 2,852     | 12.6 | 1,219   | 5.4  | 381     | 1.7  | 230     | 1   | 507     | 2.2 | 22,708    |
| Nyanza           | Total | 185,326         | 19.2 | 285,855   | 29.7 | 202,391   | 21   | 117,546 | 12.2 | 62,993  | 6.5  | 41,613  | 4.3 | 67,145  | 7   | 962,869   |
|                  | Rural | 133,145         | 15.7 | 256,054   | 30.2 | 184,799   | 21.8 | 109,390 | 12.9 | 59,915  | 7.1  | 39,954  | 4.7 | 64,164  | 7.6 | 847,421   |
|                  | Urban | 52,181          | 45.2 | 29,801    | 25.8 | 17,592    | 15.2 | 8,156   | 7.1  | 3,078   | 2.7  | 1,659   | 1.4 | 2,981   | 2.6 | 115,448   |
| Rift Valley      | Total | 535,769         | 36   | 388,910   | 26.2 | 255,489   | 17.2 | 141,438 | 9.5  | 69,459  | 4.7  | 39,565  | 2.7 | 56,429  | 3.8 | 1,487,059 |
|                  | Rural | 382,623         | 31.4 | 330,962   | 27.2 | 225,180   | 18.5 | 127,532 | 10.5 | 63,695  | 5.2  | 36,573  | 3   | 51,241  | 4.2 | 1,217,806 |
|                  | Urban | 153,146         | 56.9 | 57,948    | 21.5 | 30,309    | 11.3 | 13,906  | 5.2  | 5,764   | 2.1  | 2,992   | 1.1 | 5,188   | 1.9 | 269,253   |
|                  | Total | 139,745         | 20   | 190,329   | 27.2 | 144,930   | 20.7 | 103,197 | 14.8 | 46,145  | 6.6  | 28,611  | 4.1 | 45,866  | 6.6 | 698,823   |
|                  | Rural | 112,558         | 18   | 170,431   | 27.2 | 133,808   | 21.4 | 95,358  | 15.2 | 43,436  | 6.9  | 27,023  | 4.3 | 43,525  | 7.6 | 26,139    |
| Western          | Urban | 27,187          | 37.4 | 19,898    | 27.4 | 11,122    | 15.3 | 7,839   | 10.8 | 2,709   | 3.7  | 1,588   | 2.2 | 2,341   | 3.2 | 72,684    |

## **Chapter 3**

### **Housing Stock by Tenure**

#### **3.1 Status of Tenure**

in Kenya, tenure issues have revolved around owner occupied and rental housing. Housing affordability encompassing house prices and rents have remained a major concern for the Government and all partners in housing and shelter development. Housing affordability has tended to be more elusive in urban areas than it is in rural areas. Over the years, both the rents and house prices have sharply increased in urban areas.

The results of the census show that owner occupancy was more prevalent in the rural areas than the urban areas where, most households are renters. At the national level, the 1999 census captured 71.5 per cent of households as owners of their dwellings while 28.5 percent renters (Table A1 in appendix II). This compares closely with the results of the 1989 census which recorded 73 per cent of households as owners against 27 percent renters. These results at national level are greatly influenced by the status in the rural areas where most households own their structures which are mainly constructed and thus may give a misleading national ownership status. It is worth noting that although most households in the rural areas own their structures, the quality issues and access to basic services are worse in the rural areas than the urban areas. This high owner occupancy rate was prevalent in all the provinces except Nairobi province where 82.2 per cent of the households lived in rented units. Province analysis show that North Eastern, Eastern Western, Nyanza provinces had over 80 per cent of the units owner occupied while Nairobi province had the highest rental occupancy status due to its urban status and migration of people from rural areas to the city in search of employment.

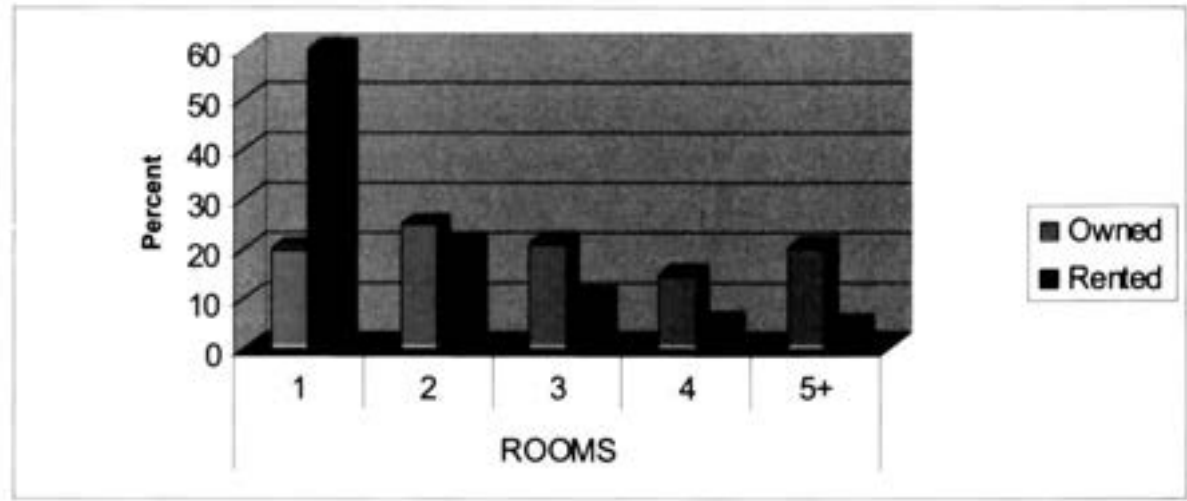
The Census results further reveal notable variations in tenure status by sex of head of household and across the regions. Female heads of households were disadvantaged in ownership of dwelling units as only 40 per cent of the units were owned by female heads as compared to their male counterparts. Female heads in Nyanza, Eastern and Western provinces were better off in ownership of the dwelling units as compared to their counterparts in other five provinces. The results also reveal that slightly over 30 per cent of rental dwelling units in Western, Nyanza, North Eastern, Eastern and Central provinces were occupied by female heads (Table 3.1).

Table 3.1: Tenure Status by Sex of Head of Household and Region

| Region        | Owned     |      |            |      | Rental    |      |         |      | Total     |      |           |      |
|---------------|-----------|------|------------|------|-----------|------|---------|------|-----------|------|-----------|------|
|               | Male      |      | Female     |      | Male      |      | Female  |      | Male      |      | Female    |      |
|               | Number    | Prct | Number     | Prct | Number    | Prct | Number  | Prct | Number    | Prct | Number    | Prct |
| Kenya         | 2,708,923 | 60   | 180,731.70 | 40   | 1,282,609 | 71.8 | 502,898 | 28.2 | 4,516,240 | 71.7 | 1,785,507 | 28.3 |
| Nairobi       | 84,485    | 74   | 2,972.60   | 26   | 396,876   | 76   | 125,832 | 24   | 114,211   | 17.9 | 524,708   | 82.1 |
| Central       | 407,551   | 60.6 | 26,456.10  | 39.4 | 161,892   | 67.3 | 78,750  | 32.7 | 672,112   | 73.6 | 240,642   | 26.4 |
| Coast         | 209,748   | 65.3 | 11,136.10  | 34.7 | 152,059   | 76.1 | 47,870  | 23.9 | 321,109   | 61.6 | 199,929   | 38.4 |
| Eastern       | 484,350   | 59.3 | 33,214.40  | 40.7 | 88,651    | 66.1 | 45,419  | 33.9 | 816,494   | 85.9 | 134,070   | 14.1 |
| North Eastern | 92,766    | 69.1 | 4,140.90   | 30.9 | 8,247     | 68.7 | 3,752   | 31.3 | 134,175   | 91.8 | 11,999    | 8.2  |
| Nyanza        | 426,499   | 53.9 | 36,458.10  | 46.1 | 114,034   | 68.7 | 51,860  | 31.3 | 791,080   | 82.7 | 165,894   | 17.3 |
| Riftvalley    | 639,400   | 60.6 | 41,556.70  | 39.4 | 302,410   | 71.4 | 120,953 | 28.6 | 1,054,967 | 71.4 | 423,363   | 28.6 |
| Western       | 364,124   | 59.5 | 24,796.80  | 40.5 | 56,440    | 66.5 | 28,462  | 33.5 | 612,092   | 87.8 | 84,902    | 12.2 |

Further analysis of households by tenure and number of rooms occupied revealed that most of the households that lived in one-room dwellings were renters as opposed to owners. The scenario changes such that the households with higher number of rooms are mostly owners. The results at the national level revealed that 60 percent of the renters lived in single room compared to 20 percent of the owners who lived in one-room. Only 25 percent of owners lived in two rooms as opposed to 21 percent of the renters who lived in two rooms. North Eastern Province presented a slightly different pattern where most of the renters (60 percent) and owners (63 percent) were occupying one room. This departure from the trends in other provinces may be attributed to the nomadic lifestyle of the residents in the province which tends to influence construction of temporary single-room dwellings. The situation for households occupying more than one room remained the same as in the other regions. (Table 3.2 and Figure 3.1)

Figure 3.1: Households by Tenure and Number of Rooms - Kenya Totals





of urban households who lived in owned purchased dwellings was 7.9 percent. Most households in the rural areas (83 percent) lived in constructed dwellings. The insignificant proportion of purchased dwellings justifies the clamour for better access to credit through downward adjustment of the current interest rates that have remained very high, especially on mortgage loans.

**Table 3.3: Distribution of Households by Tenure**

|               | Owned     |             |           | Rented     |                 |            |         |            |
|---------------|-----------|-------------|-----------|------------|-----------------|------------|---------|------------|
|               | Purchased | Constructed | Inherited | Government | Local Authority | Parastatal | Private | Individual |
| Kenya         | 3.8       | 65.7        | 2.1       | 1.8        | 1.0             | 1.0        | 3.2     | 21.5       |
| Urban         | 7.9       | 14.9        | 2.2       | 4.8        | 3.0             | 2.6        | 3.8     | 60.7       |
| Rural         | 2.4       | 82.9        | 2.0       | 0.8        | 0.3             | 0.5        | 3.0     | 8.2        |
| Nairobi       | 9.5       | 6.5         | 1.9       | 4.8        | 3.9             | 2.8        | 5.0     | 65.7       |
| Central       | 3.6       | 67.0        | 2.9       | 1.5        | 0.5             | 0.6        | 4.3     | 19.6       |
| Coast         | 4.9       | 53.8        | 2.8       | 2.2        | 1.0             | 1.5        | 2.7     | 31.2       |
| Eastern       | 2.9       | 81.2        | 1.7       | 1.1        | 0.4             | 0.5        | 1.4     | 10.8       |
| North Eastern | 1.8       | 88.8        | 1.1       | 1.9        | 0.1             | 0.2        | 0.6     | 5.5        |
| Nyanza        | 2.6       | 78.6        | 1.3       | 1.0        | 0.7             | 0.8        | 1.4     | 13.5       |
| Rift Valley   | 3.3       | 65.6        | 2.4       | 1.9        | 0.9             | 0.9        | 5.6     | 19.4       |
| Western       | 2.2       | 83.8        | 1.8       | 1.0        | 0.3             | 0.7        | 0.8     | 9.5        |

### 3.2. Public Housing

Over the years, public investment in housing development has dwindled due to inadequate budgetary provision coupled with emerging economic trends towards increased private sector participation in various sectors. The main players in public housing have been the Central Government (including parastatals) and local authorities. The 1999 census results reveal that at the national level, only 4 percent of households lived in public housing. In 1989 the proportion of households living in public housing was 4.6 percent. The minimal contribution of the public sector in housing has exposed all the households to market forces that generally tend to be imperfect and non-responsive to the needs of the poor hence the mushrooming of informal settlement in the major towns. A sizable proportion of the public housing stock is concentrated in the urban areas as demonstrated by the fact that in urban areas, 10 percent of the households live in public housing.

Analysis of results by the major urban centres in Kenya reveals that most of the towns have an average of 10 percent of the households living in public housing (Table B2 in appendix II). Out of the selected towns presented in the Table below, Nyeri has the highest (14 percent) while Ruiru has the least (3.8 percent). In all the towns presented in Table 3.4, over 60 percent of the households were renters as opposed to less than 40 percent who were owners of their dwellings. Kakamega had a higher percentage (40.1) of owners.

Table 3.4 Percentage Distribution of Households by Tenure selected towns

| Table 3.4 Percentage Distribution of Households by Tenure selected towns |           |             |           |            |                 |            |         |            |              |               |
|--------------------------------------------------------------------------|-----------|-------------|-----------|------------|-----------------|------------|---------|------------|--------------|---------------|
| Town                                                                     | purchased | Constructed | inherited | Government | Local Authority | parastatal | private | individual | Total Owning | Total Renting |
| Nairobi                                                                  | 9.5       | 6.5         | 1.9       | 4.8        | 3.9             | 2.8        | 5       | 65.7       | 17.9         | 82.2          |
| Mombasa                                                                  | 9.6       | 16          | 3.4       | 2.7        | 2.3             | 2.9        | 2.5     | 60.6       | 29           | 71            |
| Nakuru                                                                   | 5.3       | 8           | 1.5       | 4.2        | 7               | 2.4        | 3.6     | 67.9       | 14.8         | 85.1          |
| Kisumu                                                                   | 5         | 13          | 2.5       | 3.2        | 3.3             | 3.8        | 2.3     | 66.9       | 20.5         | 79.5          |
| Eldoret                                                                  | 7.4       | 10.9        | 1.4       | 3.2        | 4.2             | 2.6        | 2.8     | 67.6       | 19.7         | 80.4          |
| Thika                                                                    | 6.3       | 11          | 1.5       | 3.5        | 6.9             | 0.6        | 3.7     | 66.4       | 18.8         | 81.1          |
| Ruiru                                                                    | 5.4       | 17.3        | 1.8       | 2.1        | 1.1             | 0.6        | 2.6     | 69.2       | 24.5         | 75.6          |
| Nyeri                                                                    | 3.6       | 16.4        | 2.3       | 10.7       | 2.4             | 1          | 3.6     | 60.1       | 22.3         | 77.8          |
| Malindi                                                                  | 7.4       | 24.2        | 4.2       | 2.3        | 0.7             | 0.5        | 2       | 58.6       | 35.8         | 64.1          |

3.3 Private Sector Housing

Both the 1989 and 1999 census results show that private sector contribution to housing development by far surpasses that of the public sector. The 1999 results reveal that 96% of households lived in privately owned or rented housing. Although this may give the impression that the public sector input is insignificant, it should be noted that the facilitative environment that has enabled the private sector to make its contribution is basically provided by the public sector. It should also be noted that the private sector is less responsive to the needs of the poor and disadvantaged.

## Chapter 4

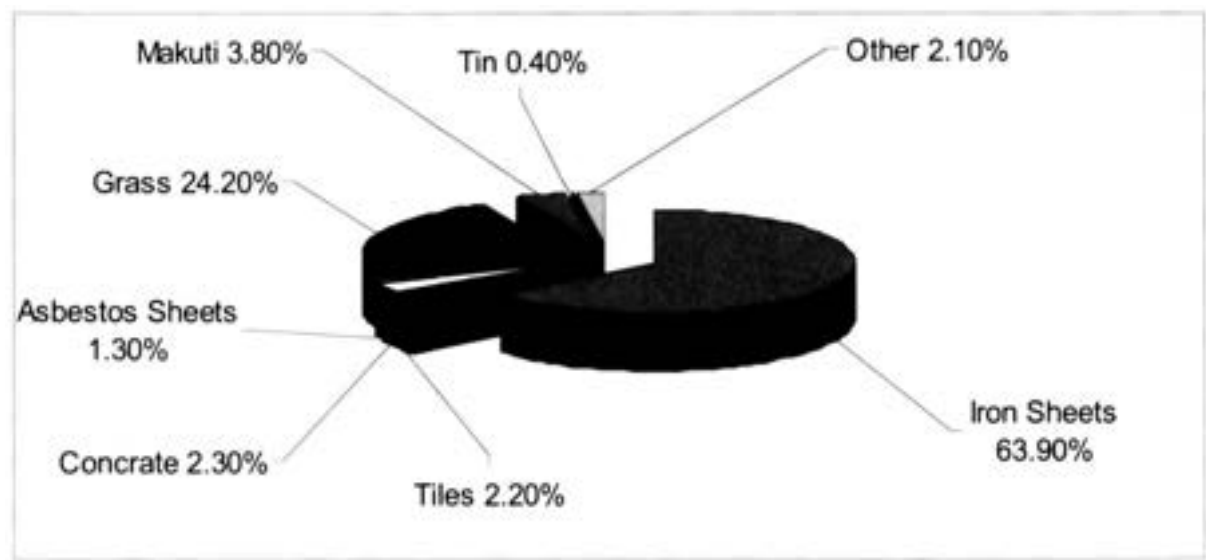
### Housing Quality by Construction Materials

Structural soundness, durability and quality of dwelling units are determined by the construction materials used and the workmanship applied during construction. Although it is widely expected that only conventional materials such as cement and iron sheets can guarantee the above attributes, the same can also be attained from other appropriate and low-cost building materials that are available in the country. While information relating to structural soundness and durability were not captured in the households occupied housing units with grass roofs, an improvement over 40.2 percent

#### 4.1 Roofing Materials

The census results revealed that iron sheets were the most common roofing materials for majority of households in Kenya both in the rural and urban areas. At the national level, 63.9 percent of households had iron sheet roofs, which reflects a great improvement over 51.5 percent registered in 1989. This improvement may be attributed to increased environmental degradation that has rendered inappropriate the use of traditional roofing materials such as grass and reeds. On the other hand, 24 percent of census data, data on quality by construction materials was captured, registered in 1989.

Figure 4.1: Households by Roofing Materials • Kenya



Analysis by region reveals that Central and Eastern provinces recorded the highest percentage (92.8 percent and 72.1 percent respectively) of households with iron sheet roofs, compared to North Eastern province with the least (11.1 percent) of households with iron sheet roofs. It is worth noting, however that the adverse climatic conditions in

the arid and semi-arid districts, iron sheets are not the most appropriate roofing material. Coast province recorded the highest percentage (34.2 percent) of households with *Makuti* roofs. This is mainly due to the availability of this roofing material in the area and also due to the hot climatic conditions in the region that has rendered the use of iron sheets inappropriate.

District analysis showed that Kirinyaga district recorded the highest percentage (95 percent) of households with iron sheet roofs while Wajir reported the least percentage of 6.3 percent (Table A2 in Appendix II). The Districts that recorded higher percentages of households with iron sheet roofs are better endowed economically.

In the urban centres, iron sheets, tiles, concrete and asbestos sheets were the main roofing materials. Of these materials, iron sheet were the most prevalent in most towns accounting for over 60 percent of households (Table 4.2 and Table B3 in Appendix II)). It can be noted that the use of tiles is not as significant in the towns as could have been expected; most towns recorded less than 10 percent of households with tile roofs. The exception being Nairobi, Ngong and Gilgil which had 11.8, 10.4 and 10.1 percent respectively of households with tile roofs. This could be attributed to the low cost of iron sheets compared to that of tiles. Urban centres in Coast province and in arid and semi-arid areas recorded a higher percentage of households with makuti roofs, being the most appropriate and available roofing material given the climatic situation in those regions; Msambweni town in Coast province recorded the highest percentage (79.5) of households with makuti roof.

**Table 4.1 Percentage distribution of households by roof materials in selected towns**

| Town     | Iron Sheets | Tiles | Concrete | Asbestos Sheets |
|----------|-------------|-------|----------|-----------------|
| Nairobi  | 67.5        | 11.8  | 16.4     | 3.2             |
| Mombasa  | 67.4        | 4.1   | 9.0      | 3.0             |
| Nakuru   | 85.2        | 6.3   | 2.1      | 5.4             |
| Kisumu   | 87.3        | 3.6   | 2.7      | 5.2             |
| Eldoret  | 84.8        | 8.0   | 1.1      | 4.9             |
| Thika    | 86.6        | 8.8   | 1.6      | 2.4             |
| Ruiru    | 88.3        | 6.8   | 3.9      | 0.7             |
| Nyeri    | 88.6        | 3.8   | 4.0      | 3.3             |
| Malindi  | 45.4        | 1.5   | 8.9      | 5.0             |
| Kakamega | 91.5        | 2.0   | 1.8      | 2.1             |

**4.2 Wall Materials**

The results presented in Table A3 in the Appendix II and Fig 4.2 show that, a significant proportion of households in Kenya (47 percent) lived in houses with mud/wood walls. A substantial percentage of households lived in houses with brick/block (14 percent), stone (12 percent) and wood only(12 percent) walls(Figure 4.2). In 1989, 56.8 percent of households lived in houses with mud/wood walls while12 percent and 9.5 percent had brick/block and wood only walls respectively. Thus, the 1999 results reflected some improvement in the quality of wall materials used by households.

The urban areas registered a higher proportion of households living in houses with brick/block and stone walls compared to the rural areas (Figure 4.3).

**Figure 4.2: Households by Wall Materials - Kenya**

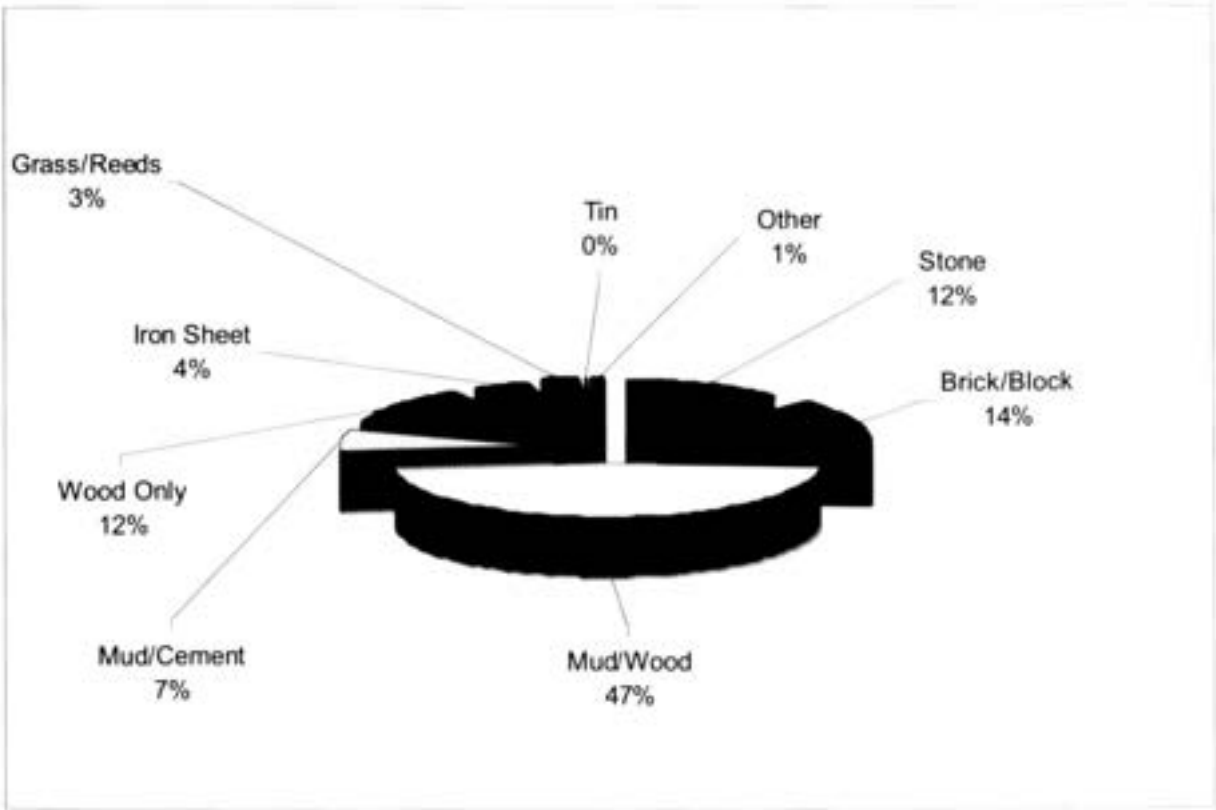
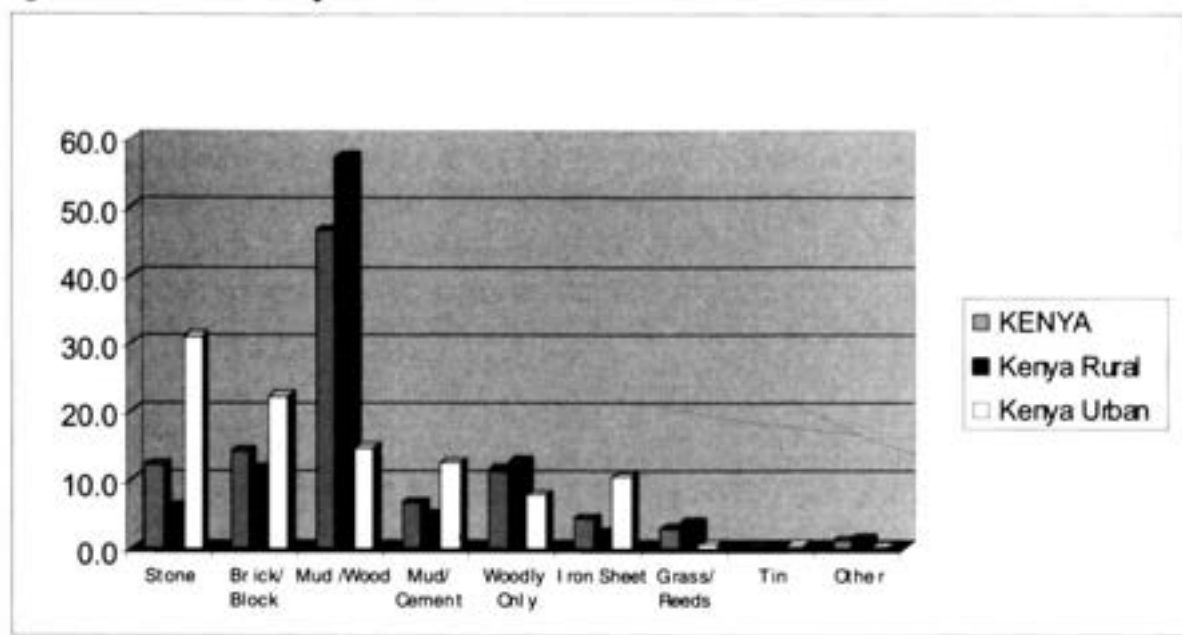
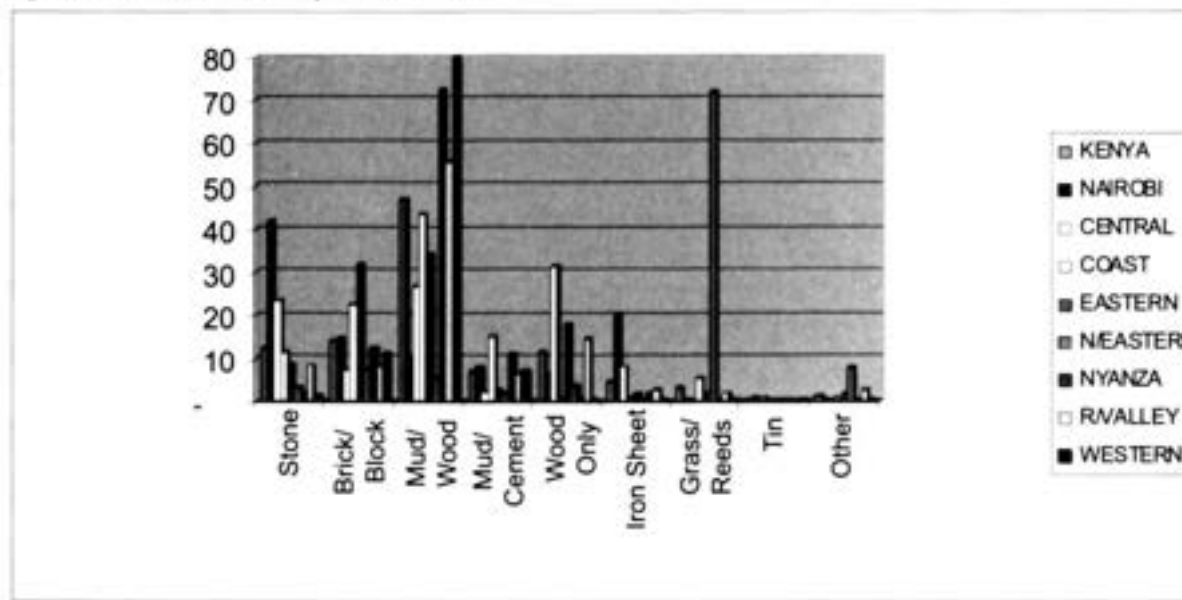


Figure 4.3: Households by Wall Materials



The provinces recorded varied results. While Central and Eastern recorded the highest percentage (31.5 and 17.7 respectively) for wood only walls, Western and Nyanza recorded the highest percentage (79.7 and 72.2 respectively) for mud/wood. Nairobi and Central recorded the highest percentage (41.6 and 23.5 respectively) for stone wall while Coast and Eastern recorded the highest percentage (22.3 and 31.7 respectively) for brick/block. Coast and Nyanza recorded the highest percentage (15 and 11.1 respectively) for mud/cement walls. The dominant wall materials in any region were largely consistent with availability of certain materials in the regions.

Figure 4.4: Households by Wall Materials



The urban centers registered mixed results for wall materials. While Elburgon had the highest percentage (78.1) of households with wood wall, Tala/Kangundo had a high (82.7 percent) of households with stonewall. Maralal, Kimilili, and Lokichoggio recorded high percentages (58.3, 53.1 and 47.4 respectively) for mud/wood walls (Table 4.3 and Table B4 in Appendix II).

**Table 4.2: Percentage Distribution of Households by Wall Materials in Selected Towns**

| Town     | Stone | Brick/<br>Block | Mud/Wood | Mud/Cement | Wood Only | Iron Sheets |
|----------|-------|-----------------|----------|------------|-----------|-------------|
| Nairobi  | 41.6  | 14.7            | 9.8      | 7.7        | 5.6       | 19.9        |
| Mombasa  | 20.0  | 34.4            | 16.5     | 26.9       | 0.8       | 0.7         |
| Nakuru   | 36.8  | 10.0            | 12.6     | 35.2       | 4.6       | 0.7         |
| Kisumu   | 3.8   | 40.1            | 16.9     | 36.8       | 0.7       | 1.6         |
| Eldoret  | 6.6   | 41.9            | 31.6     | 13.5       | 4.9       | 1.3         |
| Thika    | 53.4  | 10.8            | 15.0     | 1.4        | 16.6      | 2.5         |
| Ruiru    | 71.7  | 7.8             | 2.5      | 1.5        | 5.7       | 10.2        |
| Nyeri    | 46.9  | 5.4             | 3.6      | 0.7        | 41.6      | 1.8         |
| Malindi  | 8.9   | 46.0            | 24.0     | 19.7       | 0.5       | 0.6         |
| Kakamega | 1.6   | 43.5            | 33.7     | 18.8       | 0.6       | 1.7         |

### 4.3 Floor Finish

From the census results, the floor finish for a majority of households in Kenya is cement or earth. At the national level, the results showed that most households (63 percent) live in houses with earth floor compared to 35 percent with cement floor. Regionally, Nairobi had the best floor finish with 77 percent of households having cement floor against 15 percent earth floor which could attributed to households living in slums and informal settlements. Coast recorded 44.4 percent for cement floor while North Eastern recorded 10 percent cement floor against 90 percent earth floor. Among the districts, Mombasa recorded the best floor finish of 78 percent cement against 19 percent earth while Wajir recorded the worst floor finish of 5 percent cement against 95 percent earth (Table A4 in Appendix II). The latter reflects the case of districts in arid and semi-arid areas which recorded the worst floor finishes.

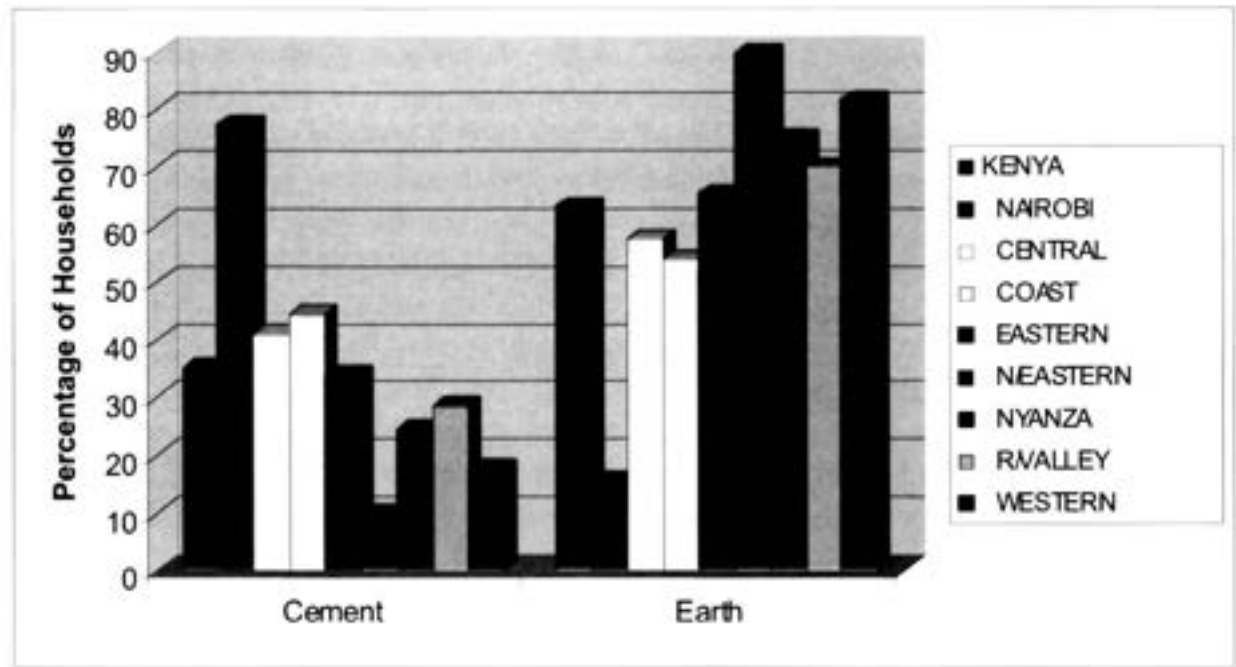
Further analysis indicates that urban households had better floor finish compared to rural households that mostly had earth floors. At the national level, 75 percent of the urban population had cement floor compared to 21.4 percent of their rural counterparts that had cement floor.

Comparing 1989 and 1999 census results (Table 4.4), there was some improvement in floor finish at the national level and in all regions except North Eastern. The latter did not register any improvement having recorded 10.7 percent and 9.7 percent of households with cement floor for 1989 and 1999 respectively.

Table 4.3: Distribution of households by floor finish in 1989 and 1999

|           | CEMENT |      |       |      |       |      | EARTH |      |       |      |       |      |
|-----------|--------|------|-------|------|-------|------|-------|------|-------|------|-------|------|
|           | TOTAL  |      | RURAL |      | URBAN |      | TOTAL |      | RURAL |      | URBAN |      |
|           | 1999   | 1989 | 1999  | 1989 | 1999  | 1989 | 1999  | 1989 | 1999  | 1989 | 1999  | 1989 |
| KENYA     | 35     | 27.4 | 21.7  | 15.8 | 74.8  | 67.4 | 63.1  | 69.7 | 77.2  | 82.1 | 20.9  | 26.8 |
| NAIROBI   | 77.2   | 68.6 | -     | -    | 77.2  | 68.6 | 15.2  | 22.4 | -     | -    | 15.2  | 22.4 |
| CENTRAL   | 41.1   | 27.4 | 35.9  | 22.4 | 75.4  | 69.2 | 57.5  | 70   | 62.8  | 75.4 | 22.7  | 70   |
| COAST     | 44.4   | 30.3 | 16    | 14.1 | 75.4  | 67.2 | 54.1  | 67.4 | 83.4  | 83.6 | 22.2  | 67.4 |
| EASTERN   | 33.4   | 20.7 | 28.5  | 14.3 | 82.5  | 61.5 | 65.5  | 77   | 70.5  | 83.2 | 16    | 77   |
| N/EASTERN | 9.7    | 10.7 | 1.9   | 1.3  | 45    | 37.3 | 89.6  | 88.7 | 97.4  | 98.1 | 54.2  | 88.7 |
| NYANZA    | 24.3   | 19.2 | 17    | 12.2 | 78.7  | 67.5 | 74.7  | 79.1 | 82.1  | 86   | 19.3  | 79.1 |
| R/VALLEY  | 28.5   | 19.3 | 19    | 11.9 | 69.6  | 60.9 | 70    | 78.1 | 79.8  | 85.6 | 27.7  | 78.1 |
| WESTERN   | 17.5   | 13.5 | 11.9  | 8.9  | 65.4  | 67.1 | 81.4  | 84.9 | 86.9  | 89.6 | 33.7  | 84.6 |

Figure 4.5: Households by Floor Finish



The main urban centers largely followed the same picture of floor materials at the national and regional levels where cement and earth were dominant. Contrary to the situation at national and regional levels, the towns recorded a better, albeit not very significant percentage (an average of 3.2 percent compared to less than 1 percent at the national level) of households with tile floors (Table B5 in Appendix II). This was presumably due to the high cost of floor tiles. Table 4.6 shows the situation in Kenya's main urban centers.

**Table 4.4: Percentage distribution of households by floor materials selected towns**

| <b>Town</b> | <b>Cement</b> | <b>Earth</b> | <b>Tiles</b> |
|-------------|---------------|--------------|--------------|
| Nairobi     | 77.2          | 15.2         | 5.2          |
| Mombasa     | 77.8          | 19.4         | 2            |
| Nakuru      | 82.8          | 14.5         | 1.7          |
| Kisumu      | 79.7          | 17.6         | 2.2          |
| Eldoret     | 67.8          | 28.9         | 2.5          |
| Thika       | 64.5          | 33.3         | 1.4          |
| Ruiru       | 89.6          | 8.2          | 1.8          |
| Nyeri       | 71.9          | 25.5         | 1.6          |
| Malindi     | 72.9          | 25.3         | 1.3          |
| Kakamega    | 68.7          | 30.1         | 0.9          |

## **Chapter 5**

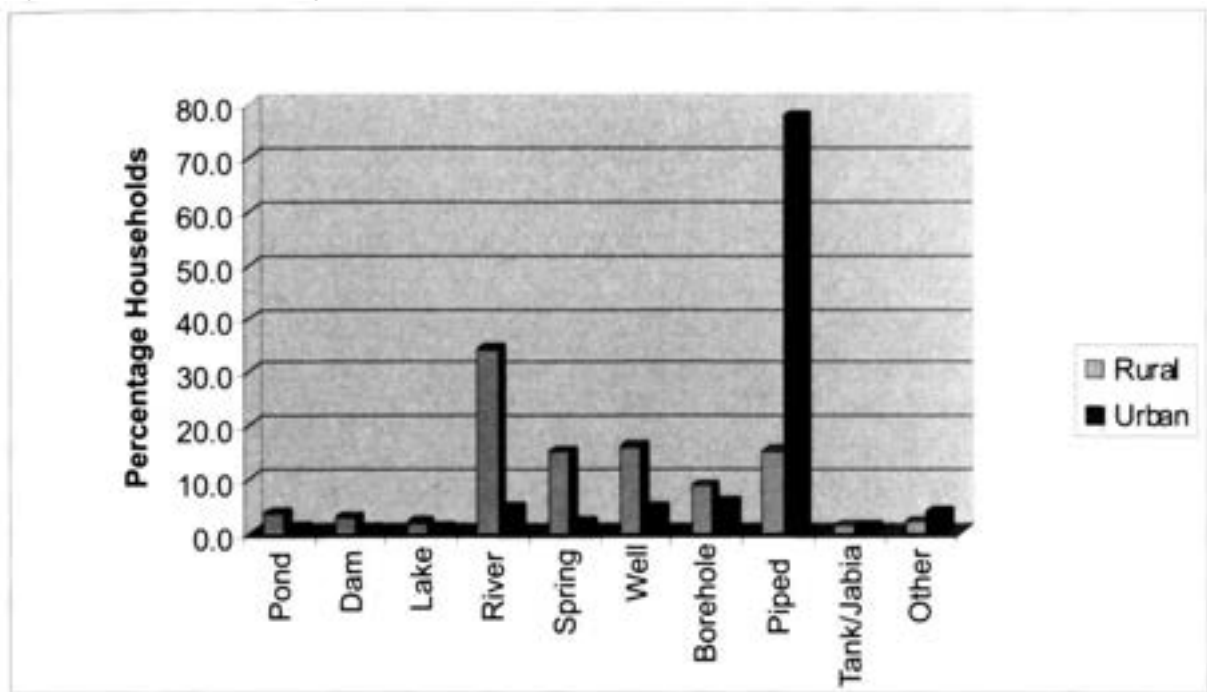
### **Social Amenities**

The standard of living of any country's population depends on access to basic social amenities such as water, sanitation and energy for lighting and cooking. Adequate access to safe water and better sanitation contributes to improved health status of the population, among other things reducing exposure to water and airborne diseases.

#### **5.1 Water**

Water is a crucial basic human need for survival. Its availability also enhances economic activities. In this analysis, water from piped systems, boreholes and wells is considered clean and safe. The overall goal of the Government is to ensure that all Kenyan households have access to clean water within reasonable distance. Census results presented in Table A5 in the Appendix II show that at the national level no significant improvement has been registered in access to clean water in the last decade. In 1999, only 30 per cent of the households had access to piped water compared to 31.9 per cent recorded in 1989. This may be attributed to unsatisfactory performance of some of the piped water schemes. Rural households were worse off in access to clean and safe water as compared to their urban counterparts; less than 40 per cent of the households had access to water from piped water systems, boreholes and wells compared to over 80 per cent for urban households. A significant proportion of households (28 per cent) in the rural areas depended on lakes and rivers generally regarded as unclean water sources mainly because they are not subjected to any form of treatment and are more exposed to pollutant materials (Figure 5.1). Census results further show that in urban areas 74.7 per cent of the households had access to piped water in 1999 compared to 84.8 per cent recorded during the 1989 census, reflecting worsening trends to access to portable clean water in urban areas. This is presumably due to the inability of the water projects in urban areas to cope with increased demand posed by the increasing number of households.

Figure 5.1: Households by Source of Water



Regional analysis shows that households in Nairobi, Central, Eastern, Western and Coast provinces reported better access to clean water; over 50 per cent of the households in the five regions used piped, borehole, and well as main water sources. Nyanza and Rift valley Provinces were below the national level (Table 5.1).

Table 5.1: Percentage Distribution of Households by Main Water Sources by Provinces

| Region/Province | Pond/Dam | Lake/River | Spring | Well/Borehole | Piped |
|-----------------|----------|------------|--------|---------------|-------|
| Kenya           | 4.9      | 28.3       | 11.7   | 20.9          | 30.0  |
| Kenya Urban     | 1.4      | 5.5        | 1.9    | 10.8          | 74.7  |
| Kenya Rural     | 6.1      | 36.0       | 15.1   | 24.4          | 14.9  |
| Nairobi         | 1.2      | 0.6        | 0.4    | 2.0           | 91.0  |
| Central         | 2.9      | 37.9       | 3.1    | 21.4          | 30.1  |
| Coast           | 10.7     | 11.3       | 2.1    | 17.3          | 52.4  |
| Eastern         | 4.6      | 31.4       | 9.1    | 25.1          | 27.0  |
| North Eastern   | 13.6     | 14.1       | 0.7    | 56.8          | 7.1   |
| Nyanza          | 6.8      | 39.9       | 24.0   | 16.9          | 8.5   |
| Rift Valley     | 5.6      | 35.5       | 7.8    | 23.2          | 23.4  |
| Western         | 1.3      | 21.4       | 38.1   | 28.0          | 9.8   |

At the district level, there were significant disparities among the districts. All districts in Central province with the exception of Maragua had better access to clean

and portable water. Similarly, Malindi, Kilifi, Mombasa and Lamu Districts in Coast Province; Embu, and Meru districts in Eastern Province; Kisumu District in Nyanza Province; Kajiado, Nakuru and Uasin Gishu districts in Rift Valley Province recorded high levels (Table A5 in Appendix II). Generally, most of these districts with better access to clean water are more urbanized than those with poor access.

Analysis by gender shows that female-headed households were disadvantaged in most regions. At the national level a high proportion of male-headed households (34.1 per cent) had access to piped water as opposed to a much lower proportion (24.8 percent) for their female counterparts. Female-headed households recorded high proportions in access to other main sources of water (pond, dam, lake, river spring, well, and borehole) compared to their male counterparts. No gender disparities were observed between female and male headed households in Nairobi province. Between 1989 and 1999, the proportion of male-headed households with access to piped water dropped by 2 percentage points while that of female-headed households remained at almost the same level.

Distribution of households by main source of water in selected towns/urban centers provides further insight (Table 5.2 and Table B6 in the appendix II); On average, over 78 per cent of households in the towns listed had access to piped water. However, households in Karuri, Moyale, Elwak, Wajir, and Lokichoggio towns had limited access to piped water and depended more on boreholes and wells as the main sources. Some of these towns have developed due to the refugee influx between 1989 and 1999 hence the prevalence of boreholes.

**Table 5.2: Percentage Distribution of Households by two Main Sources of Water in Selected Towns**

| Towns    | Piped | Boreholes |
|----------|-------|-----------|
| Nairobi  | 91.0  | 1.6       |
| Mombasa  | 79.3  | 3.7       |
| Nakuru   | 91.6  | 1.2       |
| Kisumu   | 58.3  | 9.6       |
| Eldoret  | 60.6  | 7.9       |
| Thika    | 87.5  | 1.0       |
| Ruiru    | 53.0  | 24.6      |
| Nyeri    | 89.8  | 0.1       |
| Malindi  | 90.4  | 1.4       |
| Kakamega | 66.0  | 1.9       |

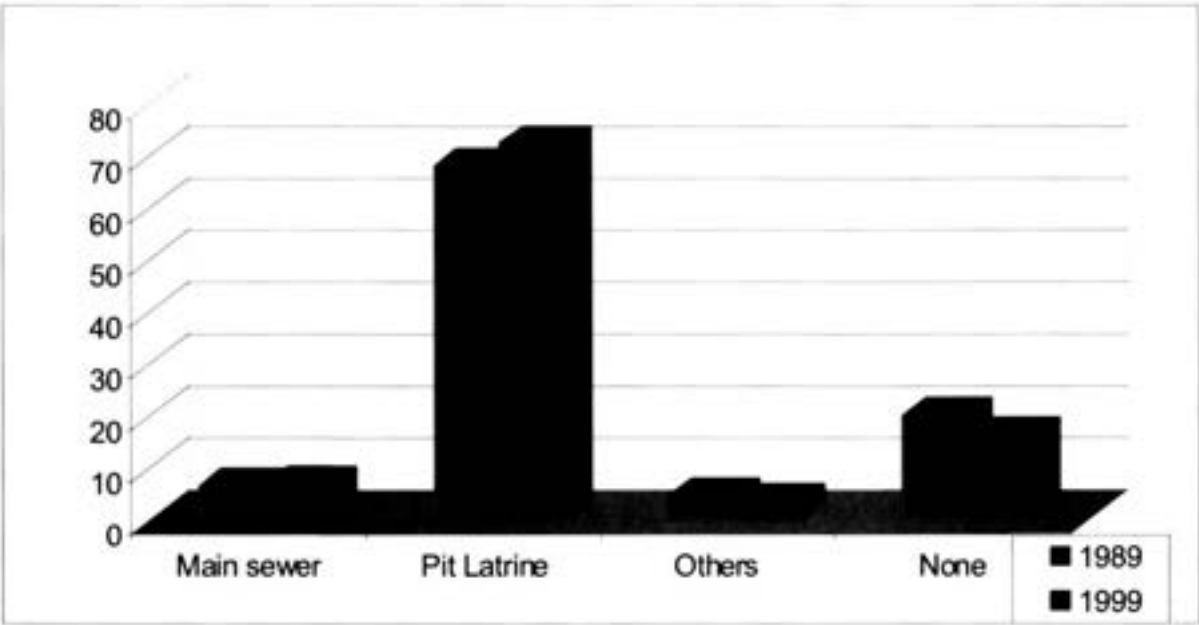
### 5.2. Sanitation

Sanitary conditions in any human settlement have direct impact on prevailing environmental and health standards in the neighbourhood. Analysis of access to main types of human waste disposal presented in Table A6 in Appendix II shows that poor sanitary conditions prevailed in most of the provinces and districts in the country. At the national level, 82.6 percent of households had access to decent sanitary facilities

bucket latrine or pit latrine). The results show marginal improvement in access to main sewer and pit latrines between 1989 and 1999 census periods. Proportions of households with access to main sewer slightly improved from 6.7 per cent in 1989 to 7.7per cent in 1999, while that of pit latrines improved from 68.5 per cent to 72.1 percent in the same period. Pit latrine remained the dominant human waste disposal method for both urban and rural areas as well as in all the provinces except North Eastern which had a majority of households (77.2 percent) going to the bush. The analysis further shows that 16.4 per cent of households used bush (had no sanitary facility), representing a drop from 20.1 percent of households recorded in 1989.

The proportion of households with access to decent sanitary facilities were significantly higher in urban areas than in rural areas. In rural areas, 21.3 percent of households were exposed to poor sanitary conditions compared to 2.1 percent in urban areas. In the latter, the provision of decent sanitary facilities has not matched the increase in urban population, implying that some of the existing sewer systems could not cope with the sewerage load. This has lead to frequent leakages thus posing serious environmental and health problems.

Figure 5.2: Distribution of Households by Main Type of Human Waste Disposal



Provincial analysis (Table 5.3) showed that Nairobi, Central and Western provinces had the highest access (above 80 per cent) to decent sanitary facilities while North Eastern province had the least access (77.2 per cent of household had no toilet facility). In Nyanza, Coast, and Rift Valley provinces 18.5 per cent, 29.6 per cent and 27.2 per cent respectively of the households had no access to sanitary facilities. Despite high levels of access in Nairobi Province, sanitary conditions in slum areas in the province are in pathetic state. This situation is compounded overcrowding in slums/informal settlements. Districts with the worst access to adequate sanitation

included Kwale, Kilifi, Tana-River, Marsabit Garissa, Mandera, Wajir, Suba Baringo, Samburu, Narok, Trans Mara, Turkana, West Pokot, Migori all of these having over 40 per cent of the households without access to decent sanitary facilities.

**Table 5.3 Percentage Distribution of Households by Type of Human Waste Disposal by Province**

| Region/Province | Main Sewer | Pit Latrine | Septic Tank/Cess Pool | Bush | Other |
|-----------------|------------|-------------|-----------------------|------|-------|
| Kenya           | 7.7        | 72.1        | 2.8                   | 16.4 | 1     |
| Kenya Urban     | 27.4       | 60.5        | 8.4                   | 2.1  | 1.6   |
| Kenya Rural     | 1          | 76.1        | 0.9                   | 21.3 | 0.7   |
| Nairobi         | 48.2       | 42.1        | 6.7                   | 1.1  | 2     |
| Central         | 4.3        | 91.6        | 3.2                   | 0.4  | 0.4   |
| Coast           | 3.6        | 56.7        | 8.6                   | 29.6 | 1.5   |
| Eastern         | 2.2        | 80.4        | 1.3                   | 15.4 | 0.7   |
| North Eastern   | 1.2        | 17.6        | 0.6                   | 77.2 | 3.4   |
| Nyanza          | 2.4        | 77          | 0.9                   | 18.5 | 1.3   |
| Rift Valley     | 4.2        | 66          | 2                     | 27.2 | 0.6   |
| Western         | 1.6        | 92.3        | 0.7                   | 4.9  | 0.5   |

The results further indicate that pit latrine was the dominant type of human waste disposal used by majority of households in most towns with a population of 10,000 or more (Table B7 in Appendix II). Main sewer facilities are still not fully developed in most towns due to the high capital out-lay required. Nairobi, Thika, Nanyuki, Mavoko, and Nyahururu recorded better (over 44 percent of households with) access to main sewer while Msambweni, Lokichogio, Wajir, Narok and Maralal had over 30 percent of households without access to decent sanitary facilities that is, used bush.

Among the few selected towns presented in Table 5.4, Mombasa, Ruiru and Malindi towns had the least developed main sewer facility compared to other towns, less than 10 percent of households had access to the main sewers in these towns. In Nairobi city less than half the households had access to main sewer. The low level of access in the city can partly be explained by high proportion of households in the slums and informal settlements with very poor sanitary facilities.

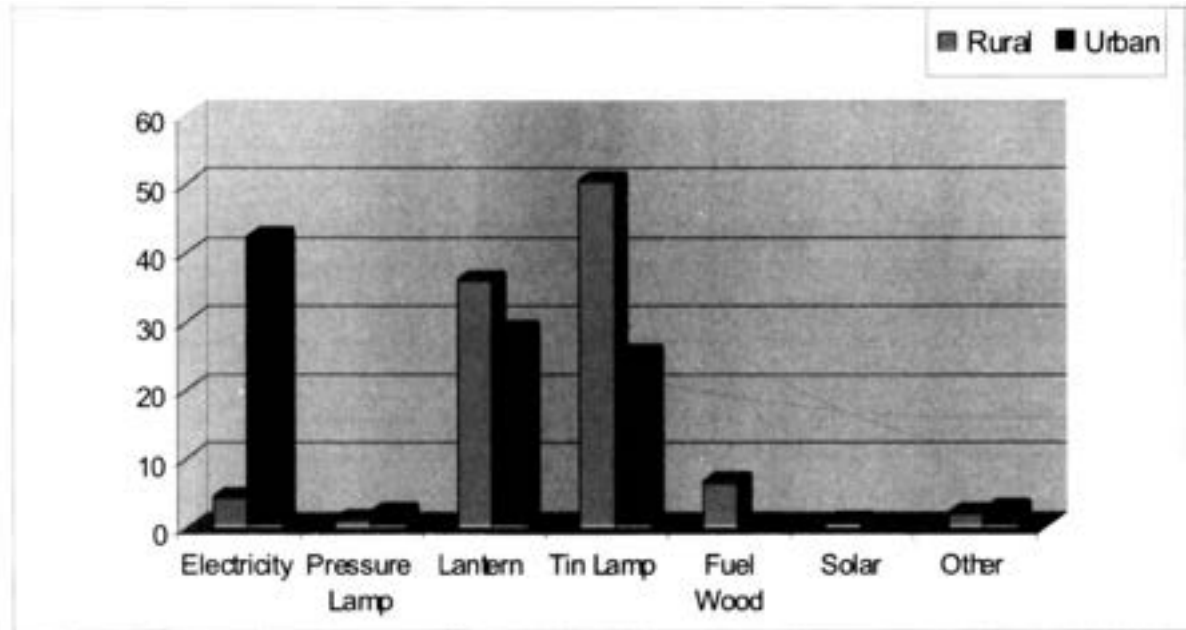
**Table 5.4: Percentage Distribution of Households by Two Main Types of Human Waste Disposal Facilities in Selected Towns**

| Towns    | Main Sewer | Pit latrines |
|----------|------------|--------------|
| Nairobi  | 48.2       | 42.1         |
| Mombasa  | 8.2        | 69.5         |
| Nakuru   | 29.6       | 64.3         |
| Kisumu   | 16.2       | 75.1         |
| Eldoret  | 18.7       | 73.1         |
| Thika    | 57.8       | 39.6         |
| Ruiru    | 5.8        | 68.8         |
| Nyeri    | 25.1       | 58.3         |
| Malindi  | 1.9        | 62.6         |
| Kakamega | 16.3       | 72.9         |

### 5.3 Lighting Fuel

In Kenya, over three-quarters (77.7 per cent) of the population used tin lamp, pressure lamps and lantern (all classified as paraffin lamps) for lighting with a high concentration (86 per cent) in the rural areas. In urban areas electricity was the dominant type of lighting used by most of the households (42 per cent). The use of electricity was prevalent among urban households in all the regions. At the national level, the results show that 13.5 percent of the population had access to electricity, representing an improvement over the 8.7 per cent recorded in 1989. This growth may be attributed to increased electricity supply to both rural and urban areas over the decade 1989-1999 through among other programmes, the Rural Electrification Programme. Over the same period, more rural households (4 per cent) had access to electricity, representing an increase of two percentage points.

Figure 5.3: Households by Lighting Fuel



The census results show significant disparities between the regions (Table 5.5). In Nairobi, electricity was the dominant type of lighting (52.3 percent of households used electricity for lighting) while in other regions lantern and tin lamp were dominant. Eastern and Central provinces recorded the highest access to solar energy as compared to other regions. The high proportion of households in North Eastern province reflected as using other lighting fuels is partly attributable to common use of fuel wood for lighting.

Table 5.5: Distribution of Households by Main Type of Lighting Fuel by Province 1989 and 1999

| Regions       | Electricity |      | Paraffin lamps |      | Other |      |
|---------------|-------------|------|----------------|------|-------|------|
|               | 1989        | 1999 | 1989           | 1999 | 1989  | 1999 |
| Kenya         | 8.7         | 13.5 | 81.3           | 77.7 | 10.0  | 8.8  |
| Rural         | 1.9         | 3.8  | 86.2           | 86.0 | 11.9  | 10.2 |
| Urban         | 32.1        | 42.0 | 64.3           | 53.2 | 3.6   | 4.8  |
| Nairobi       | 42.5        | 52.3 | 54.4           | 43.1 | 3.1   | 4.6  |
| Central       | 7.0         | 15.6 | 90.0           | 79.7 | 3.0   | 4.7  |
| Coast         | 11.6        | 19.4 | 82.2           | 75.6 | 6.2   | 5.0  |
| Eastern       | 4.1         | 5.8  | 74.1           | 85.2 | 21.8  | 8.9  |
| North-Eastern | 5.1         | 5.3  | 43.4           | 44.9 | 51.5  | 49.7 |
| Nyanza        | 2.6         | 4.8  | 89.5           | 91.4 | 7.9   | 3.8  |
| Rift Valley   | 4.5         | 9.4  | 64.8           | 74.0 | 30.7  | 16.7 |
| Western       | 1.7         | 3.2  | 92.6           | 94.3 | 5.7   | 2.5  |

However, the use of solar for lighting was not significant in most parts of the country, although it is greatly renewable, appropriate and environmentally sustainable. Less than 1 percent of households in most regions used solar for lighting. The limited use of solar may be attributed to the relatively high costs of initial installation.

Most districts had limited access to electricity. Kiambu, Mombasa and Thika Districts were better served as compared to other districts which had less than 20 percent of households connected to electricity. In several districts over 50 percent of households used tin lamps for lighting (Table A8 in Appendix II).

Distribution of households by main type of lighting by towns with population of 10,000 or more (Table B8 in appendix II), show that paraffin lamps was the dominant lighting fuel used by majority of households in most towns. In Lamu, Muranga, Kiambu, Nyeri, Kerugoya, Nairobi, Embu, and Moyale towns over half of the households used electricity for lighting. Analysis by major towns presented in Table 5.6 shows varied disparities between the ten towns. Kisumu, Eldoret, Malindi and Kakamega towns had the highest proportion of households (more than 60 per cent) using paraffin lamps as the main source of lighting.

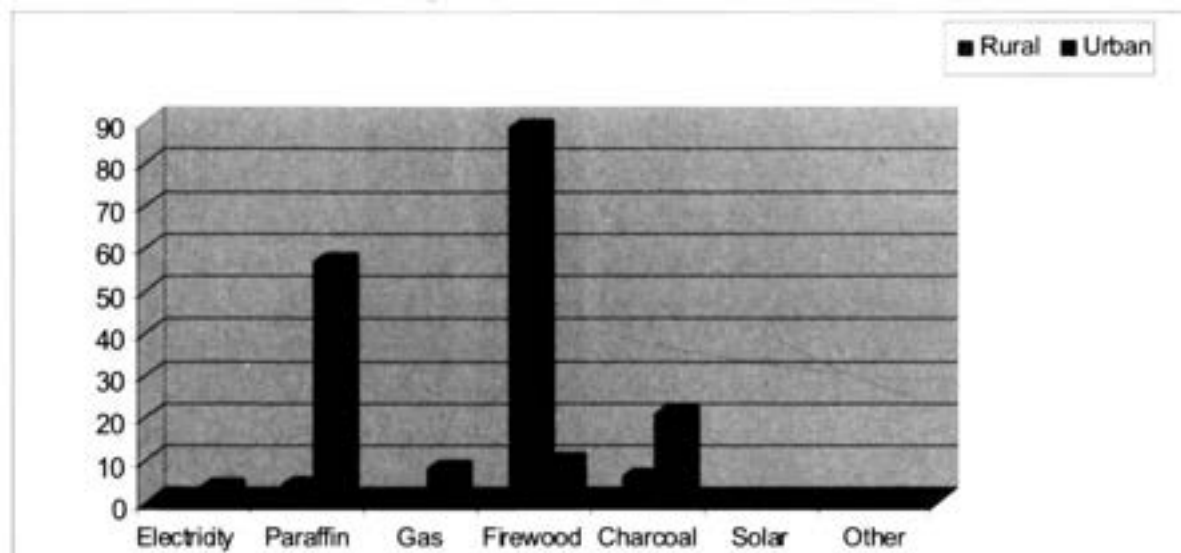
**Table 5.6: Percentage Distribution of Households by main type of Lighting Fuel in Selected Towns**

| Towns    | Electricity | Paraffin Lamps |
|----------|-------------|----------------|
| Nairobi  | 52.3        | 44.9           |
| Mombasa  | 41.6        | 55.9           |
| Nakuru   | 49.9        | 48             |
| Kisumu   | 27.6        | 70.7           |
| Eldoret  | 34.2        | 62.9           |
| Thika    | 46.6        | 50.5           |
| Ruiru    | 43.9        | 53.3           |
| Nyeri    | 57.2        | 41.5           |
| Malindi  | 33.9        | 63.5           |
| Kakamega | 23.5        | 74.3           |

### 5.4 Cooking Fuel

Sustainable use of cooking fuels is essential for balanced development both in rural and urban areas. The results of the census reveal that firewood, paraffin and charcoal continued to be the main sources of cooking fuel in Kenya (Fig. 5.4). At national level, 68.6 percent of the households use firewood as the main cooking fuel with significant proportion 88.4 per cent in the rural areas. This represents a drop from 73.0 percent recorded during the 1989 census. A high proportion of households using firewood and charcoal have serious effects on the country's forest cover, leading to de-forestation and de-gradation of the environment. Between 1989 and 1999 more households shifted to paraffin and charcoal as main sources of cooking fuel especially in urban areas. Slightly over a half of the urban households depended on paraffin as their main source of cooking fuel. Insignificant proportion (less than 4 per cent) of households in the country used gas and electricity for cooking. The low level use of the two sources can be explained by high costs and inadequate supply to most households.

Figure 5.4: Households by Cooking Fuel



Regional analysis (Table 5.7) indicates that majority of the households in all the provinces except Nairobi depended on firewood, paraffin and charcoal as the main source of cooking fuel. Nairobi province recorded the highest proportion of households using paraffin (75.5 per cent), electricity ( 5.7 percent) and gas (12 percent) mainly due to availability and better incomes in the region. All the districts in the country showed a similar trend where firewood, paraffin and charcoal were the dominant sources of cooking fuel. Among the districts, Thika (36.6 percent), Mombasa (65.3 percent), Nakuru (21.7 percent), Kisumu (21.0 percent) recorded the highest proportions of households using paraffin (Table A7 in Appendix I).

Table 5.7 Distribution of households by main type of cooking fuel 1989 and 1999

| Region        | Fire wood |      | Paraffin |      | Charcoal |      | Other |      |
|---------------|-----------|------|----------|------|----------|------|-------|------|
|               | 1989      | 1999 | 1989     | 1999 | 1989     | 1999 | 1989  | 1999 |
| Kenya         | 73.0      | 68.6 | 15.5     | 17.1 | 7.2      | 9.6  | 4.3   | 4.7  |
| Rural         | 90.1      | 88.4 | 4.2      | 4.0  | 3.6      | 5.8  | 2.1   | 1.8  |
| Urban         | 13.1      | 10.0 | 54.9     | 56.0 | 19.8     | 20.8 | 12.2  | 13.2 |
| Nairobi       | 2.9       | 1.8  | 68.4     | 75.5 | 8.7      | 4.0  | 20.0  | 18.7 |
| Central       | 78.5      | 69.3 | 12.5     | 17.1 | 4.9      | 8.9  | 11.6  | 4.7  |
| Coast         | 67.2      | 53.5 | 18.3     | 29.9 | 9.5      | 10.4 | 10.9  | 6.2  |
| Eastern       | 84.8      | 83.7 | 6.6      | 6.8  | 6.1      | 7.1  | 8.2   | 2.4  |
| North-Eastern | 88.9      | 90.4 | 4.8      | 1.3  | 4.8      | 6.5  | 1.8   | 1.8  |
| Nyanza        | 83.2      | 81.6 | 7.2      | 5.7  | 7.1      | 10.5 | 7.9   | 2.3  |
| Rift Valley   | 79.3      | 73.3 | 8.4      | 9.1  | 9.3      | 14.6 | 7.9   | 3.0  |
| Western       | 86.8      | 87.2 | 5.0      | 4.2  | 6.2      | 7.3  | 6.4   | 1.3  |

## Chapter 6

### Consolidated Approach to Housing Quality

Housing and shelter being one of the basic human needs is expected to meet particular standards in human settlements. Adequate shelter entails the house and related social amenities and infrastructure all constructed within sustainable living environments. The elements of adequate shelter include among others, security from natural and man-made hazards, privacy, environmental and health safety, access to place of work, access to basic infrastructure such as roads, sanitary facilities, water within reasonable distance, energy for cooking and lighting and so on. The 1999 population and housing census covered only some of the elements of adequate shelter enumerated above. These elements are the basis for this particular approach to assess the quality of the living environment by consolidating these aspects of adequate shelter. The quality ranking can also be used to access the standard of living of people in various regions.

First attempt to compute a housing quality index in Kenya was made using the 1989 census results, the indices provided a quick way of analyzing housing situation in the country. The detailed approach was contained in Kenya population and housing census analytical report volume 10. In this particular volume, an improved version of the methodology has been used to develop a consolidated quality matrix for housing and related amenities. In the revised methodology, adjustments were made in the quality order, scores and rankings. The elements of adequate shelter that are covered in the development of the quality matrix presented in this chapter are construction materials for (roof, walls and floor), and access to basic social amenities (water, human waste disposal, lighting and cooking fuels). It should be noted that the methodology assumed that all geographical regions are similar. The matrix below presents quality order, scoring and score ranges used to develop the rankings.

| Quality Order | Roof     |      | Wall        |      | Floor    |      | Water        |      | Human Waste Disposal |      | Cooking Fuel |      | Lighting     |      |
|---------------|----------|------|-------------|------|----------|------|--------------|------|----------------------|------|--------------|------|--------------|------|
|               | Material | code | Material    | code | Material | code | Material     | code | Material             | code | Material     | code | Material     | code |
| 1             | Tile     | 2    | Stone       | 1    | Tiles    | 2    | Piped        | 8    | Main Sewer           | 1    | Electricity  | 1    | Electricity  | 1    |
| 2             | Concrete | 3    | Brick/Block | 2    | Cement   | 1    | Tank/Jabias  | 9    | Septic Tank          | 2    | Solar        | 6    | Solar        | 6    |
| 3             | Iron     | 1    | Mud/Cement  | 4    | Wood     | 3    | Spring       | 5    | Cess Poll            | 3    | Gas          | 3    | Pressure Lam | 2    |
| 4             | Asbestos | 4    | Wood only   | 5    | Earth    | 4    | Well         | 6    | Pit Latrine)         | 4    | Parafin      | 2    | Lantern      | 3    |
| 5             | Grass    | 5    | Mud/Wood    | 3    |          |      | Borehole     | 7    | Bucket Latrine       | 5    | Charcoal     | 5    | Tin Lamp     | 4    |
| 6             | Makuti   | 6    | Iron        | 6    |          |      | Stream/River | 4    | Bush)                | 6    | Firewood     | 4    | Fuel Wood    | 5    |
| 7             | Tin      | 7    | Tin         | 8    |          |      | Lake)        | 3    |                      |      |              |      |              |      |
| 8             |          |      | Grass/Reed  | 7    |          |      | Dam)         | 2    |                      |      |              |      |              |      |
| 9             |          |      |             |      |          |      | Pond         | 1    |                      |      |              |      |              |      |

|         | Roof        | Wall        | Floor | Water       | um an waste dispos | Cooking fuel | Lighting fuel |
|---------|-------------|-------------|-------|-------------|--------------------|--------------|---------------|
| Scores  | Codes       | codes       | codes | codes       | codes              | codes        | codes         |
| Score 1 | (2) and (3) | (1) and (2) | -2    | (8) and (9) | (1),(2) and (3)    | -1           | (1) and (6)   |
| Score 2 | (1) and(4)  | (4) and (5) | -1    | -5          | -4                 | (6) and (3)  | -2            |
| Score 3 | (5) and (6) | -3          | -3    | (6) and (7) | -5                 | -2           | -3            |
| Score 4 | -7          | (6) and (8) | -4    | (4) and (3) | -6                 | -5           | -4            |
| Score 5 |             | -7          |       | (2) and (1) |                    | -4           | (5)           |

| Scores Range    |        |
|-----------------|--------|
| Scores 7 to 11  | Rank 1 |
| Scores 12 to 16 | Rank 2 |
| Scores 17 to 21 | Rank 3 |
| Scores 22 to 26 | Rank 4 |
| Scores 27 to 31 | Rank 5 |
| Scores 32 to 35 | Rank 6 |

**Note:** Please note that the numbers used for scores corresponds to the codes as were used in the questionnaire

In the analysis, ranks were used as follows to describe the quality of housing.

Rank 1 -High quality.

Rank 2 -Good quality.

Rank 3 and 4 -average quality.

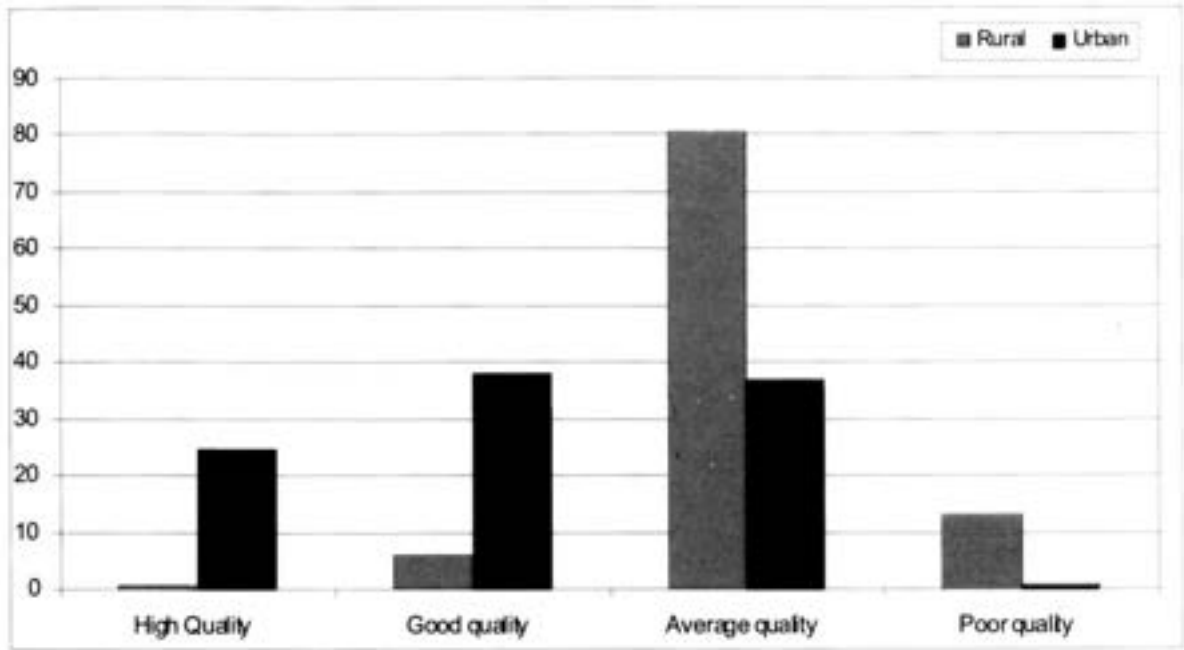
Rank 5 and 6 -poor quality.

Analysis of the results indicates significant disparities in quality of housing between rural and urban areas at the national level and similarly by regions. At the national level, significant proportion of households (70.3 per cent) had average quality housing while 22.7 per cent had high and good quality. As expected and consistent with other housing indicators, urban areas were better off as compared to rural areas. Whereas majority of households (82.9 per cent) in the rural areas had average quality housing, 66.2 per cent of households in urban areas had good and high quality housing. Rural areas with poor access to basic social amenities as highlighted in the previous chapter recorded only 8.1 percent of households with good and high quality housing.

**Table 6.1 Housing Quality by Rural and Urban**

|       | High | Good | Average | Poor quality |
|-------|------|------|---------|--------------|
| Rural | 0.9  | 7.2  | 82.9    | 9.1          |
| Urban | 26.5 | 39.7 | 32.2    | 0.6          |

Figure 6.1: Households by Housing Quality



The analysis further shows that Nairobi, Central and Coast provinces had relatively better housing quality as compared to other regions. Majority of households in all other regions had average quality housing. Significant proportion (74.9 per cent) of Nairobi residents had good and high quality housing. Despite better housing quality recorded for the Province, significant proportion of households in the slums and informal settlement are exposed to poor sanitary conditions and inadequate water supply. North Eastern Province had the highest percentage of households with poor quality housing partly explained by the nomadic nature of the communities residing in the region and lack of basic social amenities in the province. In Central Province about one fifth of the households had good and high quality housing. Analysis by districts show that Marsabit and Samburu districts in Eastern and Rift Valley Provinces, respectively recorded the highest proportion of households with poor quality housing. Details are presented in Table 6.2 below.

Table 6.2: Households by Housing Quality Rankings by District

| REGION           | Rank 1  |      | Rank 2  |      | Rank 3    |      | Rank 4    |      | Rank 5  |      | Rank 6 |     | Total     | Median | %    |
|------------------|---------|------|---------|------|-----------|------|-----------|------|---------|------|--------|-----|-----------|--------|------|
|                  | Number  |      | Number  | %    | Number    | %    | Number    |      | Number  |      | Number |     |           |        |      |
| KENYA            | 463,399 | 7.3  | 972,679 | 15.4 | 1,877,345 | 29.6 | 2,579,859 | 40.7 | 441506  | 7    | 7      | 0   | 6335,295  | 20.6   |      |
| Kenya Rural      | 41,610  | 0.9  | 340,384 | 7.2  | 1,439,551 | 30.4 | 2,488,735 | 52.5 | 432,734 | 9.1  | 5      | 0   | 4,743,019 | 22.1   |      |
| Kenya Urban      | 421,789 | 26.5 | 632295  | 39.7 | 438294    | 27.5 | 91124     | 5.7  | 8,772   | 0.3  | 2      | 0   | 1592276   | 14     |      |
| NAIROBI          | 271079  | 42.2 | 2B,225  | 32.7 | 157,218   | 24.5 | 4362      | 0.7  | 22      | 0    | 0      | 0   | 642,906   | 12.2   |      |
| CENTRAL          | 50,372  | 5.5  | 160,166 | 17.4 | 381817    | 416  | 324,070   | 353  | 2,350   | 0.2  | 0      | 0   | 913,475   | 19.3   |      |
| KIAMBU           | 10,135  | 5.4  | 48,308  | 25.7 | 95,796    | 50.9 | 34,018    |      | 47      | 0    | 0      | 0   | 188,304   | 17.9   |      |
| KIRINYAGA        | 3,933   | 3.5  | 15,406  |      | 46,422    | 40.8 | 47,854    | 42.1 | 67      | 0.1  | 0      | 0   | 113,682   | 20     | 13.6 |
| MURANG'A         | 2,963   | 3.5  | 9,487   | 112  | 23,551    | 27.8 | 48,453    | 573  | 13.8    | 0.2  | 0      | 0   | 84,592    | 2.17   |      |
| NYANDARUA        | 573     | 0.6  | 9,325   | 9    | 49,554    | 47.7 | 44,329    | 42.7 | 116     | 0.1  | 0      | 0   | B3397     | 20.2   |      |
| NYERI            | 9,451   | 5.6  | 25,376  |      | 71751     | 42.8 | 59,976    | 35.7 | 1228    | 0.7  | 0      | 0   | £7,782    | 19.4   | 15.1 |
| THKA             | 22,067  |      | 42,557  | 25   | 67,838    | 39.9 | 37,339    | 219  | 340     | 0.2  | 0      | 0   | 170,141   | 17.5   | 13   |
| MARAGUA          | 1,250   | 14   | 9,707   | 103  | 26,905    | 29.9 | 52,101    | 573  |         | 0.1  | 0      | 0   | 90,077    | 217    |      |
| COAST            | 49,173  | 9.4  | 144,430 | 27.6 | 112,386   | 215  | 145,612   | 273  | 72,277  | 133  | 2      | 0   | 523380    | 19     |      |
| KILIFI           | 2,310   | 26   | 13,047  | 145  | 16,956    | B.9  | 42,570    | 47.4 | 14,872  |      | 0      | 0   | 89,755    | 22.5   |      |
| KWALE            | 1597    | 17   | 13,300  | 112  | 15,320    |      | 39,236    | 42.6 | 25334   | 27.8 | 0      | 0   | 92,087    | 23.4   | 16.6 |
| LAMU             | 416     | 23   | 2,575   | 17.3 | 5,140     | 34.5 | 5,475     | 363  | 1289    | 8.7  | 0      | 0   | M395      | 20.3   |      |
| MOMBASA          | 39,437  | 217  | 96,396  | 53   | 38,143    | 21   | 7,450     | 4.1  | 423     | 0.2  | 0      | 0   | B1,849    | 13.7   |      |
| TAITA TAVETA     | 1753    | 3.1  |         | 20   | 23,190    | 40.4 | 19,913    | 34.7 | 1,045   | 18   | 0      | 110 | 57,411    | 19.3   |      |
| TANA RIVER       | 164     | 0.5  | 1235    | 3.4  | 3,941     | B.9  | 11086     | 30.7 | 8354    | 54.5 | 0      | 0   | 36,380    | 26.4   |      |
| MALINDI          | 3,496   | 67   | 9,367   | B.1  | 9,696     | B.7  | B382      | 38.4 | 9,360   | B.1  | 2      | 0   | 51803     | 218    |      |
| EASTERN          | 11,744  | 2    |         | 12   | 422,550   | 44.3 | 367395    | 38.5 | 31,384  | 33   | 1      | 110 | 954201    | 20.1   |      |
| EMBU             | 3,941   | 62   | B305    | 16.3 | 26,232    | 412  | 22307     | 35.8 | 111     | 0.2  | 0      | 0   | 63,696    | 19.3   |      |
| ISIOLO           | 1,093   | 4.9  | 4,192   | 16.3 | 5,639     | 25.1 | 6,198     | 27.6 | 5375    | 23.9 | 0      | 0   | 22,497    | 213    |      |
| KITUI            | 457     | 0.5  | 5,929   | 6.1  | 37,468    | 38.7 | 48,199    | 49.7 | 4377    | 5    | 0      | 0   | 96,930    | 215    |      |
| MAKUENI          | 1031    | 0.7  | E307    | B3   | 64,259    | 44.7 | 60387     | 42   | 2,794   | 19   | 1      | 0   | 143,779   | 20.3   |      |
| MACHAKOS         | 6,296   | 3.4  | 30,794  | £3   | B1827     | 54.9 | 44298     | 23.9 | 2,338   | 13   | 0      | 0   | B5353     | B.7    |      |
| MARSABIT         | 62      | 0.4  | 2202    | 7.4  | 12,435    | 417  | 12,450    | 417  | 2,1615  | 88   | 0      | 0   | 29,834    | 211    |      |
| MBEERE           | 356     | 1    | 23B     | 7.1  | H544      | 313  | 21B1      | 572  | 1292    | 35   | 0      | 0   | 36,933    | 219    |      |
| MERUCENTRAL      | 3,363   | 23   | 22,188  | B5   | 67,477    | 563  | 25,980    | 217  | 840     | 0.7  | 0      | 0   | 119348    | 133.6  |      |
| MOYALE           | 40      | 0.4  | 930     | 9.1  | 3,181     | 31   | 3,147     | 30.6 | 2,972   | 28.9 | 0      | 0   | B,270     | 22.6   |      |
| MWINGI           | 424     | 0.7  | 4332    | 8.2  | 19,923    | 34   | 28,425    | 48.5 | 5,357   | 8.6  | 0      | 0   | 58,661    | 217    |      |
| MERU NORTH       | 949     | 0.3  | 9206    | 77   | 54,516    | 45.7 | 52386     | 44.4 | 1609    | 14   | 0      | 0   | 119,166   | 20.5   |      |
| THARAKA          | 54      | 0.3  | 593     | 2.9  | 2,835     | 14   | 15,705    | 773  | 893     | 4.4  | 0      | 0   | 20,180    | 23.1   |      |
| NITHI (MERUS.)   | 508     | 11   | 4,739   |      | E214      | 32.5 | 25,782    | 55   | 611     | 13   | 0      | 0   | 46354     | 216    | 10.1 |
| NORTH EASTER     | 1434    | 1    | B391    | 73   | 14,124    | 9.6  | 39,400    | 263  | 81,433  | 55.4 | 0      | 0   | M7382     | 26.5   |      |
| GARESA           | 1126    | 2.4  | 7381    | 16.1 | 6395      |      | 14,504    | 30.5 | 17376   | 36.9 | 0      | 0   | 47,582    | 23.9   | 14.1 |
| MANDERA          | 240     | 0.5  | 1,920   | 4.2  | 3,875     | 8.5  | 2,674     | 27.9 | 26391   | 58.8 | 0      | 0   | 45,400    | 26.3   |      |
| WAJR             | 68      | 0.1  | 1090    | 2    | 3354      | 6.3  | 12222     | 22.6 | 37,166  | 68.7 | 0      | 0   | 54,100    | 27.4   |      |
| NYANZA           | 14,893  | 15   | 78,470  | 8.1  | 230,146   | 23.9 | 565,353   | 58.7 | 74307   | 7.7  | 0      | 0   | 962369    | 22.4   |      |
| GUCHA (S. KISII) | 366     | 0.4  | 5,035   | 5.3  | 24,493    | 27.4 | 59242     | 66.4 | 146     | 0.2  | 0      | 0   | 89282     | 22.2   |      |
| HOMA BAY         | 523     | 0.3  | 2,960   | 4.4  | 9,995     |      | 38,987    | 58.5 | 14,205  | 213  | 0      | 0   | 66,670    | 23.6   |      |
| KISIICENTRAL     | 1585    | 16   | 9327    | 9    | 28,496    | 28.5 | 60,552    | 60.6 | 183     | 0.2  | 0      | 0   | 99343     | 219    |      |
| KISUMU           | 8,801   | 7.2  | 28,792  | 23.5 | 34,286    | 28   | 45,368    | 37.1 | 5,165   | 4.2  | 0      | 0   | 122,412   | B.4    |      |
| KURIA            | 65      | 0.2  | 955     | 3.3  | 5,190     | 18.1 | 19,929    | 69.3 | 2399    | 9    | 0      | 0   | 28,738    | 23.1   |      |
| MIGORI           | 953     | 0.3  | 6,987   | 6.2  | 24,562    | 217  | 64,597    | 57   | 16,264  | 143  | 0      | 0   | 113,363   | 22.9   |      |

|                  |        |     |         |      |         |      |         |      |         |      |   |   |         |      |
|------------------|--------|-----|---------|------|---------|------|---------|------|---------|------|---|---|---------|------|
| N.KISII(NYAMIRA) | 761    | 0.8 | 7,716   | 7.8  | 33,706  | 33.9 | 56363   | 572  | 297     | 03   | 0 | 0 | 99343   | 217  |
| RACHUONYO        | 145    | 0.2 | 2,308   | 3.4  | 13,612  | 20.1 | 44,989  | 66.3 | 6,753   |      | 0 | 0 | 67307   | 23   |
| SIAYA            | 379    | 03  | 6,038   | 5.1  | 21B2    | 18.1 | 84303   | 71.8 | 5,441   | 4.6  | 0 | 0 | 117343  | 22.8 |
| SUBA             | 66     | 0.2 | 528     | 16   | 5,144   | 15.2 | 8,788   | 58.5 | 8323    | 246  | 0 | 0 | 33349   | 23.8 |
| BONDO            | 160    | 03  | 2,579   | 4.6  | B,220   | 235  | 29353   | 53.2 | B328    | B.4  | 0 | 0 | 56,140  | 23   |
| NYANDO           | 1089   | 16  | 5,545   | 8.1  | 16,260  | 23.9 | 40382   | 59.6 | 4,603   | 6.8  | 0 | 0 | 68379   | 22.4 |
| RIFT VALLEY      | 50,987 | 3.4 | 206,905 | 13.9 | 400,784 | 27   | 654,950 | 44   | 173,429 | 117  | 4 | 0 | 1487359 | 217  |
| BARINGO          | 657    | 12  | 3,956   | 7    | 9,118   | 16.2 | 22,138  | 392  | 20339   | 36.4 | 1 | 0 | 56,409  | 24.3 |
| BOMET            | 312    | 0.4 | 2,181   | 3.1  | B349    | 14.7 | 50,188  | 71.3 | 7,404   | B.5  | 0 | 0 | 70,434  | 23.2 |
| KEIYO            | 453    | 1.5 | 2,117   | 7.1  | 8,292   | 27.6 | 16,067  | 53.6 | 3,067   | 10.2 | 0 | 0 | 29,996  | 22.3 |
| KAJIADO          | 6,923  | 7.2 | 22,138  | 23   | 36,591  | 38.1 | 25,786  | 26.8 | 4,608   | 4.8  | 0 | 0 | 96346   | B.6  |
| KERICHO          | 1,945  | 2   | 14,723  | 15   | 28,413  | 28.9 | 44372   | 45.1 | 8,837   | 9    | 0 | 0 | 98290   | 21.5 |
| KOIBATEK         | 354    | 13  | 3,174   | 114  | 8,957   | 32.2 | 11,815  | 42.4 | 3,544   | 12.7 | 0 | 0 | 27344   | 21.6 |
| LAIKIPIA         | 4,093  | 5.3 | 10,917  |      | 23,564  | 303  | 34,712  | 44.7 | 4,371   | 5.6  | 0 | 0 | 77357   | 21   |
| MARAKWET         | 48     | 0.2 | 963     | 3.1  | 3,882   | 12.4 | 20380   | 66   | 5,731   | B.4  | 0 | 0 | 31,204  | 23.6 |
| NAKURU           | 22,279 | 7.6 | 79350   | 26.9 | 99,198  | 33.7 | 86351   | 29.5 | 6,904   | 23   | 0 | 0 | 294,582 | B3   |
| NANDI            | 833    | 0.7 | 7,549   | 6.7  | 35,519  | 316  | 61257   | 54.5 | 7,200   | 6.4  | 0 | 0 | 112358  | 22   |
| NAROK            | 1,329  | 17  | 5,616   | 7.4  | 11,561  | 15.2 | 43,294  | 56.9 | 14,252  | B.7  | 0 | 0 | 76352   | 23.3 |
| SAMBURU          | 339    | 1   | 3,192   | 9.8  | 11934   | 36.5 | 15,223  | 466  | 1990    | 6.1  | 0 | 0 | 32378   | 21.3 |
| TRANS MARA       | 264    | 0.8 | 1,259   | 3.8  | 2,537   | 7.7  | 13,659  | 41.4 | 15,310  | 46.4 | 0 | 0 | 33329   | 25.6 |
| TRANSNZOIA       | 1,787  | 15  | 9,990   | 8.6  | 28376   | 245  | 73,121  | 632  | 2347    | 2    | 1 | 0 | 115,622 | 22.2 |
| TURKANA          | 339    | 0.5 | 3,529   | 4.8  | 9,885   | 13.5 | 32,411  | 44.1 | 27274   | 37.1 | 2 | 0 | 73,440  | 24.5 |
| UASINGISHU       | 7,679  | 5.8 | 24,880  | B.6  | 43,061  | 323  | 56,394  | 42.2 | 1490    | 11   | 0 | 0 | 133304  | 20   |
| WEST POKOT       | 378    | 0.6 | 2,506   | 3.9  | 6,021   | 9.5  | 17,489  | 275  | 37,144  | 58.5 | 0 | 0 | 63338   | 26.7 |
| BURET            | 975    | 15  | 8,865   |      | 23,526  | 365  | 29393   | 46   | 1,417   | 2.2  | 0 | 0 | 64376   | 20.8 |
| WESTERN          | 6,717  | 1   | 47,665  | 6.8  | 158320  | 22.7 | 479,017 | 68.5 | 6,604   | 0.9  | 0 | 0 | 698323  | 22.4 |
| BUNGOMA          | 1,728  | 1   | 13,927  | 8    | 44323   | 256  |         | 65   | 771     | 0.4  | 0 | 0 | 174351  | 22.2 |
| BUSK             | 311    | 0.4 | 5,079   | 6.2  | B3B     | 16.7 | 59380   | 72.9 | 3375    | 3.8  | 0 | 0 | 81,463  | 22.8 |
| MT. ELGON        | 50     | 0.2 | 1215    | 4.8  | 5,490   | 216  | 18,263  | 71.9 | 400     | 16   | 0 | 0 | 25,418  | 22.6 |
| KAKAMEGA         | 1772   | 14  | 9,411   | 7.5  | 25,192  | 20.1 | 88337   | 70.4 | 733     | 0.6  | 0 | 0 | 125,445 | 22.5 |
| LUGARI           | B6     | 03  | 1885    | 4.5  | 9,790   | 23.5 | 29308   | 71.5 | 94      | 0.2  | 0 | 0 | 41,683  | 22.5 |
| TESO             | 286    | 0.8 | 3,326   | 8.7  | 5383    | 15.4 | 27396   | 72.7 | 916     | 2.4  | 0 | 0 | 38,107  | 22.7 |
| VIHIGA           | 535    | 0.5 | 6,993   | 6.6  | 33,738  | 32   | 64352   | 60.8 | 116     | 0.1  | 0 | 0 | 105,434 | 21.9 |
| BUTERE/MUMIAS    | 1929   | 18  | 5,829   | 5.4  | 20386   | 19.2 | 78379   | 73.1 | 499     | 0.5  | 0 | 0 | B7222   | 22.6 |

It is observed that among the districts Mombasa, Kisumu Nakuru and Thika recorded better housing quality as compared to other districts mainly due to urban nature of these districts. Arid and semi arid districts recorded poor housing quality as most of the households live in temporary structure without basic social amenities.

Further analysis of the housing quality by towns show that Nairobi, Thika, and Muranga towns recorded over 40 per cent of households with high quality housing while other towns had good and average quality housing. Households in Mandera, Maralal, Narok, Wajir, Lokichoggio and Elwak towns had poor quality housing as compared to the other towns this can be attributed to the fact that these towns are either recently developed due to the refugee phenomena or are in the arid and semi-arid areas where nomadic life styles have influenced the shelter types. Details are presented in Table B10 in Appendix II and Table 6.3 below

Table 6.3: Distribution of Households by Quality Ranking for Selected Towns

| Town     | Rank 1  |      | Rank 2  |      | Rank 3  |      | Rank 4 |      | Rank 5 |     | Rank 6 |     | Total   | Median |
|----------|---------|------|---------|------|---------|------|--------|------|--------|-----|--------|-----|---------|--------|
|          | Number  | %    | Number  | %    | Number  | %    | Number | %    | Number | %   | Number | %   |         |        |
| Nairobi  | 271,079 | 42.2 | 210,225 | 32.7 | 157,218 | 24.5 | 4,362  | 0.7  | 22     | 0.0 | 0      | 0.0 | 642,906 | 12.2   |
| Mombasa  | 39,437  | 21.7 | 96,396  | 53.0 | 38,143  | 21.0 | 7,450  | 4.1  | 423    | 0.2 | 0      | 0.0 | 181,849 | 13.67  |
| Nakuru   | 15,085  | 22.9 | 38,434  | 58.4 | 11,772  | 17.9 | 520    | 0.8  | 2      | 0.0 | 0      | 0.0 | 65,813  | 13.32  |
| Kisumu   | 7,867   | 15.4 | 23,704  | 46.5 | 17,743  | 34.8 | 1,651  | 3.2  | 15     | 0.0 | 0      | 0.0 | 50,980  | 14.72  |
| Eldoret  | 6,969   | 14.4 | 19,048  | 39.3 | 18,526  | 38.3 | 3,871  | 8.0  | 6      | 0.0 | 0      | 0.0 | 48,420  | 15.53  |
| Thika    | 12,238  | 45.3 | 5,881   | 21.8 | 8,372   | 31.0 | 524    | 1.9  | 3      | 0.0 | 0      | 0.0 | 27,018  | 12.08  |
| Ruiru    | 6,345   | 24.8 | 13,508  | 52.9 | 5,216   | 20.4 | 481    | 1.9  | 0      | 0.0 | 0      | 0.0 | 25,550  | 13.38  |
| Nyeri    | 4,935   | 31.8 | 6,310   | 40.6 | 3,783   | 24.3 | 514    | 3.3  | 1      | 0.0 | 0      | 0.0 | 15,543  | 13.25  |
| Malindi  | 2,966   | 19.6 | 6,673   | 44.1 | 4,341   | 28.7 | 1,147  | 7.6  | 2      | 0.0 | 0      | 0.0 | 15,129  | 14.45  |
| Kakamega | 1,534   | 10.5 | 6,083   | 41.7 | 4,721   | 32.4 | 2,246  | 15.4 | 4      | 0.0 | 0      | 0.0 | 14,588  | 15.73  |

## **Chapter 7**

### **Assessment of Policy Implication of Findings**

The findings of the 1999 Population and Housing Census are very pertinent and require reassessment of current policies and legislation relating to the fields covered. Some of these policies touch on housing, energy, water, and finance. Some of the findings also point to the need for reviewing the legislative instruments governing the above fields. These findings and their policy implications are discussed in the context of the data captured during the census. It should be noted that although in some areas, there might be need for further enquiries, the census results merely points to this necessity.

#### **7.1 Public Housing**

The census results revealed minimal direct investment by the public sector, only 4 percent of households lived in publicly owned dwellings. This means that the other 96 percent were catered for by the private sector, which is known to be less responsive to the housing needs of the middle and low income as well as the disadvantaged members of the population. This can be observed by the continued proliferation and expansion of informal settlements and slums coupled with homelessness especially in major urban centers. There is therefore need for a review of the current policy where the public sector only plays a facilitative role in housing development. National Housing Corporation should be strengthened to enter into a structured partnership with local authorities and other partners to resume development of middle and low-income housing.

#### **7.2 Housing Finance**

As evident from the census results, fewer households ( 3.7 percent) lived in purchased dwellings. This shows that the house prices have remained beyond the reach of many people; this is worsened by the fact that it has proved very difficult for most citizens to assess credit owing to the prevailing high interest rates. The current policies and legislation that govern the financial markets should be reviewed with a view to mobilizing additional financial resources for housing development through downward adjustment of interest rates and use of pension and insurance funds in housing development among other approaches.

#### **7.3 Tenure**

The past two censuses in Kenya have shown that most households (76 percent in 1999) in the urban areas are renters. There is therefore need to review and streamline the current policies and legislation regarding rents as well as land lord tenant matters with a view to achieving optimum benefit to both the renters and the investors in rental housing. The current investments in housing should endeavour to strike a balance in providing both rental and owner occupied housing in view of the current difficulties experienced in the property market. In view of these factors, the Rent Tribunal needs to be restructured and strengthened to supervise the rental housing system.

#### **7.4 The Administrative Structure**

Currently the ministry in-charge of housing is expected to supervise housing developments in the country as well as to regularly review the housing policy. It has been evident that over the years, that this arrangement has not worked well due to the absence of a legal instrument to enable the ministry to effectively undertake the relevant tasks. As is the case in other fields such as health and education where the parent ministry has legal channels of supervising the sectors through out the country including within local authorities, the Ministry in charge of housing should be empowered to take charge of housing matters in the country. There is therefore need for the enactment of a comprehensive housing act that will address the current difficulties experienced by the ministry in charge of housing.

#### **7.5 Building Materials**

The census results revealed that most households depended on conventional building materials such as cement and iron sheets for their walls and roof respectively. There is therefore need to review the existing financial instruments related to the prices of these basic construction materials. The reduction of the taxes on these materials could make them more affordable and hence enable more households especially in the rural areas to improve the quality of their houses. This is important as the results also show that houses in the rural areas had poor quality compared to the urban areas (refer to chapter 6). There is also need to step up dissemination efforts on existing information on low-cost and appropriate building materials and technologies to reduce over reliance on conventional materials.

#### **7.6 Water**

The overall goal of the Government is to ensure that households in Kenya have access to safe drinking water within reasonable distance. The census showed that significant proportion of Kenyan population still depended on lake, river, pond and dam sources all regarded as unsafe water sources. Hence, many people are exposed to serious health problems. The development of water supplies has not matched the country's population growth in both rural and urban areas. Between 1989 and 1999, the number of households with access to piped water dropped from 31.9 per cent to 30.0 per cent partly explained by the non-performance of some of the existing water schemes. This necessitates a change in water policy approach to that of participatory management. Expansion of human activities, particularly agricultural activities in water catchment areas has contributed to the decline in forest cover and in some parts of the country has affected availability of water. There is need for concerted efforts by all players to conserve water catchment areas to sustain the current water sources.

## **7.7 Energy**

Energy is important for household domestic activities including cooking and lighting. The analysis presented in chapter 5 showed that the main sources for cooking fuel for majority of Kenyan households were wood fuel (including firewood and charcoal) and paraffin. While paraffin and electricity were main sources for lighting, the results showed that 68.6 per cent of the households in Kenya used firewood as the main cooking fuel with 84.4 per cent of household in the rural areas. In lighting, over three quarters (78 per cent) of the households used paraffin.

Heavy dependence of households on firewood and charcoal has serious impact of the country's forest cover. It has also been observed that the total wood supply has not matched the demand in the country. To ensure a sustainable wood supply while at the same time avoiding environmental degradation on farm wood production for fast growing trees is recommended. Promotion of efficient use of wood fuel by encouraging the use of efficient cooking facilities should also be stepped up.

Renewable energy such as biomass, solar and wind energy are not widely used but have considerable potential for sustainable development in Kenya as alternative source of domestic energy.

## **Chapter 8**

### **Conclusions and Recommendations**

#### **8.1 Conclusions**

The results of the census to a large extent reflected a true picture of the housing situation in the country. There was also marked consistency comparing the results to the last census and other sources of statistics in the country. However, it is important to note that these results presented in this volume requires to be supplemented by a comprehensive housing survey and any other relevant statistical enquiries that would be able to explain some of the emerging issues that may have not been adequately covered by this report. Some of the areas that would require further information to obtain a better picture of the situation. For example, in addition to the rooms occupied and persons per room as obtained from the census, there is need to obtain the average room sizes. Apart from the sources of water covered in the census the distance and quality of water may enrich the results so far obtained. For sanitation, number of users per a given facility may also be pertinent. There are also issues of costs of housing, water, electricity etc that can be obtained from a survey to enrich the census data

It is also important to note that given the current state of cities through out the world and Kenya in particular, informal settlements and slums have become a major concern, the census data could be analysed to the level of informal settlements especially for the major urban centers. The data obtained on these towns could be greatly enhanced if the informal settlements data were isolated.

It is evident from the census results that some progress was been made in access to basic social amenities and the quality of housing between 1989 and 1999. However, the provision of social amenities has not matched the growth in population. The results showed that 82.6 per cent of households has access to adequate sanitation with marginal gains in access to main sewer and pit-latrines between the census periods. In fuel use, the results showed that 13.5 per cent of the household had access to electricity representing an improvement over the 8.9 per cent recorded in 1989. This growth was attributed to rise in electricity supply to both rural and urban areas. In water, only 30.0 per cent of household in 1999 had access to piped water compared to 31.9 per cent recorded in 1989. In housing, majority of household in Kenya ( 63.9 per cent) had iron sheet roofs reflecting significant improvement against 51.5 per cent of households registered in 1989. The results further reveal a wide variation between rural and urban areas, which needs to be addressed to reduce rural/urban imbalance. In 1990's, the Government put in place a process to review the housing policy, which has since been approved by cabinet and passed to parliament for consideration. The new policy is expected to address some of the identified problems in the housing sub-sector.

## 8.2 Recommendations

Based on the observations above, the following are recommended:

- Further detailed analysis of census data is required to determine the magnitude of shelter and human settlement problems in slums and informal settlements in selected main towns. The cartographic section of the Central Bureau of Statistics in collaboration with the Department of Housing and the relevant Local Authorities should endeavour to revisit the Enumeration Areas in the major urban centers (Nairobi, Mombasa, Kisumu, Nakuru, Eldoret and Thika) with a view to clearly marking the EAs that fall within the informal settlements. This will enable the analysis of the 1999 Census at the Informal settlements level for these selected towns.
- Census results show that there is urgent need for a comprehensive housing survey to capture more detailed information that has not been captured by the censuses. This will address the current data gaps in the housing sub-sector. Arrangements should be put in place to start the process towards conducting a housing survey.
- The future census instruments needs to be structured in a manner that as much as possible, is consistent with the 1999 instruments in order to be able to obtain some form of trends in the future especially with regard to the housing stock.
- The check box in column H10 of part D of the questionnaire which was supposed to obtain data on shared dwellings should be filled in with the household number of the first household enumerated in the shared dwelling. This will facilitate the analysis of the prevalence of sharing dwellings especially in the urban areas. It will also assist in getting the main dwelling unit counts that would enable analysis of tenure and construction materials by dwelling units.
- Majority of households in most regions more particularly in the rural areas are exposed to poor sanitary conditions, campaigns needs to be stepped up to encourage households in rural areas and informal settlements to improve their sanitary conditions through among other measures, building of pit-latrines.
- There is need for a review of the power tariffs owing to the fact that although 14 percent of households through out the country have access to electricity, only 1 percent use it for cooking reflecting indications of high tariffs.
- In view of the poor housing standards prevailing and non-adherence to the existing building code and by-laws, there is need to implement the recommendations of the Presidential Commission on building laws, by laws and regulations. The Commission recommended comprehensive legislation to guide the building sector, and independent Planning and Building Authority as well as up to date building regulations.

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Structure No.: S

|                   |          |          |          |              |             |               |                |  |
|-------------------|----------|----------|----------|--------------|-------------|---------------|----------------|--|
| Province          | District | Division | Location | Sub-Location | E.A. Number | Household No. | Household Type |  |
| Household Totals: |          |          |          |              | Males       | Females       | Total:         |  |

### A: Information Regarding All Persons

Serial Number of Form: 3342941

[illegible]



## APPENDIX II-TABLES

Table A1: Distribution of Households\* by Tenure

| District     | Owned     |     |             |      |           |     | Rented     |     |                 |     |            |     |         |     |            |      | Total     |
|--------------|-----------|-----|-------------|------|-----------|-----|------------|-----|-----------------|-----|------------|-----|---------|-----|------------|------|-----------|
|              | Purchased |     | Constructed |      | Inherited |     | Government |     | Local Authority |     | Parastatal |     | Private |     | Individual |      |           |
|              | Number    | %   | Number      | %    | Number    | %   | Number     | %   | Number          | %   | Number     | %   | Number  | %   | Number     | %    |           |
| Kenya        | 239,676   | 3.8 | 4,161,838   | 65.7 | 131,276   | 2.1 | 114,084    | 1.8 | 61,881          | 1.0 | 63,069     | 1.0 | 202,481 | 3.2 | 1,360,990  | 21.5 | 6,335,295 |
| Nairobi      | 60,811    | 9.5 | 41,668      | 6.5  | 12,422    | 1.9 | 31,007     | 4.8 | 24,960          | 3.9 | 17,724     | 2.8 | 32,062  | 5.0 | 422,252    | 65.7 | 642,906   |
| Central      | 32,770    | 3.6 | 615,528     | 67.0 | 26,358    | 2.9 | 13,601     | 1.5 | 5,044           | 0.5 | 5,910      | 0.6 | 39,652  | 4.3 | 179,612    | 19.6 | 918,475   |
| Kiambu       | 6,010     | 3.2 | 103,801     | 55.1 | 6,203     | 3.3 | 2,620      | 1.4 | 633             | 0.3 | 1,339      | 0.7 | 11,846  | 6.3 | 55,852     | 29.7 | 188,304   |
| Kirinyaga    | 5,544     | 4.9 | 85,787      | 75.5 | 2,849     | 2.5 | 1,519      | 1.3 | 483             | 0.4 | 982        | 0.9 | 1,962   | 1.7 | 14,556     | 12.8 | 113,682   |
| Murang'a     | 1,899     | 2.2 | 69,369      | 82.0 | 2,853     | 3.4 | 1,229      | 1.5 | 206             | 0.2 | 447        | 0.5 | 1,021   | 1.2 | 7,568      | 8.9  | 84,592    |
| Nyandarua    | 4,476     | 4.3 | 77,361      | 74.5 | 3,505     | 3.4 | 1,442      | 1.4 | 367             | 0.4 | 455        | 0.4 | 1,996   | 1.9 | 14,295     | 13.8 | 103,897   |
| Nyeri        | 5,275     | 3.1 | 120,903     | 72.1 | 4,695     | 2.8 | 3,355      | 2.0 | 808             | 0.5 | 859        | 0.5 | 4,235   | 2.5 | 27,652     | 16.5 | 167,782   |
| Thika        | 6,447     | 3.8 | 84,279      | 49.5 | 3,953     | 2.3 | 2,533      | 1.5 | 2,415           | 1.4 | 1,552      | 0.9 | 16,663  | 9.8 | 52,299     | 30.7 | 170,141   |
| Maragua      | 3,119     | 3.5 | 74,028      | 82.2 | 2,300     | 2.6 | 903        | 1.0 | 132             | 0.1 | 276        | 0.3 | 1,929   | 2.1 | 7,390      | 8.2  | 90,077    |
| Coast        | 25,922    | 4.9 | 281,600     | 53.8 | 14,710    | 2.8 | 11,556     | 2.2 | 5,212           | 1.0 | 7,670      | 1.5 | 13,946  | 2.7 | 163,264    | 31.2 | 523,880   |
| Kilifi       | 2,307     | 2.6 | 66,864      | 74.5 | 1,401     | 1.6 | 1,118      | 1.2 | 245             | 0.3 | 239        | 0.3 | 2,598   | 2.9 | 14,983     | 16.7 | 89,755    |
| Kwaie        | 1,650     | 1.8 | 74,410      | 80.8 | 2,334     | 2.5 | 1,151      | 1.2 | 241             | 0.3 | 332        | 0.4 | 1,950   | 2.1 | 10,019     | 10.9 | 92,087    |
| Lamu         | 403       | 2.7 | 9,291       | 62.4 | 1,287     | 8.6 | 549        | 3.7 | 23              | 0.2 | 97         | 0.7 | 229     | 1.5 | 3,016      | 20.2 | 14,895    |
| Mombasa      | 17,427    | 9.6 | 29,056      | 16.0 | 6,252     | 3.4 | 4,857      | 2.7 | 4,249           | 2.3 | 5,299      | 2.9 | 4,559   | 2.5 | 110,150    | 60.6 | 181,849   |
| Taita Taveta | 1,454     | 2.5 | 39,447      | 68.7 | 1,866     | 3.3 | 1,410      | 2.5 | 267             | 0.5 | 990        | 1.7 | 3,288   | 5.7 | 8,689      | 15.1 | 57,411    |
| Tana River   | 754       | 2.1 | 28,757      | 79.7 | 506       | 1.4 | 1,777      | 4.9 | 33              | 0.1 | 196        | 0.5 | 247     | 0.7 | 3,810      | 10.6 | 36,080    |
| Malindi      | 1,927     | 3.7 | 33,775      | 65.2 | 1,064     | 2.1 | 694        | 1.3 | 154             | 0.3 | 517        | 1.0 | 1,075   | 2.1 | 12,597     | 24.3 | 51,803    |
| Eastern      | 27,448    | 2.9 | 774,961     | 81.2 | 16,176    | 1.7 | 10,846     | 1.1 | 3,919           | 0.4 | 4,526      | 0.5 | 13,389  | 1.4 | 102,936    | 10.8 | 954,201   |
| Embu         | 2,265     | 3.6 | 46,352      | 72.8 | 1,198     | 1.9 | 1,597      | 2.5 | 401             | 0.6 | 269        | 0.4 | 686     | 1.1 | 10,928     | 17.2 | 63,696    |
| Isiolo       | 1,121     | 5.0 | 15,453      | 68.7 | 359       | 1.6 | 1,016      | 4.5 | 121             | 0.5 | 105        | 0.5 | 319     | 1.4 | 4,003      | 17.8 | 22,497    |
| Kitui        | 1,575     | 1.6 | 86,358      | 89.1 | 1,451     | 1.5 | 807        | 0.8 | 117             | 0.1 | 140        | 0.1 | 884     | 0.9 | 5,598      | 5.8  | 96,930    |
| Makueni      | 2,927     | 2.0 | 122,562     | 85.2 | 2,197     | 1.5 | 905        | 0.6 | 425             | 0.3 | 831        | 0.6 | 2,135   | 1.5 | 11,797     | 8.2  | 143,779   |
| Machakos     | 5,391     | 2.9 | 140,574     | 75.8 | 3,116     | 1.7 | 2,392      | 1.3 | 802             | 0.4 | 1,812      | 1.0 | 3,843   | 2.1 | 27,623     | 14.9 | 185,553   |
| Marsabit     | 698       | 2.3 | 26,020      | 87.2 | 248       | 0.8 | 521        | 1.7 | 29              | 0.1 | 196        | 0.7 | 358     | 1.2 | 1,764      | 5.9  | 29,834    |
| Mbeere       | 1,244     | 3.4 | 30,922      | 83.7 | 531       | 1.4 | 356        | 1.0 | 211             | 0.6 | 241        | 0.7 | 818     | 2.2 | 2,610      | 7.1  | 36,933    |
| Meru Central | 4,775     | 4.0 | 88,190      | 73.6 | 2,784     | 2.3 | 1,444      | 1.2 | 438             | 0.4 | 384        | 0.3 | 2,136   | 1.8 | 19,697     | 16.4 | 119,848   |
| Moyale       | 200       | 1.9 | 7,783       | 75.8 | 156       | 1.5 | 321        | 3.1 | 22              | 0.2 | 57         | 0.6 | 82      | 0.8 | 1,649      | 16.1 | 10,270    |

| District           | Owned     |     |             |      |           |     | Rented     |     |                 |     |            |     |         |      |            |      | Total     |
|--------------------|-----------|-----|-------------|------|-----------|-----|------------|-----|-----------------|-----|------------|-----|---------|------|------------|------|-----------|
|                    | Purchased |     | Constructed |      | Inherited |     | Government |     | Local Authority |     | Parastatal |     | Private |      | Individual |      |           |
|                    | Number    | %   | Number      | %    | Number    | %   | Number     | %   | Number          | %   | Number     | %   | Number  | %    | Number     | %    |           |
| Mwingi             | 1,266     | 2.2 | 50,885      | 86.7 | 705       | 1.2 | 347        | 0.6 | 82              | 0.1 | 181        | 0.3 | 703     | 1.2  | 4,492      | 7.7  | 58,661    |
| Meru North         | 3,870     | 3.2 | 102,425     | 86.0 | 2,129     | 1.8 | 648        | 0.5 | 1,175           | 1.0 | 219        | 0.2 | 992     | 0.8  | 7,708      | 6.5  | 119,166   |
| Tharaka            | 536       | 2.7 | 18,024      | 89.3 | 287       | 1.4 | 178        | 0.9 | 36              | 0.2 | 13         | 0.1 | 155     | 0.8  | 951        | 4.7  | 20,180    |
| Nithi (Meru S.)    | 1,580     | 3.4 | 39,413      | 84.1 | 1,015     | 2.2 | 314        | 0.7 | 60              | 0.1 | 78         | 0.2 | 278     | 0.6  | 4,116      | 8.8  | 46,854    |
| North eastern      | 2,693     | 1.8 | 130,641     | 88.8 | 1,602     | 1.1 | 2,767      | 1.9 | 171             | 0.1 | 246        | 0.2 | 849     | 0.6  | 8,113      | 5.5  | 147,082   |
| Garissa            | 989       | 2.1 | 38,965      | 81.9 | 452       | 0.9 | 1,451      | 3.0 | 91              | 0.2 | 152        | 0.3 | 496     | 1.0  | 4,986      | 10.5 | 47,582    |
| Mandera            | 818       | 1.8 | 41,338      | 91.1 | 725       | 1.6 | 691        | 1.5 | 28              | 0.1 | 52         | 0.1 | 133     | 0.3  | 1,615      | 3.6  | 45,400    |
| Wajir              | 886       | 1.6 | 50,338      | 93.0 | 425       | 0.8 | 625        | 1.2 | 52              | 0.1 | 42         | 0.1 | 220     | 0.4  | 1,512      | 2.8  | 54,100    |
| Nyanza             | 25,450    | 2.6 | 756,969     | 78.6 | 12,243    | 1.3 | 9,903      | 1.0 | 7,064           | 0.7 | 7,903      | 0.8 | 13,716  | 1.4  | 129,621    | 13.5 | 962,869   |
| Gucha (S. Kisii)   | 2,870     | 3.2 | 78,476      | 87.9 | 1,293     | 1.4 | 369        | 0.4 | 228             | 0.3 | 95         | 0.1 | 838     | 0.9  | 5,113      | 5.7  | 89,282    |
| Homa Bay           | 914       | 1.4 | 54,914      | 82.4 | 454       | 0.7 | 868        | 1.3 | 168             | 0.3 | 257        | 0.4 | 448     | 0.7  | 8,647      | 13.0 | 66,670    |
| Kisii Central      | 2,671     | 2.7 | 83,534      | 83.7 | 1,877     | 1.9 | 1,158      | 1.2 | 258             | 0.3 | 381        | 0.4 | 814     | 0.8  | 9,150      | 9.2  | 99,843    |
| Kisumu             | 3,768     | 3.1 | 64,404      | 52.6 | 2,200     | 1.8 | 2,858      | 2.3 | 1,861           | 1.5 | 2,521      | 2.1 | 2,672   | 2.2  | 42,128     | 34.4 | 122,412   |
| Kuria              | 858       | 3.0 | 24,709      | 86.0 | 400       | 1.4 | 235        | 0.8 | 54              | 0.2 | 42         | 0.1 | 206     | 0.7  | 2,234      | 7.8  | 28,738    |
| Migori             | 3,416     | 3.0 | 87,777      | 77.4 | 1,170     | 1.0 | 938        | 0.8 | 1,207           | 1.1 | 1,455      | 1.3 | 1,652   | 1.5  | 15,748     | 13.9 | 113,363   |
| Kisii N. (Nyamira) | 4,011     | 4.0 | 80,080      | 80.6 | 1,285     | 1.3 | 540        | 0.5 | 1,595           | 1.6 | 523        | 0.5 | 3,182   | 3.2  | 8,127      | 8.2  | 99,343    |
| Rachuonyo          | 1,319     | 1.9 | 57,913      | 85.4 | 849       | 1.3 | 489        | 0.7 | 286             | 0.4 | 109        | 0.2 | 760     | 1.1  | 6,082      | 9.0  | 67,807    |
| Siaya              | 1,563     | 1.3 | 102,836     | 87.6 | 1,136     | 1.0 | 947        | 0.8 | 168             | 0.1 | 286        | 0.2 | 1,094   | 0.9  | 9,313      | 7.9  | 117,343   |
| Suba               | 783       | 2.3 | 27,342      | 80.8 | 265       | 0.8 | 362        | 1.1 | 121             | 0.4 | 72         | 0.2 | 386     | 1.1  | 4,518      | 13.3 | 33,849    |
| Bondo              | 1,752     | 3.1 | 43,492      | 77.5 | 487       | 0.9 | 513        | 0.9 | 775             | 1.4 | 56         | 0.1 | 427     | 0.8  | 8,638      | 15.4 | 56,140    |
| Nyando             | 1,525     | 2.2 | 51,492      | 75.6 | 827       | 1.2 | 626        | 0.9 | 343             | 0.5 | 2,106      | 3.1 | 1,237   | 1.8  | 9,923      | 14.6 | 68,079    |
| Rift Valley        | 49,063    | 3.3 | 975,103     | 65.6 | 35,532    | 2.4 | 27,549     | 1.9 | 13,320          | 0.9 | 14,095     | 0.9 | 83,294  | 5.6  | 289,103    | 19.4 | 1,487,059 |
| Baringo            | 1,444     | 2.6 | 47,881      | 84.9 | 709       | 1.3 | 1,186      | 2.1 | 212             | 0.4 | 246        | 0.4 | 878     | 1.6  | 3,853      | 6.8  | 56,409    |
| Bomet              | 1,425     | 2.0 | 62,717      | 89.0 | 2,153     | 3.1 | 423        | 0.6 | 180             | 0.3 | 121        | 0.2 | 474     | 0.7  | 2,941      | 4.2  | 70,434    |
| Keiyo              | 598       | 2.0 | 24,089      | 80.3 | 681       | 2.3 | 860        | 2.9 | 97              | 0.3 | 208        | 0.7 | 615     | 2.1  | 2,848      | 9.5  | 29,996    |
| Kajiado            | 3,428     | 3.6 | 54,706      | 57.0 | 2,237     | 2.3 | 1,554      | 1.6 | 538             | 0.6 | 680        | 0.7 | 3,023   | 3.1  | 29,880     | 31.1 | 96,046    |
| Kericho            | 3,328     | 3.4 | 62,526      | 63.6 | 2,286     | 2.3 | 1,493      | 1.5 | 603             | 0.6 | 806        | 0.8 | 14,605  | 14.9 | 12,643     | 12.9 | 98,290    |
| Koibatek           | 736       | 2.6 | 18,857      | 67.7 | 907       | 3.3 | 735        | 2.6 | 72              | 0.3 | 177        | 0.6 | 413     | 1.5  | 5,947      | 21.4 | 27,844    |
| Laikipia           | 2,852     | 3.7 | 46,044      | 59.3 | 2,192     | 2.8 | 3,010      | 3.9 | 668             | 0.9 | 769        | 1.0 | 4,032   | 5.2  | 18,090     | 23.3 | 77,657    |
| Marakwet           | 557       | 1.8 | 26,771      | 85.8 | 1,064     | 3.4 | 290        | 0.9 | 71              | 0.2 | 77         | 0.2 | 309     | 1.0  | 2,065      | 6.6  | 31,204    |
| Nakuru             | 13,761    | 4.7 | 133,709     | 45.4 | 8,701     | 3.0 | 7,273      | 2.5 | 6,058           | 2.1 | 4,532      | 1.5 | 21,047  | 7.1  | 99,501     | 33.8 | 294,582   |
| Nandi              | 2,623     | 2.3 | 81,514      | 72.5 | 2,702     | 2.4 | 1,102      | 1.0 | 217             | 0.2 | 567        | 0.5 | 13,073  | 11.6 | 10,560     | 9.4  | 112,358   |

| District      | Owned     |     |             |      |           |     | Rented     |     |                 |     |            |     |         |      |            |      | Total   |
|---------------|-----------|-----|-------------|------|-----------|-----|------------|-----|-----------------|-----|------------|-----|---------|------|------------|------|---------|
|               | Purchased |     | Constructed |      | Inherited |     | Government |     | Local Authority |     | Parastatal |     | Private |      | Individual |      |         |
|               | Number    | %   | Number      | %    | Number    | %   | Number     | %   | Number          | %   | Number     | %   | Number  | %    | Number     | %    |         |
| Narok         | 1,616     | 2.1 | 62,349      | 82.0 | 1,719     | 2.3 | 1,082      | 1.4 | 331             | 0.4 | 280        | 0.4 | 1,446   | 1.9  | 7,229      | 9.5  | 76,052  |
| Samburu       | 412       | 1.3 | 27,976      | 85.6 | 470       | 1.4 | 737        | 2.3 | 120             | 0.4 | 144        | 0.4 | 373     | 1.1  | 2,446      | 7.5  | 32,678  |
| Trans Mara    | 646       | 2.0 | 27,817      | 84.2 | 861       | 2.6 | 403        | 1.2 | 89              | 0.3 | 30         | 0.1 | 564     | 1.7  | 2,619      | 7.9  | 33,029  |
| Trans Nzoia   | 4,248     | 3.7 | 72,170      | 62.4 | 3,076     | 2.7 | 2,175      | 1.9 | 1,311           | 1.1 | 2,563      | 2.2 | 2,638   | 2.3  | 27,441     | 23.7 | 115,622 |
| Turkana       | 866       | 1.2 | 64,798      | 88.2 | 423       | 0.6 | 1,143      | 1.6 | 117             | 0.2 | 287        | 0.4 | 596     | 0.8  | 5,210      | 7.1  | 73,440  |
| Uasin Gishu   | 7,455     | 5.6 | 67,743      | 50.7 | 2,907     | 2.2 | 2,681      | 2.0 | 2,259           | 1.7 | 1,910      | 1.4 | 3,728   | 2.8  | 44,821     | 33.6 | 133,504 |
| West Pokot    | 1,181     | 1.9 | 54,730      | 86.1 | 998       | 1.6 | 999        | 1.6 | 78              | 0.1 | 268        | 0.4 | 283     | 0.4  | 5,001      | 7.9  | 63,538  |
| Buret         | 1,887     | 2.9 | 38,706      | 60.1 | 1,446     | 2.2 | 403        | 0.6 | 299             | 0.5 | 430        | 0.7 | 15,197  | 23.6 | 6,008      | 9.3  | 64,376  |
| Western       | 15,519    | 2.2 | 585,368     | 83.8 | 12,233    | 1.8 | 6,855      | 1.0 | 2,191           | 0.3 | 4,995      | 0.7 | 5,573   | 0.8  | 66,089     | 9.5  | 698,823 |
| Bungoma       | 5,620     | 3.2 | 139,973     | 80.4 | 2,638     | 1.5 | 1,770      | 1.0 | 799             | 0.5 | 501        | 0.3 | 2,477   | 1.4  | 20,273     | 11.6 | 174,051 |
| Busia         | 1,043     | 1.3 | 69,036      | 84.7 | 890       | 1.1 | 630        | 0.8 | 151             | 0.2 | 96         | 0.1 | 301     | 0.4  | 9,316      | 11.4 | 81,463  |
| Mt. Elgon     | 434       | 1.7 | 22,472      | 88.4 | 383       | 1.5 | 291        | 1.1 | 165             | 0.6 | 105        | 0.4 | 63      | 0.2  | 1,505      | 5.9  | 25,418  |
| Kakamega      | 2,798     | 2.2 | 105,136     | 83.8 | 2,608     | 2.1 | 2,273      | 1.8 | 455             | 0.4 | 396        | 0.3 | 820     | 0.7  | 10,959     | 8.7  | 125,445 |
| Lugari        | 1,254     | 3.0 | 33,808      | 81.1 | 990       | 2.4 | 450        | 1.1 | 98              | 0.2 | 135        | 0.3 | 304     | 0.7  | 4,644      | 11.1 | 41,683  |
| Teso          | 788       | 2.1 | 31,519      | 82.7 | 437       | 1.1 | 637        | 1.7 | 190             | 0.5 | 142        | 0.4 | 136     | 0.4  | 4,258      | 11.2 | 38,107  |
| Vihiga        | 1,683     | 1.6 | 92,121      | 87.4 | 2,863     | 2.7 | 450        | 0.4 | 197             | 0.2 | 447        | 0.4 | 725     | 0.7  | 6,948      | 6.6  | 105,434 |
| Butere/Mumias | 1,899     | 1.8 | 91,303      | 85.2 | 1,424     | 1.3 | 354        | 0.3 | 136             | 0.1 | 3,173      | 3.0 | 747     | 0.7  | 8,186      | 7.6  | 107,222 |

\* Counts were not necessarily restricted to conventional households.

Table A2: Distribution of households by type of roofing materials

|              | Iron Sheets |      | Tiles   |      | Cone rate |      | Asbestos Sheets |     | Grass     |      | Makuti  |      | Tin    |     | Other   |      | Total     |
|--------------|-------------|------|---------|------|-----------|------|-----------------|-----|-----------|------|---------|------|--------|-----|---------|------|-----------|
|              | Number      | %    | Number  | %    | Number    | %    | Number          | %   | Number    | %    | Number  | %    | Number | %   | Number  | %    |           |
| Kenya        | 4,046,353   | 63.9 | 137,264 | 2.2  | 144,209   | 2.3  | 79,546          | 1.3 | 1,530,595 | 24.2 | 238,779 | 3.8  | 26,071 | 0.4 | 132,478 | 2.1  | 6,335,295 |
| Nairobi      | 434,072     | 67.5 | 76,174  | 11.8 | 105,180   | 16.4 | 20,833          | 3.2 | 253       | .    | 692     | 0.1  | 2,084  | 0.3 | 3,618   | 0.6  | 642,906   |
| Central      | 852,385     | 92.8 | 16,347  | 1.8  | 6,989     | 0.8  | 9,583           | 1   | 21,104    | 2.3  | 1,509   | 0.2  | 8,700  | 0.9 | 1,858   | 0.2  | 918,475   |
| Kiambu       | 177,031     | 94   | 5,959   | 3.2  | 1,919     | 1    | 1,558           | 0.8 | 527       | 0.3  | 305     | 0.2  | 642    | 0.3 | 363     | 0.2  | 188,304   |
| Kirinyaga    | 108,241     | 95.2 | 679     | 0.6  | 248       | 0.2  | 1,627           | 1.4 | 2,462     | 2.2  | 263     | 0.2  | 95     | 0.1 | 67      | 0.1  | 113,682   |
| Murang'a     | 78,402      | 92.7 | 765     | 0.9  | 877       | 1    | 801             | 0.9 | 585       | 0.7  | 36      | .    | 2,999  | 3.5 | 127     | 0.2  | 84,592    |
| Nyandarua    | 94,690      | 91.1 | 497     | 0.5  | 115       | 0.1  | 979             | 0.9 | 6,641     | 64   | 445     | 0.4  | 201    | 0.2 | 329     | 0.3  | 103,897   |
| Nyeri        | 156,044     | 93   | 1,676   | 1    | 1,206     | 0.7  | 1,584           | 0.9 | 5,762     | 3.4  | 240     | 0.1  | 657    | 0.4 | 613     | 0.4  | 167,782   |
| Thika        | 153,196     | 90   | 6,046   | 3.6  | 1,972     | 1.2  | 2,444           | 1.4 | 4,058     | 2.4  | 178     | 0.1  | 1,958  | 1.2 | 289     | 0.2  | 170,141   |
| Maragua      | 84,781      | 94.1 | 725     | 0.8  | 652       | 0.7  | 590             | 0.7 | 1,069     | 1.2  | 42      | .    | 2,148  | 2.4 | 70      | 0.1  | 90,077    |
| Coast        | 231,803     | 44.2 | 10,184  | 1.9  | 19,893    | 3.8  | 10,751          | 2.1 | 64,709    | 12.4 | 179,295 | 34.2 | 2,863  | 0.5 | 4,382   | 0.8  | 523,880   |
| Kilifi       | 22,950      | 25.6 | 1,117   | 1.2  | 384       | 0.4  | 1,242           | 1.4 | 8,342     | 9.3  | 55,333  | 61.6 | 153    | 0.2 | 234     | 0.3  | 89,755    |
| Kwale        | 21,315      | 23.1 | 408     | 0.4  | 158       | 0.2  | 1,334           | 1.4 | 14,413    | 15.7 | 53,839  | 58.5 | 84     | 0.1 | 536     | 0.6  | 92,087    |
| Lamu         | 3,815       | 25.6 | 78      | 0.5  | 1,354     | 9.1  | 207             | 1.4 | 3,016     | 20.2 | 5,767   | 38.7 | 21     | 0.1 | 637     | 4.3  | 14,895    |
| Mombasa      | 122,524     | 67.4 | 7,428   | 4.1  | 16,296    | 9    | 5,512           | 3   | 466       | 0.3  | 27,338  | 15   | 1,268  | 0.7 | 1,017   | 0.6  | 181,849   |
| Taita Taveta | 42,895      | 74.7 | 795     | 1.4  | 209       | 0.4  | 873             | 1.5 | 10,114    | 17.6 | 933     | 1.6  | 1,235  | 2.2 | 357     | 0.6  | 57,411    |
| TanaRiver    | 6,140       | 17   | 41      | 0.1  | 2         | .    | 389             | 1.1 | 21,716    | 60.2 | 6,321   | 17.5 | 45     | 0.1 | 1,426   | 4    | 36,080    |
| Malindi      | 12,164      | 23.5 | 317     | 0.6  | 1,490     | 2.9  | 1,194           | 2.3 | 6,642     | 12.8 | 29,764  | 57.5 | 57     | 0.1 | 175     | 0.3  | 51,803    |
| Eastern      | 687,546     | 72.1 | 6,568   | 0.7  | 1,866     | 0.2  | 7,256           | 0.8 | 218,379   | 22.9 | 9,457   | 1    | 4,088  | 0.4 | 19,041  | 2    | 954,201   |
| Embu         | 59,617      | 93.6 | 729     | 1.1  | 188       | 0.3  | 894             | 1.4 | 1,755     | 2.8  | 156     | 0.2  | 306    | 0.5 | 51      | 0.1  | 63,696    |
| Isiolo       | 11,247      | 50   | 133     | 0.6  | 39        | 0.2  | 259             | 1.2 | 7,097     | 31.5 | 1,381   | 6.1  | 97     | 0.4 | 2,244   | 10   | 22,497    |
| Kitui        | 54,348      | 56.1 | 885     | 0.9  | 173       | 0.2  | 400             | 0.4 | 40,369    | 41.6 | 423     | 0.4  | 181    | 0.2 | 151     | 0.2  | 96,930    |
| Makueni      | 92,029      | 64   | 817     | 0.6  | 166       | 0.1  | 690             | 0.5 | 48,582    | 33.8 | 625     | 0.4  | 529    | 0.4 | 341     | 0.2  | 143,779   |
| Machakos     | 145,258     | 78.3 | 2,439   | 1.3  | 964       | 0.5  | 2,143           | 1.2 | 32,739    | 17.6 | 386     | 0.2  | 1,014  | 0.5 | 610     | 0.3  | 185,553   |
| Marsabit     | 5,893       | 19.8 | 22      | 0.1  | 3         | .    | 73              | 0.2 | 4,249     | 14.2 | 5,665   | 19   | 155    | 0.5 | 13,774  | 46.2 | 29,834    |
| Mbeere       | 25,655      | 69.5 | 166     | 0.4  | 14        | .    | 449             | 1.2 | 10,234    | 27.7 | 86      | 0.2  | 217    | 0.6 | 112     | 0.3  | 36,933    |
| Meru Central | 111,747     | 93.2 | 606     | 0.5  | 175       | 0.1  | 767             | 0.6 | 6,158     | 5.1  | 170     | 0.1  | 94     | 0.1 | 131     | 0.1  | 119,848   |
| Moyale       | 4,216       | 41.1 | 71      | 0.7  | 6         | 0.1  | 42              | 0.4 | 5,112     | 49.8 | 19      | 0.2  | 5      | .   | 799     | 7.8  | 10,270    |
| Mw ingi      | 31,432      | 53.6 | 361     | 0.6  | 64        | 0.1  | 216             | 0.4 | 25,896    | 44.1 | 194     | 0.3  | 77     | 0.1 | 421     | 0.7  | 58,661    |
| Meru North   | 98,933      | 83   | 179     | 0.2  | 34        | .    | 683             | 0.6 | 17,370    | 14.6 | 274     | 0.2  | 1,387  | 1.2 | 306     | 0.3  | 119,166   |
| Tharaka      | 8,553       | 42.4 | 15      | 0.1  | 4         | .    | 120             | 0.6 | 11,375    | 56.4 | 36      | 0.2  | 10     | .   | 67      | 0.3  | 20,180    |

|                    |         |      |        |     |       |     |        |     |         |      |        |      |       |     |        |      |           |
|--------------------|---------|------|--------|-----|-------|-----|--------|-----|---------|------|--------|------|-------|-----|--------|------|-----------|
| Nithi (Meru S.)    | 38,618  | 82.4 | 145    | 0.3 | 36    | 0.1 | 520    | 1.1 | 7,443   | 15.9 | 42     | 0.1  | 16    | .   | 34     | 0.1  | 46,854    |
| North eastern      | 16,352  | 11.1 | 236    | 0.2 | 194   | 0.1 | 349    | 0.2 | 104,488 | 71   | 17,906 | 12.2 | 188   | 0.1 | 7,369  | 5    | 147,082   |
| Garissa            | 9,290   | 19.5 | 206    | 0.4 | 109   | 0.2 | 203    | 0.4 | 29,460  | 61.9 | 1,991  | 4.2  | 133   | 0.3 | 6,190  | 13   | 47,582    |
| Mandera            | 3,666   | 8.1  | 6      | .   | 34    | 0.1 | 63     | 0.1 | 25,440  | 56   | 15,588 | 34.3 | 31    | 0.1 | 572    | 1.3  | 45,400    |
| Wajir              | 3,396   | 6.3  | 24     | .   | 51    | 0.1 | 83     | 0.2 | 49,588  | 91.7 | 327    | 0.6  | 24    | .   | 607    | 1.1  | 54,100    |
| Nyanza             | 572,462 | 59.5 | 5,112  | 0.5 | 2,479 | 0.3 | 8,782  | 0.9 | 368,676 | 38.3 | 1,602  | 0.2  | 2,969 | 0.3 | 787    | 0.1  | 962,869   |
| Gucha (S. Kisii)   | 53,912  | 60.4 | 242    | 0.3 | 130   | 0.1 | 599    | 0.7 | 34,148  | 38.2 | 126    | 0.1  | 91    | 0.1 | 34     | .    | 89,282    |
| Horn a Bay         | 27,218  | 40.8 | 151    | 0.2 | 28    | .   | 405    | 0.6 | 38,551  | 57.8 | 152    | 0.2  | 111   | 0.2 | 54     | 0.1  | 66,670    |
| Kisii Central      | 71,865  | 72   | 509    | 0.5 | 558   | 0.6 | 994    | 1   | 25,540  | 25.6 | 111    | 0.1  | 215   | 0.2 | 51     | 0.1  | 99,843    |
| Kisumu             | 90,349  | 73.8 | 2,328  | 1.9 | 1,423 | 1.2 | 2,953  | 2.4 | 24 559  | 20.1 | 86     | 0.1  | 502   | 0.4 | 212    | 0.2  | 122,412   |
| Kuria              | 13,717  | 47.7 | 30     | 0.1 | 13    | .   | 243    | 0.8 | 14,666  | 51   | 53     | 0.2  | 11    | .   | 5      | .    | 28,738    |
| Migori             | 64,424  | 56.8 | 252    | 0.2 | 67    | 0.1 | 1,286  | 1.1 | 46,601  | 41.1 | 245    | 0.2  | 395   | 0.3 | 93     | 0.1  | 113,363   |
| North Kisin(Nyamir | 75,946  | 76.4 | 730    | 0.7 | 138   | 0.1 | 563    | 0.6 | 21,060  | 21.2 | 172    | 0.2  | 668   | 0.7 | 66     | 0.1  | 99,343    |
| Rachuonyo          | 39,238  | 57 9 | 122    | 0.2 | 28    | .   | 386    | 0.6 | 27.679  | 40.8 | 90     | 0.1  | 204   | 0 3 | 60     | 0.1  | 67,807    |
| Siaya              | 48,362  | 41.2 | 253    | 0.2 | 33    | .   | 482    | 0.4 | 67,802  | 57.8 | 222    | 0.2  | 135   | 0.1 | 54     | .    | 117,343   |
| Suba               | 15,450  | 45.6 | 61     | 0.2 | 13    | .   | 157    | 0.5 | 17,945  | 53   | 131    | 0.4  | 62    | 0.2 | 30     | 0.1  | 33,849    |
| Bondo              | 30,129  | 53.7 | 112    | 0 2 | 25    | .   | 261    | 0.5 | 25,065  | 44.6 | 113    | 0.2  | 393   | 0.7 | 42     | 0.1  | 56,140    |
| Nyando             | 41,852  | 61.5 | 322    | 0.5 | 23    | .   | 453    | 0.7 | 25,060  | 36.8 | 101    | 0.1  | 182   | 0.3 | 86     | 0.1  | 68,079    |
| Ritt Valley        | 856,581 | 57.6 | 20,910 | 1.4 | 7,029 | 0.5 | 17,396 | 1.2 | 458,519 | 30.8 | 27,353 | 1.8  | 4,479 | 0.3 | 94,792 | 6.4  | 1,487,059 |
| Baringo            | 20,719  | 36.7 | 270    | 0.5 | 20    | .   | 335    | 0.6 | 34,803  | 61.7 | 57     | 0.1  | 109   | 0.2 | 96     | 0.2  | 56,409    |
| Bomet              | 28,463  | 40.4 | 78     | 0.1 | 18    | .   | 177    | 0.3 | 41,312  | 58.7 | 180    | 0.3  | 171   | 0.2 | 35     | .    | 70,434    |
| Keiyo              | 15,287  | 51   | 231    | 0.8 | 13    | .   | 116    | 0.4 | 14,109  | 47   | 15     | 0.1  | 151   | 0.5 | 74     | 0.2  | 29,996    |
| Kajiado            | 56,763  | 59.1 | 3,010  | 3.1 | 1,051 | 1.1 | 1,298  | 1.4 | 12,308  | 12.8 | 399    | 0.4  | 200   | 0.2 | 21,017 | 21.9 | 96,046    |
| Kericho            | 64,436  | 65.6 | 604    | 0.6 | 1,070 | 1.1 | 993    | 1   | 30,444  | 31   | 142    | 0.1  | 412   | 0.4 | 189    | 0.2  | 98,290    |
| Koibatek           | 17,156  | 61.6 | 222    | 0.8 | 29    | 0.1 | 127    | 0.5 | 9,763   | 35.1 | 77     | 0.3  | 145   | 0.5 | 325    | 1.2  | 27,844    |
| Laikipia           | 59,272  | 76.3 | 1,425  | 1.8 | 266   | 0.3 | 1,043  | 1.3 | 12,395  | 16   | 493    | 0.6  | 633   | 0.8 | 2,130  | 2.7  | 77,657    |
| Marakw et          | 8,238   | 26.4 | 30     | 0.1 | 10    | .   | 35     | 0.1 | 22,582  | 72.4 | 63     | 0.2  | 62    | 0.2 | 184    | 0.6  | 31,204    |
| Nakuru             | 240,070 | 81.5 | 6,783  | 2.3 | 1,756 | 0.6 | 6,631  | 2.3 | 33,868  | 11.5 | 1,129  | 0.4  | 976   | 0.3 | 3,369  | 1.1  | 294,582   |
| Nandi              | 73,174  | 65.1 | 694    | 0.6 | 44    | .   | 759    | 0.7 | 36,924  | 32.9 | 224    | 0.2  | 305   | 0.3 | 234    | 0.2  | 112,358   |
| Narok              | 29,010  | 38.1 | 250    | 0.3 | 34    | .   | 554    | 0.7 | 24,647  | 32.4 | 1,442  | 1.9  | 105   | 0.1 | 20,010 | 26.3 | 76,052    |
| Samburu            | 5,885   | 18   | 95     | 0.3 | 14    | .   | 166    | 0.5 | 2,158   | 6.6  | 1,086  | 3.3  | 261   | 0.8 | 23,013 | 70.4 | 32,678    |
| Trans Mara         | 5,963   | 18.1 | 16     | .   | 18    | 0.1 | 108    | 0.3 | 26,496  | 80.2 | 210    | 0.6  | 58    | 0.2 | 160    | 0.5  | 33,029    |
| Trans Nzoia        | 69,876  | 60.4 | 1,205  | 1   | 276   | 0.2 | 1,346  | 1.2 | 42,419  | 36.7 | 164    | 0.1  | 65    | 0.1 | 271    | 0.2  | 115,622   |
| Turkana            | 7,713   | 10.5 | 21     | .   | 19    | .   | 177    | 0.2 | 23,530  | 32   | 21,045 | 28.7 | 385   | 0.5 | 20,550 | 2.8  | 73,440    |
| Uasin Gishu        | 94,081  | 70.5 | 4,686  | 3.5 | 595   | 0.4 | 2,946  | 2.2 | 30,320  | 22.7 | 305    | 0.2  | 192   | 0.1 | 379    | 0.3  | 133,504   |

|               |         |      |       |     |       |     |       |     |         |      |     |     |     |     |       |     |         |
|---------------|---------|------|-------|-----|-------|-----|-------|-----|---------|------|-----|-----|-----|-----|-------|-----|---------|
| West Pokot    | 12,196  | 19.2 | 176   | 0.3 | 14    | .   | 217   | 0.3 | 48,159  | 75.8 | 76  | 0.1 | 25  | .   | 2,675 | 4.2 | 63,538  |
| Buret         | 48,279  | 75   | 1,114 | 1.7 | 1,782 | 28  | 368   | 0.6 | 12,282  | 19.1 | 246 | 0.4 | 224 | 0.3 | 81    | 0.1 | 64,376  |
| Western       | 395,152 | 56.5 | 1,733 | 0.2 | 579   | 0.1 | 4,596 | 0.7 | 294,467 | 42.1 | 965 | 0.1 | 700 | 0.1 | 631   | 0.1 | 698,823 |
| Bungoma       | 99,936  | 57.4 | 410   | 0.2 | 71    | .   | 961   | 0.6 | 72,240  | 41.5 | 241 | 0.1 | 127 | 0.1 | 65    | .   | 174,051 |
| Busia         | 28,573  | 35.1 | 154   | 0.2 | 57    | 0.1 | 459   | 0.6 | 51,857  | 63.7 | 105 | 0.1 | 104 | 0.1 | 154   | 0.2 | 81,463  |
| Mt. Elgon     | 8,800   | 34.6 | 21    | 0.1 | 4     | .   | 87    | 0.3 | 16,181  | 63.7 | 38  | 0.1 | 13  | 0.1 | 274   | 1.1 | 25,418  |
| Kakamega      | 72,449  | 57.8 | 433   | 0.3 | 298   | 0.2 | 645   | 0.5 | 51,288  | 40.9 | 171 | 0.1 | 126 | 0.1 | 35    | .   | 125,445 |
| Lugari        | 25,500  | 61.2 | 95    | 0.2 | 16    | .   | 221   | 0.5 | 15,714  | 37.7 | 107 | 0.3 | 18  | .   | 12    | .   | 41,683  |
| Teso          | 10,653  | 28   | 121   | 0.3 | 47    | 0.1 | 153   | 0.4 | 27,010  | 70.9 | 34  | 0.1 | 75  | 0.2 | 14    | .   | 38,107  |
| Vihiga        | 86,552  | 82.1 | 344   | 0.3 | 43    | .   | 735   | 0.7 | 17,405  | 16.5 | 168 | 0.2 | 146 | 0.1 | 41    | .   | 105,434 |
| Butere/Mumias | 62,689  | 58.5 | 155   | 0.1 | 43    | .   | 1,335 | 1.2 | 42,772  | 39.9 | 101 | 0.1 | 91  | 0.1 | 36    | .   | 107,222 |

Table A3: Distribution of households by wall materials

|              | Stone   |      | Brick/Block |      | Mud/Wood  |      | Mud/Cement |      | Wood Only |      | Iron Sheet |      | Grass/Reeds |      | Tin    |     | Other  |      | Total     |
|--------------|---------|------|-------------|------|-----------|------|------------|------|-----------|------|------------|------|-------------|------|--------|-----|--------|------|-----------|
|              | Number  | %    | Number      | %    | Number    | %    | Number     | %    | Number    | %    | Number     | %    | Number      | %    | Number | %   | Number | %    |           |
| Kenya        | 775,570 | 12.2 | 906,152     | 14.3 | 2,952,266 | 46.6 | 423,599    | 6.7  | 727,015   | 11.5 | 272,561    | 4.3  | 191,270     | 3    | 15,218 | 0.2 | 71,644 | 1.1  | 6,335,295 |
| Nairobi      | 267,264 | 41.6 | 94,189      | 14.7 | 62,880    | 9.8  | 49,274     | 7.7  | 35,757    | 5.6  | 127,860    | 19.9 | 357         | 0.1  | 4,503  | 0.7 | 822    | 0.1  | 642,906   |
| Central      | 216,264 | 23.5 | 66,238      | 7.2  | 246,095   | 26.8 | 18,667     | 2    | 288,906   | 31.5 | 72,646     | 7.9  | 3,022       | 0.3  | 5,994  | 0.7 | 643    | 0.1  | 918,475   |
| Kiambu       | 47,813  | 25.4 | 6,703       | 3.6  | 15,014    | 8    | 1,827      | 1    | 69,182    | 36.7 | 46,076     | 24.5 | 156         | 0.1  | 1,469  | 0.8 | 64     | .    | 188,304   |
| Kirlnyaga    | 20,548  | 18.1 | 17,271      | 15.2 | 32,673    | 28.7 | 2,516      | 2.2  | 38,362    | 33.7 | 1,726      | 1.5  | 471         | 0.4  | 74     | 0.1 | 41     | .    | 113,682   |
| Murang'a     | 16,710  | 19.8 | 4,964       | 5.9  | 40,784    | 48.2 | 2,476      | 2.9  | 8,866     | 10.5 | 7,922      | 9.4  | 171         | 0.2  | 2,674  | 3.2 | 25     | .    | 84,592    |
| Nyandarua    | 10,040  | 9.7  | 2,004       | 1.9  | 44,066    | 42.4 | 2,157      | 2.1  | 44,349    | 42.7 | 953        | 0.9  | 228         | 0.2  | 56     | 0.1 | 44     | .    | 103,897   |
| Nyeri        | 28,691  | 17.1 | 5,252       | 3.1  | 33,677    | 20.1 | 2,673      | 1.6  | 94,835    | 56.5 | 1,373      | 0.8  | 875         | 0.5  | 135    | 0.1 | 271    | 0.2  | 167,782   |
| Thika        | 72,562  | 42.6 | 22,334      | 13.1 | 32,088    | 18.9 | 4,331      | 2.5  | 25,793    | 15.2 | 11,107     | 6.5  | 783         | 0.5  | 961    | 0.6 | 182    | 0.1  | 170,141   |
| Maragua      | 19,900  | 22.1 | 7,710       | 8.6  | 47,793    | 53.1 | 2,687      | 3    | 7,519     | 8.3  | 3,489      | 3.9  | 338         | 0.4  | 625    | 0.7 | 16     | .    | 90,077    |
| Coast        | 58,765  | 11.2 | 117,024     | 22.3 | 228,657   | 43.6 | 78,334     | 15   | 3,989     | 0.8  | 3,717      | 0.7  | 28,858      | 5.5  | 562    | 0.1 | 3,974  | 0.8  | 523,880   |
| Kilifi       | 6,119   | 6.8  | 12,316      | 13.7 | 59,529    | 66.3 | 8,146      | 9.1  | 491       | 0.5  | 442        | 0.5  | 1,795       | 2    | 69     | 0.1 | 848    | 0.9  | 89,755    |
| Kwale        | 9,632   | 10.5 | 11,123      | 12.1 | 59,310    | 64.4 | 6,542      | 7.1  | 422       | 0.5  | 290        | 0.3  | 3,615       | 3.9  | 52     | 0.1 | 1,101  | 1.2  | 92,087    |
| Lamu         | 1,448   | 9.7  | 2,666       | 17.9 | 7,373     | 49.5 | 2,034      | 13.7 | 103       | 0.7  | 94         | 0.6  | 1,061       | 7.1  | 9      | 0.1 | 107    | 0.7  | 14,895    |
| Mombasa      | 36,429  | 20   | 62,603      | 34.4 | 30,051    | 16.5 | 48,932     | 26.9 | 1,461     | 0.8  | 1,354      | 0.7  | 326         | 0.2  | 316    | 0.2 | 377    | 0.2  | 181,849   |
| Taita Taveta | 2,030   | 3.5  | 16,790      | 29.2 | 30,883    | 53.8 | 5,258      | 9.2  | 507       | 0.9  | 792        | 1.4  | 861         | 1.5  | 43     | 0.1 | 247    | 0.4  | 57,411    |
| Tana River   | 363     | 1    | 1,459       | 4    | 11,513    | 31.9 | 1,909      | 5.3  | 610       | 1.7  | 480        | 1.3  | 19,093      | 52.9 | 52     | 0.1 | 601    | 1.7  | 36,080    |
| Malindi      | 2,744   | 5.3  | 10,067      | 19.4 | 29,998    | 57.9 | 5,513      | 10.6 | 395       | 0.8  | 265        | 0.5  | 2,107       | 4.1  | 21     | .   | 693    | 1.3  | 51,803    |
| Eastern      | 81,215  | 8.5  | 302,069     | 31.7 | 327,851   | 34.4 | 26,503     | 2.8  | 168,495   | 17.7 | 14,061     | 1.5  | 17,146      | 1.8  | 708    | 0.1 | 16,153 | 1.7  | 954,201   |
| Embu         | 10,561  | 16.6 | 3,243       | 5.1  | 25,814    | 40.5 | 1,214      | 1.9  | 20,126    | 31.6 | 2,456      | 3.9  | 230         | 0.4  | 25     | .   | 27     | .    | 63,696    |
| Isiolo       | 1,360   | 6    | 1,793       | 8    | 7,016     | 31.2 | 308        | 1.4  | 5,223     | 23.2 | 247        | 1.1  | 5,196       | 23.1 | 54     | 0.2 | 1,300  | 5.8  | 22,497    |
| Kitui        | 945     | 1    | 62,230      | 64.2 | 27,754    | 28.6 | 4,294      | 4.4  | 498       | 0.5  | 287        | 0.3  | 738         | 0.8  | 21     |     | 163    | 0.2  | 96,930    |
| Makueni      | 3,445   | 2.4  | 70,667      | 49.1 | 61,882    | 43   | 4,849      | 3.4  | 628       | 0.4  | 1,225      | 0.9  | 952         | 0.7  | 67     | .   | 64     | .    | 143,779   |
| Machakos     | 33,338  | 18   | 115,398     | 62.2 | 21,390    | 11.5 | 4,160      | 2.2  | 1,919     | 1    | 7,456      | 4    | 1,167       | 0.6  | 205    | 0.1 | 520    | 0.3  | 185,553   |
| Marsabit     | 228     | 0.8  | 746         | 2.5  | 7,421     | 24.9 | 1,832      | 6.1  | 4,388     | 14.7 | 309        | 1    | 2,104       | 7.1  | 112    | 0.4 | 12,694 | 42.5 | 29,834    |
| Mbeere       | 2,956   | 8    | 9,831       | 26.6 | 20,684    | 56   | 1,138      | 3.1  | 1,009     | 2.7  | 357        | 1    | 772         | 2.1  | 29     | 0.1 | 157    | 0.4  | 36,933    |
| Meru Central | 15,724  | 13.1 | 2,569       | 2.1  | 27,250    | 22.7 | 1,330      | 1.1  | 71,263    | 59.5 | 629        | 0.5  | 916         | 0.8  | 59     | .   | 108    | 0.1  | 119,848   |
| Moyale       | 76      | 0.7  | 762         | 7.4  | 4,129     | 40.2 | 2,577      | 25.1 | 125       | 1.2  | 38         | 0.4  | 2,153       | 21   | 20     | 0.2 | 390    | 3.8  | 10,270    |
| Mwingi       | 1,676   | 2.9  | 29,394      | 50.1 | 22,948    | 39.1 | 1,808      | 3.1  | 1,681     | 2.9  | 182        | 0.3  | 790         | 1.3  | 24     | .   | 158    | 0.3  | 58,661    |
| Meru North   | 4,809   | 4    | 2,964       | 2.5  | 58,553    | 49.1 | 1,509      | 1.3  | 48,663    | 40.8 | 513        | 0.4  | 1,745       | 1.5  | 74     | 0.1 | 336    | 0.3  | 119,166   |
| Tharaka      | 467     | 2.3  | 1,132       | 5.6  | 16,783    | 83.2 | 525        | 2.6  | 802       | 4    | 80         | 0.4  | 210         | 1    | 4      | .   | 177    | 0.9  | 20,180    |

|                 |         |      |         |      |         |      |         |      |         |      |        |      |         |      |       |     |        |      |           |
|-----------------|---------|------|---------|------|---------|------|---------|------|---------|------|--------|------|---------|------|-------|-----|--------|------|-----------|
| Nithi (Meru S.) | 5,630   | 12   | 1,340   | 2.9  | 26,227  | 56   | 959     | 2    | 12,170  | 26   | 282    | 0.6  | 173     | 0.4  | 14    | .   | 59     | 0.1  | 46,854    |
| North eastern   | 4,087   | 2.8  | 10,279  | 7    | 7,735   | 5.3  | 2,223   | 1.5  | 5,014   | 3.4  | 583    | 0.4  | 106,011 | 72.1 | 142   | 0.1 | 11,008 | 7.5  | 147,082   |
| Garissa         | 750     | 1.6  | 7,392   | 15.5 | 4,247   | 8.9  | 1,468   | 3.1  | 798     | 1.7  | 302    | 0.6  | 28,108  | 59.1 | 111   | 0.2 | 4,406  | 9.3  | 47,582    |
| Mandera         | 947     | 2.1  | 2,127   | 4.7  | 1,778   | 3.9  | 378     | 0.8  | 1,323   | 2.9  | 103    | 0.2  | 32,788  | 72.2 | 14    | .   | 5,942  | 13.1 | 45,400    |
| Wajir           | 2,390   | 4.4  | 760     | 1.4  | 1,710   | 3.2  | 377     | 0.7  | 2,893   | 5.3  | 178    | 0.3  | 45,115  | 83.4 | 17    | .   | 660    | 1.2  | 54,100    |
| Nyanza          | 16,700  | 1.7  | 116,731 | 12.1 | 695,646 | 72.2 | 106,540 | 11.1 | 4,990   | 0.5  | 15,295 | 1.6  | 5,519   | 0 6  | 429   | .   | 1,019  | 0.1  | 962,869   |
| Gucha (S. Kisi  | 755     | 0.8  | 10,106  | 11.3 | 73,001  | 81.8 | 3,540   | 4    | 658     | 0.7  | 691    | 0.8  | 495     | 0.6  | 17    | .   | 19     | .    | 89,282    |
| Homa Bay        | 1,558   | 2.3  | 2,759   | 4.1  | 50,767  | 76.1 | 6,436   | 9.7  | 275     | 0.4  | 4,079  | 6.1  | 458     | 0.7  | 39    | 0.1 | 299    | 0.4  | 66,670    |
| Kisii Central   | 1,438   | 1.4  | 14,975  | 15   | 75,047  | 75.2 | 6,213   | 6.2  | 671     | 0.7  | 1,181  | 1.2  | 234     | 0.2  | 27    | .   | 57     | 0.1  | 99,843    |
| Kisumu          | 3,332   | 2.7  | 27,435  | 22.4 | 60,845  | 49.7 | 28,508  | 23.3 | 531     | 0.4  | 1,439  | 1.2  | 187     | 0.2  | 84    | 0.1 | 51     | .    | 122,412   |
| Kuria           | 224     | 0.8  | 1,857   | 6.5  | 23,789  | 82.8 | 2,568   | 8.9  | 135     | 0.5  | 95     | 0.3  | 67      | 0.2  | 2     | .   | 1      | .    | 28,738    |
| Migori          | 1,586   | 1.4  | 13,260  | 11.7 | 80,519  | 71   | 13,913  | 12.3 | 573     | 0.5  | 2,299  | 2    | 1,116   | 1    | 41    | .   | 56     | .    | 113,363   |
| North Kisii(Ny  | 1,626   | 1.6  | 15,619  | 15.7 | 75,469  | 76   | 4,461   | 4.5  | 739     | 0.7  | 430    | 0.4  | 934     | 0.9  | 38    | .   | 27     | .    | 99,343    |
| Rachuonyo       | 1,879   | 2.8  | 4,210   | 6.2  | 51,604  | 76.1 | 8,955   | 13.2 | 279     | 0.4  | 325    | 0.5  | 414     | 0.6  | 28    | .   | 113    | 0.2  | 67,807    |
| Siaya           | 1,265   | 1.1  | 10,987  | 9.4  | 91,635  | 78.1 | 12,319  | 10.5 | 271     | 0.2  | 273    | 0.2  | 379     | 0.3  | 43    | .   | 171    | 0.1  | 117,343   |
| Suba            | 1,328   | 3.9  | 2,190   | 6.5  | 26,667  | 78.8 | 2,151   | 6.4  | 140     | 0.4  | 959    | 2.8  | 362     | 1.1  | 26    | 0.1 | 26     | 0.1  | 33,849    |
| Bondo           | 869     | 1.5  | 5,781   | 10.3 | 37,191  | 66.2 | 11,292  | 20.1 | 229     | 0.4  | 202    | 0.4  | 475     | 0.8  | 19    | .   | 82     | 0.1  | 56,140    |
| Nyando          | 840     | 1.2  | 7,552   | 11.1 | 49,112  | 72.1 | 6,184   | 9.1  | 489     | 0.7  | 3,322  | 4.9  | 398     | 0.6  | 65    | 0.1 | 117    | 0.2  | 68,079    |
| Ritt Valley     | 123,536 | 8.3  | 121,955 | 8.2  | 826,252 | 55.6 | 93,640  | 6.3  | 216,650 | 14.6 | 36,490 | 2.5  | 28,418  | 1.9  | 2,625 | 0.2 | 37,493 | 2.5  | 1,487,059 |
| Baringo         | 1,574   | 2.8  | 1,235   | 2.2  | 35,290  | 62.6 | 915     | 1.6  | 14,559  | 25.8 | 1,763  | 3.1  | 782     | 1.4  | 49    | 0.1 | 242    | 0.4  | 56,409    |
| Bomet           | 1,332   | 1.9  | 1,294   | 1.8  | 61,263  | 87   | 1,698   | 2.4  | 4,151   | 5.9  | 426    | 0.6  | 228     | 0.3  | 26    | .   | 16     | .    | 70,434    |
| Keiyo           | 384     | 1.3  | 1,655   | 5.5  | 17,988  | 60   | 485     | 1.6  | 8,674   | 28.9 | 541    | 1.8  | 121     | 0.4  | 20    | 0.1 | 128    | 0.4  | 29,996    |
| Kajiado         | 18,069  | 18.8 | 5,151   | 5.4  | 24,899  | 25.9 | 2,533   | 2.6  | 13,988  | 14.6 | 17,150 | 17.9 | 1,068   | 1.1  | 591   | 0.6 | 12,597 | 13.1 | 96,046    |
| Kericho         | 8,655   | 8.8  | 13,974  | 14.2 | 55,358  | 56 3 | 3,537   | 3.6  | 11,834  | 12   | 4,492  | 4.6  | 297     | 0.3  | 95    | 0.1 | 48     | .    | 98,290    |
| Koibatek        | 1,738   | 6.2  | 604     | 2.2  | 15,363  | 55 2 | 729     | 2.6  | 8,711   | 31.3 | 544    | 2    | 39      | 0.1  | 17    | 0.1 | 99     | 0.4  | 27,844    |
| Laikipia        | 7,165   | 9.2  | 2,601   | 3.3  | 27,012  | 34.8 | 1,779   | 2.3  | 36,992  | 47.6 | 1,291  | 1.7  | 373     | 0.5  | 78    | 0.1 | 366    | 0.5  | 77,657    |
| Marakwet        | 4,695   | 15   | 708     | 2.3  | 23,065  | 73.9 | 1,498   | 4.8  | 1,011   | 3.2  | 95     | 0.3  | 76      | 0.2  | 37    | 0.1 | 19     | 0.1  | 31,204    |
| Nakuru          | 61,012  | 20.7 | 16,671  | 5.7  | 122,167 | 41.5 | 33,090  | 11.2 | 55,583  | 18.9 | 4,344  | 1.5  | 430     | 0.1  | 468   | 0.2 | 817    | 0.3  | 294,582   |
| Nandi           | 1,681   | 1.5  | 16,204  | 14.4 | 78,582  | 69.9 | 11,353  | 10.1 | 3,251   | 2.9  | 968    | 0.9  | 138     | 0.1  | 67    | 0.1 | 114    | 0.1  | 112,358   |
| Narok           | 4,484   | 5.9  | 1,422   | 1.9  | 54,660  | 71.9 | 1,550   | 2    | 8,384   | 11   | 885    | 1.2  | 451     | 0.6  | 205   | 0.3 | 4,011  | 5.3  | 76,052    |
| Samburu         | 312     | 1    | 1,015   | 3.1  | 16,351  | 50   | 2,488   | 7.6  | 543     | 1.7  | 168    | 0.5  | 445     | 1.4  | 367   | 1 1 | 10,989 | 33.6 | 32,678    |
| Trans Mara      | 125     | 0.4  | 1,774   | 5.4  | 29,422  | 89.1 | 764     | 2.3  | 525     | 1.6  | 275    | 0.8  | 103     | 0.3  | 20    | 0 1 | 21     | 0.1  | 33,029    |
| Trans Nzoia     | 1,283   | 1.1  | 11,307  | 9.8  | 88,113  | 76.2 | 11,841  | 10.2 | 1,636   | 1.4  | 509    | 0.4  | 534     | 0.5  | 53    | .   | 346    | 0.3  | 115,622   |
| Turkana         | 239     | 0.3  | 2,798   | 3.8  | 10,863  | 14.8 | 1,248   | 1.7  | 27,577  | 37.6 | 410    | 0.6  | 22,664  | 30.9 | 378   | 0.5 | 7,263  | 9.9  | 73,440    |
| Uasin Gishu     | 4,999   | 3.7  | 27,106  | 20.3 | 75,352  | 56.4 | 12,783  | 9.6  | 11,313  | 8.5  | 1,356  | 1    | 267     | 0.2  | 98    | 0.1 | 230    | 0.2  | 133,504   |

|              |       |     |        |      |         |      |        |     |       |     |       |     |       |     |     |     |     |     |         |
|--------------|-------|-----|--------|------|---------|------|--------|-----|-------|-----|-------|-----|-------|-----|-----|-----|-----|-----|---------|
| West Pokot   | 292   | 0.5 | 2,751  | 4.3  | 54,056  | 85.1 | 3,042  | 4.8 | 2,755 | 4.3 | 197   | 0.3 | 285   | 0.4 | 21  | -   | 139 | 0.2 | 63,538  |
| Buret        | 5,497 | 85  | 13,685 | 21.3 | 36,448  | 56.6 | 2,307  | 3.6 | 5,163 | 8   | 1,076 | 1.7 | 117   | 0.2 | 35  | 0.1 | 48  | 0.1 | 64,376  |
| Western      | 7,739 | 1.1 | 77,667 | 11.1 | 557,150 | 79.7 | 48,418 | 6.9 | 3,214 | 0.5 | 1,909 | 0.3 | 1,939 | 0.3 | 255 | -   | 532 | 0.1 | 698,823 |
| Bungoma      | 2,785 | 1.6 | 19,517 | 11.2 | 136,953 | 78.7 | 13,101 | 7.5 | 635   | 0.4 | 414   | 0.2 | 509   | 0.3 | 47  | -   | 90  | 0.1 | 174,051 |
| Busia        | 1,450 | 1.8 | 8,567  | 10.5 | 63,738  | 78.2 | 6,274  | 7.7 | 259   | 0.3 | 273   | 0.3 | 709   | 0.9 | 40  | -   | 153 | 0.2 | 81,463  |
| Mt Elgon     | 559   | 2.2 | 946    | 3.7  | 21,919  | 86.2 | 1,001  | 3.9 | 722   | 2.8 | 123   | 0.5 | 125   | 0.5 | 7   | -   | 16  | 0.1 | 25,418  |
| Kakamega     | 776   | 0.6 | 14,041 | 11.2 | 100,765 | 80.3 | 8,780  | 7   | 469   | 0.4 | 383   | 0.3 | 173   | 0.1 | 20  | -   | 38  | -   | 125,445 |
| Lugari       | 340   | 0.8 | 3,751  | 9    | 33,819  | 81.1 | 3,341  | 8   | 236   | 0.6 | 103   | 0.2 | 32    | 0.1 | 7   | -   | 54  | 0.1 | 41,683  |
| Teso         | 386   | 1   | 5,624  | 14.8 | 29,691  | 77.9 | 1,934  | 5.1 | 164   | 0.4 | 111   | 0.3 | 78    | 0.2 | 70  | 0.2 | 49  | 0.1 | 38,107  |
| Vihiga       | 758   | 0.7 | 13,063 | 12.4 | 84,359  | 80   | 6,534  | 6.2 | 346   | 0.3 | 171   | 0.2 | 162   | 0.2 | 29  | -   | 12  | -   | 105,434 |
| Butere/Mumia | 685   | 0.6 | 12,158 | 11.3 | 85,906  | 80.1 | 7,453  | 7   | 383   | 0.4 | 331   | 0.3 | 151   | 0.1 | 35  | -   | 120 | 0.1 | 107,222 |

Table A4: Distribution of households by Type of floor materials

|                      | Cement    |      | Tiles  |     | Wood   |     | Earth     |      | Other  |     | Total     |
|----------------------|-----------|------|--------|-----|--------|-----|-----------|------|--------|-----|-----------|
|                      | Number    | %    | Number | %   | Number | %   | Number    | %    | Number | %   |           |
| Kenya                | 2,220,131 | 35   | 61,257 | 1   | 38,684 | 0.6 | 3,996,104 | 63.1 | 19,119 | 0.3 | 6,335,295 |
| Nairobi              | 496,613   | 77.2 | 33,468 | 5.2 | 12,877 | 2   | 98,012    | 15.2 | 1,936  | 0.3 | 642,906   |
| Central              | 377,238   | 41.1 | 5,577  | 0.6 | 5,814  | 0.6 | 528,518   | 5.5  | 1,328  | 0.1 | 918,475   |
| Kiambu               | 116,347   | 61.8 | 1,966  | 1   | 1,046  | 0.6 | 68,662    | 36.5 | 283    | 0.2 | 188,304   |
| Kirinyaga            | 37,901    | 33.3 | 439    | 0.4 | 453    | 0.4 | 74,761    | 65.8 | 128    | 0.1 | 113,682   |
| Murang'a             | 24,596    | 29.1 | 240    | 0.3 | 347    | 0.4 | 59,342    | 70.2 | 67     | 0.1 | 84,592    |
| Nyandarua            | 23,864    | 23   | 285    | 0.3 | 1,561  | 1.5 | 78,065    | 75.1 | 122    | 0.1 | 103,897   |
| Nyeri                | 55,521    | 33.1 | 818    | 0.5 | 1,717  | 1   | 109,521   | 65.3 | 205    | 0.1 | 167,782   |
| Thika                | 93,576    | 55   | 1,513  | 0.9 | 446    | 0.3 | 74,209    | 43.6 | 397    | 0.2 | 170,141   |
| Maragua              | 25,433    | 28.2 | 316    | 0.4 | 244    | 0.3 | 63,958    | 71   | 126    | 0.1 | 90,077    |
| Coast                | 232,694   | 44.4 | 5,098  | 1   | 1,064  | 0.2 | 283,586   | 54.1 | 1,438  | 0.3 | 523,880   |
| Kilifi               | 21,914    | 24.4 | 324    | 0.4 | 96     | 0.1 | 67,127    | 74.8 | 294    | 0.3 | 89,755    |
| Kwale                | 22,709    | 24.7 | 342    | 0.4 | 103    | 0.1 | 68,852    | 74.8 | 81     | 0.1 | 92,087    |
| Lamu                 | 5,580     | 37.5 | 41     | 0.3 | 21     | 0.1 | 9,232     | 62   | 21     | 0.1 | 14,895    |
| Mombasa              | 141,488   | 77.8 | 3,711  | 2   | 631    | 0.3 | 35,303    | 19.4 | 716    | 0.4 | 181,849   |
| Taita Taveta         | 20,224    | 35.2 | 215    | 0.4 | 84     | 0.1 | 36,800    | 64.1 | 88     | 0.2 | 57,411    |
| Tana River           | 3,781     | 10.5 | 79     | 0.2 | 54     | 0.1 | 32,074    | 88.9 | 92     | 0.3 | 36,080    |
| Malindi              | 16,998    | 32.8 | 386    | 0.7 | 75     | 0.1 | 34,198    | 66   | 146    | 0.3 | 51,803    |
| Eastern              | 319,118   | 33.4 | 3,466  | 0.4 | 4,300  | 0.5 | 624,601   | 65.5 | 2,716  | 0.3 | 954,201   |
| Embu                 | 24,750    | 38.9 | 199    | 0.3 | 219    | 0.3 | 38,427    | 60.3 | 101    | 0.2 | 63,696    |
| Isiolo               | 6,341     | 28.2 | 102    | 0.5 | 62     | 0.3 | 15,812    | 70.3 | 180    | 0.8 | 22,497    |
| Kitui                | 27,595    | 28.5 | 308    | 0.3 | 124    | 0.1 | 68,725    | 70.9 | 178    | 0.2 | 96,930    |
| Makueni              | 50,697    | 35.3 | 517    | 0.4 | 251    | 0.2 | 91,982    | 64   | 332    | 0.2 | 143,779   |
| Machakos             | 91,025    | 49.1 | 1,186  | 0.6 | 295    | 0.2 | 92,533    | 49.9 | 514    | 0.3 | 185,553   |
| Marsabit             | 3,134     | 10.5 | 115    | 0.4 | 28     | 0.1 | 26,142    | 87.6 | 415    | 1.4 | 29,834    |
| Mbeere               | 8,176     | 22.1 | 59     | 0.2 | 105    | 0.3 | 28,465    | 77.1 | 128    | 0.3 | 36,933    |
| Meru Central         | 50,942    | 42.5 | 310    | 0.3 | 765    | 0.6 | 67,668    | 56.5 | 163    | 0.1 | 119,848   |
| Moyale               | 2,797     | 27.2 | 105    | 1   | 6      | 0.1 | 7,324     | 71.3 | 38     | 0.4 | 10,270    |
| Mwingi               | 15,773    | 26.9 | 264    | 0.5 | 204    | 0.3 | 42,281    | 72.1 | 139    | 0.2 | 58,661    |
| Meru North           | 22,112    | 18.6 | 182    | 0.2 | 1,703  | 1.4 | 94,811    | 79.6 | 358    | 0.3 | 119,166   |
| Tharaka              | 2,171     | 10.8 | 34     | 0.2 | 122    | 0.6 | 17,724    | 87.8 | 129    | 0.6 | 20,180    |
| Nithi (Meru S )      | 13,605    | 29   | 85     | 0.2 | 416    | 0.9 | 32,707    | 69.8 | 41     | 0.1 | 46,854    |
| North eastern        | 14,204    | 9.7  | 345    | 0.2 | 144    | 0.1 | 131,821   | 89.6 | 568    | 0.4 | 147,082   |
| Garissa              | 8,707     | 18.3 | 235    | 0.5 | 42     | 0.1 | 38,276    | 80.4 | 322    | 0.7 | 47,582    |
| Mandera              | 2,875     | 6.3  | 31     | 0.1 | 61     | 0.1 | 42,353    | 93.3 | 80     | 0.2 | 45,400    |
| Wajir                | 2,622     | 4.8  | 79     | 0.1 | 41     | 0.1 | 51,192    | 94.6 | 166    | 0.3 | 54,100    |
| Nyanza               | 233,660   | 24.3 | 4,246  | 0.4 | 2,946  | 0.3 | 719,621   | 74.7 | 2,396  | 0.2 | 962,869   |
| Gucha (S KISII)      | 12,370    | 13.9 | 315    | 0.4 | 598    | 0.7 | 75,783    | 84.9 | 216    | 0.2 | 89,282    |
| Homa Bay             | 11,952    | 17.9 | 214    | 0.3 | 131    | 0.2 | 54,142    | 81.2 | 231    | 0.3 | 66,670    |
| Kisii Central        | 21,110    | 21.1 | 485    | 0.5 | 221    | 0.2 | 77,850    | 78   | 177    | 0.2 | 99,843    |
| Kisumu               | 58,149    | 47.5 | 1,342  | 1.1 | 305    | 0.2 | 62,329    | 50.9 | 287    | 0.2 | 122,412   |
| Kuria                | 4,017     | 14   | 95     | 0.3 | 80     | 0.3 | 24,352    | 84.7 | 194    | 0.7 | 28,738    |
| Migori               | 28,094    | 24.8 | 471    | 0.4 | 310    | 0.3 | 84,154    | 74.2 | 334    | 0.3 | 113,363   |
| North Kisii(Nyamira) | 21,410    | 21.6 | 395    | 0.4 | 336    | 0.3 | 76,872    | 77.4 | 330    | 0.3 | 99,343    |
| Rachuonyo            | 13,766    | 20.3 | 202    | 0.3 | 196    | 0.3 | 53,529    | 78.9 | 114    | 0.2 | 67,807    |

|               |         |      |       |     |        |     |           |      |       |     |           |
|---------------|---------|------|-------|-----|--------|-----|-----------|------|-------|-----|-----------|
| Siaya         | 23,797  | 20.3 | 310   | 0.3 | 311    | 0.3 | 92,786    | 79.1 | 139   | 0.1 | 117,343   |
| Suba          | 5,929   | 17.5 | 67    | 0.2 | 91     | 0.3 | 27,647    | 81.7 | 115   | 0.3 | 33,849    |
| Bondo         | 16,600  | 29.6 | 169   | 0.3 | 147    | 0.3 | 39,086    | 69.6 | 138   | 0.2 | 56,140    |
| Nyando        | 16,466  | 24.2 | 181   | 0.3 | 220    | 0.3 | 51,091    | 75   | 121   | 0.2 | 68,079    |
| Rift Valley   | 424,339 | 28.5 | 7,628 | 0.5 | 10,204 | 0.7 | 1,041,187 | 70   | 3,701 | 0.2 | 1,487,059 |
| Baringo       | 10,338  | 18.3 | 283   | 0.5 | 352    | 0.6 | 45,344    | 80.4 | 92    | 0.2 | 56,409    |
| Bomet         | 7,202   | 10.2 | 115   | 0.2 | 323    | 0.5 | 62,731    | 89.1 | 63    | 0.1 | 70,434    |
| Keiyo         | 7,079   | 23.6 | 96    | 0.3 | 401    | 1.3 | 22,361    | 74.5 | 59    | 0.2 | 29,996    |
| Kajiado       | 41,552  | 43.3 | 744   | 0.8 | 290    | 0.3 | 52,877    | 55.1 | 583   | 0.6 | 96,046    |
| Kericho       | 35,771  | 36.4 | 456   | 0.5 | 636    | 0.6 | 61,300    | 62.4 | 127   | 0.1 | 98,290    |
| Koibatek      | 7,174   | 25.8 | 100   | 0.4 | 1,047  | 3.8 | 19,387    | 69.6 | 136   | 0.5 | 27,844    |
| Laikipia      | 21,017  | 27.1 | 446   | 0.6 | 779    | 1   | 55,258    | 71.2 | 157   | 0.2 | 77,657    |
| Marakwet      | 3,078   | 9.9  | 31    | 0.1 | 153    | 0.5 | 27,920    | 89.5 | 22    | 0.1 | 31,204    |
| Nakuru        | 124,379 | 42.2 | 2,379 | 0.8 | 2,684  | 0.9 | 164,665   | 55.9 | 475   | 0.2 | 294,582   |
| Nandi         | 33,754  | 30   | 288   | 0.3 | 388    | 0.3 | 77,844    | 69.3 | 84    | 0.1 | 112,358   |
| Narok         | 9,016   | 11.9 | 278   | 0.4 | 338    | 0.4 | 66,058    | 86.9 | 362   | 0.5 | 76,052    |
| Samburu       | 4,284   | 13.1 | 45    | 0.1 | 35     | 0.1 | 27,902    | 85.4 | 412   | 1.3 | 32,678    |
| Trans Mara    | 2,978   | 9    | 47    | 0.1 | 45     | 0.1 | 29,878    | 90.5 | 81    | 0.2 | 33,029    |
| Trans Nzoia   | 24,956  | 21.6 | 337   | 0.3 | 526    | 0.5 | 89,625    | 77.5 | 178   | 0.2 | 115,622   |
| Turkana       | 5,311   | 7.2  | 90    | 0.1 | 335    | 0.5 | 67,140    | 91.4 | 564   | 0.8 | 73,440    |
| Uasin Gishu   | 53,170  | 39.8 | 1,530 | 1.1 | 1,517  | 1.1 | 77,126    | 57.8 | 161   | 0.1 | 133,504   |
| WestPokot     | 7,483   | 11.8 | 133   | 0.2 | 108    | 0.2 | 55,744    | 87.7 | 70    | 0.1 | 63,538    |
| Buret         | 25,797  | 40.1 | 230   | 0.4 | 247    | 0.4 | 38,027    | 59.1 | 75    | 0.1 | 64,376    |
| Western       | 122,265 | 17.5 | 1,429 | 0.2 | 1,335  | 0.2 | 568,758   | 81.4 | 5,036 | 0.7 | 698,823   |
| Bungoma       | 32,165  | 18.5 | 356   | 0.2 | 298    | 0.2 | 136,867   | 78.6 | 4,365 | 2.5 | 174,051   |
| Busia         | 15,231  | 18.7 | 145   | 0.2 | 118    | 0.1 | 65,839    | 80.8 | 130   | 0.2 | 81,463    |
| Mt. Elgon     | 2,529   | 9.9  | 24    | 0.1 | 145    | 0.6 | 22,701    | 89.3 | 19    | 0.1 | 25,418    |
| Kakamega      | 22,692  | 18.1 | 270   | 0.2 | 214    | 0.2 | 102,183   | 81.5 | 86    | 0.1 | 125,445   |
| Lugari        | 6,864   | 16.5 | 48    | 0.1 | 84     | 0.2 | 34,653    | 83.1 | 34    | 0.1 | 41,683    |
| Teso          | 7,922   | 20.8 | 88    | 0.2 | 54     | 0.1 | 30,011    | 78.8 | 32    | 0.1 | 38,107    |
| Vihiga        | 17,734  | 16.8 | 274   | 0.3 | 183    | 0.2 | 86,975    | 82.5 | 268   | 0.3 | 105,434   |
| Butere/Mumias | 17,128  | 16   | 224   | 0.2 | 239    | 0.2 | 89,529    | 83.5 | 102   | 0.1 | 107,222   |

**Table A5: Distribution of Households by Source of Water**

|              | Pond    |      | Dam     |      | Lake   |     | River     |      | Spring  |      | Well    |      | Borehole |      | Piped     |      | Tank/Jabia |     | Other   |      | Total     |
|--------------|---------|------|---------|------|--------|-----|-----------|------|---------|------|---------|------|----------|------|-----------|------|------------|-----|---------|------|-----------|
|              | Number  | %    | Number  | %    | Number | %   | Number    | %    | Number  | %    | Number  | %    | Number   | %    | Number    | %    | Number     | %   | Number  | %    |           |
| Kenya        | 177,905 | 2.8  | 134,097 | 2.1  | 92,257 | 1.5 | 1,700,777 | 26.8 | 743,240 | 11.7 | 831,128 | 13.1 | 495,046  | 7.8  | 1,903,002 | 30   | 71,588     | 1.1 | 186,255 | 2.9  | 6,335,295 |
| Nairobi      | 5,932   | 0.9  | 1,485   | 0.2  | 2,017  | 0.3 | 1,883     | 0.3  | 2,427   | 0.4  | 2,561   | 0.4  | 10,048   | 1.6  | 584,955   | 91   | 6,417      | 1   | 25,181  | 3.9  | 642,906   |
| Central      | 13,067  | 1.4  | 13,632  | 1.5  | 1,789  | 0.2 | 346,639   | 37.7 | 28,226  | 3.1  | 119,137 | 13   | 77,301   | 8.4  | 276,146   | 30.1 | 22,121     | 2.4 | 20,417  | 2.2  | 918,475   |
| Kiambu       | 1,746   | 0.9  | 5,217   | 2.8  | 393    | 0.2 | 33,265    | 17.7 | 3,937   | 2.1  | 43,023  | 22.8 | 43,754   | 23.2 | 47,688    | 25.3 | 3,320      | 1.8 | 5,961   | 3.2  | 188,304   |
| Kirinyaga    | 979     | 0.9  | 188     | 0.2  | 172    | 0.2 | 58,025    | 51   | 3,786   | 3.3  | 11,542  | 10.2 | 3,782    | 3.3  | 31,255    | 27.5 | 757        | 0.7 | 3,196   | 2.8  | 113,682   |
| Murang'a     | 554     | 0.7  | 116     | 0.1  | 90     | 0.1 | 53,927    | 63.7 | 2,221   | 2.6  | 3,392   | 4    | 2,090    | 2.5  | 17,455    | 20.6 | 3,895      | 4.6 | 852     | 1    | 84,592    |
| Nyandarua    | 5,231   | 5    | 5,374   | 5.2  | 190    | 0.2 | 27,395    | 26.4 | 5,068   | 4.9  | 25,683  | 24.7 | 5,818    | 5.6  | 24,200    | 23.3 | 3,388      | 3.3 | 1,550   | 1.5  | 103,897   |
| Nyeri        | 761     | 0.5  | 615     | 0.4  | 163    | 0.1 | 71,773    | 42.8 | 3,600   | 2.1  | 7,960   | 4.7  | 2,115    | 1.3  | 72,934    | 43.5 | 5,641      | 3.4 | 2,220   | 1.3  | 167,782   |
| Thika        | 2,820   | 1.7  | 1,739   | 1    | 618    | 0.4 | 48,732    | 28.6 | 5,480   | 3.2  | 14,452  | 8.5  | 15,182   | 8.9  | 73,237    | 43   | 2,621      | 1.5 | 5,260   | 3.1  | 170,141   |
| Maragua      | 976     | 1.1  | 383     | 0.4  | 163    | 0.2 | 53,522    | 59.4 | 4,134   | 4.6  | 13,085  | 14.5 | 4,560    | 5.1  | 9,377     | 10.4 | 2,499      | 2.8 | 1,378   | 1.5  | 90,077    |
| Coast        | 26,566  | 5.1  | 29,544  | 5.6  | 3,097  | 0.6 | 55,921    | 10.7 | 10,758  | 2.1  | 57,661  | 11   | 32,843   | 6.3  | 274,760   | 52.4 | 4,593      | 0.9 | 28,137  | 5.4  | 523,880   |
| Kilifi       | 10,525  | 11.7 | 7,607   | 8.5  | 356    | 0.4 | 2,974     | 3.3  | 2,888   | 3.2  | 13,702  | 15.3 | 5,387    | 6    | 44,472    | 49.5 | 367        | 0.4 | 1,477   | 1.6  | 89,755    |
| Kwale        | 7,893   | 8.6  | 16,447  | 17.9 | 523    | 0.6 | 10,241    | 11.1 | 3,382   | 3.7  | 13,190  | 14.3 | 13,818   | 15   | 22,498    | 24.4 | 625        | 0.7 | 3,470   | 3.8  | 92,087    |
| Lamu         | 708     | 4.8  | 13      | 0.1  | 125    | 0.8 | 529       | 3.6  | 100     | 0.7  | 8,669   | 58.2 | 167      | 1.1  | 3,163     | 21.2 | 934        | 6.3 | 487     | 3.3  | 14,895    |
| Mombasa      | 1,364   | 0.8  | 558     | 0.3  | 394    | 0.2 | 548       | 0.3  | 1,076   | 0.6  | 6,083   | 3.3  | 6,701    | 3.7  | 144,188   | 79.3 | 1,391      | 0.8 | 19,546  | 10.7 | 181,849   |
| Taita Taveta | 349     | 0.6  | 433     | 0.8  | 248    | 0.4 | 18,298    | 31.9 | 2,133   | 3.7  | 483     | 0.8  | 1,743    | 3    | 32,385    | 56.4 | 307        | 0.5 | 1,032   | 1.8  | 57,411    |
| Tana River   | 1,673   | 4.6  | 1,189   | 3.3  | 589    | 1.6 | 19,743    | 54.7 | 176     | 0.5  | 6,421   | 17.8 | 3,294    | 9.1  | 1,656     | 4.6  | 200        | 0.6 | 1,139   | 3.2  | 36,080    |
| Malindi      | 4,054   | 7.8  | 3,297   | 6.4  | 862    | 1.7 | 3,588     | 6.9  | 1,003   | 1.9  | 9,113   | 17.6 | 1,733    | 3.3  | 26,398    | 51   | 769        | 1.5 | 986     | 1.9  | 51,803    |
| Eastern      | 15,404  | 1.6  | 28,095  | 2.9  | 1,993  | 0.2 | 297,234   | 31.2 | 87,049  | 9.1  | 193,903 | 20.3 | 46,029   | 4.8  | 257,950   | 27   | 6,803      | 0.7 | 19,741  | 2.1  | 954,201   |
| Embu         | 662     | 1    | 80      | 0.1  | 97     | 0.2 | 22,053    | 34.6 | 2,386   | 3.7  | 4,655   | 7.3  | 1,415    | 2.2  | 31,388    | 49.3 | 198        | 0.3 | 762     | 1.2  | 63,696    |
| Isiolo       | 132     | 0.6  | 43      | 0.2  | 61     | 0.3 | 5,921     | 26.3 | 319     | 1.4  | 4,087   | 18.2 | 1,507    | 6.7  | 9,652     | 42.9 | 148        | 0.7 | 627     | 2.8  | 22,497    |
| Kitui        | 812     | 0.8  | 3,596   | 3.7  | 88     | 0.1 | 24,513    | 25.3 | 3,394   | 3.5  | 55,077  | 56.8 | 3,541    | 3.7  | 4,066     | 4.2  | 886        | 0.9 | 957     | 1    | 96,930    |
| Makueni      | 4,426   | 3.1  | 5,290   | 3.7  | 317    | 0.2 | 58,909    | 41   | 20,798  | 14.5 | 22,637  | 15.7 | 4,153    | 2.9  | 24,089    | 16.8 | 1,433      | 1   | 1,727   | 1.2  | 143,779   |
| Machakos     | 3,920   | 2.1  | 10,116  | 5.5  | 431    | 0.2 | 56,728    | 30.6 | 39,023  | 21   | 27,925  | 15   | 8,319    | 4.5  | 33,910    | 18.3 | 1,769      | 1   | 3,412   | 1.8  | 185,553   |
| Marsabit     | 73      | 0.2  | 320     | 1.1  | 413    | 1.4 | 427       | 1.4  | 2,294   | 7.7  | 18,416  | 61.7 | 3,437    | 11.5 | 3,761     | 12.6 | 299        | 1   | 394     | 1.3  | 29,834    |
| Mbeere       | 1,175   | 3.2  | 3,539   | 9.6  | 44     | 0.1 | 12,309    | 33.3 | 1,540   | 4.2  | 5,848   | 15.8 | 8,244    | 22.3 | 3,522     | 9.5  | 152        | 0.4 | 560     | 1.5  | 36,933    |
| Meru Central | 1,022   | 0.9  | 224     | 0.2  | 149    | 0.1 | 27,964    | 23.3 | 5,593   | 4.7  | 3,182   | 2.7  | 1,562    | 1.3  | 75,283    | 62.8 | 585        | 0.5 | 4,284   | 3.6  | 119,848   |
| Moyale       | 427     | 4.2  | 1,721   | 16.8 | 6      | 0.1 | 244       | 2.4  | 306     | 3    | 5,027   | 48.9 | 1,970    | 19.2 | 272       | 2.6  | 57         | 0.6 | 240     | 2.3  | 10,270    |
| Mwingi       | 1,582   | 2.7  | 3,040   | 5.2  | 173    | 0.3 | 7,303     | 12.4 | 1,451   | 2.5  | 37,219  | 63.4 | 1,464    | 2.5  | 4,197     | 7.2  | 392        | 0.7 | 1,840   | 3.1  | 58,661    |
| Meru North   | 815     | 0.7  | 71      | 0.1  | 170    | 0.1 | 42,669    | 35.8 | 8,006   | 6.7  | 4,899   | 4.1  | 3,309    | 2.8  | 54,337    | 45.6 | 769        | 0.6 | 4,121   | 3.5  | 119,166   |

|                 |        |      |        |      |        |      |         |      |         |      |         |      |         |      |         |      |        |     |        |      |           |
|-----------------|--------|------|--------|------|--------|------|---------|------|---------|------|---------|------|---------|------|---------|------|--------|-----|--------|------|-----------|
| Tharaka         | 67     | 0.3  | 22     | 0.1  | 12     | 0.1  | 10,917  | 54.1 | 248     | 1.2  | 2,327   | 11.5 | 4,866   | 24.1 | 1,356   | 6.7  | 13     | 0.1 | 352    | 1.7  | 20,180    |
| Nithi (Meru S ) | 291    | 0.6  | 33     | 0.1  | 32     | 0.1  | 27,277  | 58.2 | 1,691   | 3.6  | 2,604   | 5.6  | 2,242   | 4.8  | 12,117  | 25.9 | 102    | 0.2 | 465    | 1    | 46,854    |
| North eastern   | 7,051  | 4.8  | 13,013 | 8.8  | 147    | 0.1  | 20,565  | 14   | 1,070   | 0.7  | 52,562  | 35.7 | 30,908  | 21   | 10,410  | 7.1  | 1,913  | 1.3 | 9,443  | 6.4  | 147,082   |
| Garissa         | 6,645  | 14   | 204    | 0.4  | 68     | 0.1  | 12,176  | 25.6 | 625     | 1.3  | 7,450   | 15.7 | 6,678   | 14   | 5,440   | 11.4 | 962    | 2   | 7,334  | 15.4 | 47,582    |
| Mandera         | 236    | 0.5  | 8,772  | 19.3 | 36     | 0.1  | 8,032   | 17.7 | 205     | 0.5  | 13,204  | 29.1 | 8,175   | 18   | 4,780   | 10.5 | 706    | 1.6 | 1,254  | 2.8  | 45,400    |
| Wajir           | 170    | 0.3  | 4,037  | 7.5  | 43     | 0.1  | 357     | 0.7  | 240     | 0.4  | 31,908  | 59   | 16,055  | 29.7 | 190     | 0.4  | 245    | 0.5 | 855    | 1.6  | 54,100    |
| Nyanza          | 54,444 | 5.7  | 11,107 | 1.2  | 68,842 | 7.1  | 315,574 | 32.8 | 231,252 | 24   | 71,439  | 7.4  | 91,020  | 9.5  | 82,103  | 8.5  | 5,690  | 0.6 | 31,398 | 3.3  | 962,869   |
| Gucha (S Kisi   | 512    | 0.6  | 137    | 0.2  | 207    | 0.2  | 24,476  | 27.4 | 56,778  | 63.6 | 1,950   | 2.2  | 674     | 0.8  | 2,167   | 2.4  | 384    | 0.4 | 1,997  | 2.2  | 89,282    |
| Horna Bay       | 7,296  | 10.9 | 1,755  | 2.6  | 2,831  | 4.2  | 25,635  | 38.5 | 6,389   | 9.6  | 6,591   | 9.9  | 9,201   | 13.8 | 5,414   | 8.1  | 206    | 0.3 | 1,352  | 2    | 66,670    |
| KISII Central   | 606    | 0.6  | 135    | 0.1  | 184    | 0.2  | 29,847  | 29.9 | 55,690  | 55.8 | 3,780   | 3.8  | 640     | 0.6  | 6,834   | 6.8  | 698    | 0.7 | 1,429  | 1.4  | 99,843    |
| Kisumu          | 2,239  | 1.8  | 629    | 0.5  | 4,950  | 4    | 33,114  | 27.1 | 4,918   | 4    | 12,201  | 10   | 14,338  | 11.7 | 36,807  | 30.1 | 998    | 0.8 | 12,218 | 10   | 122,412   |
| Kuria           | 320    | 1.1  | 121    | 0.4  | 67     | 0.2  | 13,826  | 48.1 | 6,737   | 23.4 | 5,241   | 18.2 | 1 509   | 5.3  | 250     | 0.9  | 62     | 0.2 | 605    | 2.1  | 28,738    |
| Migori          | 6,082  | 5.4  | 2,402  | 2.1  | 8,391  | 7.4  | 46,853  | 41.3 | 16,158  | 14.3 | 12,763  | 11.3 | 13,173  | 11.6 | 4,297   | 3.8  | 273    | 0.2 | 2,971  | 2.6  | 113,363   |
| North Kisii(Ny  | 2,472  | 2.5  | 322    | 0.3  | 632    | 0.6  | 30,916  | 31.1 | 50,470  | 50.8 | 5,116   | 5.1  | 1,596   | 1.6  | 4,823   | 4.9  | 1,125  | 1.1 | 1,871  | 1.9  | 99,343    |
| Rachuonyo       | 7,748  | 11.4 | 750    | 1.1  | 6,789  | 10   | 28,788  | 42.5 | 8,180   | 12.1 | 7,530   | 11.1 | 6,239   | 9.2  | 277     | 0.4  | 346    | 0.5 | 1,160  | 1.7  | 67,807    |
| Siaya           | 5,801  | 4.9  | 2,976  | 2.5  | 1,922  | 1.6  | 45,669  | 38.9 | 21,667  | 18.5 | 7,671   | 6.5  | 23,614  | 20.1 | 5,932   | 5.1  | 560    | 0.5 | 1,531  | 1.3  | 117,343   |
| Suba            | 1,216  | 3.6  | 227    | 0.7  | 19,068 | 56.3 | 5,334   | 15.8 | 1,368   | 4    | 198     | 0.6  | 4,418   | 13.1 | 1,472   | 4.3  | 53     | 0.2 | 495    | 1.5  | 33,849    |
| Bondo           | 14,868 | 26.5 | 1,275  | 2.3  | 23,218 | 41.4 | 6,020   | 10.7 | 821     | 1.5  | 1,309   | 2.3  | 3,344   | 6    | 2,379   | 4.2  | 512    | 0.9 | 2,394  | 4.3  | 56,140    |
| Nyando          | 5,284  | 7.8  | 378    | 0.6  | 583    | 0.9  | 25,096  | 36.9 | 2,076   | 3    | 7,089   | 10.4 | 12,274  | 18   | 11,451  | 16.8 | 473    | 0.7 | 3,375  | 5    | 68,079    |
| Rift Valley     | 47,005 | 3.2  | 36,375 | 2.4  | 10,182 | 0.7  | 517,320 | 34.8 | 116,112 | 7.8  | 230,346 | 15.5 | 115,077 | 7.7  | 348,532 | 23.4 | 21,437 | 1.4 | 44,673 | 3    | 1,487,059 |
| Baringo         | 990    | 1.8  | 3,120  | 5.5  | 2,285  | 4.1  | 31,462  | 55.8 | 5,960   | 10.6 | 4,430   | 7.9  | 1,807   | 3.2  | 4,707   | 8.3  | 441    | 0.8 | 1,207  | 2.1  | 56,409    |
| Bomet           | 16,149 | 22.9 | 2,516  | 3.6  | 105    | 0.1  | 30,903  | 43.9 | 11,273  | 16   | 4,309   | 6.1  | 1,322   | 1.9  | 1,928   | 2.7  | 728    | 1   | 1,201  | 1.7  | 70,434    |
| Keiyo           | 513    | 1.7  | 71     | 0.2  | 31     | 0.1  | 13,457  | 44.9 | 1,474   | 4.9  | 8,035   | 26.8 | 793     | 1.6  | 5,341   | 17.8 | 62     | 0.2 | 219    | 0.7  | 29,996    |
| Kajiado         | 2,250  | 2.3  | 2,834  | 3    | 349    | 0.4  | 15,806  | 16.5 | 4,409   | 4.6  | 9,192   | 9.6  | 18,148  | 18.9 | 32,638  | 34   | 1,614  | 1.7 | 8,806  | 9.2  | 96,046    |
| Kericho         | 1,423  | 1.4  | 1,019  | 1    | 184    | 0.2  | 46,732  | 47.5 | 5,752   | 5.9  | 8,145   | 8.3  | 2,225   | 2.3  | 29,150  | 29.7 | 805    | 0.8 | 2,855  | 2.9  | 98,290    |
| Koibatek        | 1,170  | 4.2  | 1,911  | 6.9  | 42     | 0.2  | 11,688  | 42   | 1,119   | 4    | 2,224   | 8    | 1,193   | 4.3  | 7,313   | 26.3 | 189    | 0.7 | 995    | 3.6  | 27,844    |
| Laikipia        | 1,090  | 1.4  | 7,525  | 9.7  | 125    | 0.2  | 25,827  | 33.3 | 2,208   | 2.8  | 11,422  | 14.7 | 5,077   | 6.5  | 21,690  | 27.9 | 1,068  | 1.4 | 1,625  | 2.1  | 77,657    |
| Marakwet        | 472    | 1.5  | 27     | 0.1  | 23     | 0.1  | 24,438  | 78.3 | 1,877   | 6    | 1,006   | 3.2  | 422     | 1.4  | 2,585   | 8.3  | 85     | 0.3 | 269    | 0.9  | 31,204    |
| Nakuru          | 2,492  | 0.8  | 8,189  | 2.8  | 2,800  | 1    | 67,735  | 23   | 13,377  | 4.5  | 18,599  | 6.3  | 31,993  | 10.9 | 122,802 | 41.7 | 12,175 | 4.1 | 14,420 | 4.9  | 294,582   |
| Nandi           | 3,591  | 3.2  | 359    | 0.3  | 146    | 0.1  | 47,586  | 42.4 | 23,039  | 20.5 | 14,909  | 13.3 | 2,267   | 2    | 18,136  | 16.1 | 791    | 0.7 | 1,534  | 1.4  | 112,358   |
| Narok           | 5,533  | 7.3  | 3,880  | 5.1  | 143    | 0.2  | 41,291  | 54.3 | 8,992   | 11.8 | 2,518   | 3.3  | 3,385   | 4.5  | 5,809   | 7.6  | 1,203  | 1.6 | 3,298  | 4.3  | 76,052    |
| Samburu         | 176    | 0.5  | 675    | 2.1  | 167    | 0.5  | 7,116   | 21.8 | 1,318   | 4    | 14,880  | 45.5 | 2,404   | 7.4  | 4,304   | 13.2 | 248    | 08  | 1,390  | 4.3  | 32,678    |

|              |       |      |       |     |       |     |         |      |         |      |         |      |        |      |        |      |       |     |       |     |         |
|--------------|-------|------|-------|-----|-------|-----|---------|------|---------|------|---------|------|--------|------|--------|------|-------|-----|-------|-----|---------|
| Trans Mara   | 4,679 | 14.2 | 2,433 | 7.4 | 35    | 0.1 | 15,400  | 46.6 | 5,470   | 16.6 | 1,128   | 3.4  | 635    | 1.9  | 2,480  | 7.5  | 396   | 1.2 | 373   | 1.1 | 33,029  |
| Trans Nzoia  | 1,306 | 1.1  | 639   | 0.6 | 119   | 0.1 | 32,165  | 27.8 | 17,646  | 15.3 | 29,000  | 25.1 | 15,031 | 13   | 18,205 | 15.7 | 387   | 0.3 | 1,124 | 1   | 115,622 |
| Turkana      | 1,127 | 1.5  | 256   | 0.3 | 3,127 | 4.3 | 13,691  | 18.6 | 2,785   | 3.8  | 31,262  | 42.6 | 12,832 | 17.5 | 7,049  | 9.6  | 150   | 0.2 | 1,161 | 1.6 | 73,440  |
| Uasin Gishu  | 1,278 | 1    | 422   | 0.3 | 266   | 0.2 | 16,593  | 12.4 | 3,915   | 2.9  | 60,258  | 45.1 | 11,567 | 8.7  | 36,181 | 27.1 | 494   | 0.4 | 2,530 | 1.9 | 133,504 |
| West Pokot   | 352   | 0.6  | 355   | 0.6 | 66    | 0.1 | 45,958  | 72.3 | 2,213   | 3.5  | 5,440   | 8.6  | 2,858  | 4.5  | 5,562  | 8.8  | 110   | 0.2 | 624   | 1   | 63,538  |
| Buret        | 2,414 | 3.7  | 144   | 0.2 | 169   | 0.3 | 29,472  | 45.8 | 3,285   | 5.1  | 3,589   | 5.6  | 1,118  | 1.7  | 22,652 | 35.2 | 491   | 0.8 | 1,042 | 1.6 | 64,376  |
| Western      | 8,436 | 1.2  | 846   | 0.1 | 4,190 | 0.6 | 145,641 | 20.8 | 266,346 | 38.1 | 103,519 | 14.8 | 91,820 | 13.1 | 68,146 | 9.8  | 2,614 | 0.4 | 7,265 | 1   | 698,823 |
| Bungoma      | 2,229 | 1.3  | 200   | 0.1 | 222   | 0.1 | 18,989  | 10.9 | 51,429  | 29.5 | 44,712  | 25.7 | 30,054 | 17.3 | 23,344 | 13.4 | 393   | 0.2 | 2,479 | 1.4 | 174,051 |
| Busia        | 1,049 | 1.3  | 226   | 0.3 | 3,446 | 4.2 | 14,996  | 18.4 | 19,060  | 23.4 | 9,649   | 11.8 | 25,046 | 30.7 | 7,095  | 8.7  | 127   | 0.2 | 769   | 0.9 | 81,463  |
| Mt. Elgon    | 150   | 0.6  | 8     |     | 34    | 0.1 | 8,879   | 34.9 | 7,560   | 29.7 | 717     | 2.8  | 440    | 1.7  | 7,271  | 28.6 | 60    | 0.2 | 299   | 1.2 | 25 418  |
| Kakamega     | 2,194 | 1.7  | 158   | 0.1 | 139   | 0.1 | 41,376  | 33   | 47,798  | 38.1 | 9,369   | 7.5  | 10,579 | 8.4  | 12,342 | 9.8  | 336   | 0.3 | 1,154 | 0.9 | 125,445 |
| Lugari       | 202   | 0.5  | 41    | 0.1 | 38    | 0.1 | 6,858   | 16.5 | 7,763   | 18.6 | 17,556  | 42.1 | 5,331  | 12.8 | 3,350  | 8    | 139   | 0.3 | 405   | 1   | 41,683  |
| Teso         | 293   | 0.8  | 23    | 0.1 | 29    | 0.1 | 6,516   | 17.1 | 11,639  | 30.5 | 8,394   | 22   | 8,469  | 22.2 | 2,014  | 5.3  | 110   | 0.3 | 620   | 1.6 | 38,107  |
| Vihiga       | 1,040 | 1    | 90    | 0.1 | 141   | 0.1 | 25,209  | 23.9 | 66,881  | 63.4 | 4,270   | 4    | 633    | 0.6  | 5,127  | 4.9  | 1,194 | 1.1 | 849   | 0.8 | 105,434 |
| Butere/Mumia | 1,279 | 1.2  | 100   | 0.1 | 141   | 0.1 | 22,818  | 21.3 | 54,216  | 50.6 | 8,852   | 8.3  | 11,268 | 10.5 | 7,603  | 7.1  | 255   | 0.2 | 690   | 0.6 | 107,222 |

**Table A6: Distribution of households by main type of human waste disposal**

|                | Main Sewer     |             | Septic Tank    |            | Cess Pool     |            | Pit Latrine      |             | Bucket Latrine |            | Bush             |             | Other         |            | Total            |
|----------------|----------------|-------------|----------------|------------|---------------|------------|------------------|-------------|----------------|------------|------------------|-------------|---------------|------------|------------------|
|                | Number         | %           | Number         | %          | Number        | %          | Number           | %           | Number         | %          | Number           | %           | Number        | %          |                  |
| <b>Kenya</b>   | <b>488,032</b> | <b>7.7</b>  | <b>147,862</b> | <b>2.3</b> | <b>27,042</b> | <b>0.4</b> | <b>4,570,138</b> | <b>72.1</b> | <b>25,981</b>  | <b>0.4</b> | <b>1,041,890</b> | <b>16.4</b> | <b>34,350</b> | <b>0.5</b> | <b>6,335,295</b> |
| <b>Nairobi</b> | <b>310,201</b> | <b>48.2</b> | <b>33,134</b>  | <b>5.2</b> | <b>9,650</b>  | <b>1.5</b> | <b>270,481</b>   | <b>42.1</b> | <b>4,531</b>   | <b>0.7</b> | <b>6,784</b>     | <b>1.1</b>  | <b>8,125</b>  | <b>1.3</b> | <b>642,906</b>   |
| <b>Central</b> | <b>39,891</b>  | <b>4.3</b>  | <b>26,811</b>  | <b>2.9</b> | <b>3,025</b>  | <b>0.3</b> | <b>841,649</b>   | <b>91.6</b> | <b>1,519</b>   | <b>0.2</b> | <b>3,774</b>     | <b>0.4</b>  | <b>1,806</b>  | <b>0.2</b> | <b>918,475</b>   |
| Kiambu         | 5,402          | 2.9         | 6,622          | 3.5        | 811           | 0.4        | 174,414          | 92.6        | 244            | 0.1        | 408              | 0.2         | 403           | 0.2        | 188,304          |
| Kirinyaga      | 1,865          | 1.6         | 3,034          | 2.7        | 373           | 0.3        | 107,576          | 94.6        | 374            | 0.3        | 259              | 0.2         | 201           | 0.2        | 113,682          |
| Murang'a       | 2,539          | 3.0         | 1,131          | 1.3        | 233           | 0.3        | 80,270           | 94.9        | 162            | 0.2        | 178              | 0.2         | 79            | 0.1        | 84,592           |
| Nyandarua      | 1,243          | 1.2         | 644            | 0.6        | 81            | 0.1        | 101,403          | 97.6        | 96             | 0.1        | 232              | 0.2         | 198           | 0.2        | 103,897          |
| Nyeri          | 7,661          | 4.6         | 4,908          | 2.9        | 446           | 0.3        | 152,738          | 91.0        | 305            | 0.2        | 1,531            | 0.9         | 193           | 0.1        | 167,782          |
| Thika          | 20,175         | 11.9        | 9,665          | 5.7        | 942           | 0.6        | 137,590          | 80.9        | 296            | 0.2        | 896              | 0.5         | 577           | 0.3        | 170,141          |
| Maragua        | 1,006          | 1.1         | 807            | 0.9        | 139           | 0.2        | 87,658           | 97.3        | 42             | .          | 270              | 0.3         | 155           | 0.2        | 90,077           |
| <b>Coast</b>   | <b>19,005</b>  | <b>3.6</b>  | <b>38,194</b>  | <b>7.3</b> | <b>6,740</b>  | <b>1.3</b> | <b>297,266</b>   | <b>56.7</b> | <b>2,584</b>   | <b>0.5</b> | <b>154,912</b>   | <b>29.6</b> | <b>5,179</b>  | <b>1.0</b> | <b>523,880</b>   |
| Kilifi         | 952            | 1.1         | 3,198          | 3.6        | 377           | 0.4        | 48,337           | 53.9        | 337            | 0.4        | 35,990           | 40.1        | 564           | 0.6        | 89,755           |
| Kwale          | 1,016          | 1.1         | 1,447          | 1.6        | 204           | 0.2        | 34,171           | 37.1        | 419            | 0.5        | 54,161           | 58.8        | 669           | 0.7        | 92,087           |
| Lamu           | 81             | 0.5         | 233            | 1.6        | 62            | 0.4        | 11,727           | 78.7        | 26             | 0.2        | 2,670            | 17.9        | 96            | 0.6        | 14,895           |
| Mombasa        | 14,853         | 8.2         | 25,786         | 14.2       | 5,101         | 2.8        | 126,410          | 69.5        | 1,419          | 0.8        | 6,047            | 3.3         | 2,233         | 1.2        | 181,849          |
| Taita Taveta   | 1,030          | 1.8         | 2,127          | 3.7        | 258           | 0.4        | 48,661           | 84.8        | 55             | 0.1        | 4,985            | 8.7         | 295           | 0.5        | 57,411           |
| Tana River     | 219            | 0.6         | 161            | 0.4        | 73            | 0.2        | 10,196           | 28.3        | 77             | 0.2        | 24,543           | 68.0        | 811           | 2.2        | 36,080           |
| Malindi        | 854            | 1.6         | 5,242          | 10.1       | 665           | 1.3        | 17,764           | 34.3        | 251            | 0.5        | 26,516           | 51.2        | 511           | 1.0        | 51,803           |
| <b>Eastern</b> | <b>20,695</b>  | <b>2.2</b>  | <b>11,338</b>  | <b>1.2</b> | <b>1,483</b>  | <b>0.2</b> | <b>767,344</b>   | <b>80.4</b> | <b>2,853</b>   | <b>0.3</b> | <b>146,814</b>   | <b>15.4</b> | <b>3,674</b>  | <b>0.4</b> | <b>954,201</b>   |
| Embu           | 2,980          | 4.7         | 2,484          | 3.9        | 244           | 0.4        | 57,375           | 90.1        | 260            | 0.4        | 201              | 0.3         | 152           | 0.2        | 63,696           |
| Isiolo         | 1,516          | 6.7         | 463            | 2.1        | 37            | 0.2        | 9,229            | 41.0        | 160            | 0.7        | 10,888           | 48.4        | 204           | 0.9        | 22,497           |
| Kitui          | 486            | 0.5         | 663            | 0.7        | 55            | 0.1        | 54,083           | 55.8        | 196            | 0.2        | 41,296           | 42.6        | 151           | 0.2        | 96,930           |
| Makueni        | 1,519          | 1.1         | 608            | 0.4        | 66            | .          | 131,475          | 91.4        | 326            | 0.2        | 9,375            | 6.5         | 410           | 0.3        | 143,779          |
| Machakos       | 9,478          | 5.1         | 2,765          | 1.5        | 332           | 0.2        | 157,801          | 85.0        | 611            | 0.3        | 13,497           | 7.3         | 1,069         | 0.6        | 185,553          |
| Marsabit       | 82             | 0.3         | 79             | 0.3        | 12            | .          | 6,322            | 21.2        | 61             | 0.2        | 23,131           | 77.5        | 147           | 0.5        | 29,834           |
| Mbeere         | 715            | 1.9         | 177            | 0.5        | 319           | 0.9        | 32,704           | 88.5        | 286            | 0.8        | 2,550            | 6.9         | 182           | 0.5        | 36,933           |
| Meru Central   | 1,667          | 1.4         | 2,957          | 2.5        | 121           | 0.1        | 113,575          | 94.8        | 144            | 0.1        | 1,189            | 1.0         | 195           | 0.2        | 119,848          |
| Moyale         | 100            | 1.0         | 8              | 0.1        | 8             | 0.1        | 4,952            | 48.2        | 10             | 0.1        | 5,072            | 49.4        | 120           | 1.2        | 10,270           |
| Mwingi         | 640            | 1.1         | 182            | 0.3        | 37            | 0.1        | 27,177           | 46.3        | 193            | 0.3        | 30,332           | 51.7        | 100           | 0.2        | 58,661           |

|                      | Main Sewer    |            | Septic Tank   |            | Cess Pool    |            | Pit Latrine    |             | Bucket Latrine |            | Bush           |             | Other        |            | Total            |
|----------------------|---------------|------------|---------------|------------|--------------|------------|----------------|-------------|----------------|------------|----------------|-------------|--------------|------------|------------------|
|                      | Number        | %          | Number        | %          | Number       | %          | Number         | %           | Number         | %          | Number         | %           | Number       | %          |                  |
| Meru North           | 936           | 0.8        | 446           | 0.4        | 168          | 0.1        | 109,556        | 91.9        | 548            | 0.5        | 6,727          | 5.6         | 785          | 0.7        | 119,166          |
| Tharaka              | 162           | 0.8        | 91            | 0.5        | 24           | 0.1        | 18,095         | 89.7        | 17             | 0.1        | 1,725          | 8.5         | 66           | 0.3        | 20,180           |
| Nithi (Meru S.)      | 414           | 0.9        | 415           | 0.9        | 60           | 0.1        | 45,000         | 96.0        | 41             | 0.1        | 831            | 1.8         | 93           | 0.2        | 46,854           |
| <b>North eastern</b> | <b>1,772</b>  | <b>1.2</b> | <b>439</b>    | <b>0.3</b> | <b>391</b>   | <b>0.3</b> | <b>25,842</b>  | <b>17.6</b> | <b>4,181</b>   | <b>2.8</b> | <b>113,570</b> | <b>77.2</b> | <b>887</b>   | <b>0.6</b> | <b>147,082</b>   |
| Garissa              | 1,430         | 3.0        | 275           | 0.6        | 249          | 0.5        | 11,821         | 24.8        | 384            | 0.8        | 33,160         | 69.7        | 263          | 0.6        | 47,582           |
| Mandera              | 130           | 0.3        | 78            | 0.2        | 79           | 0.2        | 10,076         | 22.2        | 104            | 0.2        | 34,589         | 76.2        | 344          | 0.8        | 45,400           |
| Wajir                | 212           | 0.4        | 86            | 0.2        | 63           | 0.1        | 3,945          | 7.3         | 3,693          | 6.8        | 45,821         | 84.7        | 280          | 0.5        | 54,100           |
| <b>Nyanza</b>        | <b>22,665</b> | <b>2.4</b> | <b>7,243</b>  | <b>0.8</b> | <b>1,276</b> | <b>0.1</b> | <b>740,941</b> | <b>77.0</b> | <b>5,037</b>   | <b>0.5</b> | <b>177,847</b> | <b>18.5</b> | <b>7,860</b> | <b>0.8</b> | <b>962,869</b>   |
| Gucha (S. Kisii)     | 994           | 1.1        | 321           | 0.4        | 28           | -          | 86,787         | 97.2        | 118            | 0.1        | 805            | 0.9         | 229          | 0.3        | 89,282           |
| Homa Bay             | 1,718         | 2.6        | 240           | 0.4        | 85           | 0.1        | 33,204         | 49.8        | 287            | 0.4        | 29,570         | 44.4        | 1,566        | 2.3        | 66,670           |
| Kisii Central        | 1,839         | 1.8        | 689           | 0.7        | 98           | 0.1        | 95,502         | 95.7        | 264            | 0.3        | 1,143          | 1.1         | 308          | 0.3        | 99,843           |
| Kisumu               | 9,196         | 7.5        | 3,071         | 2.5        | 291          | 0.2        | 93,417         | 76.3        | 500            | 0.4        | 14,981         | 12.2        | 956          | 0.8        | 122,412          |
| Kuria                | 205           | 0.7        | 96            | 0.3        | 22           | 0.1        | 20,179         | 70.2        | 159            | 0.6        | 7,934          | 27.6        | 143          | 0.5        | 28,738           |
| Migori               | 2,259         | 2.0        | 464           | 0.4        | 194          | 0.2        | 67,251         | 59.3        | 801            | 0.7        | 41,462         | 36.6        | 932          | 0.8        | 113,363          |
| North Kisii(Nyamira) | 2,033         | 2.0        | 570           | 0.6        | 74           | 0.1        | 93,029         | 93.6        | 1,508          | 1.5        | 1,684          | 1.7         | 445          | 0.4        | 99,343           |
| Rachuonyo            | 679           | 1.0        | 207           | 0.3        | 71           | 0.1        | 49,928         | 73.6        | 276            | 0.4        | 15,133         | 22.3        | 1,513        | 2.2        | 67,807           |
| Siaya                | 1,262         | 1.1        | 563           | 0.5        | 102          | 0.1        | 100,831        | 85.9        | 235            | 0.2        | 13,781         | 11.7        | 569          | 0.5        | 117,343          |
| Suba                 | 260           | 0.8        | 56            | 0.2        | 32           | 0.1        | 13,446         | 39.7        | 98             | 0.3        | 19,881         | 58.7        | 76           | 0.2        | 33,849           |
| Bondo                | 786           | 1.4        | 119           | 0.2        | 59           | 0.1        | 34,515         | 61.5        | 529            | 0.9        | 19,680         | 35.1        | 452          | 0.8        | 56,140           |
| Nyando               | 1,434         | 2.1        | 847           | 1.2        | 220          | 0.3        | 52,852         | 77.6        | 262            | 0.4        | 11,793         | 17.3        | 671          | 1.0        | 68,079           |
| <b>Rift Valley</b>   | <b>62,564</b> | <b>4.2</b> | <b>26,669</b> | <b>1.8</b> | <b>3,786</b> | <b>0.3</b> | <b>981,544</b> | <b>66.0</b> | <b>4,227</b>   | <b>0.3</b> | <b>404,072</b> | <b>27.2</b> | <b>4,197</b> | <b>0.3</b> | <b>1,487,059</b> |
| Baringo              | 649           | 1.2        | 435           | 0.8        | 107          | 0.2        | 21,783         | 38.6        | 305            | 0.5        | 32,929         | 58.4        | 201          | 0.4        | 56,409           |
| Bomet                | 676           | 1.0        | 311           | 0.4        | 61           | 0.1        | 51,412         | 73.0        | 264            | 0.4        | 17,396         | 24.7        | 314          | 0.4        | 70,434           |
| Keiyo                | 349           | 1.2        | 474           | 1.6        | 114          | 0.4        | 22,046         | 73.5        | 104            | 0.3        | 6,799          | 22.7        | 110          | 0.4        | 29,996           |
| Kajiado              | 2,851         | 3.0        | 3,843         | 4.0        | 388          | 0.4        | 53,094         | 55.3        | 412            | 0.4        | 34,837         | 36.3        | 621          | 0.6        | 96,046           |
| Kericho              | 2,963         | 3.0        | 1,252         | 1.3        | 417          | 0.4        | 76,395         | 77.7        | 328            | 0.3        | 16,697         | 17.0        | 238          | 0.2        | 98,290           |
| Koibatek             | 168           | 0.6        | 308           | 1.1        | 88           | 0.3        | 18,833         | 67.6        | 53             | 0.2        | 8,322          | 29.9        | 72           | 0.3        | 27,844           |
| Laikipia             | 9,259         | 11.9       | 1,198         | 1.5        | 140          | 0.2        | 56,595         | 72.9        | 569            | 0.7        | 9,752          | 12.6        | 144          | 0.2        | 77,657           |
| Marakwet             | 91            | 0.3        | 52            | 0.2        | 13           | -          | 19,556         | 62.7        | 49             | 0.2        | 11,423         | 36.6        | 20           | 0.1        | 31,204           |
| Nakuru               | 28,006        | 9.5        | 10,879        | 3.7        | 1,392        | 0.5        | 235,058        | 79.8        | 682            | 0.2        | 17,910         | 6.1         | 655          | 0.2        | 294,582          |

|                | Main Sewer    |            | Septic Tank  |            | Cess Pool  |            | Pit Latrine    |             | Bucket Latrine |            | Bush          |            | Other        |            | Total          |
|----------------|---------------|------------|--------------|------------|------------|------------|----------------|-------------|----------------|------------|---------------|------------|--------------|------------|----------------|
|                | Number        | %          | Number       | %          | Number     | %          | Number         | %           | Number         | %          | Number        | %          | Number       | %          |                |
| Nandi          | 1,323         | 1.2        | 551          | 0.5        | 128        | 0.1        | 92,009         | 81.9        | 219            | 0.2        | 17,869        | 15.9       | 259          | 0.2        | 112,358        |
| Narok          | 944           | 1.2        | 1,028        | 1.4        | 52         | 0.1        | 22,135         | 29.1        | 203            | 0.3        | 51,455        | 67.7       | 235          | 0.3        | 76,052         |
| Samburu        | 236           | 0.7        | 254          | 0.8        | 29         | 0.1        | 6,120          | 18.7        | 69             | 0.2        | 25,835        | 79.1       | 135          | 0.4        | 32,678         |
| Trans Mara     | 89            | 0.3        | 208          | 0.6        | 76         | 0.2        | 8,930          | 27.0        | 77             | 0.2        | 23,599        | 71.4       | 50           | 0.2        | 33,029         |
| Trans Nzoia    | 3,117         | 2.7        | 1,023        | 0.9        | 223        | 0.2        | 105,585        | 91.3        | 108            | 0.1        | 5,221         | 4.5        | 345          | 0.3        | 115,622        |
| Turkana        | 203           | 0.3        | 375          | 0.5        | 32         | .          | 8,973          | 12.2        | 114            | 0.2        | 63,536        | 86.5       | 207          | 0.3        | 73,440         |
| Uasin Gishu    | 10,007        | 7.5        | 3,755        | 2.8        | 300        | 0.2        | 111,367        | 83.4        | 268            | 0.2        | 7,408         | 5.5        | 399          | 0.3        | 133,504        |
| West Pokot     | 160           | 0.3        | 181          | 0.3        | 165        | 0.3        | 14,948         | 23.5        | 180            | 0.3        | 47,856        | 75.3       | 48           | 0.1        | 63,538         |
| Buret          | 1,473         | 2.3        | 542          | 0.8        | 61         | 0.1        | 56,705         | 88.1        | 223            | 0.3        | 5,228         | 8.1        | 144          | 0.2        | 64,376         |
| <b>Western</b> | <b>11,239</b> | <b>1.6</b> | <b>4,034</b> | <b>0.6</b> | <b>691</b> | <b>0.1</b> | <b>645,071</b> | <b>92.3</b> | <b>1,049</b>   | <b>0.2</b> | <b>34,117</b> | <b>4.9</b> | <b>2,622</b> | <b>0.4</b> | <b>698,823</b> |
| Bungoma        | 3,312         | 1.9        | 1,326        | 0.8        | 107        | 0.1        | 160,899        | 92.4        | 246            | 0.1        | 7,390         | 4.2        | 771          | 0.4        | 174,051        |
| Busia          | 539           | 0.7        | 210          | 0.3        | 28         | .          | 67,650         | 83.0        | 136            | 0.2        | 12,574        | 15.4       | 326          | 0.4        | 81,463         |
| Mt. Elgon      | 70            | 0.3        | 42           | 0.2        | 5          | .          | 24,265         | 95.5        | 19             | 0.1        | 905           | 3.6        | 112          | 0.4        | 25,418         |
| Kakamega       | 3,091         | 2.5        | 1,346        | 1.1        | 280        | 0.2        | 116,726        | 93.0        | 167            | 0.1        | 3,345         | 2.7        | 490          | 0.4        | 125,445        |
| Lugari         | 185           | 0.4        | 96           | 0.2        | 10         | .          | 40,426         | 97.0        | 28             | 0.1        | 831           | 2.0        | 107          | 0.3        | 41,683         |
| Teso           | 360           | 0.9        | 187          | 0.5        | 26         | 0.1        | 32,838         | 86.2        | 58             | 0.2        | 4,414         | 11.6       | 224          | 0.6        | 38,107         |
| Vihiga         | 604           | 0.6        | 392          | 0.4        | 50         | .          | 103,275        | 98.0        | 181            | 0.2        | 731           | 0.7        | 201          | 0.2        | 105,434        |
| Butere/Mumias  | 3,078         | 2.9        | 435          | 0.4        | 185        | 0.2        | 98,992         | 92.3        | 214            | 0.2        | 3,927         | 3.7        | 391          | 0.4        | 107,222        |

**Table A7: Distribution of households by main type of cooking fuel**

|                | Electricity   |            | Praffin          |             | Gas            |             | Firewood         |             | Charcoal       |             | Solar         |            | Other         |            | Total            |
|----------------|---------------|------------|------------------|-------------|----------------|-------------|------------------|-------------|----------------|-------------|---------------|------------|---------------|------------|------------------|
|                | Number        | %          | Number           | %           | Number         | %           | Number           | %           | Number         | %           | Number        | %          | Number        | %          |                  |
| <b>Kenya</b>   | <b>94,600</b> | <b>1.5</b> | <b>1,084,893</b> | <b>17.1</b> | <b>152,402</b> | <b>2.4</b>  | <b>4,344,545</b> | <b>68.6</b> | <b>608,782</b> | <b>9.6</b>  | <b>16,187</b> | <b>0.3</b> | <b>33,886</b> | <b>0.5</b> | <b>6,335,295</b> |
| <b>Nairobi</b> | <b>36,868</b> | <b>5.7</b> | <b>485,309</b>   | <b>75.5</b> | <b>75,017</b>  | <b>11.7</b> | <b>11,394</b>    | <b>1.8</b>  | <b>26,012</b>  | <b>4.0</b>  | <b>299</b>    | <b>-</b>   | <b>8,007</b>  | <b>1.2</b> | <b>642,906</b>   |
| <b>Central</b> | <b>14,578</b> | <b>1.6</b> | <b>156,961</b>   | <b>17.1</b> | <b>21,536</b>  | <b>2.3</b>  | <b>636,211</b>   | <b>69.3</b> | <b>82,076</b>  | <b>8.9</b>  | <b>853</b>    | <b>0.1</b> | <b>6,260</b>  | <b>0.7</b> | <b>918,475</b>   |
| Kiambu         | 4,641         | 2.5        | 45,430           | 24.1        | 9,140          | 4.9         | 93,986           | 49.9        | 32,132         | 17.1        | 226           | 0.1        | 2,749         | 1.5        | 188,304          |
| Kirinyaga      | 1,481         | 1.3        | 14,769           | 13.0        | 1,355          | 1.2         | 89,923           | 79.1        | 5,481          | 4.8         | 140           | 0.1        | 533           | 0.5        | 113,682          |
| Murang'a       | 959           | 1.1        | 7,378            | 8.7         | 908            | 1.1         | 73,323           | 86.7        | 1,729          | 2.0         | 43            | 0.1        | 252           | 0.3        | 84,592           |
| Nyandarua      | 594           | 0.6        | 2,142            | 2.1         | 521            | 0.5         | 83,258           | 80.1        | 17,053         | 16.4        | 117           | 0.1        | 212           | 0.2        | 103,897          |
| Nyeri          | 1,888         | 1.1        | 17,637           | 10.5        | 2,805          | 1.7         | 128,681          | 76.7        | 16,138         | 9.6         | 147           | 0.1        | 486           | 0.3        | 167,782          |
| Thika          | 4,133         | 2.4        | 61,854           | 36.4        | 6,069          | 3.6         | 88,961           | 52.3        | 7,286          | 4.3         | 114           | 0.1        | 1,724         | 1.0        | 170,141          |
| Maragua        | 882           | 1.0        | 7,751            | 8.6         | 738            | 0.8         | 78,079           | 86.7        | 2,257          | 2.5         | 66            | 0.1        | 304           | 0.3        | 90,077           |
| <b>Coast</b>   | <b>7,388</b>  | <b>1.4</b> | <b>156,866</b>   | <b>29.9</b> | <b>19,247</b>  | <b>3.7</b>  | <b>280,216</b>   | <b>53.5</b> | <b>54,401</b>  | <b>10.4</b> | <b>1,172</b>  | <b>0.2</b> | <b>4,590</b>  | <b>0.9</b> | <b>523,880</b>   |
| Kilifi         | 654           | 0.7        | 11,902           | 13.3        | 1,342          | 1.5         | 69,761           | 77.7        | 5,567          | 6.2         | 146           | 0.2        | 383           | 0.4        | 89,755           |
| Kwale          | 638           | 0.7        | 9,202            | 10.0        | 948            | 1.0         | 77,139           | 83.8        | 3,501          | 3.8         | 240           | 0.3        | 419           | 0.5        | 92,087           |
| Lamu           | 115           | 0.8        | 858              | 5.8         | 164            | 1.1         | 11,266           | 75.6        | 2,387          | 16.0        | 22            | 0.1        | 83            | 0.6        | 14,895           |
| Mombasa        | 4,980         | 2.7        | 118,501          | 65.2        | 14,427         | 7.9         | 15,082           | 8.3         | 25,749         | 14.2        | 94            | 0.1        | 3,016         | 1.7        | 181,849          |
| Taita Taveta   | 327           | 0.6        | 5,735            | 10.0        | 723            | 1.3         | 41,756           | 72.7        | 8,585          | 15.0        | 45            | 0.1        | 240           | 0.4        | 57,411           |
| Tana River     | 45            | 0.1        | 1,161            | 3.2         | 93             | 0.3         | 31,560           | 87.5        | 3,070          | 8.5         | 54            | 0.1        | 97            | 0.3        | 36,080           |
| Malindi        | 629           | 1.2        | 9,507            | 18.4        | 1,550          | 3.0         | 33,652           | 65.0        | 5,542          | 10.7        | 571           | 1.1        | 352           | 0.7        | 51,803           |
| <b>Eastern</b> | <b>7,493</b>  | <b>0.8</b> | <b>65,258</b>    | <b>6.8</b>  | <b>6,962</b>   | <b>0.7</b>  | <b>798,233</b>   | <b>83.7</b> | <b>67,539</b>  | <b>7.1</b>  | <b>4,459</b>  | <b>0.5</b> | <b>4,257</b>  | <b>0.4</b> | <b>954,201</b>   |
| Embu           | 659           | 1.0        | 8,954            | 14.1        | 1,101          | 1.7         | 47,120           | 74.0        | 5,427          | 8.5         | 54            | 0.1        | 381           | 0.6        | 63,696           |
| Isiolo         | 348           | 1.5        | 1,213            | 5.4         | 382            | 1.7         | 14,623           | 65.0        | 5,741          | 25.5        | 43            | 0.2        | 147           | 0.7        | 22,497           |
| Kitui          | 315           | 0.3        | 2,815            | 2.9         | 359            | 0.4         | 88,059           | 90.8        | 4,918          | 5.1         | 285           | 0.3        | 179           | 0.2        | 96,930           |
| Makueni        | 879           | 0.6        | 7,225            | 5.0         | 466            | 0.3         | 124,300          | 86.5        | 9,493          | 6.6         | 749           | 0.5        | 667           | 0.5        | 143,779          |
| Machakos       | 2,207         | 1.2        | 24,543           | 13.2        | 2,052          | 1.1         | 142,031          | 76.5        | 12,505         | 6.7         | 1,110         | 0.6        | 1,105         | 0.6        | 185,553          |
| Marsabit       | 81            | 0.3        | 535              | 1.8         | 64             | 0.2         | 27,885           | 93.5        | 1,147          | 3.8         | 45            | 0.2        | 77            | 0.3        | 29,834           |
| Mbeere         | 508           | 1.4        | 1,750            | 4.7         | 105            | 0.3         | 32,505           | 88.0        | 1,858          | 5.0         | 28            | 0.1        | 179           | 0.5        | 36,933           |
| Meru Central   | 1,081         | 0.9        | 7,857            | 6.6         | 1,476          | 1.2         | 94,445           | 78.8        | 14,174         | 11.8        | 369           | 0.3        | 446           | 0.4        | 119,848          |
| Moyale         | 52            | 0.5        | 214              | 2.1         | 27             | 0.3         | 9,029            | 87.9        | 903            | 8.8         | 18            | 0.2        | 27            | 0.3        | 10,270           |
| Mwingi         | 717           | 1.2        | 2,009            | 3.4         | 121            | 0.2         | 50,758           | 86.5        | 3,334          | 5.7         | 1,578         | 2.7        | 144           | 0.2        | 58,661           |
| Meru North     | 395           | 0.3        | 5,623            | 4.7         | 414            | 0.3         | 106,836          | 89.7        | 5,018          | 4.2         | 115           | 0.1        | 765           | 0.6        | 119,166          |

|                      | Electricity   |            | Paraffin       |            | Gas           |            | Firewood         |             | Charcoal       |             | Solar        |            | Other        |            | Total            |
|----------------------|---------------|------------|----------------|------------|---------------|------------|------------------|-------------|----------------|-------------|--------------|------------|--------------|------------|------------------|
|                      | Number        | %          | Number         | %          | Number        | %          | Number           | %           | Number         | %           | Number       | %          | Number       | %          |                  |
| Tharaka              | 116           | 0.6        | 203            | 1.0        | 62            | 0.3        | 18,984           | 94.1        | 750            | 3.7         | 21           | 0.1        | 44           | 0.2        | 20,180           |
| Nithi (Meru S.)      | 135           | 0.3        | 2,317          | 4.9        | 333           | 0.7        | 41,658           | 88.9        | 2,271          | 4.8         | 44           | 0.1        | 96           | 0.2        | 46,854           |
| <b>North eastern</b> | <b>1,067</b>  | <b>0.7</b> | <b>1,937</b>   | <b>1.3</b> | <b>403</b>    | <b>0.3</b> | <b>133,009</b>   | <b>90.4</b> | <b>9,522</b>   | <b>6.5</b>  | <b>301</b>   | <b>0.2</b> | <b>843</b>   | <b>0.6</b> | <b>147,082</b>   |
| Garissa              | 587           | 1.2        | 1,496          | 3.1        | 320           | 0.7        | 37,658           | 79.1        | 6,843          | 14.4        | 144          | 0.3        | 534          | 1.1        | 47,582           |
| Mandera              | 282           | 0.6        | 99             | 0.2        | 38            | 0.1        | 43,264           | 95.3        | 1,561          | 3.4         | 54           | 0.1        | 102          | 0.2        | 45,400           |
| Wajir                | 198           | 0.4        | 342            | 0.6        | 45            | 0.1        | 52,087           | 96.3        | 1,118          | 2.1         | 103          | 0.2        | 207          | 0.4        | 54,100           |
| <b>Nyanza</b>        | <b>8,789</b>  | <b>0.9</b> | <b>54,499</b>  | <b>5.7</b> | <b>5,937</b>  | <b>0.6</b> | <b>785,482</b>   | <b>81.6</b> | <b>101,221</b> | <b>10.5</b> | <b>3,923</b> | <b>0.4</b> | <b>3,018</b> | <b>0.3</b> | <b>962,869</b>   |
| Gucha (S. Kisii)     | 628           | 0.7        | 2,782          | 3.1        | 209           | 0.2        | 82,222           | 92.1        | 3,130          | 3.5         | 147          | 0.2        | 164          | 0.2        | 89,282           |
| Homa Bay             | 313           | 0.5        | 2,086          | 3.1        | 229           | 0.3        | 57,611           | 86.4        | 6,150          | 9.2         | 110          | 0.2        | 171          | 0.3        | 66,670           |
| Kisii Central        | 759           | 0.8        | 5,302          | 5.3        | 772           | 0.8        | 84,753           | 84.9        | 7,726          | 7.7         | 315          | 0.3        | 216          | 0.2        | 99,843           |
| Kisumu               | 1,867         | 1.5        | 25,612         | 20.9       | 2,851         | 2.3        | 62,873           | 51.4        | 28,423         | 23.2        | 234          | 0.2        | 552          | 0.5        | 122,412          |
| Kuria                | 142           | 0.5        | 724            | 2.5        | 87            | 0.3        | 24,720           | 86.0        | 2,944          | 10.2        | 50           | 0.2        | 71           | 0.2        | 28,738           |
| Migori               | 1,385         | 1.2        | 4,020          | 3.5        | 374           | 0.3        | 91,622           | 80.8        | 14,955         | 13.2        | 537          | 0.5        | 470          | 0.4        | 113,363          |
| North Kisii(Nyamira) | 1,346         | 1.4        | 3,300          | 3.3        | 402           | 0.4        | 86,445           | 87.0        | 6,057          | 6.1         | 1,352        | 1.4        | 441          | 0.4        | 99,343           |
| Rachuonyo            | 355           | 0.5        | 1,594          | 2.4        | 190           | 0.3        | 60,886           | 89.8        | 4,496          | 6.6         | 91           | 0.1        | 195          | 0.3        | 67,807           |
| Siaya                | 638           | 0.5        | 2,550          | 2.2        | 221           | 0.2        | 104,462          | 89.0        | 8,666          | 7.4         | 624          | 0.5        | 182          | 0.2        | 117,343          |
| Suba                 | 130           | 0.4        | 1,439          | 4.3        | 98            | 0.3        | 29,639           | 87.6        | 2,342          | 6.9         | 139          | 0.4        | 62           | 0.2        | 33,849           |
| Bondo                | 276           | 0.5        | 2,036          | 3.6        | 156           | 0.3        | 45,916           | 81.8        | 7,347          | 13.1        | 174          | 0.3        | 235          | 0.4        | 56,140           |
| Nyando               | 950           | 1.4        | 3,054          | 4.5        | 348           | 0.5        | 54,333           | 79.8        | 8,985          | 13.2        | 150          | 0.2        | 259          | 0.4        | 68,079           |
| <b>Rift Valley</b>   | <b>15,031</b> | <b>1.0</b> | <b>134,862</b> | <b>9.1</b> | <b>19,596</b> | <b>1.3</b> | <b>1,090,457</b> | <b>73.3</b> | <b>217,194</b> | <b>14.6</b> | <b>4,459</b> | <b>0.3</b> | <b>5,460</b> | <b>0.4</b> | <b>1,487,059</b> |
| Baringo              | 624           | 1.1        | 1,951          | 3.5        | 173           | 0.3        | 50,058           | 88.7        | 3,295          | 5.8         | 65           | 0.1        | 243          | 0.4        | 56,409           |
| Bomet                | 616           | 0.9        | 1,412          | 2.0        | 189           | 0.3        | 65,316           | 92.7        | 2,564          | 3.6         | 214          | 0.3        | 123          | 0.2        | 70,434           |
| Keiyo                | 336           | 1.1        | 581            | 1.9        | 119           | 0.4        | 26,156           | 87.2        | 2,703          | 9.0         | 15           | 0.1        | 86           | 0.3        | 29,996           |
| Kajiado              | 1,445         | 1.5        | 25,983         | 27.1       | 4,402         | 4.6        | 51,389           | 53.5        | 11,246         | 11.7        | 442          | 0.5        | 1,139        | 1.2        | 96,046           |
| Kericho              | 1,311         | 1.3        | 3,671          | 3.7        | 826           | 0.8        | 80,657           | 82.1        | 11,472         | 11.7        | 116          | 0.1        | 237          | 0.2        | 98,290           |
| Koibatek             | 109           | 0.4        | 978            | 3.5        | 122           | 0.4        | 22,445           | 80.6        | 4,060          | 14.6        | 27           | 0.1        | 103          | 0.4        | 27,844           |
| Laikipia             | 1,296         | 1.7        | 4,942          | 6.4        | 1,212         | 1.6        | 52,289           | 67.3        | 17,601         | 22.7        | 94           | 0.1        | 223          | 0.3        | 77,657           |
| Marakwet             | 75            | 0.2        | 247            | 0.8        | 69            | 0.2        | 29,260           | 93.8        | 1,493          | 4.8         | 37           | 0.1        | 23           | 0.1        | 31,204           |
| Nakuru               | 4,068         | 1.4        | 63,744         | 21.6       | 6,547         | 2.2        | 150,610          | 51.1        | 68,034         | 23.1        | 359          | 0.1        | 1,220        | 0.4        | 294,582          |
| Nandi                | 881           | 0.8        | 2,231          | 2.0        | 550           | 0.5        | 99,074           | 88.2        | 8,770          | 7.8         | 718          | 0.6        | 134          | 0.1        | 112,358          |
| Narok                | 603           | 0.8        | 2,332          | 3.1        | 508           | 0.7        | 61,664           | 81.1        | 10,120         | 13.3        | 662          | 0.9        | 163          | 0.2        | 76,052           |
| Samburu              | 103           | 0.3        | 331            | 1.0        | 100           | 0.3        | 27,642           | 84.6        | 4,266          | 13.1        | 64           | 0.2        | 172          | 0.5        | 32,678           |

|                | Electricity  |            | Paraffin      |            | Gas          |            | Firewood       |             | Charcoal      |            | Solar      |            | Other        |            | Total          |
|----------------|--------------|------------|---------------|------------|--------------|------------|----------------|-------------|---------------|------------|------------|------------|--------------|------------|----------------|
|                | Number       | %          | Number        | %          | Number       | %          | Number         | %           | Number        | %          | Number     | %          | Number       | %          |                |
| Trans Mara     | 58           | 0.2        | 687           | 2.1        | 224          | 0.7        | 29,621         | 89.7        | 2,330         | 7.1        | 58         | 0.2        | 51           | 0.2        | 33,029         |
| Trans Nzoia    | 485          | 0.4        | 6,743         | 5.8        | 875          | 0.8        | 92,231         | 79.8        | 14,886        | 12.9       | 91         | 0.1        | 311          | 0.3        | 115,622        |
| Turkana        | 104          | 0.1        | 1,339         | 1.8        | 93           | 0.1        | 64,484         | 87.8        | 6,930         | 9.4        | 113        | 0.2        | 377          | 0.5        | 73,440         |
| Uasin Gishu    | 1,589        | 1.2        | 14,202        | 10.6       | 3,151        | 2.4        | 73,228         | 54.9        | 40,530        | 30.4       | 166        | 0.1        | 638          | 0.5        | 133,504        |
| West Pokot     | 209          | 0.3        | 842           | 1.3        | 130          | 0.2        | 57,897         | 91.1        | 4,273         | 6.7        | 100        | 0.2        | 87           | 0.1        | 63,538         |
| Buret          | 1,119        | 1.7        | 2,646         | 4.1        | 306          | 0.5        | 56,436         | 87.7        | 2,621         | 4.1        | 1,118      | 1.7        | 130          | 0.2        | 64,376         |
| <b>Western</b> | <b>3,386</b> | <b>0.5</b> | <b>29,201</b> | <b>4.2</b> | <b>3,704</b> | <b>0.5</b> | <b>609,543</b> | <b>87.2</b> | <b>50,817</b> | <b>7.3</b> | <b>721</b> | <b>0.1</b> | <b>1,451</b> | <b>0.2</b> | <b>698,823</b> |
| Bungoma        | 1,121        | 0.6        | 8,596         | 4.9        | 1,127        | 0.6        | 147,105        | 84.5        | 15,476        | 8.9        | 156        | 0.1        | 470          | 0.3        | 174,051        |
| Busia          | 172          | 0.2        | 2,242         | 2.8        | 157          | 0.2        | 70,938         | 87.1        | 7,627         | 9.4        | 74         | 0.1        | 253          | 0.3        | 81,463         |
| Mt. Elgon      | 27           | 0.1        | 515           | 2.0        | 26           | 0.1        | 23,109         | 90.9        | 1,689         | 6.6        | 10         | .          | 42           | 0.2        | 25,418         |
| Kakamega       | 523          | 0.4        | 6,192         | 4.9        | 807          | 0.6        | 108,019        | 86.1        | 9,395         | 7.5        | 327        | 0.3        | 182          | 0.1        | 125,445        |
| Lugari         | 78           | 0.2        | 1,127         | 2.7        | 97           | 0.2        | 37,135         | 89.1        | 3,115         | 7.5        | 25         | 0.1        | 106          | 0.3        | 41,683         |
| Teso           | 103          | 0.3        | 2,123         | 5.6        | 195          | 0.5        | 31,692         | 83.2        | 3,862         | 10.1       | 20         | 0.1        | 112          | 0.3        | 38,107         |
| Vihiga         | 398          | 0.4        | 3,440         | 3.3        | 464          | 0.4        | 97,195         | 92.2        | 3,772         | 3.6        | 57         | 0.1        | 108          | 0.1        | 105,434        |
| Butere/Mumias  | 964          | 0.9        | 4,966         | 4.6        | 831          | 0.8        | 94,350         | 88.0        | 5,881         | 5.5        | 52         | .          | 178          | 0.2        | 107,222        |

**Table A8: Distribution of households by main type of lighting**

|                | Electricity    |             | Pressure Lamp |            | Lantern          |             | Tin Lamp         |             | Fuel Wood      |            | Solar         |            | Other          |            | Total            |
|----------------|----------------|-------------|---------------|------------|------------------|-------------|------------------|-------------|----------------|------------|---------------|------------|----------------|------------|------------------|
|                | Number         | %           | Number        | %          | Number           | %           | Number           | %           | Number         | %          | Number        | %          | Number         | %          |                  |
| <b>Kenya</b>   | <b>852,991</b> | <b>13.5</b> | <b>72,636</b> | <b>1.1</b> | <b>2,136,886</b> | <b>33.7</b> | <b>2,786,531</b> | <b>44.0</b> | <b>312,186</b> | <b>4.9</b> | <b>28,531</b> | <b>0.5</b> | <b>145,534</b> | <b>2.3</b> | <b>6,335,295</b> |
| <b>Nairobi</b> | <b>336,299</b> | <b>52.3</b> | <b>12,476</b> | <b>1.9</b> | <b>136,469</b>   | <b>21.2</b> | <b>140,334</b>   | <b>21.8</b> | <b>698</b>     | <b>0.1</b> | <b>341</b>    | <b>0.1</b> | <b>16,289</b>  | <b>2.5</b> | <b>642,906</b>   |
| <b>Central</b> | <b>143,619</b> | <b>15.6</b> | <b>14,178</b> | <b>1.5</b> | <b>408,077</b>   | <b>44.4</b> | <b>324,020</b>   | <b>35.3</b> | <b>4,682</b>   | <b>0.5</b> | <b>6,072</b>  | <b>0.7</b> | <b>17,827</b>  | <b>1.9</b> | <b>918,475</b>   |
| Kiambu         | 58,641         | 31.1        | 3,429         | 1.8        | 79,030           | 42.0        | 42,782           | 22.7        | 557            | 0.3        | 632           | 0.3        | 3,233          | 1.7        | 188,304          |
| Kirinyaga      | 9,334          | 8.2         | 1,680         | 1.5        | 47,035           | 41.4        | 50,876           | 44.8        | 486            | 0.4        | 1,301         | 1.1        | 2,970          | 2.6        | 113,682          |
| Murang'a       | 7,684          | 9.1         | 715           | 0.8        | 39,445           | 46.6        | 34,678           | 41.0        | 249            | 0.3        | 467           | 0.6        | 1,354          | 1.6        | 84,592           |
| Nyandarua      | 4,158          | 4.0         | 1,993         | 1.9        | 66,726           | 64.2        | 27,613           | 26.6        | 647            | 0.6        | 966           | 0.9        | 1,794          | 1.7        | 103,897          |
| Nyeri          | 23,068         | 13.7        | 2,042         | 1.2        | 73,209           | 43.6        | 63,426           | 37.8        | 2,009          | 1.2        | 1,809         | 1.1        | 2,219          | 1.3        | 167,782          |
| Thika          | 35,090         | 20.6        | 3,107         | 1.8        | 68,353           | 40.2        | 58,375           | 34.3        | 459            | 0.3        | 597           | 0.4        | 4,160          | 2.4        | 170,141          |
| Maragua        | 5,644          | 6.3         | 1,212         | 1.3        | 34,279           | 38.1        | 46,270           | 51.4        | 275            | 0.3        | 300           | 0.3        | 2,097          | 2.3        | 90,077           |
| <b>Coast</b>   | <b>101,713</b> | <b>19.4</b> | <b>6,229</b>  | <b>1.2</b> | <b>120,903</b>   | <b>23.1</b> | <b>275,260</b>   | <b>52.5</b> | <b>6,638</b>   | <b>1.3</b> | <b>1,045</b>  | <b>0.2</b> | <b>12,092</b>  | <b>2.3</b> | <b>523,880</b>   |
| Kilifi         | 7,074          | 7.9         | 955           | 1.1        | 14,793           | 16.5        | 64,112           | 71.4        | 876            | 1.0        | 126           | 0.1        | 1,819          | 2.0        | 89,755           |
| Kwale          | 4,875          | 5.3         | 697           | 0.8        | 15,154           | 16.5        | 68,490           | 74.4        | 342            | 0.4        | 276           | 0.3        | 2,253          | 2.4        | 92,087           |
| Lamu           | 2,436          | 16.4        | 126           | 0.8        | 6,621            | 44.5        | 4,891            | 32.8        | 361            | 2.4        | 34            | 0.2        | 426            | 2.9        | 14,895           |
| Mombasa        | 75,568         | 41.6        | 3,056         | 1.7        | 41,270           | 22.7        | 57,290           | 31.5        | 322            | 0.2        | 78            |            | 4,265          | 2.3        | 181,849          |
| Taita Taveta   | 4,440          | 7.7         | 593           | 1.0        | 26,877           | 46.8        | 23,867           | 41.6        | 358            | 0.6        | 197           | 0.3        | 1,079          | 1.9        | 57,411           |
| Tana River     | 492            | 1.4         | 169           | 0.5        | 6,232            | 17.3        | 25,402           | 70.4        | 2,682          | 7.4        | 51            | 0.1        | 1,052          | 2.9        | 36,080           |
| Malindi        | 6,828          | 13.2        | 633           | 1.2        | 9,956            | 19.2        | 31,208           | 60.2        | 1,697          | 3.3        | 283           | 0.5        | 1,198          | 2.3        | 51,803           |
| <b>Eastern</b> | <b>55,779</b>  | <b>5.8</b>  | <b>9,334</b>  | <b>1.0</b> | <b>424,473</b>   | <b>44.5</b> | <b>388,746</b>   | <b>40.7</b> | <b>48,800</b>  | <b>5.1</b> | <b>8,733</b>  | <b>0.9</b> | <b>18,336</b>  | <b>1.9</b> | <b>954,201</b>   |
| Embu           | 7,795          | 12.2        | 623           | 1.0        | 25,918           | 40.7        | 26,724           | 42.0        | 629            | 1.0        | 829           | 1.3        | 1,178          | 1.8        | 63,696           |
| Isiolo         | 2,818          | 12.5        | 180           | 0.8        | 8,507            | 37.8        | 3,899            | 17.3        | 5,520          | 24.5       | 93            | 0.4        | 1,480          | 6.6        | 22,497           |
| Kitui          | 2,973          | 3.1         | 887           | 0.9        | 48,161           | 49.7        | 39,458           | 40.7        | 3,679          | 3.8        | 669           | 0.7        | 1,103          | 1.1        | 96,930           |
| Makueni        | 3,118          | 2.2         | 1,243         | 0.9        | 85,866           | 59.7        | 48,652           | 33.8        | 1,671          | 1.2        | 898           | 0.6        | 2,331          | 1.6        | 143,779          |
| Machakos       | 14,027         | 7.6         | 2,864         | 1.5        | 100,475          | 54.1        | 61,946           | 33.4        | 1,254          | 0.7        | 1,883         | 1.0        | 3,104          | 1.7        | 185,553          |
| Marsabit       | 1,097          | 3.7         | 58            | 0.2        | 4,209            | 14.1        | 3,598            | 12.1        | 19,447         | 65.2       | 149           | 0.5        | 1,276          | 4.3        | 29,834           |
| Mbeere         | 1,347          | 3.6         | 186           | 0.5        | 12,095           | 32.7        | 21,432           | 58.0        | 974            | 2.6        | 234           | 0.6        | 665            | 1.8        | 36,933           |
| Meru Central   | 12,348         | 10.3        | 1,330         | 1.1        | 58,685           | 49.0        | 41,565           | 34.7        | 2,168          | 1.8        | 1,970         | 1.6        | 1,782          | 1.5        | 119,848          |
| Moyale         | 1,287          | 12.5        | 53            | 0.5        | 3,342            | 32.5        | 2,207            | 21.5        | 3,039          | 29.6       | 13            | 0.1        | 329            | 3.2        | 10,270           |
| Mwingi         | 2,274          | 3.9         | 598           | 1.0        | 28,533           | 48.6        | 19,400           | 33.1        | 5,588          | 9.5        | 635           | 1.1        | 1,633          | 2.8        | 58,661           |

|                      | Electricity    |            | Pressure Lamp |            | Lantern        |             | Tin Lamp       |             | Fuel Wood      |             | Solar        |            | Other         |            | Total            |
|----------------------|----------------|------------|---------------|------------|----------------|-------------|----------------|-------------|----------------|-------------|--------------|------------|---------------|------------|------------------|
|                      | Number         | %          | Number        | %          | Number         | %           | Number         | %           | Number         | %           | Number       | %          | Number        | %          |                  |
| Meru North           | 4,517          | 3.8        | 812           | 0.7        | 24,333         | 20.4        | 84,162         | 70.6        | 2,619          | 2.2         | 691          | 0.6        | 2,032         | 1.7        | 119,166          |
| Tharaka              | 232            | 1.1        | 103           | 0.5        | 3,288          | 16.3        | 14,621         | 72.5        | 1,153          | 5.7         | 101          | 0.5        | 682           | 3.4        | 20,180           |
| Nithi (Meru S.)      | 1,946          | 4.2        | 397           | 0.8        | 21,061         | 45.0        | 21,082         | 45.0        | 1,059          | 2.3         | 568          | 1.2        | 741           | 1.6        | 46,854           |
| <b>North eastern</b> | <b>7,825</b>   | <b>5.3</b> | <b>354</b>    | <b>0.2</b> | <b>42,600</b>  | <b>29.0</b> | <b>23,506</b>  | <b>16.0</b> | <b>58,744</b>  | <b>39.9</b> | <b>247</b>   | <b>0.2</b> | <b>13,806</b> | <b>9.4</b> | <b>147,082</b>   |
| Garissa              | 5,363          | 11.3       | 244           | 0.5        | 13,114         | 27.6        | 15,216         | 32.0        | 7,266          | 15.3        | 93           | 0.2        | 6,286         | 13.2       | 47,582           |
| Mandera              | 1,337          | 2.9        | 42            | 0.1        | 15,932         | 35.1        | 2,212          | 4.9         | 23,821         | 52.5        | 58           | 0.1        | 1,998         | 4.4        | 45,400           |
| Wajir                | 1,125          | 2.1        | 68            | 0.1        | 13,554         | 25.1        | 6,078          | 11.2        | 27,657         | 51.1        | 96           | 0.2        | 5,522         | 10.2       | 54,100           |
| <b>Nyanza</b>        | <b>45,883</b>  | <b>4.8</b> | <b>9,970</b>  | <b>1.0</b> | <b>240,971</b> | <b>25.0</b> | <b>639,398</b> | <b>66.4</b> | <b>4,275</b>   | <b>0.4</b>  | <b>3,206</b> | <b>0.3</b> | <b>19,166</b> | <b>2.0</b> | <b>962,869</b>   |
| Gucha (S. Kisii)     | 1,898          | 2.1        | 1,078         | 1.2        | 29,096         | 32.6        | 54,167         | 60.7        | 337            | 0.4         | 164          | 0.2        | 2,542         | 2.8        | 89,282           |
| Homa Bay             | 1,777          | 2.7        | 599           | 0.9        | 10,564         | 15.8        | 52,013         | 78.0        | 162            | 0.2         | 102          | 0.2        | 1,453         | 2.2        | 66,670           |
| Kisii Central        | 5,885          | 5.9        | 1,280         | 1.3        | 32,449         | 32.5        | 57,785         | 57.9        | 372            | 0.4         | 271          | 0.3        | 1,801         | 1.8        | 99,843           |
| Kisumu               | 17,033         | 13.9       | 1,279         | 1.0        | 29,184         | 23.8        | 72,801         | 59.5        | 262            | 0.2         | 233          | 0.2        | 1,620         | 1.3        | 122,412          |
| Kuria                | 324            | 1.1        | 244           | 0.8        | 7,768          | 27.0        | 19,468         | 67.7        | 157            | 0.5         | 53           | 0.2        | 724           | 2.5        | 28,738           |
| Migori               | 4,915          | 4.3        | 1,308         | 1.2        | 24,242         | 21.4        | 79,000         | 69.7        | 617            | 0.5         | 369          | 0.3        | 2,912         | 2.6        | 113,363          |
| North Kisii(Nyamira) | 4,871          | 4.9        | 1,423         | 1.4        | 38,769         | 39.0        | 50,286         | 50.6        | 1,098          | 1.1         | 782          | 0.8        | 2,114         | 2.1        | 99,343           |
| Rachuonyo            | 1,578          | 2.3        | 634           | 0.9        | 13,878         | 20.5        | 49,763         | 73.4        | 276            | 0.4         | 133          | 0.2        | 1,545         | 2.3        | 67,807           |
| Siaya                | 3,376          | 2.9        | 759           | 0.6        | 18,903         | 16.1        | 92,102         | 78.5        | 220            | 0.2         | 441          | 0.4        | 1,542         | 1.3        | 117,343          |
| Suba                 | 341            | 1.0        | 283           | 0.8        | 7,339          | 21.7        | 25,025         | 73.9        | 132            | 0.4         | 209          | 0.6        | 520           | 1.5        | 33,849           |
| Bondo                | 1,196          | 2.1        | 395           | 0.7        | 13,068         | 23.3        | 39,701         | 70.7        | 396            | 0.7         | 198          | 0.4        | 1,186         | 2.1        | 56,140           |
| Nyando               | 2,689          | 3.9        | 688           | 1.0        | 15,711         | 23.1        | 47,287         | 69.5        | 246            | 0.4         | 251          | 0.4        | 1,207         | 1.8        | 68,079           |
| <b>Rift Valley</b>   | <b>139,381</b> | <b>9.4</b> | <b>14,614</b> | <b>1.0</b> | <b>578,618</b> | <b>38.9</b> | <b>521,094</b> | <b>35.0</b> | <b>186,393</b> | <b>12.5</b> | <b>7,520</b> | <b>0.5</b> | <b>39,439</b> | <b>2.7</b> | <b>1,487,059</b> |
| Baringo              | 4,166          | 7.4        | 275           | 0.5        | 19,796         | 35.1        | 6,260          | 11.1        | 23,923         | 42.4        | 255          | 0.5        | 1,734         | 3.1        | 56,409           |
| Bomet                | 1,200          | 1.7        | 558           | 0.8        | 48,468         | 68.8        | 17,115         | 24.3        | 1,242          | 1.8         | 453          | 0.6        | 1,398         | 2.0        | 70,434           |
| Keiyo                | 2,317          | 7.7        | 99            | 0.3        | 15,850         | 52.8        | 8,131          | 27.1        | 3,089          | 10.3        | 127          | 0.4        | 383           | 1.3        | 29,996           |
| Kajiado              | 17,134         | 17.8       | 1,441         | 1.5        | 24,789         | 25.8        | 47,209         | 49.2        | 1,579          | 1.6         | 542          | 0.6        | 3,352         | 3.5        | 96,046           |
| Kericho              | 7,320          | 7.4        | 866           | 0.9        | 43,530         | 44.3        | 43,087         | 43.8        | 393            | 0.4         | 452          | 0.5        | 2,642         | 2.7        | 98,290           |
| Koibatek             | 1,727          | 6.2        | 222           | 0.8        | 16,138         | 58.0        | 6,465          | 23.2        | 1,992          | 7.2         | 147          | 0.5        | 1,153         | 4.1        | 27,844           |
| Laikipia             | 8,918          | 11.5       | 820           | 1.1        | 35,871         | 46.2        | 24,244         | 31.2        | 4,897          | 6.3         | 748          | 1.0        | 2,159         | 2.8        | 77,657           |
| Marakwet             | 572            | 1.8        | 103           | 0.3        | 12,173         | 39.0        | 8,136          | 26.1        | 9,674          | 31.0        | 109          | 0.3        | 437           | 1.4        | 31,204           |
| Nakuru               | 54,785         | 18.6       | 4,564         | 1.5        | 136,753        | 46.4        | 83,844         | 28.5        | 4,709          | 1.6         | 1,416        | 0.5        | 8,511         | 2.9        | 294,582          |

|                | Electricity   |            | Pressure Lamp |            | Lantern        |             | Tin Lamp       |             | Fuel Wood    |            | Solar        |            | Other        |            | Total          |
|----------------|---------------|------------|---------------|------------|----------------|-------------|----------------|-------------|--------------|------------|--------------|------------|--------------|------------|----------------|
|                | Number        | %          | Number        | %          | Number         | %           | Number         | %           | Number       | %          | Number       | %          | Number       | %          |                |
| Nandi          | 4,197         | 3.7        | 641           | 0.6        | 41,828         | 37.2        | 62,875         | 56.0        | 443          | 0.4        | 692          | 0.6        | 1,682        | 1.5        | 112,358        |
| Narok          | 2,868         | 3.8        | 904           | 1.2        | 18,706         | 24.6        | 34,128         | 44.9        | 15,323       | 20.1       | 548          | 0.7        | 3,575        | 4.7        | 76,052         |
| Samburu        | 1,503         | 4.6        | 102           | 0.3        | 3,846          | 11.8        | 4,134          | 12.7        | 21,662       | 66.3       | 154          | 0.5        | 1,277        | 3.9        | 32,678         |
| Trans Mara     | 832           | 2.5        | 222           | 0.7        | 6,099          | 18.5        | 23,960         | 72.5        | 1,389        | 4.2        | 103          | 0.3        | 424          | 1.3        | 33,029         |
| Trans Nzoia    | 5,333         | 4.6        | 1,249         | 1.1        | 40,925         | 35.4        | 65,126         | 56.3        | 1,121        | 1.0        | 300          | 0.3        | 1,568        | 1.4        | 115,622        |
| Turkana        | 1,097         | 1.5        | 151           | 0.2        | 5,538          | 7.5         | 5,179          | 7.1         | 57,188       | 77.9       | 250          | 0.3        | 4,037        | 5.5        | 73,440         |
| Uasin Gishu    | 20,830        | 15.6       | 1,465         | 1.1        | 62,841         | 47.1        | 43,915         | 32.9        | 852          | 0.6        | 443          | 0.3        | 3,158        | 2.4        | 133,504        |
| West Pokot     | 1,384         | 2.2        | 119           | 0.2        | 12,175         | 19.2        | 12,589         | 19.8        | 36,353       | 57.2       | 147          | 0.2        | 771          | 1.2        | 63,538         |
| Buret          | 3,198         | 5.0        | 813           | 1.3        | 33,292         | 51.7        | 24,697         | 38.4        | 564          | 0.9        | 634          | 1.0        | 1,178        | 1.8        | 64,376         |
| <b>Western</b> | <b>22,492</b> | <b>3.2</b> | <b>5,481</b>  | <b>0.8</b> | <b>184,775</b> | <b>26.4</b> | <b>474,173</b> | <b>67.9</b> | <b>1,956</b> | <b>0.3</b> | <b>1,367</b> | <b>0.2</b> | <b>8,579</b> | <b>1.2</b> | <b>698,823</b> |
| Bungoma        | 5,382         | 3.1        | 2,027         | 1.2        | 48,238         | 27.7        | 114,372        | 65.7        | 505          | 0.3        | 336          | 0.2        | 3,191        | 1.8        | 174,051        |
| Busia          | 2,268         | 2.8        | 378           | 0.5        | 14,878         | 18.3        | 62,808         | 77.1        | 196          | 0.2        | 90           | 0.1        | 845          | 1.0        | 81,463         |
| Mt. Elgon      | 200           | 0.8        | 117           | 0.5        | 3,809          | 15.0        | 20,714         | 81.5        | 189          | 0.7        | 19           | 0.1        | 370          | 1.5        | 25,418         |
| Kakamega       | 5,165         | 4.1        | 921           | 0.7        | 36,834         | 29.4        | 80,559         | 64.2        | 287          | 0.2        | 368          | 0.3        | 1,311        | 1.0        | 125,445        |
| Lugari         | 498           | 1.2        | 444           | 1.1        | 16,290         | 39.1        | 23,760         | 57.0        | 120          | 0.3        | 110          | 0.3        | 461          | 1.1        | 41,683         |
| Teso           | 2,030         | 5.3        | 177           | 0.5        | 7,064          | 18.5        | 28,246         | 74.1        | 92           | 0.2        | 30           | 0.1        | 468          | 1.2        | 38,107         |
| Vihiga         | 3,757         | 3.6        | 862           | 0.8        | 35,546         | 33.7        | 63,715         | 60.4        | 302          | 0.3        | 223          | 0.2        | 1,029        | 1.0        | 105,434        |
| Butere/Mumias  | 3,192         | 3.0        | 555           | 0.5        | 22,116         | 20.6        | 79,999         | 74.6        | 265          | 0.2        | 191          | 0.2        | 904          | 0.8        | 107,222        |

**Table B1: Distribution of Households by Number of Rooms occupied in selected Towns**

| Town          | NUMBER OF ROOMS |      |        |      |        |      |        |      |        |     |        |     |        |     | Total   |
|---------------|-----------------|------|--------|------|--------|------|--------|------|--------|-----|--------|-----|--------|-----|---------|
|               | 1               |      | 2      |      | 3      |      | 4      |      | 5      |     | 6      |     | 7+     |     |         |
|               | Number          | %    | Number | %    | Number | %    | Number | %    | Number | %   | Number | %   | Number | %   |         |
| Nairobi       | 428,123         | 66.6 | 90,575 | 14.1 | 55,880 | 8.7  | 31,956 | 5    | 14,644 | 2.3 | 7,644  | 1.2 | 14,084 | 2.2 | 642,906 |
| Mombasa       | 114,146         | 62.8 | 27,891 | 15.3 | 16,344 | 9    | 11,269 | 6.2  | 4,229  | 2.3 | 3,201  | 1.8 | 4,769  | 2.6 | 181,849 |
| Nakuru        | 40,035          | 60.8 | 12,887 | 196  | 7,002  | 10.6 | 2,880  | 4.4  | 1,223  | 1.9 | 680    | 1   | 1,106  | 1.7 | 65,813  |
| Kisumu        | 25,948          | 50.9 | 12,477 | 24.5 | 7,127  | 14   | 3,021  | 5.9  | 1,163  | 2.3 | 440    | 0.9 | 804    | 1.6 | 50,980  |
| Eldoret       | 28,910          | 59.7 | 10,641 | 22   | 4,579  | 9.5  | 2,313  | 4.8  | 842    | 1.7 | 398    | 0.8 | 737    | 1.5 | 48,420  |
| Thika         | 18,798          | 69.6 | 4,095  | 15.2 | 2,118  | 7.8  | 959    | 3.5  | 332    | 1.2 | 175    | 0.6 | 541    | 2   | 27,018  |
| Ruiru         | 15,557          | 60.9 | 4,917  | 19.2 | 1,904  | 7.5  | 1,179  | 4.6  | 668    | 2.6 | 445    | 1.7 | 880    | 3.4 | 25,550  |
| Nyeri         | 8,402           | 54.1 | 3,039  | 19.6 | 1,858  | 12   | 1,185  | 7.6  | 450    | 2.9 | 231    | 1.5 | 378    | 2.4 | 15,543  |
| Malindi       | 8,896           | 58.8 | 2,320  | 15.3 | 1,658  | 11   | 1,088  | 7.2  | 439    | 2.9 | 286    | 1.9 | 442    | 2.9 | 15,129  |
| Kakamega      | 4,774           | 32.7 | 4,175  | 28.6 | 2,533  | 17.4 | 1,623  | 11.1 | 650    | 4.5 | 322    | 2.2 | 511    | 3.5 | 14,588  |
| Kitale        | 7,071           | 57.3 | 2,980  | 24.2 | 1,300  | 10.5 | 465    | 3.8  | 201    | 1.6 | 106    | 0.9 | 214    | 1.7 | 12,337  |
| Meru          | 5,685           | 46.3 | 2,687  | 21.9 | 1,507  | 12.3 | 1,030  | 8.4  | 547    | 4.5 | 335    | 2.7 | 496    | 4   | 12,287  |
| Ukunda        | 7,059           | 58.2 | 2,219  | 18.3 | 1,191  | 9.8  | 923    | 7.6  | 248    | 2   | 205    | 1.7 | 289    | 2.4 | 12,134  |
| Bungoma       | 3,862           | 36.6 | 2,966  | 28.1 | 1,870  | 17.7 | 987    | 9.4  | 343    | 3.3 | 211    | 2   | 309    | 2.9 | 10,548  |
| Ongata Rongai | 5,649           | 53.6 | 2,188  | 20.7 | 1,331  | 12.6 | 603    | 5.7  | 322    | 3.1 | 153    | 1.5 | 301    | 2.9 | 10,547  |
| Naivasha      | 5,636           | 55.1 | 2,483  | 24.3 | 1,052  | 10.3 | 647    | 6.3  | 184    | 1.8 | 76     | 0.7 | 143    | 1.4 | 10,221  |
| Mumias        | 4,151           | 40.7 | 3,305  | 32.4 | 1,398  | 13.7 | 847    | 8.3  | 194    | 1.9 | 132    | 1.3 | 183    | 1.8 | 10,210  |
| Embu          | 5,417           | 54.5 | 2,091  | 21   | 1,269  | 12.8 | 715    | 7.2  | 218    | 2.2 | 82     | 0.8 | 148    | 1.5 | 9,940   |
| Garissa       | 5,086           | 52.4 | 2,548  | 26.3 | 1,120  | 11.5 | 485    | 5    | 154    | 1.6 | 78     | 0.8 | 234    | 2.4 | 9,705   |
| Nanyuki       | 5,419           | 57.3 | 1,936  | 20.5 | 1,177  | 12.5 | 503    | 5.3  | 131    | 1.4 | 81     | 0.9 | 205    | 2.2 | 9,452   |
| Machakos      | 4,553           | 53.8 | 1,772  | 21   | 1,342  | 15.9 | 407    | 4.8  | 168    | 2   | 65     | 0.8 | 149    | 1.8 | 8,456   |
| Kericho       | 5,057           | 61   | 1,740  | 21   | 708    | 8.5  | 361    | 4.4  | 145    | 1.7 | 66     | 0.8 | 209    | 2.5 | 8,286   |
| Homa Bay      | 3,142           | 40.2 | 2,351  | 30.1 | 1,274  | 16.3 | 586    | 7.5  | 175    | 2.2 | 116    | 1.5 | 177    | 2.3 | 7,821   |
| Migori        | 2,829           | 36.9 | 2,175  | 28.3 | 1,230  | 16   | 627    | 8.2  | 288    | 3.8 | 160    | 2.1 | 367    | 4.8 | 7,676   |
| Busia         | 3,842           | 50.2 | 1,800  | 23.5 | 1,094  | 14.3 | 492    | 6.4  | 174    | 2.3 | 115    | 1.5 | 139    | 1.8 | 7,656   |
| Mavoko        | 5,306           | 69.9 | 1,407  | 18.5 | 403    | 5.3  | 191    | 2.5  | 70     | 0.9 | 33     | 0.4 | 183    | 2.4 | 7,593   |
| Nyahururu     | 4,299           | 57.6 | 1,618  | 21.7 | 907    | 12.2 | 378    | 5.1  | 138    | 1.8 | 56     | 0.8 | 65     | 0.9 | 7,461   |
| Kilifi        | 3,357           | 45.7 | 1,621  | 22.1 | 998    | 13.6 | 605    | 8.2  | 286    | 3.9 | 174    | 2.4 | 301    | 4.1 | 7,342   |

| Town           | NUMBER OF ROOMS |      |        |      |        |      |        |      |        |     |        |     |        |     | Total |
|----------------|-----------------|------|--------|------|--------|------|--------|------|--------|-----|--------|-----|--------|-----|-------|
|                | 1               |      | 2      |      | 3      |      | 4      |      | 5      |     | 6      |     | 7+     |     |       |
|                | Number          | %    | Number | %    | Number | %    | Number | %    | Number | %   | Number | %   | Number | %   |       |
| Narok          | 4,157           | 61.4 | 1,397  | 20.6 | 690    | 10.2 | 273    | 4    | 109    | 1.6 | 53     | 0.8 | 89     | 1.3 | 6,768 |
| Elburgon       | 2,972           | 47.4 | 1,464  | 23.4 | 845    | 13.5 | 466    | 7.4  | 260    | 4.2 | 128    | 2   | 130    | 2.1 | 6,265 |
| Molo           | 3,295           | 53.8 | 1,233  | 20.1 | 815    | 13.3 | 407    | 6.6  | 187    | 3.1 | 81     | 1.3 | 103    | 1.7 | 6,121 |
| Kisii          | 2,050           | 34.9 | 1,544  | 26.3 | 978    | 16.6 | 686    | 11.7 | 227    | 3.9 | 140    | 2.4 | 255    | 4.3 | 5,880 |
| Mtwapa         | 3,588           | 63.9 | 1,008  | 18   | 441    | 7.9  | 253    | 4.5  | 121    | 2.2 | 83     | 1.5 | 120    | 2.1 | 5,614 |
| Gilgil         | 2,387           | 42.7 | 1,251  | 22.4 | 1,356  | 24.2 | 447    | 8    | 66     | 1.2 | 33     | 0.6 | 55     | 1   | 5,595 |
| Webuye         | 2,410           | 46.7 | 1,259  | 24.4 | 519    | 10.1 | 537    | 10.4 | 254    | 4.9 | 58     | 1.1 | 125    | 2.4 | 5,162 |
| Mandera        | 2,788           | 54.1 | 1,279  | 24.8 | 593    | 11.5 | 258    | 5    | 77     | 1.5 | 59     | 1.1 | 100    | 1.9 | 5,154 |
| Karuri         | 1,303           | 25.8 | 940    | 18.6 | 926    | 18.3 | 838    | 16.6 | 437    | 8.7 | 252    | 5   | 351    | 7   | 5,047 |
| Isiolo         | 2,467           | 49.7 | 1,305  | 26.3 | 665    | 13.4 | 270    | 5.4  | 122    | 2.5 | 54     | 1.1 | 81     | 1.6 | 4,964 |
| Kerugoya/Kutus | 2,541           | 52.4 | 1,072  | 22.1 | 517    | 10.7 | 299    | 6.2  | 143    | 3   | 61     | 1.3 | 214    | 4.4 | 4,847 |
| Kapsabet       | 2,176           | 45   | 1,121  | 23.2 | 763    | 158  | 376    | 7.8  | 140    | 2.9 | 96     | 2   | 163    | 3.4 | 4,835 |
| Njoro          | 2,222           | 46.3 | 989    | 20.6 | 664    | 13.8 | 367    | 7.6  | 263    | 5.5 | 91     | 1.9 | 208    | 4.3 | 4,804 |
| Voi            | 2,265           | 47.8 | 1,151  | 24.3 | 654    | 13.8 | 349    | 7.4  | 151    | 3.2 | 64     | 1.4 | 100    | 2.1 | 4,734 |
| Vihiga         | 602             | 13.4 | 782    | 17.4 | 754    | 16.8 | 1,377  | 30.7 | 346    | 7.7 | 254    | 5.7 | 367    | 8.2 | 4,482 |
| Kiambu         | 2,083           | 49.5 | 1,021  | 24.3 | 613    | 14.6 | 237    | 5.6  | 95     | 2.3 | 42     | 1   | 116    | 2.8 | 4,207 |
| Awendo         | 2,433           | 61   | 879    | 22   | 490    | 12.3 | 95     | 2.4  | 28     | 0.7 | 15     | 0.4 | 50     | 1.3 | 3,990 |
| Maralal        | 2,323           | 58.5 | 774    | 19.5 | 366    | 9.2  | 199    | 5    | 103    | 2.6 | 108    | 2.7 | 98     | 2.5 | 3,971 |
| Muhoroni       | 2,084           | 52.8 | 1,009  | 25.6 | 507    | 12.8 | 147    | 3.7  | 72     | 1.8 | 52     | 1.3 | 76     | 1.9 | 3,947 |
| Muranga        | 2,432           | 62.2 | 769    | 19.7 | 303    | 7.8  | 239    | 6.1  | 79     | 2   | 27     | 0.7 | 60     | 1.5 | 3,909 |
| OL Kalau       | 1,132           | 30   | 786    | 20.9 | 690    | 18.3 | 478    | 12.7 | 291    | 7.7 | 150    | 4   | 241    | 6.4 | 3,768 |
| Wajir          | 1,608           | 44.1 | 1,040  | 28.5 | 534    | 14.7 | 241    | 6.6  | 93     | 2.6 | 51     | 1.4 | 78     | 2.1 | 3,645 |
| Siaya          | 1,190           | 34.3 | 973    | 28   | 697    | 20.1 | 402    | 11.6 | 99     | 2.9 | 40     | 1.2 | 71     | 2   | 3,472 |
| Kitui          | 1,956           | 56.5 | 574    | 16.6 | 368    | 10.6 | 235    | 6.8  | 88     | 2.5 | 72     | 2.1 | 172    | 5   | 3,465 |
| Ngong          | 1,540           | 44.7 | 747    | 21.7 | 584    | 16.9 | 256    | 7.4  | 129    | 3.7 | 76     | 2.2 | 116    | 3.4 | 3,448 |
| Lodwar         | 1,732           | 52.2 | 780    | 23.5 | 430    | 13   | 192    | 5.8  | 71     | 2.1 | 47     | 1.4 | 64     | 1.9 | 3,316 |
| Taveta         | 1,957           | 59.1 | 720    | 21.7 | 313    | 9.5  | 179    | 5.4  | 64     | 1.9 | 41     | 1.2 | 38     | 1.1 | 3,312 |
| Mwingi         | 2,381           | 73.1 | 533    | 16.4 | 177    | 5.4  | 60     | 1.8  | 37     | 1.1 | 16     | 0.5 | 52     | 1.6 | 3,256 |
| Kapenguria     | 1,604           | 49.9 | 762    | 23.7 | 421    | 13.1 | 214    | 6.7  | 105    | 3.3 | 46     | 1.4 | 63     | 2   | 3,215 |
| Lokichoggio    | 2,094           | 67.4 | 637    | 20.5 | 244    | 7.9  | 60     | 1.9  | 32     | 1   | 9      | 0.3 | 31     | 1   | 3,107 |
| Maua           | 1,695           | 54.6 | 729    | 23.5 | 349    | 11.3 | 164    | 5.3  | 60     | 1.9 | 38     | 1.2 | 67     | 2.2 | 3,102 |

| Town          | NUMBER OF ROOMS |      |        |      |        |      |        |      |        |     |        |     |        |     | Total |
|---------------|-----------------|------|--------|------|--------|------|--------|------|--------|-----|--------|-----|--------|-----|-------|
|               | 1               |      | 2      |      | 3      |      | 4      |      | 5      |     | 6      |     | 7+     |     |       |
|               | Number          | %    | Number | %    | Number | %    | Number | %    | Number | %   | Number | %   | Number | %   |       |
| Kehancha      | 1,312           | 43.8 | 816    | 27.2 | 388    | 13   | 190    | 6.3  | 91     | 3   | 61     | 2   | 138    | 4.6 | 2,996 |
| Mariakani     | 1,559           | 53.4 | 595    | 20.4 | 232    | 8    | 265    | 9.1  | 66     | 2.3 | 67     | 2.3 | 133    | 4.6 | 2,917 |
| Eldama Ravine | 1,517           | 53.1 | 623    | 21.8 | 327    | 11.4 | 205    | 7.2  | 85     | 3   | 45     | 1.6 | 55     | 1.9 | 2,857 |
| Marsabit      | 1,267           | 45.6 | 903    | 32.5 | 355    | 12.8 | 115    | 4.1  | 47     | 1.7 | 22     | 0.8 | 69     | 2.5 | 2,778 |
| Lamu          | 922             | 34.3 | 628    | 23.4 | 529    | 19.7 | 366    | 13.6 | 125    | 4.7 | 67     | 2.5 | 51     | 1.9 | 2,688 |
| Kimilili      | 1,121           | 42.3 | 717    | 27   | 367    | 13.8 | 252    | 9.5  | 63     | 2.4 | 51     | 1.9 | 80     | 3   | 2,651 |
| Msambweni     | 431             | 16.4 | 698    | 26.6 | 657    | 25.1 | 523    | 20   | 111    | 4.2 | 90     | 3.4 | 111    | 4.2 | 2,621 |
| Tala/Kangundo | 1,368           | 52.9 | 501    | 19.4 | 311    | 12   | 161    | 6.2  | 76     | 2.9 | 51     | 2   | 117    | 4.5 | 2,585 |
| Hola          | 856             | 38.3 | 527    | 23.6 | 376    | 16.8 | 230    | 10.3 | 134    | 6   | 47     | 2.1 | 64     | 2.9 | 2,234 |
| Matuu         | 1,507           | 77.1 | 334    | 17.1 | 64     | 3.3  | 13     | 0.7  | 7      | 0.4 | 7      | 0.4 | 22     | 1.1 | 1,954 |
| Elwak         | 1,008           | 55.3 | 455    | 25   | 185    | 10.1 | 79     | 4.3  | 19     | 1   | 27     | 1.5 | 50     | 2.7 | 1,823 |
| Moyale        | 704             | 39.2 | 598    | 33.3 | 238    | 13.3 | 103    | 5.7  | 63     | 3.5 | 33     | 1.8 | 55     | 3 1 | 1,794 |
| Mtito-Andei   | 1,236           | 76.4 | 211    | 13   | 81     | 5    | 34     | 2.1  | 24     | 1.5 | 9      | 0.6 | 23     | 1.4 | 1,618 |

**Table B2: Distribution of Households by Tenure in selected Towns**

| Town          | Owned     |     |             |      |           |     | Rented     |      |                 |     |            |      |         |     |            |      | Total   |
|---------------|-----------|-----|-------------|------|-----------|-----|------------|------|-----------------|-----|------------|------|---------|-----|------------|------|---------|
|               | Purchased |     | Constructed |      | Inherited |     | Government |      | Local Authority |     | Parastatal |      | Private |     | Individual |      |         |
|               | Number    | %   | Number      | %    | Number    | %   | Number     | %    | Number          | %   | Number     | %    | Number  | %   | Number     | %    |         |
| Nairobi       | 60,811    | 9.5 | 41,668      | 6.5  | 12,422    | 1.9 | 31,007     | 4.8  | 24,960          | 3.9 | 17,724     | 2.8  | 32,062  | 5.0 | 422,252    | 65.7 | 642,906 |
| Mombasa       | 17,427    | 9.6 | 29,056      | 16.0 | 6,252     | 3.4 | 4,857      | 2.7  | 4,249           | 2.3 | 5,299      | 2.9  | 4,559   | 2.5 | 110,150    | 60.6 | 181,849 |
| Nakuru        | 3,490     | 5.3 | 5,255       | 8.0  | 977       | 1.5 | 2,792      | 4.2  | 4,631           | 7.0 | 1,609      | 2.4  | 2,363   | 3.6 | 44,696     | 67.9 | 65,813  |
| Kisumu        | 2,564     | 5.0 | 6,643       | 13.0 | 1,257     | 2.5 | 1,647      | 3.2  | 1,661           | 3.3 | 1,927      | 3.8  | 1,183   | 2.3 | 34,098     | 66.9 | 50,980  |
| Eldoret       | 3,594     | 7.4 | 5,260       | 10.9 | 667       | 1.4 | 1,552      | 3.2  | 2,029           | 4.2 | 1,247      | 2.6  | 1,340   | 2.8 | 32,731     | 67.6 | 48,420  |
| Thika         | 1,694     | 6.3 | 2,9080      | 11.0 | 411       | 1.5 | 950        | 3.5  | 1,868           | 6.9 | 168        | 0.6  | 1,000   | 3.7 | 17,947     | 66.4 | 27,018  |
| Ruiru         | 1,388     | 5.4 | 4,410       | 17.3 | 453       | 1.8 | 527        | 2.1  | 279             | 1.1 | 156        | 0.6  | 669     | 2.6 | 17,668     | 69.2 | 25,550  |
| Nyeri         | 558       | 3.6 | 2,542       | 16.4 | 351       | 2.3 | 1,656      | 10.7 | 369             | 2.4 | 159        | 1.0  | 559     | 3.6 | 9,349      | 60.1 | 15,543  |
| Malindi       | 1,118     | 7.4 | 3,668       | 24.2 | 633       | 4.2 | 346        | 2.3  | 113             | 0.7 | 79         | 0.5  | 301     | 2.0 | 8,871      | 58.6 | 15,129  |
| Kakamega      | 1,203     | 8.2 | 4,268       | 29.3 | 376       | 2.6 | 1,499      | 10.3 | 351             | 2.4 | 178        | 1.2  | 149     | 1.0 | 6,564      | 45.0 | 14,588  |
| Kitale        | 493       | 4.0 | 1,214       | 9.8  | 220       | 1.8 | 985        | 8.0  | 1,013           | 8.2 | 289        | 2.3  | 602     | 4.9 | 7,521      | 61.0 | 12,337  |
| Meru          | 832       | 6.8 | 3,664       | 29.8 | 356       | 2.9 | 633        | 5.2  | 155             | 1.3 | 88         | 0.7  | 216     | 1.8 | 6,343      | 51.6 | 12,287  |
| Ukunda        | 604       | 5.0 | 4,004       | 33.0 | 331       | 2.7 | 118        | 1.0  | 83              | 0.7 | 42         | 0.3  | 800     | 6.6 | 6,152      | 50.7 | 12,134  |
| Bungoma       | 648       | 6.1 | 2,685       | 25.5 | 222       | 2.1 | 549        | 5.2  | 86              | 0.8 | 49         | 0.5  | 98      | 0.9 | 6,211      | 58.9 | 10,548  |
| Ongata Rongai | 770       | 7.3 | 2,047       | 19.4 | 197       | 1.9 | 67         | 0.6  | 35              | 0.3 | 54         | 0.5  | 147     | 1.4 | 7,230      | 68.6 | 10,547  |
| Naivasha      | 454       | 4.4 | 1,181       | 11.6 | 131       | 1.3 | 778        | 7.6  | 515             | 5.0 | 198        | 1.9  | 113     | 1.1 | 6,851      | 67.0 | 10,221  |
| Mumias        | 589       | 5.8 | 2,400       | 23.5 | 168       | 1.6 | 113        | 1.1  | 51              | 0.5 | 2,932      | 28.7 | 317     | 3.1 | 3,640      | 35.7 | 10,210  |
| Embu          | 551       | 5.5 | 914         | 9.2  | 223       | 2.2 | 1,158      | 11.6 | 126             | 1.3 | 92         | 0.9  | 164     | 1.6 | 6,712      | 67.5 | 9,940   |
| Garissa       | 347       | 3.6 | 3,866       | 39.8 | 186       | 1.9 | 970        | 10.0 | 44              | 0.5 | 77         | 0.8  | 74      | 0.8 | 4,141      | 42.7 | 9,705   |
| Nanyuki       | 638       | 6.7 | 1,054       | 11.2 | 392       | 4.1 | 1,519      | 16.1 | 229             | 2.4 | 246        | 2.6  | 361     | 3.8 | 5,013      | 53.0 | 9,452   |
| Machakos      | 412       | 4.9 | 950         | 11.2 | 224       | 2.6 | 990        | 11.7 | 92              | 1.1 | 28         | 0.3  | 184     | 2.2 | 5,576      | 65.9 | 8,456   |
| Kericho       | 529       | 6.4 | 511         | 6.2  | 174       | 2.1 | 705        | 8.5  | 365             | 4.4 | 136        | 1.6  | 310     | 3.7 | 5,556      | 67.1 | 8,286   |
| Homa Bay      | 256       | 3.3 | 2,078       | 26.6 | 97        | 1.2 | 523        | 6.7  | 79              | 1.0 | 137        | 1.8  | 77      | 1.0 | 4,574      | 58.5 | 7,821   |
| Migori        | 350       | 4.6 | 1,993       | 26.0 | 118       | 1.5 | 198        | 2.6  | 39              | 0.5 | 59         | 0.8  | 189     | 2.5 | 4,730      | 61.6 | 7,676   |
| Busia         | 457       | 6.0 | 2,243       | 29.3 | 227       | 3.0 | 368        | 4.8  | 200             | 2.6 | 19         | 0.2  | 31      | 0.4 | 4,111      | 53.7 | 7,656   |
| Mavoko        | 321       | 4.2 | 266         | 3.5  | 77        | 1.0 | 222        | 2.9  | 283             | 3.7 | 960        | 12.6 | 194     | 2.6 | 5,270      | 69.4 | 7,593   |
| Nyahururu     | 450       | 6.0 | 1,002       | 13.4 | 148       | 2.0 | 587        | 7.9  | 266             | 3.6 | 149        | 2.0  | 256     | 3.4 | 4,603      | 61.7 | 7,461   |
| Kilifi        | 429       | 5.8 | 2,983       | 40.6 | 247       | 3.4 | 442        | 6.0  | 91              | 1.2 | 29         | 0.4  | 251     | 3.4 | 2,870      | 39.1 | 7,342   |

| Town           | Owned     |      |             |      |           |     | Rented     |      |                 |     |            |      |         |      |            |      | Total |
|----------------|-----------|------|-------------|------|-----------|-----|------------|------|-----------------|-----|------------|------|---------|------|------------|------|-------|
|                | Purchased |      | Constructed |      | Inherited |     | Government |      | Local Authority |     | Parastatal |      | Private |      | Individual |      |       |
|                | Number    | %    | Number      | %    | Number    | %   | Number     | %    | Number          | %   | Number     | %    | Number  | %    | Number     | %    |       |
| Narok          | 335       | 4.9  | 2,153       | 31.8 | 121       | 1.8 | 587        | 8.7  | 114             | 1.7 | 19         | 0.3  | 128     | 1.9  | 3,311      | 48.9 | 6,768 |
| Elburgon       | 623       | 9.9  | 1,512       | 24.1 | 179       | 2.9 | 127        | 2.0  | 171             | 2.7 | 62         | 1.0  | 108     | 1.7  | 3,483      | 55.6 | 6,265 |
| Molo           | 263       | 4.3  | 884         | 14.4 | 154       | 2.5 | 127        | 2.1  | 105             | 1.7 | 68         | 1.1  | 136     | 2.2  | 4,384      | 71.6 | 6,121 |
| Kisii          | 511       | 8.7  | 1,024       | 17.4 | 158       | 2.7 | 709        | 12.1 | 128             | 2.2 | 90         | 1.5  | 156     | 2.7  | 3,104      | 52.8 | 5,880 |
| Mtwapa         | 533       | 9.5  | 1,093       | 19.5 | 90        | 1.6 | 27         | 0.5  | 13              | 0.2 | 19         | 0.3  | 81      | 1.4  | 3,758      | 66.9 | 5,614 |
| Gilgil         | 178       | 3.2  | 661         | 11.8 | 62        | 1.1 | 1,354      | 24.2 | 89              | 1.6 | 296        | 5.3  | 94      | 1.7  | 2,861      | 51.1 | 5,595 |
| Webuye         | 541       | 10.5 | 892         | 17.3 | 219       | 4.2 | 225        | 4.4  | 241             | 4.7 | 54         | 1.0  | 869     | 16.8 | 2,121      | 41.1 | 5,162 |
| Mandera        | 193       | 3.7  | 3,440       | 66.7 | 79        | 1.5 | 507        | 9.8  | 6               | 0.1 | 34         | 0.7  | 15      | 0.3  | 880        | 17.1 | 5,154 |
| Karuri         | 92        | 1.8  | 2,675       | 53.0 | 170       | 3.4 | 88         | 1.7  | 15              | 0.3 | 13         | 0.3  | 89      | 1.8  | 1,905      | 37.7 | 5,047 |
| Isiolo         | 671       | 13.5 | 1,182       | 23.8 | 134       | 2.7 | 489        | 9.9  | 68              | 1.4 | 28         | 0.6  | 29      | 0.6  | 2,363      | 47.6 | 4,964 |
| Kerugoya/Kutus | 236       | 4.9  | 481         | 9.9  | 78        | 1.6 | 422        | 8.7  | 128             | 2.6 | 69         | 1.4  | 215     | 4.4  | 3,218      | 66.4 | 4,847 |
| Kapsabet       | 154       | 3.2  | 897         | 186  | 121       | 2.5 | 389        | 8.0  | 33              | 0.7 | 105        | 2.2  | 309     | 6.4  | 2,827      | 58.5 | 4,835 |
| Njoro          | 131       | 2.7  | 1,317       | 27.4 | 73        | 1.5 | 75         | 1.6  | 58              | 1.2 | 24         | 0.5  | 205     | 4.3  | 2,921      | 60.8 | 4,804 |
| Voi            | 390       | 8.2  | 1,280       | 27.0 | 104       | 2.2 | 162        | 3.4  | 27              | 0.6 | 359        | 7.6  | 138     | 2.9  | 2,274      | 48.0 | 4,734 |
| Vihiga         | 132       | 2.9  | 2,192       | 48.9 | 196       | 4.4 | 93         | 2.1  | 69              | 1.5 | 83         | 1.9  | 65      | 1.5  | 1,652      | 36.9 | 4,482 |
| Kiambu         | 104       | 2.5  | 481         | 11.4 | 53        | 1.3 | 458        | 10.9 | 118             | 2.8 | 20         | 0.5  | 69      | 1.6  | 2,904      | 69.0 | 4,207 |
| Awendo         | 415       | 104  | 197         | 4.9  | 19        | 0.5 | 21         | 0.5  | 94              | 2.4 | 870        | 21.8 | 245     | 6.1  | 2,129      | 53.4 | 3,990 |
| Maralal        | 173       | 4.4  | 1,903       | 47.9 | 196       | 4.9 | 375        | 9.4  | 59              | 1.5 | 43         | 1.1  | 71      | 1.8  | 1,151      | 29.0 | 3,971 |
| Muhoroni       | 161       | 4.1  | 426         | 10.8 | 46        | 1.2 | 56         | 1.4  | 13              | 0.3 | 666        | 16.9 | 135     | 3.4  | 2,444      | 61.9 | 3,947 |
| Muranga        | 187       | 4.8  | 565         | 14.5 | 54        | 1.4 | 548        | 14.0 | 131             | 3.4 | 36         | 0.9  | 113     | 2.9  | 2,275      | 58.2 | 3,909 |
| OL Kalou       | 331       | 8.8  | 1,937       | 51.4 | 82        | 2.2 | 113        | 3.0  | 45              | 1.2 | 31         | 0.8  | 49      | 1.3  | 1,180      | 31.3 | 3,768 |
| Wajir          | 285       | 7.8  | 2,215       | 60.8 | 26        | 0.7 | 371        | 10.2 | 26              | 0.7 | 23         | 0.6  | 21      | 0.6  | 678        | 18.6 | 3,645 |
| Siaya          | 165       | 4.8  | 751         | 21.6 | 65        | 1.9 | 304        | 8.8  | 38              | 1.1 | 35         | 1.0  | 49      | 1.4  | 2,065      | 59.5 | 3,472 |
| Kitui          | 176       | 5.1  | 467         | 13.5 | 122       | 3.5 | 467        | 13.5 | 39              | 1.1 | 70         | 2.0  | 74      | 2.1  | 2,050      | 59.2 | 3,465 |
| Ngong          | 258       | 7.5  | 1,096       | 31.8 | 63        | 1.8 | 232        | 6.7  | 20              | 0.6 | 8          | 0.2  | 49      | 1.4  | 1,722      | 49.9 | 3,448 |
| Lodwar         | 306       | 9.2  | 1,538       | 46.4 | 35        | 1.1 | 452        | 13.6 | 27              | 0.8 | 52         | 1.6  | 99      | 3.0  | 807        | 24.3 | 3,316 |
| Taveta         | 90        | 2.7  | 794         | 24.0 | 61        | 1.8 | 248        | 7.5  | 7               | 0.2 | 56         | 1.7  | 224     | 6.8  | 1,832      | 55.3 | 3,312 |
| Mwingi         | 207       | 6.4  | 206         | 6.3  | 27        | 0.8 | 122        | 3.7  | 7               | 0.2 | 24         | 0.7  | 56      | 1.7  | 2,607      | 80.1 | 3,256 |
| Kapenguria     | 150       | 4.7  | 778         | 24.2 | 83        | 2.6 | 249        | 7.7  | 8               | 0.2 | 18         | 0.6  | 30      | 0.9  | 1,899      | 59.1 | 3,215 |
| Lokiachoggio   | 142       | 4.6  | 1,493       | 48.1 | 15        | 0.5 | 72         | 2.3  | 24              | 0.8 | 40         | 1.3  | 106     | 3.4  | 1,215      | 39.1 | 3,107 |

| Town          | Owned     |      |             |      |           |      | Rented     |      |                 |     |            |     |         |     |            |      | Total |
|---------------|-----------|------|-------------|------|-----------|------|------------|------|-----------------|-----|------------|-----|---------|-----|------------|------|-------|
|               | Purchased |      | Constructed |      | Inherited |      | Government |      | Local Authority |     | Parastatal |     | Private |     | Individual |      |       |
|               | Number    | %    | Number      | %    | Number    | %    | Number     | %    | Number          | %   | Number     | %   | Number  | %   | Number     | %    |       |
| Maua          | 276       | 8.9  | 439         | 14.2 | 70        | 2.3  | 142        | 4.6  | 50              | 1.6 | 13         | 0.4 | 53      | 1.7 | 2,059      | 66.4 | 3,102 |
| Kehancha      | 309       | 10.3 | 1,101       | 36.7 | 99        | 3.3  | 129        | 4.3  | 32              | 1.1 | 14         | 0.5 | 24      | 0.8 | 1,288      | 43.0 | 2,996 |
| Mariakani     | 81        | 2.8  | 703         | 24.1 | 35        | 1.2  | 89         | 3.1  | 37              | 1.3 | 11         | 0.4 | 19      | 0.7 | 1,942      | 66.6 | 2,917 |
| Eldama Ravine | 125       | 4.4  | 686         | 24.0 | 69        | 2.4  | 245        | 8.6  | 27              | 0.9 | 17         | 0.6 | 75      | 2.6 | 1,613      | 56.5 | 2,857 |
| Marsabit      | 120       | 4.3  | 999         | 36.0 | 67        | 2.4  | 341        | 12.3 | 9               | 0.3 | 50         | 1.8 | 47      | 1.7 | 1,145      | 41.2 | 2,778 |
| Lamu          | 111       | 4.1  | 729         | 27.1 | 401       | 14.9 | 53         | 2.0  | 1               | 0.0 | 6          | 0.2 | 73      | 2.7 | 1,314      | 48.9 | 2,688 |
| Kimilili      | 593       | 22.4 | 475         | 17.9 | 114       | 4.3  | 92         | 3.5  | 73              | 2.8 | 3          | 0.1 | 188     | 7.1 | 1,113      | 42.0 | 2,651 |
| Msambweni     | 44        | 1.7  | 2,059       | 78.6 | 188       | 7.2  | 120        | 4.6  | 10              | 0.4 | 2          | 0.1 | 24      | 0.9 | 174        | 6.6  | 2,621 |
| Tala/Kangundo | 148       | 5.7  | 567         | 21.9 | 52        | 2.0  | 105        | 4.1  | 6               | 0.2 | 9          | 0.3 | 49      | 1.9 | 1,649      | 63.8 | 2,585 |
| Hola          | 48        | 2.1  | 1,010       | 45.2 | 99        | 4.4  | 274        | 12.3 | 11              | 0.5 | 42         | 1.9 | 8       | 0.4 | 742        | 33.2 | 2,234 |
| Matuu         | 15        | 0.8  | 82          | 4.2  | 16        | 0.8  | 20         | 1.0  | 8               | 0.4 | 5          | 0.3 | 22      | 1.1 | 1,786      | 91.4 | 1,954 |
| Elwak         | 106       | 5.8  | 1,583       | 86.8 | 35        | 1.9  | 9          | 0.5  | 3               | 0.2 | 2          | 0.1 | 7       | 0.4 | 78         | 4.3  | 1,823 |
| Moyale        | 52        | 2.9  | 668         | 37.2 | 38        | 2.1  | 245        | 13.7 | 2               | 0.1 | 50         | 2.8 | 25      | 1.4 | 714        | 39.8 | 1,794 |
| Mtito-Andei   | 88        | 5.4  | 133         | 8.2  | 20        | 1.2  | 17         | 1.1  | 9               | 0.6 | 44         | 2.7 | 46      | 2.8 | 1,261      | 77.9 | 1,618 |

**Table B3: Distribution of Households hy Roofing Materials in selected Towns**

| Town          | iron Sheets |      | Tiles  |      | concrete |      | Asbestos Sheets |      | Grass  |     | Makuti |      | Tin    |     | Other  |      | Total   |
|---------------|-------------|------|--------|------|----------|------|-----------------|------|--------|-----|--------|------|--------|-----|--------|------|---------|
|               | Number      | %    | Number | %    | Number   | %    | Number          | %    | Number | %   | Number | %    | Number | %   | Number | %    |         |
| Nairobi       | 434,072     | 67.5 | 76,174 | 11.8 | 105,180  | 16.4 | 20,833          | 3.2  | 253    | 0.0 | 692    | 0.1  | 2,084  | 0.3 | 3,618  | 0.6  | 642,906 |
| Mombasa       | 122,524     | 67.4 | 7,428  | 4.1  | 16,296   | 9.0  | 5,512           | 3.0  | 466    | 0.3 | 27,338 | 15.0 | 1,268  | 0.7 | 1,017  | 0.6  | 181,849 |
| Nakuru        | 56,078      | 85.2 | 4,135  | 6.3  | 1,395    | 2.1  | 3,571           | 5.4  | 98     | 0.1 | 12     | 0.0  | 340    | 0.5 | 184    | 0.3  | 65,813  |
| Kisumu        | 44,502      | 87.3 | 1,850  | 3.6  | 1,369    | 2.7  | 2,637           | 5.2  | 252    | 0.5 | 20     | 0.0  | 267    | 0.5 | 83     | 0.2  | 50,980  |
| Eldoret       | 41,067      | 84.8 | 3,890  | 8.0  | 551      | 1.1  | 2,349           | 4.9  | 362    | 0.7 | 40     | 0.1  | 87     | 0.2 | 74     | 0.2  | 48,420  |
| Thika         | 23,409      | 86.6 | 2,371  | 8.8  | 437      | 1.6  | 635             | 2.4  | 48     | 0.2 | 43     | 0.2  | 45     | 0.2 | 30     | 0.1  | 27,018  |
| Ruiru         | 22,548      | 88.3 | 1,725  | 6.8  | 999      | 3.9  | 172             | 0.7  | 6      | 0.0 | 19     | 0.1  | 31     | 0.1 | 50     | 0.2  | 25,550  |
| Nyeri         | 13,765      | 88.6 | 598    | 3.8  | 623      | 4.0  | 508             | 3.3  | 4      | 0.0 | 1      | 0.0  | 18     | 0.1 | 26     | 0.2  | 15,543  |
| Malindi       | 6,875       | 45.4 | 225    | 1.5  | 1,348    | 8.9  | 751             | 5.0  | 69     | 0.5 | 5,826  | 38.5 | 9      | 0.1 | 26     | 0.2  | 15,129  |
| Kakamega      | 13,354      | 91.5 | 292    | 2.0  | 265      | 1.8  | 303             | 2.1  | 324    | 2.2 | 18     | 0.1  | 26     | 0.2 | 6      | 0.0  | 14,588  |
| Kitale        | 10,334      | 83.8 | 610    | 4.9  | 210      | 1.7  | 787             | 6.4  | 239    | 1.9 | 3      | 0.0  | 6      | 0.0 | 148    | 1.2  | 12,337  |
| Meru          | 11,491      | 93.5 | 230    | 1.9  | 147      | 1.2  | 366             | 3.0  | 7      | 0.1 | 4      | 0.0  | 32     | 0.3 | 10     | 0.1  | 12,287  |
| Ukunda        | 5,935       | 48.9 | 197    | 1.6  | 73       | 0.6  | 498             | 4.1  | 15     | 0.1 | 5,393  | 44.4 | 12     | 0.1 | 11     | 0.1  | 12,134  |
| Bungoma       | 9,948       | 94.3 | 78     | 0.7  | 27       | 0.3  | 219             | 2.1  | 263    | 2.5 | 5      | 0.0  | 3      | 0.0 | 5      | 0.0  | 10,548  |
| Ongata Rongai | 9,003       | 85.4 | 758    | 7.2  | 542      | 5.1  | 203             | 1.9  | 4      | 0.0 | 13     | 0.1  | 2      | 0.0 | 22     | 0.2  | 10,547  |
| Naivasha      | 9,311       | 91.1 | 184    | 1.8  | 153      | 1.5  | 438             | 4.3  | 31     | 0.3 | 6      | 0.1  | 75     | 0.7 | 23     | 0.2  | 10,221  |
| Mumias        | 8,586       | 84.1 | 63     | 0.6  | 19       | 0.2  | 1,108           | 10.9 | 423    | 4.1 | 5      | 0.0  | 3      | 0.0 | 3      | 0.0  | 10,210  |
| Embu          | 9,008       | 90.6 | 317    | 3.2  | 154      | 1.5  | 309             | 3.1  | 45     | 0.5 | 9      | 0.1  | 86     | 0.9 | 12     | 0.1  | 9,940   |
| Garissa       | 6,965       | 71.8 | 134    | 1.4  | 74       | 0.8  | 123             | 1.3  | 891    | 9.2 | 520    | 5.4  | 12     | 0.1 | 986    | 10.2 | 9,705   |
| Nanyuki       | 7,430       | 78.6 | 946    | 10.0 | 159      | 1.7  | 348             | 3.7  | 98     | 1.0 | 8      | 0.1  | 441    | 4.7 | 22     | 0.2  | 9,452   |
| Machakos      | 7,526       | 89.0 | 282    | 3.3  | 374      | 4.4  | 215             | 2.5  | 4      | 0.0 | 4      | 0.0  | 36     | 0.4 | 15     | 0.2  | 8,456   |
| Kericho       | 7,301       | 88.1 | 265    | 3.2  | 208      | 2.5  | 378             | 4.6  | 17     | 0.2 | 5      | 0.1  | 97     | 1.2 | 15     | 0.2  | 8,286   |
| Homa Bay      | 7,026       | 89.8 | 110    | 1.4  | 22       | 0.3  | 253             | 3.2  | 378    | 4.8 | 8      | 0.1  | 6      | 0.1 | 18     | 0.2  | 7,821   |
| Migori        | 7,166       | 93.4 | 45     | 0.6  | 35       | 0.5  | 180             | 2.3  | 236    | 3.1 | 2      | 0.0  | 5      | 0.1 | 7      | 0.1  | 7,676   |
| Busia         | 6,766       | 88.4 | 63     | 0.8  | 42       | 0.5  | 251             | 3.3  | 498    | 6.5 | 4      | 0.1  | 26     | 0.3 | 6      | 0.1  | 7,656   |
| Mavoko        | 6,011       | 79.2 | 608    | 8.0  | 128      | 1.7  | 673             | 8.9  | 27     | 0.4 | 4      | 0.1  | 95     | 1.3 | 47     | 0.6  | 7,593   |
| Nyahururu     | 6,739       | 90.3 | 318    | 4.3  | 85       | 1.1  | 192             | 2.6  | 92     | 1.2 | 2      | 0.0  | 14     | 0.2 | 19     | 0.3  | 7,461   |
| Kilifi        | 3,301       | 45.0 | 174    | 2.4  | 52       | 0.7  | 309             | 4.2  | 8      | 0.1 | 3,478  | 47.4 | 4      | 0.1 | 16     | 0.2  | 7,342   |
| Narok         | 6,097       | 90.1 | 57     | 0.8  | 24       | 0.4  | 16              | 0.2  | 136    | 2.0 | 47     | 0.7  | 7      | 0.1 | 384    | 5.7  | 6,768   |
| Elburgon      | 6,033       | 96.3 | 23     | 0.4  | 1        | 0.0  | 115             | 1.8  | 3      | 0.0 | 1      | 0.0  | 28     | 0.4 | 61     | 1.0  | 6,265   |

| Town           | Iron Sheets |      | Tiles  |      | Concrete |      | Asbestos Sheets |      | Grass  |      | Makuti |      | Tin    |     | Other  |      | Total |
|----------------|-------------|------|--------|------|----------|------|-----------------|------|--------|------|--------|------|--------|-----|--------|------|-------|
|                | Number      | %    | Number | %    | Number   | %    | Number          | %    | Number | %    | Number | %    | Number | %   | Number | %    |       |
| Molo           | 5,712       | 93.3 | 115    | 1.9  | 26       | 0.4  | 162             | 2.6  | 22     | 0.4  | 1      | 0.0  | 29     | 0.5 | 54     | 0.9  | 6,121 |
| Kisii          | 4,940       | 84.0 | 142    | 2.4  | 334      | 5.7  | 326             | 5.5  | 64     | 1.1  | 5      | 0.1  | 44     | 0.7 | 25     | 0.4  | 5,880 |
| Mtwapa         | 4,232       | 75.4 | 152    | 2.7  | 142      | 2.5  | 117             | 2.1  | 5      | 0.1  | 961    | 17.1 | 2      | 0.0 | 3      | 0.1  | 5,614 |
| Gilgil         | 4,667       | 83.4 | 564    | 10.1 | 56       | 1.0  | 184             | 3.3  | 43     | 0.8  | 0      | 0.0  | 73     | 1.3 | 8      | 0.1  | 5,595 |
| Webuye         | 4,819       | 93.4 | 147    | 2.8  | 6        | 0.1  | 130             | 2.5  | 48     | 0.9  | 8      | 0.2  | 4      | 0.1 | 0      | 0.0  | 5,162 |
| Mandera        | 2,267       | 44.0 | 4      | 0.1  | 18       | 0.3  | 26              | 0.5  | 2,543  | 49.3 | 248    | 4.8  | 3      | 0.1 | 45     | 0.9  | 5,154 |
| Karuri         | 4,800       | 95.1 | 138    | 2.7  | 42       | 0.8  | 51              | 1.0  | 1      | 0.0  | 0      | 0.0  | 10     | 0.2 | 5      | 0.1  | 5,047 |
| Isiolo         | 4,820       | 97.1 | 43     | 0.9  | 32       | 0.6  | 35              | 0.7  | 15     | 0.3  | 7      | 0.1  | 9      | 0.2 | 3      | 0.1  | 4,964 |
| Kerugoya/Kutus | 4,519       | 93.2 | 124    | 2.6  | 83       | 1.7  | 107             | 2.2  | 2      | 0.0  | 3      | 0.1  | 5      | 0.1 | 4      | 0.1  | 4,847 |
| Kapsabet       | 4,389       | 90.8 | 83     | 1.7  | 10       | 0.2  | 249             | 5.1  | 84     | 1.7  | 1      | 0.0  | 16     | 0.3 | 3      | 0.1  | 4,835 |
| Njoro          | 4,717       | 98.2 | 8      | 0.2  | 4        | 0.1  | 38              | 0.8  | 3      | 0.1  | 1      | 0.0  | 26     | 0.5 | 7      | 0.1  | 4,804 |
| Voi            | 4,199       | 88.7 | 269    | 5.7  | 82       | 1.7  | 100             | 2.1  | 26     | 0.5  | 4      | 0.1  | 42     | 0.9 | 12     | 0.3  | 4,734 |
| Vihiga         | 4,050       | 90.4 | 31     | 0.7  | 3        | 0.1  | 145             | 3.2  | 249    | 5.6  | 0      | 0.0  | 1      | 0.0 | 3      | 0.1  | 4,482 |
| Kiambu         | 3,665       | 87.1 | 181    | 4.3  | 205      | 4.9  | 121             | 2.9  | 5      | 0.1  | 5      | 0.1  | 4      | 0.1 | 21     | 0.5  | 4,207 |
| Awendo         | 3,062       | 76.7 | 6      | 0.2  | 3        | 0.1  | 729             | 18.3 | 165    | 4.1  | 0      | 0.0  | 23     | 0.6 | 2      | 0.1  | 3,990 |
| Maralal        | 2,417       | 60.9 | 70     | 1.8  | 1        | 0.0  | 63              | 1.6  | 292    | 7.4  | 143    | 3.6  | 39     | 1.0 | 946    | 23.8 | 3,971 |
| Muhoroni       | 3,066       | 77.7 | 165    | 4.2  | 1        | 0.0  | 198             | 5.0  | 482    | 12.2 | 9      | 0.2  | 21     | 0.5 | 5      | 0.1  | 3,947 |
| Muranga        | 2,569       | 65.7 | 178    | 4.6  | 642      | 16.4 | 303             | 7.8  | 0      | 0.0  | 1      | 0.0  | 212    | 5.4 | 4      | 0.1  | 3,909 |
| OL Kalou       | 3,499       | 92.9 | 19     | 0.5  | 6        | 0.2  | 16              | 0.4  | 210    | 5.6  | 4      | 0.1  | 4      | 0.1 | 10     | 0.3  | 3,768 |
| Wajir          | 1,987       | 54.5 | 13     | 0.4  | 11       | 0.3  | 19              | 0.5  | 1,608  | 44.1 | 6      | 0.2  | 0      | 0.0 | 1      | 0.0  | 3,645 |
| Siaya          | 2,915       | 84.0 | 69     | 2.0  | 10       | 0.3  | 255             | 7.3  | 203    | 5.8  | 3      | 0.1  | 15     | 0.4 | 2      | 0.1  | 3,472 |
| Kitui          | 3,303       | 95.3 | 79     | 2.3  | 30       | 0.9  | 37              | 1.1  | 7      | 0.2  | 2      | 0.1  | 1      | 0.0 | 6      | 0.2  | 3,465 |
| Ngong          | 2,785       | 80.8 | 358    | 10.4 | 135      | 3.9  | 148             | 4.3  | 1      | 0.0  | 2      | 0.1  | 9      | 0.3 | 10     | 0.3  | 3,448 |
| Lodwar         | 2,340       | 70.6 | 5      | 0.2  | 1        | 0.0  | 42              | 1.3  | 115    | 3.5  | 795    | 24.0 | 3      | 0.1 | 15     | 0.5  | 3,316 |
| Taveta         | 2,475       | 74.7 | 34     | 1.0  | 26       | 0.8  | 129             | 3.9  | 467    | 14.1 | 118    | 3.6  | 36     | 1.1 | 27     | 0.8  | 3,312 |
| Mwingi         | 3,186       | 97.9 | 31     | 1.0  | 18       | 0.6  | 17              | 0.5  | 0      | 0.0  | 2      | 0.1  | 0      | 0.0 | 2      | 0.1  | 3,256 |
| Kapenguria     | 3,015       | 93.8 | 19     | 0.6  | 9        | 0.3  | 12              | 0.4  | 145    | 4.5  | 0      | 0.0  | 1      | 0.0 | 14     | 0.4  | 3,215 |
| Lokiachoggio   | 1,398       | 45.0 | 2      | 0.1  | 0        | 0.0  | 3               | 0.1  | 778    | 25.0 | 387    | 12.5 | 30     | 1.0 | 509    | 16.4 | 3,107 |
| Maua           | 3,020       | 97.4 | 5      | 0.2  | 7        | 0.2  | 30              | 1.0  | 16     | 0.5  | 0      | 0.0  | 19     | 0.6 | 5      | 0.2  | 3,102 |
| Kehancha       | 2,694       | 89.9 | 10     | 0.3  | 3        | 0.1  | 36              | 1.2  | 249    | 8.3  | 0      | 0.0  | 2      | 0.1 | 2      | 0.1  | 2,996 |
| Mariakani      | 2,404       | 82.4 | 39     | 1.3  | 40       | 1.4  | 61              | 2.1  | 3      | 0.1  | 349    | 12.0 | 3      | 0.1 | 18     | 0.6  | 2,917 |
| Eldama Ravine  | 2,529       | 88.5 | 86     | 3.0  | 19       | 0.7  | 50              | 1.8  | 63     | 2.2  | 0      | 0.0  | 99     | 3.5 | 11     | 0.4  | 2,857 |

| Town          | Iron Sheets |      | Tiles  |     | Concrete |      | Asbestos Sheets |     | Grass  |      | Makuti |      | Tin    |     | Other  |     | Total |
|---------------|-------------|------|--------|-----|----------|------|-----------------|-----|--------|------|--------|------|--------|-----|--------|-----|-------|
|               | Number      | %    | Number | %   | Number   | %    | Number          | %   | Number | %    | Number | %    | Number | %   | Number | %   |       |
| Marsabit      | 2,686       | 96.7 | 7      | 0.3 | 0        | 0.0  | 57              | 2.1 | 14     | 0.5  | 2      | 0.1  | 9      | 0.3 | 3      | 0.1 | 2,778 |
| Lamu          | 611         | 22.7 | 29     | 1.1 | 1,002    | 37.3 | 25              | 0.9 | 2      | 0.1  | 1,011  | 37.6 | 5      | 0.2 | 3      | 0.1 | 2,688 |
| Kimilili      | 2,533       | 95.5 | 15     | 0.6 | 0        | 0.0  | 10              | 0.4 | 86     | 3.2  | 0      | 0.0  | 2      | 0.1 | 5      | 0.2 | 2,651 |
| Msambweni     | 447         | 17.1 | 33     | 1.3 | 20       | 0.8  | 29              | 1.1 | 1      | 0.0  | 2,085  | 79.5 | 5      | 0.2 | 1      | 0.0 | 2,621 |
| Tala/Kangundo | 2,453       | 94.9 | 77     | 3.0 | 25       | 1.0  | 21              | 0.8 | 1      | 0.0  | 2      | 0.1  | 1      | 0.0 | 5      | 0.2 | 2,585 |
| Hola          | 1,402       | 62.8 | 11     | 0.5 | 1        | 0.0  | 187             | 8.4 | 274    | 12.3 | 345    | 15.4 | 3      | 0.1 | 11     | 0.5 | 2,234 |
| Matuu         | 1,862       | 95.3 | 3      | 0.2 | 29       | 1.5  | 59              | 3.0 | 0      | 0.0  | 0      | 0.0  | 1      | 0.1 | 0      | 0.0 | 1,954 |
| Elwak         | 509         | 27.9 | 0      | 0.0 | 9        | 0.5  | 0               | 0.0 | 87     | 4.8  | 1,210  | 66.4 | 3      | 0.2 | 5      | 0.3 | 1,823 |
| Moyale        | 1,631       | 90.9 | 63     | 3.5 | 6        | 0.3  | 34              | 1.9 | 30     | 1.7  | 3      | 0.2  | 1      | 0.1 | 26     | 1.4 | 1,794 |
| Mtito-Andei   | 1,502       | 92.8 | 73     | 4.5 | 14       | 0.9  | 12              | 0.7 | 4      | 0.2  | 1      | 0.1  | 9      | 0.6 | 3      | 0.2 | 1,618 |

Table B4: Distribution of Households by type of Wall Material in selected Towns

| Town          | Stone   |      | Brick/Block |      | Mud/Wood |      | Mud/Cement |      | Wood Only |      | Iron Sheet |      | Grass/Reeds |     | Tin    |     | Other  |     | Total   |
|---------------|---------|------|-------------|------|----------|------|------------|------|-----------|------|------------|------|-------------|-----|--------|-----|--------|-----|---------|
|               | Number  | %    | Number      | %    | Number   | %    | Number     | %    | Number    | %    | Number     | %    | Number      | %   | Number | %   | Number | %   |         |
| Nairobi       | 267,264 | 41.6 | 94,189      | 14.7 | 62,880   | 9.8  | 49,274     | 7.7  | 35,757    | 5.6  | 127,860    | 19.9 | 357         | 0.1 | 4,503  | 0.7 | 822    | 0.1 | 642,906 |
| Mombasa       | 36,429  | 20   | 62,603      | 34.4 | 30,051   | 16.5 | 48,932     | 26.9 | 1,461     | 0.8  | 1,354      | 0.7  | 326         | 0.2 | 316    | 0.2 | 377    | 0.2 | 181,849 |
| Nakuru        | 24,191  | 36.8 | 6,604       | 10   | 8,316    | 12.6 | 23,156     | 35.2 | 3,019     | 4.6  | 432        | 0.7  | 21          | 0   | 67     | 0.1 | 7      | 0   | 65,813  |
| Kisumu        | 1,930   | 3.8  | 20,461      | 40.1 | 8,626    | 16.9 | 18,740     | 36.8 | 335       | 0.7  | 794        | 1.6  | 38          | 0.1 | 38     | 0.1 | 18     | 0   | 50,980  |
| Eldoret       | 3,185   | 6.6  | 20,273      | 41.9 | 15,312   | 31.6 | 6,550      | 13.5 | 2,394     | 4.9  | 612        | 1.3  | 39          | 0.1 | 43     | 0.1 | 12     | 0   | 48,420  |
| Thika         | 14,421  | 53.4 | 2,923       | 10.8 | 4,051    | 15   | 369        | 1.4  | 4,490     | 16.6 | 667        | 2.5  | 36          | 0.1 | 52     | 0.2 | 9      | 0   | 27,018  |
| Ruiru         | 18,326  | 71.7 | 2,005       | 7.8  | 639      | 2.5  | 391        | 1.5  | 1,459     | 5.7  | 2,609      | 10.2 | 11          | 0   | 106    | 0.4 | 4      | 0   | 25,550  |
| Nyeri         | 7,282   | 46.9 | 836         | 5.4  | 557      | 3.6  | 103        | 0.7  | 6,468     | 41.6 | 282        | 1.8  | 4           | 0   | 10     | 0.1 | 1      | 0   | 15,543  |
| Malindi       | 1,343   | 8.9  | 6,954       | 46   | 3,631    | 24   | 2,983      | 19.7 | 71        | 0.5  | 86         | 0.6  | 20          | 0.1 | 7      | 0   | 34     | 0.2 | 15,129  |
| Kakamega      | 237     | 1.6  | 6,347       | 43.5 | 4,917    | 33.7 | 2,740      | 18.8 | 86        | 0.6  | 249        | 1.7  | 9           | 0.1 | 3      | 0   | 0      | 0   | 14,588  |
| Kitale        | 459     | 3.7  | 4,057       | 32.9 | 3,872    | 31.4 | 3,173      | 25.7 | 417       | 3.4  | 216        | 1.8  | 12          | 0.1 | 16     | 0.1 | 115    | 0.9 | 12,337  |
| Meru          | 4,199   | 34.2 | 455         | 3.7  | 632      | 5.1  | 167        | 1.4  | 6,700     | 54.5 | 116        | 0.9  | 3           | 0   | 14     | 0.1 | 1      | 0   | 12,287  |
| Ukunda        | 3,806   | 31.4 | 5,351       | 44.1 | 1,798    | 14.8 | 877        | 7.2  | 62        | 0.5  | 46         | 0.4  | 59          | 0.5 | 12     | 0.1 | 123    | 1   | 12,134  |
| Bungoma       | 281     | 2.7  | 4,344       | 41.2 | 3,277    | 31.1 | 2,521      | 23.9 | 14        | 0.1  | 95         | 0.9  | 9           | 0.1 | 6      | 0.1 | 1      | 0   | 10,548  |
| Ongata.Rongai | 6,726   | 63.8 | 482         | 4.6  | 542      | 5.1  | 227        | 2.2  | 973       | 9.2  | 1,540      | 14.6 | 5           | 0   | 44     | 0.4 | 8      | 0.1 | 10,547  |
| Naivasha      | 6,590   | 64.5 | 1,165       | 11.4 | 781      | 7.6  | 85         | 0.8  | 1,188     | 11.6 | 345        | 3.4  | 1           | 0   | 64     | 0.6 | 2      | 0   | 10,221  |
| Mumias        | 195     | 1.9  | 5,850       | 57.3 | 3,161    | 31   | 777        | 7.6  | 18        | 0.2  | 196        | 1.9  | 5           | 0   | 7      | 0.1 | 1      | 0   | 10,210  |
| Embu          | 4,920   | 49.5 | 677         | 6.8  | 676      | 6.8  | 257        | 2.6  | 1,677     | 16.9 | 1,692      | 17   | 27          | 0.3 | 11     | 0.1 | 3      | 0   | 9,940   |
| Garissa       | 166     | 1.7  | 6,668       | 68.7 | 1,545    | 15.9 | 282        | 2.9  | 40        | 0.4  | 158        | 1.6  | 589         | 6.1 | 19     | 0.2 | 238    | 2.5 | 9,705   |
| Nanyuki       | 2,764   | 29.2 | 1,180       | 12.5 | 1,040    | 11   | 468        | 5    | 3,885     | 41.1 | 96         | 1    | 5           | 0.1 | 13     | 0.1 | 1      | 0   | 9,452   |
| Machakos      | 4,781   | 56.5 | 2,694       | 31.9 | 558      | 6.6  | 148        | 1.8  | 31        | 0.4  | 226        | 2.7  | 8           | 0.1 | 10     | 0.1 | 0      | 0   | 8,456   |
| Kericho       | 1,690   | 20.4 | 1,360       | 16.4 | 549      | 6.6  | 116        | 1.4  | 2,026     | 24.5 | 2,488      | 30   | 13          | 0.2 | 42     | 0.5 | 2      | 0   | 8,286   |
| Homa Bay      | 1,014   | 13   | 1,121       | 14.3 | 1,321    | 16.9 | 585        | 7.5  | 54        | 0.7  | 3,700      | 47.3 | 7           | 0.1 | 10     | 0.1 | 9      | 0.1 | 7,821   |
| Migori        | 209     | 2.7  | 3,319       | 43.2 | 2,011    | 26.2 | 2,008      | 26.2 | 30        | 0.4  | 80         | 1    | 17          | 0.2 | 1      | 0   | 1      | 0   | 7,676   |
| Busia         | 204     | 2.7  | 4,412       | 57.6 | 1,893    | 24.7 | 999        | 13   | 19        | 0.2  | 97         | 1.3  | 3           | 0   | 27     | 0.4 | 2      | 0   | 7,656   |
| Mavoko        | 1,895   | 25   | 1,286       | 16.9 | 52       | 0.7  | 49         | 0.6  | 601       | 7.9  | 3,551      | 46.8 | 11          | 0.1 | 116    | 1.5 | 32     | 0.4 | 7,593   |
| Nyahururu     | 2,928   | 39.2 | 324         | 4.3  | 412      | 5.5  | 67         | 0.9  | 3,646     | 48.9 | 75         | 1    | 0           | 0   | 8      | 0.1 | 1      | 0   | 7,461   |
| Kilifi        | 941     | 12.8 | 2,960       | 40.3 | 2,366    | 32.2 | 958        | 13   | 28        | 0.4  | 50         | 0.7  | 22          | 0.3 | 1      | 0   | 16     | 0.2 | 7,342   |
| Narok         | 2,857   | 42.2 | 307         | 4.5  | 1,956    | 28.9 | 260        | 3.8  | 996       | 14.7 | 348        | 5.1  | 7           | 0.1 | 5      | 0.1 | 32     | 0.5 | 6,768   |
| Elburgon      | 697     | 11.1 | 177         | 2.8  | 429      | 6.8  | 38         | 0.6  | 4,895     | 78.1 | 25         | 0.4  | 3           | 0   | 1      | 0   | 0      | 0   | 6,265   |

|               |       |      |       |      |       |      |       |      |       |      |       |      |       |      |    |     |     |     |       |
|---------------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|----|-----|-----|-----|-------|
| Molo          | 1,998 | 32.6 | 256   | 4.2  | 219   | 3.6  | 87    | 1.4  | 3,530 | 57.7 | 26    | 0.4  | 2     | 0    | 3  | 0   | 0   | 0   | 6,121 |
| Kisii         | 325   | 5.5  | 3,489 | 59.3 | 719   | 12.2 | 652   | 11.1 | 146   | 2.5  | 534   | 9.1  | 8     | 0.1  | 3  | 0.1 | 4   | 0.1 | 5,880 |
| Mtwapa        | 1,728 | 30.8 | 3,012 | 53.7 | 574   | 10.2 | 171   | 3    | 69    | 1.2  | 35    | 0.6  | 6     | 0.1  | 14 | 0.2 | 5   | 0.1 | 5,614 |
| Gilgil        | 2,768 | 49.5 | 656   | 11.7 | 493   | 8.8  | 56    | 1    | 1,304 | 23.3 | 271   | 4.8  | 2     | 0    | 43 | 0.8 | 2   | 0   | 5,595 |
| Webuye        | 115   | 2.2  | 3,073 | 59.5 | 1,076 | 20.8 | 831   | 16.1 | 18    | 0.3  | 46    | 0.9  | 3     | 0.1  | 0  | 0   | 0   | 0   | 5,162 |
| Mandera       | 265   | 5.1  | 1,769 | 34.3 | 284   | 5.5  | 84    | 1.6  | 259   | 5    | 42    | 0.8  | 2,405 | 46.7 | 0  | 0   | 46  | 0.9 | 5,154 |
| Karuri        | 1,688 | 33.4 | 55    | 1.1  | 122   | 2.4  | 13    | 0.3  | 2,403 | 47.6 | 730   | 14.5 | 7     | 0.1  | 29 | 0.6 | 0   | 0   | 5,047 |
| Isiolo        | 972   | 19.6 | 865   | 17.4 | 552   | 11.1 | 31    | 0.6  | 2,406 | 48.5 | 117   | 2.4  | 13    | 0.3  | 8  | 0.2 | 0   | 0   | 4,964 |
| Kerugoya/Kutu | 3,062 | 63.2 | 323   | 6.7  | 214   | 4.4  | 30    | 0.6  | 1,073 | 22.1 | 135   | 2.8  | 3     | 0.1  | 6  | 0.1 | 1   | 0   | 4,847 |
| Kapsabet      | 116   | 2.4  | 1,368 | 28.3 | 1,483 | 30.7 | 1,447 | 29.9 | 281   | 5.8  | 125   | 2.6  | 4     | 0.1  | 3  | 0.1 | 8   | 0.2 | 4,835 |
| Njoro         | 1,202 | 25   | 103   | 2.1  | 2,133 | 44.4 | 262   | 5.5  | 1,080 | 22.5 | 20    | 0.4  | 0     | 0    | 4  | 0.1 | 0   | 0   | 4,804 |
| Voi           | 45    | 1    | 2,245 | 47.4 | 1,506 | 31.8 | 848   | 17.9 | 29    | 0.6  | 55    | 1.2  | 3     | 0.1  | 1  | 0   | 2   | 0   | 4,734 |
| Vihiga        | 71    | 1.6  | 1,930 | 43.1 | 1,977 | 44.1 | 455   | 10.2 | 17    | 0.4  | 27    | 0.6  | 2     | 0    | 2  | 0   | 1   | 0   | 4,482 |
| Kiambu        | 2,435 | 57.9 | 165   | 3.9  | 155   | 3.7  | 36    | 0.9  | 552   | 13.1 | 836   | 19.9 | 2     | 0    | 24 | 0.6 | 2   | 0   | 4,207 |
| Awendo        | 63    | 1.6  | 1,941 | 48.6 | 923   | 23.1 | 342   | 8.6  | 62    | 1.6  | 646   | 16.2 | 3     | 0.1  | 10 | 0.3 | 0   | 0   | 3,990 |
| Maralal       | 48    | 1.2  | 408   | 10.3 | 2,316 | 58.3 | 997   | 25.1 | 82    | 2.1  | 43    | 1.1  | 8     | 0.2  | 4  | 0.1 | 65  | 1.6 | 3,971 |
| Muhoroni      | 32    | 0.8  | 798   | 20.2 | 972   | 24.6 | 395   | 10   | 91    | 2.3  | 1,619 | 41   | 14    | 0.4  | 24 | 0.6 | 2   | 0.1 | 3,947 |
| Muranga       | 2,981 | 76.3 | 146   | 3.7  | 574   | 14.7 | 92    | 2.4  | 49    | 1.3  | 59    | 1.5  | 0     | 0    | 8  | 0.2 | 0   | 0   | 3,909 |
| 01.Kalou      | 1,209 | 32.1 | 82    | 2.2  | 1,322 | 35.1 | 18    | 0.5  | 1,075 | 28.5 | 43    | 1.1  | 10    | 0.3  | 5  | 0.1 | 4   | 0.1 | 3,768 |
| Wajir         | 1,680 | 46.1 | 301   | 8.3  | 7     | 0.2  | 16    | 0.4  | 96    | 2.6  | 34    | 0.9  | 1,503 | 41.2 | 0  | 0   | 8   | 0.2 | 3,645 |
| Siaya         | 208   | 6    | 2,247 | 64.7 | 448   | 12.9 | 477   | 13.7 | 2     | 0.1  | 70    | 2    | 4     | 0.1  | 16 | 0.5 | 0   | 0   | 3,472 |
| Kitui         | 108   | 3.1  | 3,205 | 92.5 | 30    | 0.9  | 22    | 0.6  | 4     | 0.1  | 92    | 2.7  | 2     | 0.1  | 0  | 0   | 2   | 0.1 | 3,465 |
| Ngong         | 1,586 | 46   | 155   | 4.5  | 201   | 5.8  | 9     | 0.3  | 813   | 23.6 | 643   | 18.6 | 8     | 0.2  | 32 | 0.9 | 1   | 0   | 3,448 |
| Lodwar        | 40    | 1.2  | 1,549 | 46.7 | 962   | 29   | 147   | 4.4  | 168   | 5.1  | 66    | 2    | 342   | 10.3 | 1  | 0   | 41  | 1.2 | 3,316 |
| Tav.eta       | 995   | 30   | 678   | 20.5 | 1,243 | 37.5 | 280   | 8.5  | 25    | 0.8  | 76    | 2.3  | 1     | 0    | 6  | 0.2 | 8   | 0.2 | 3,312 |
| Mwingi        | 697   | 21.4 | 2,260 | 69.4 | 61    | 1.9  | 166   | 5.1  | 7     | 0.2  | 63    | 1.9  | 2     | 0.1  | 0  | 0   | 0   | 0   | 3,256 |
| Kapenguria    | 69    | 2.1  | 1,340 | 41.7 | 991   | 30.8 | 710   | 22.1 | 38    | 1.2  | 57    | 1.8  | 0     | 0    | 3  | 0.1 | 7   | 0.2 | 3,215 |
| Lokiachoggio  | 21    | 0.7  | 150   | 4.8  | 1,473 | 47.4 | 151   | 4.9  | 340   | 10.9 | 67    | 2.2  | 660   | 21.2 | 38 | 1.2 | 207 | 6.7 | 3,107 |
| Maua          | 1,067 | 34.4 | 324   | 10.4 | 204   | 6.6  | 9     | 0.3  | 1,437 | 46.3 | 52    | 1.7  | 6     | 0.2  | 3  | 0.1 | 0   | 0   | 3,102 |
| Kehancha      | 163   | 5.4  | 952   | 31.8 | 1,165 | 38.9 | 648   | 21.6 | 20    | 0.7  | 39    | 1.3  | 8     | 0.3  | 0  | 0   | 1   | 0   | 2,996 |
| Mariakani     | 273   | 9.4  | 807   | 27.7 | 602   | 20.6 | 1,189 | 40.8 | 4     | 0.1  | 39    | 1.3  | 1     | 0    | 1  | 0   | 1   | 0   | 2,917 |
| Eldama Ravin  | 443   | 15.5 | 204   | 7.1  | 1,277 | 44.7 | 144   | 5    | 724   | 25.3 | 40    | 1.4  | 0     | 0    | 6  | 0.2 | 19  | 0.7 | 2,857 |

|              |       |      |       |      |       |      |       |      |    |     |     |     |       |      |   |     |    |     |       |
|--------------|-------|------|-------|------|-------|------|-------|------|----|-----|-----|-----|-------|------|---|-----|----|-----|-------|
| Marsabit     | 36    | 1.3  | 416   | 15   | 972   | 35   | 1,146 | 41.3 | 93 | 3.3 | 107 | 3.9 | 6     | 0.2  | 0 | 0   | 2  | 0.1 | 2,778 |
| Lamu         | 420   | 15.6 | 1,401 | 52.1 | 136   | 5.1  | 699   | 26   | 5  | 0.2 | 1   | 0   | 7     | 0.3  | 0 | 0   | 19 | 0.7 | 2,688 |
| Kimilili     | 164   | 6.2  | 748   | 28.2 | 1,408 | 53.1 | 311   | 11.7 | 6  | 0.2 | 6   | 0.2 | 4     | 0.2  | 3 | 0.1 | 1  | 0   | 2,651 |
| Msambweni    | 688   | 26.2 | 319   | 12.2 | 1,053 | 40.2 | 494   | 18.8 | 17 | 0.6 | 12  | 0.5 | 15    | 0.6  | 0 | 0   | 23 | 0.9 | 2,621 |
| Tala/Kangund | 2,139 | 82.7 | 355   | 13.7 | 8     | 0.3  | 68    | 2.6  | 1  | 0   | 10  | 0.4 | 1     | 0    | 2 | 0.1 | 1  | 0   | 2,585 |
| Hola         | 26    | 1.2  | 464   | 20.8 | 992   | 44.4 | 535   | 23.9 | 8  | 0.4 | 17  | 0.8 | 187   | 8.4  | 4 | 0.2 | 1  | 0   | 2,234 |
| Matuu        | 1,550 | 79.3 | 401   | 20.5 | 0     | 0    | 1     | 0.1  | 0  | 0   | 0   | 0   | 0     | 0    | 1 | 0.1 | 1  | 0.1 | 1,954 |
| Elwak        | 378   | 20.7 | 11    | 0.6  | 10    | 0.5  | 125   | 6.9  | 55 | 3   | 6   | 0.3 | 1,238 | 67.9 | 0 | 0   | 0  | 0   | 1,823 |
| Moyale.      | 37    | 2.1  | 551   | 30.7 | 259   | 14.4 | 886   | 49.4 | 17 | 0.9 | 19  | 1.1 | 12    | 0.7  | 3 | 0.2 | 10 | 0.6 | 1,794 |
| Mtito-Andei  | 28    | 1.7  | 1,390 | 85.9 | 120   | 7.4  | 57    | 3.5  | 6  | 0.4 | 14  | 0.9 | 2     | 0.1  | 1 | 0.1 | 0  | 0   | 1,618 |

**Table.B5: Distribution of Households by type of Floor material in selected Towns**

| Town           | Cement  |      | Tiles  |     | Wood   |     | Ether  |      | Other  |     | Total   |
|----------------|---------|------|--------|-----|--------|-----|--------|------|--------|-----|---------|
|                | Number  | %    | Number | %   | Number | %   | Number | %    | Number | %   |         |
| Nairobi        | 496,613 | 77.2 | 33,468 | 5.2 | 12,877 | 2.0 | 98,012 | 15.2 | 1,936  | 0.3 | 642,906 |
| Mombasa        | 141,488 | 77.8 | 3,711  | 2.0 | 631    | 0.3 | 35,303 | 19.4 | 716    | 0.4 | 181,849 |
| Nakuru         | 54,521  | 82.8 | 1,128  | 1.7 | 531    | 0.8 | 9,524  | 14.5 | 109    | 0.2 | 65,813  |
| Kisumu         | 40,634  | 79.7 | 1,119  | 2.2 | 130    | 0.3 | 8,966  | 17.6 | 131    | 0.3 | 50,980  |
| Eldoret        | 32,811  | 67.8 | 1,201  | 2.5 | 368    | 0.8 | 13,980 | 28.9 | 60     | 0.1 | 48,420  |
| Thika          | 17,427  | 64.5 | 370    | 1.4 | 75     | 0.3 | 9,006  | 33.3 | 140    | 0.5 | 27,018  |
| Ruiru          | 22,895  | 89.6 | 454    | 1.8 | 63     | 0.2 | 2,101  | 8.2  | 37     | 0.1 | 25,550  |
| Nyeri          | 11,180  | 71.9 | 241    | 1.6 | 144    | 0.9 | 3,959  | 25.5 | 19     | 0.1 | 15,543  |
| Malindi        | 11,023  | 72.9 | 197    | 1.3 | 23     | 0.2 | 3,823  | 25.3 | 63     | 0.4 | 15,129  |
| Kakamega       | 10,020  | 68.7 | 128    | 0.9 | 49     | 0.3 | 4,384  | 30.1 | 7      | 0.0 | 14,588  |
| Kitale         | 8,406   | 68.1 | 127    | 1.0 | 112    | 0.9 | 3,632  | 29.4 | 60     | 0.5 | 12,337  |
| Meru           | 9,737   | 79.2 | 97     | 0.8 | 49     | 0.4 | 2,390  | 19.5 | 14     | 0.1 | 12,287  |
| Ukunda         | 9,361   | 77.1 | 146    | 1.2 | 18     | 0.1 | 2,582  | 21.3 | 27     | 0.2 | 12,134  |
| Bungoma        | 7,632   | 72.4 | 42     | 0.4 | 18     | 0.2 | 2,851  | 27.0 | 5      | 0.0 | 10,548  |
| Ongata Rongai  | 8,533   | 80.9 | 138    | 1.3 | 34     | 0.3 | 1,819  | 17.2 | 23     | 0.2 | 10,547  |
| Naivasha       | 8,348   | 81.7 | 92     | 0.9 | 35     | 0.3 | 1,737  | 17.0 | 9      | 0.1 | 10,221  |
| Mumias         | 7,070   | 69.2 | 62     | 0.6 | 12     | 0.1 | 3,061  | 30.0 | 5      | 0.0 | 10,210  |
| Embu           | 8,833   | 88.9 | 84     | 0.8 | 21     | 0.2 | 983    | 9.9  | 19     | 0.2 | 9,940   |
| Garissa        | 6,963   | 71.7 | 88     | 0.9 | 19     | 0.2 | 2,596  | 26.7 | 39     | 0.4 | 9,705   |
| Nanyuki        | 5,972   | 63.2 | 271    | 2.9 | 104    | 1.1 | 3,092  | 32.7 | 13     | 0.1 | 9,452   |
| Machakos       | 7,751   | 91.7 | 143    | 1.7 | 25     | 0.3 | 520    | 6.1  | 17     | 0.2 | 8,456   |
| Kericho        | 7,107   | 85.8 | 88     | 1.1 | 61     | 0.7 | 1,000  | 12.1 | 30     | 0.4 | 8,286   |
| Homa Bay       | 6,274   | 80.2 | 62     | 0.8 | 9      | 0.1 | 1,467  | 18.8 | 9      | 0.1 | 7,821   |
| Migori         | 5,737   | 74.7 | 24     | 0.3 | 5      | 0.1 | 1,881  | 24.5 | 29     | 0.4 | 7,676   |
| Busia          | 5,924   | 77.4 | 37     | 0.5 | 16     | 0.2 | 1,666  | 21.8 | 13     | 0.2 | 7,656   |
| Mavoko         | 6,941   | 91.4 | 80     | 1.1 | 42     | 0.6 | 502    | 6.6  | 28     | 0.4 | 7,593   |
| Nyahururu      | 5,147   | 69.0 | 56     | 0.8 | 59     | 0.8 | 2,189  | 29.3 | 10     | 0.1 | 7,461   |
| Kilifi         | 4,367   | 59.5 | 53     | 0.7 | 5      | 0.1 | 2,884  | 39.3 | 33     | 0.4 | 7,342   |
| Narok          | 4,154   | 61.4 | 45     | 0.7 | 23     | 0.3 | 2,539  | 37.5 | 7      | 0.1 | 6,768   |
| Elburgon       | 1,854   | 29.6 | 7      | 0.1 | 251    | 4.0 | 4,150  | 66.2 | 3      | 0.0 | 6,265   |
| Molo           | 3,996   | 65.3 | 25     | 0.4 | 136    | 2.2 | 1,959  | 32.0 | 5      | 0.1 | 6,121   |
| Kisii          | 4,881   | 83.0 | 91     | 1.5 | 26     | 0.4 | 861    | 14.6 | 21     | 0.4 | 5,880   |
| Mtwapa         | 4,540   | 80.9 | 69     | 1.2 | 5      | 0.1 | 975    | 17.4 | 25     | 0.4 | 5,614   |
| Gilgil         | 4,508   | 80.6 | 94     | 1.7 | 79     | 1.4 | 903    | 16.1 | 11     | 0.2 | 5,595   |
| Webuye         | 4,241   | 82.2 | 57     | 1.1 | 15     | 0.3 | 845    | 16.4 | 4      | 0.1 | 5,162   |
| Mandera        | 1,936   | 37.6 | 12     | 0.2 | 12     | 0.2 | 3,187  | 61.8 | 7      | 0.1 | 5,154   |
| Karuri         | 3,466   | 68.7 | 35     | 0.7 | 32     | 0.6 | 1,507  | 29.9 | 7      | 0.1 | 5,047   |
| Isiolo         | 3,669   | 73.9 | 57     | 1.1 | 20     | 0.4 | 1,213  | 24.4 | 5      | 0.1 | 4,964   |
| Kerugoya/Kutus | 4,080   | 84.2 | 68     | 1.4 | 30     | 0.6 | 655    | 13.5 | 14     | 0.3 | 4,847   |
| Kapsabet       | 3,419   | 70.7 | 19     | 0.4 | 25     | 0.5 | 1,365  | 28.2 | 7      | 0.1 | 4,835   |
| Njoro          | 2,248   | 46.8 | 7      | 0.1 | 29     | 0.6 | 2,515  | 52.4 | 5      | 0.1 | 4,804   |
| Voi            | 3,693   | 78.0 | 26     | 0.5 | 2      | 0.0 | 1,008  | 21.3 | 5      | 0.1 | 4,734   |
| Vihiga         | 2,344   | 52.3 | 22     | 0.5 | 7      | 0.2 | 2,106  | 47.0 | 3      | 0.1 | 4,482   |
| Kiambu         | 3,720   | 88.4 | 95     | 2.3 | 10     | 0.2 | 379    | 9.0  | 3      | 0.1 | 4,207   |
| Awendo         | 2,800   | 70.2 | 36     | 0.9 | 62     | 1.6 | 1,082  | 27.1 | 10     | 0.3 | 3,990   |
| Maralal        | 1,749   | 44.0 | 11     | 0.3 | 7      | 0.2 | 2,181  | 54.9 | 23     | 0.6 | 3,971   |
| Muhoroni       | 2,811   | 71.2 | 43     | 1.1 | 20     | 0.5 | 1,059  | 26.8 | 14     | 0.4 | 3,947   |

|               |       |      |    |     |        |     |       |      |    |     |       |
|---------------|-------|------|----|-----|--------|-----|-------|------|----|-----|-------|
| Muranga       | 3,255 | 83.3 | 39 | 1.0 | 10     | 0.3 | 604   | 15.5 | 1  | 0.0 | 3,909 |
|               | 1,692 | 44.9 | 17 | 0.5 | Kakadu | 1.1 | 2,014 | 53.5 | 5  | 0.1 | 3,768 |
| Wajir         | 1,734 | 47.6 | 14 | 0.4 | 6      | 0.2 | 1,887 | 51.8 | 4  | 0.1 | 3,645 |
| Siaya         | 3,013 | 86.8 | 19 | 0.5 | 17     | 0.5 | 413   | 11.9 | 10 | 0.3 | 3,472 |
| Kitui         | 3,247 | 93.7 | 34 | 1.0 | 5      | 0.1 | 177   | 5.1  | 2  | 0.1 | 3,465 |
| Ngong         | 2,073 | 60.1 | 62 | 1.8 | 28     | 0.8 | 1,278 | 37.1 | 7  | 0.2 | 3,448 |
| Lodwar        | 2,042 | 61.6 | 25 | 0.8 | 4      | 0.1 | 1,240 | 37.4 | 5  | 0.2 | 3,316 |
| Taveta        | 1,906 | 57.5 | 4  | 0.1 | 1      | 0.0 | 1,397 | 42.2 | 4  | 0.1 | 3,312 |
| Mwingi        | 3,046 | 93.6 | 35 | 1.1 | 3      | 0.1 | 165   | 5.1  | 7  | 0.2 | 3,256 |
| Kapenguria    | 2,528 | 78.6 | 11 | 0.3 | 5      | 0.2 | 671   | 20.9 | 0  | 0.0 | 3,215 |
| Lokiachoggio  | 687   | 22.1 | 5  | 0.2 | 12     | 0.4 | 2,392 | 77.0 | 11 | 0.4 | 3,107 |
| Maua          | 2,791 | 90.0 | 6  | 0.2 | 30     | 1.0 | 265   | 8.5  | 10 | 0.3 | 3,102 |
| Kehancha      | 1,892 | 63.2 | 35 | 1.2 | 8      | 0.3 | 1,059 | 35.3 | 2  | 0.1 | 2,996 |
| Mariakani     | 2,310 | 79.2 | 9  | 0.3 | 2      | 0.1 | 581   | 19.9 | 15 | 0.5 | 2,917 |
| Eldama Ravine | 1,516 | 53.1 | 29 | 1.0 | 35     | 1.2 | 1,269 | 44.4 | 8  | 0.3 | 2,857 |
| Marsabit      | 1,668 | 60.0 | 55 | 2.0 | 4      | 0.1 | 1,047 | 37.7 | 4  | 0.1 | 2,778 |
| Lamu          | 2,416 | 89.9 | 12 | 0.4 | 4      | 0.1 | 254   | 9.4  | 2  | 0.1 | 2,688 |
| Kimilili      | 1,335 | 50.4 | 6  | 0.2 | 5      | 0.2 | 1,245 | 47.0 | 60 | 2.3 | 2,651 |
| Msambweni     | 1,014 | 38.7 | 4  | 0.2 | 3      | 0.1 | 1,600 | 61.0 | 0  | 0.0 | 2,621 |
| Tala/Kangundo | 2,388 | 92.4 | 5  | 0.2 | 2      | 0.1 | 188   | 7.3  | 2  | 0.1 | 2,585 |
| Hola          | 1,115 | 49.9 | 9  | 0.4 | 0      | 0.0 | 1,109 | 49.6 | 1  | 0.0 | 2,234 |
| Matuu         | 1,904 | 97.4 | 7  | 0.4 | 0      | 0.0 | 43    | 2.2  | 0  | 0.0 | 1,954 |
| Elwak         | 358   | 19.6 | 1  | 0.1 | 0      | 0.0 | 1,464 | 80.3 | 0  | 0.0 | 1,823 |
| Moyale        | 1,432 | 79.8 | 72 | 4.0 | 2      | 0.1 | 287   | 16.0 | 1  | 0.1 | 1,794 |
| Mtito-Andei   | 1,535 | 94.9 | 11 | 0.7 | 2      | 0.1 | 62    | 3.8  | 8  | 0.5 | 1,618 |

**Table B6: Distribution of Households by Main Source of Water in Selected Towns**

| Town          | Pond   |     | Dam    |     | Lake   |      | River  |      | Spring |      | Well   |      | Borehole |      | Piped   |      | Tank/Jabia |     | Other  |      | Total   |
|---------------|--------|-----|--------|-----|--------|------|--------|------|--------|------|--------|------|----------|------|---------|------|------------|-----|--------|------|---------|
|               | Number | %   | Number | %   | Number | %    | Number | %    | Number | %    | Number | %    | Number   | %    | Number  | %    | Number     | %   | Number | %    |         |
| Nairobi       | 5,932  | 0.9 | 1,485  | 0.2 | 2,017  | 0.3  | 1,883  | 0.3  | 2,427  | 0.4  | 2,561  | 0.4  | 10,048   | 1.6  | 584,955 | 91   | 6,417      | 1   | 25,181 | 3.9  | 642,906 |
| Mombasa       | 1,364  | 0.8 | 558    | 0.3 | 394    | 0.2  | 548    | 0.3  | 1,076  | 0.6  | 6,083  | 3.3  | 6,701    | 3.7  | 144,188 | 79.3 | 1,391      | 0.8 | 19,546 | 10.7 | 181,849 |
| Nakuru        | 422    | 0.6 | 134    | 0.2 | 114    | 0.2  | 663    | 1    | 233    | 0.4  | 114    | 0.2  | 801      | 1.2  | 60,278  | 91.6 | 651        | 1   | 2,403  | 3.7  | 65,813  |
| Kisumu        | 379    | 0.7 | 171    | 0.3 | 373    | 0.7  | 926    | 1.8  | 439    | 0.9  | 5,017  | 9.8  | 4,912    | 9.6  | 29,717  | 58.3 | 383        | 0.8 | 8,663  | 1.7  | 50,980  |
| Eldoret       | 417    | 0.9 | 108    | 0.2 | 126    | 0.3  | 398    | 0.8  | 543    | 1.1  | 12,586 | 26   | 3,816    | 7.9  | 29,333  | 60.6 | 157        | 0.3 | 936    | 1.9  | 48,420  |
| Thika         | 386    | 1.4 | 90     | 0.3 | 184    | 0.7  | 488    | 1.8  | 493    | 1.8  | 339    | 1.3  | 283      | 1    | 23,651  | 87.5 | 197        | 0.7 | 907    | 3.4  | 27,018  |
| Ruiru         | 588    | 2.3 | 122    | 0.5 | 140    | 0.5  | 232    | 0.9  | 145    | 0.6  | 3,090  | 12.1 | 6 286    | 24.6 | 13,550  | 53   | 252        | 1   | 1,145  | 4.5  | 25,550  |
| Nyeri         | 120    | 0.8 | 29     | 0.2 | 20     | 0.1  | 976    | 6.3  | 89     | 0.6  | 22     | 0.1  | 13       | 0.1  | 13,955  | 89.8 | 64         | 0.4 | 255    | 1.6  | 15,543  |
| Malindi       | 86     | 0.6 | 43     | 0.3 | 32     | 0.2  | 34     | 0.2  | 278    | 1.8  | 463    | 3.1  | 213      | 1.4  | 13,680  | 90.4 | 133        | 0.9 | 167    | 1.1  | 15,129  |
| Kakamega      | 378    | 2.6 | 54     | 0.4 | 34     | 0.2  | 2,374  | 16.3 | 1,343  | 9.2  | 257    | 1.8  | 277      | 1.9  | 9,627   | 66   | 52         | 0.4 | 192    | 1.3  | 14,588  |
| Kitale        | 54     | 0.4 | 27     | 0.2 | 27     | 0.2  | 978    | 7.9  | 798    | 6.5  | 647    | 5.2  | 447      | 3.6  | 9,201   | 74.6 | 33         | 0.3 | 125    | 1    | 12,337  |
| Meru          | 208    | 1.7 | 18     | 0.1 | 15     | 0.1  | 771    | 6.3  | 256    | 2.1  | 143    | 1.2  | 6        | 0    | 10,532  | 85.7 | 16         | 0.1 | 322    | 2.6  | 12,287  |
| Ukunda        | 83     | 0.7 | 44     | 0.4 | 7      | 0.1  | 33     | 0.3  | 25     | 0.2  | 904    | 7.5  | 5,134    | 42.3 | 5,548   | 45.7 | 68         | 0.6 | 288    | 2.4  | 12,134  |
| Bungoma       | 96     | 0.9 | 16     | 0.2 | 21     | 0.2  | 487    | 4.6  | 511    | 4.8  | 1,973  | 18.7 | 1,555    | 14.7 | 5,649   | 53.6 | 49         | 0.5 | 191    | 1.8  | 10,548  |
| Ongata Rongai | 266    | 2.5 | 24     | 0.2 | 33     | 0.3  | 89     | 0.8  | 48     | 0.5  | 68     | 0.6  | 3,134    | 29.7 | 3,293   | 31.2 | 95         | 0.9 | 3,497  | 33.2 | 10,547  |
| Naivasha      | 107    | 1   | 27     | 0.3 | 45     | 0.4  | 12     | 0.1  | 59     | 0.6  | 509    | 5    | 5,556    | 54.4 | 3,469   | 33.9 | 114        | 1.1 | 323    | 3.2  | 10,221  |
| Mumias        | 24     | 0.2 | 17     | 0.2 | 15     | 0.1  | 1,176  | 11.5 | 698    | 6.8  | 472    | 4.6  | 1,372    | 13.4 | 6,309   | 61.8 | 15         | 0.1 | 112    | 1.1  | 10,210  |
| Embu          | 138    | 1.4 | 31     | 0.3 | 3      | 0    | 340    | 3.4  | 45     | 0.5  | 65     | 0.7  | 46       | 0.5  | 8,999   | 90.5 | 48         | 0.5 | 225    | 2.3  | 9,940   |
| Garissa       | 133    | 1.4 | 30     | 0.3 | 15     | 0.2  | 3,784  | 3.9  | 33     | 0.3  | 27     | 0.3  | 42       | 0.4  | 4,992   | 51.4 | 270        | 2.8 | 379    | 3.9  | 9,705   |
| Nanyuki       | 78     | 0.8 | 14     | 0.1 | 11     | 0.1  | 862    | 9.1  | 23     | 0.2  | 11     | 0.1  | 10       | 0.1  | 8,025   | 84.9 | 7          | 0.1 | 411    | 4.3  | 9,452   |
| Machakos      | 121    | 1.4 | 20     | 0.2 | 13     | 0.2  | 27     | 0.3  | 37     | 0.4  | 27     | 0.3  | 24       | 0.3  | 7,817   | 92.4 | 12         | 0.1 | 358    | 4.2  | 8,456   |
| Kericho       | 45     | 0.5 | 13     | 0.2 | 27     | 0.3  | 207    | 2.5  | 29     | 0.3  | 36     | 0.4  | 15       | 0.2  | 7,744   | 93.5 | 34         | 0.4 | 136    | 1.6  | 8,286   |
| Homa Bay      | 28     | 0.4 | 43     | 0.5 | 1,660  | 21.2 | 619    | 7.9  | 98     | 1.3  | 23     | 0.3  | 38       | 0.5  | 5,100   | 65.2 | 64         | 0.8 | 148    | 1.9  | 7,821   |
| Migori        | 64     | 0.8 | 92     | 1.2 | 16     | 0.2  | 1,655  | 21.6 | 1,108  | 14.4 | 1,222  | 15.9 | 599      | 7.8  | 2,651   | 34.5 | 41         | 0.5 | 228    | 3    | 7,676   |
| Busia         | 21     | 0.3 | 18     | 0.2 | 4      | 0.1  | 1,277  | 16.7 | 404    | 5.3  | 1,484  | 19.4 | 1,614    | 21.1 | 2,639   | 34.5 | 15         | 0.2 | 180    | 2.4  | 7,656   |
| Mavoko        | 69     | 0.9 | 15     | 0.2 | 14     | 0.2  | 40     | 0.5  | 37     | 0.5  | 30     | 0.4  | 14       | 0.2  | 7,243   | 95.4 | 31         | 0.4 | 100    | 1.3  | 7,593   |
| Nyahururu     | 71     | 1   | 9      | 0.1 | 12     | 0.2  | 788    | 10.6 | 328    | 4.4  | 99     | 1.3  | 154      | 2.1  | 5,871   | 78.7 | 20         | 0.3 | 109    | 1.5  | 7,461   |
| Kilifi        | 32     | 0.4 | 21     | 0.3 | 20     | 0.3  | 33     | 0.4  | 96     | 1.3  | 46     | 0.6  | 9        | 0.1  | 6,920   | 94.3 | 54         | 0.7 | 111    | 1.5  | 7,342   |
| Narok         | 62     | 0.9 | 105    | 1.6 | 8      | 0.1  | 951    | 14.1 | 43     | 0.6  | 34     | 0.5  | 28       | 0.4  | 4,542   | 67.1 | 348        | 5.1 | 647    | 9.6  | 6,768   |
| Elburgon      | 26     | 0.4 | 254    | 4.1 | 14     | 0.2  | 1,270  | 20.3 | 179    | 2.9  | 173    | 2.8  | 668      | 10.7 | 3,237   | 51.7 | 77         | 1.2 | 367    | 5.9  | 6,265   |

|                |     |     |     |      |    |     |       |      |       |      |       |      |       |      |       |      |     |     |       |      |       |
|----------------|-----|-----|-----|------|----|-----|-------|------|-------|------|-------|------|-------|------|-------|------|-----|-----|-------|------|-------|
| Molo           | 28  | 0.5 | 52  | 0.8  | 6  | 0.1 | 2,280 | 37.2 | 79    | 1.3  | 609   | 9.9  | 354   | 5.8  | 2,309 | 37.7 | 247 | 4   | 157   | 2.6  | 6,121 |
| Kisii          | 39  | 0.7 | 17  | 0.3  | 3  | 0.1 | 1,868 | 31.8 | 567   | 9.6  | 109   | 1.9  | 26    | 0.4  | 2,809 | 47.8 | 114 | 1.9 | 328   | 5.6  | 5,880 |
| Mtwapa         | 20  | 0.4 | 9   | 0.2  | 4  | 0.1 | 5     | 0.1  | 5     | 0.1  | 2,254 | 40.1 | 1,913 | 34.1 | 1,293 | 23   | 6   | 0.1 | 105   | 1.9  | 5,614 |
| Gilgil         | 28  | 0.5 | 10  | 0.2  | 6  | 0.1 | 168   | 3    | 24    | 0.4  | 8     | 0.1  | 9     | 0.2  | 5,088 | 90.9 | 35  | 0.6 | 219   | 3.9  | 5,595 |
| Webuye         | 21  | 0.4 | 17  | 0.3  | 14 | 0.3 | 173   | 3.4  | 160   | 3.1  | 172   | 3.3  | 1,192 | 23.1 | 3,353 | 65   | 14  | 0.3 | 46    | 0.9  | 5,162 |
| Mandera        | 17  | 0.3 | 52  | 1    | 9  | 0.2 | 900   | 17.5 | 4     | 0.1  | 521   | 10.1 | 30    | 0.6  | 3,136 | 60.8 | 83  | 1.6 | 402   | 7.8  | 5,154 |
| Karuri         | 96  | 1.9 | 22  | 0.4  | 6  | 0.1 | 517   | 10.2 | 82    | 1.6  | 555   | 11   | 2,732 | 54.1 | 658   | 13   | 99  | 2   | 280   | 5.5  | 5,047 |
| Isiolo         | 25  | 0.5 | 5   | 0.1  | 21 | 0.4 | 30    | 0.6  | 22    | 0.4  | 18    | 0.4  | 30    | 0.6  | 4,688 | 94.4 | 28  | 0.6 | 97    | 2    | 4,964 |
| Kerugoya/Kutus | 74  | 1.5 | 11  | 0.2  | 27 | 0.6 | 676   | 13.9 | 262   | 5.4  | 52    | 1.1  | 72    | 1.5  | 3,523 | 72.7 | 11  | 0.2 | 139   | 2.9  | 4,847 |
| Kapsabet       | 122 | 2.5 | 14  | 0.3  | 4  | 0.1 | 2,551 | 52.8 | 773   | 16   | 146   | 3    | 95    | 2    | 981   | 20.3 | 72  | 1.5 | 77    | 1.6  | 4,835 |
| Njoro          | 5   | 0.1 | 3   | 0.1  | 1  | 0   | 1,986 | 41.3 | 3     | 0.1  | 1     | 0    | 1,021 | 21.3 | 630   | 13.1 | 105 | 2.2 | 1,049 | 21.8 | 4,804 |
| Voi            | 16  | 0.3 | 9   | 0.2  | 8  | 0.2 | 17    | 0.4  | 5     | 0.1  | 12    | 0.3  | 3     | 0.1  | 4,622 | 97.6 | 14  | 0.3 | 28    | 0.6  | 4,734 |
| Vihiga         | 4   | 0.1 | 8   | 0.2  | 3  | 0.1 | 560   | 12.5 | 2,146 | 47.9 | 115   | 2.6  | 19    | 0.4  | 1,511 | 33.7 | 69  | 1.5 | 47    | 1    | 4,482 |
| Kiambu         | 50  | 1.2 | 497 | 11.8 | 18 | 0.4 | 696   | 16.5 | 36    | 0.9  | 189   | 4.5  | 1,158 | 27.5 | 1,295 | 30.8 | 31  | 0.7 | 237   | 5.6  | 4,207 |
| Awendo         | 33  | 0.8 | 11  | 0.3  | 2  | 0.1 | 884   | 22.2 | 635   | 15.9 | 449   | 11.3 | 705   | 17.7 | 1,202 | 30.1 | 12  | 0.3 | 57    | 1.4  | 3,990 |
| Maralal        | 8   | 0.2 | 98  | 2.5  | 7  | 0.2 | 135   | 3.4  | 15    | 0.4  | 132   | 3.3  | 518   | 13   | 2,518 | 63.4 | 125 | 3.1 | 415   | 10.5 | 3,971 |
| Muhoroni       | 27  | 0.7 | 16  | 0.4  | 29 | 0.7 | 902   | 22.9 | 21    | 0.5  | 6     | 0.2  | 15    | 0.4  | 2,869 | 72.7 | 32  | 0.8 | 30    | 0.8  | 3,947 |
| Muranga        | 34  | 0.9 | 9   | 0.2  | 13 | 0.3 | 16    | 0.4  | 12    | 0.3  | 61    | 1.6  | 79    | 2    | 3,643 | 93.2 | 16  | 0.4 | 26    | 0.7  | 3,909 |
|                | 106 | 2.8 | 445 | 11.8 | 6  | 0.2 | 871   | 23.1 | 131   | 3.5  | 445   | 11.8 | 201   | 5.3  | 1,224 | 32.5 | 304 | 8.1 | 35    | 0.9  | 3,768 |
| Wajir          | 18  | 0.5 | 3   | 0.1  | 2  | 0.1 | 7     | 0.2  | 13    | 0.4  | 3,378 | 92.7 | 25    | 0.7  | 99    | 2.7  | 1   | 0   | 99    | 2.7  | 3,645 |
| Siaya          | 57  | 1.6 | 312 | 9    | 7  | 0.2 | 544   | 15.7 | 44    | 1.3  | 195   | 5.6  | 620   | 17.9 | 1,609 | 46.3 | 44  | 1.3 | 40    | 1.2  | 3,472 |
| Kitui          | 68  | 2   | 6   | 0.2  | 5  | 0.1 | 419   | 12.1 | 12    | 0.3  | 823   | 23.8 | 292   | 8.4  | 1,727 | 49.8 | 26  | 0.8 | 87    | 2.5  | 3,465 |
| Ngong          | 58  | 1.7 | 22  | 0.6  | 18 | 0.5 | 4     | 0.1  | 724   | 21   | 16    | 0.5  | 1,452 | 42.1 | 989   | 28.7 | 40  | 1.2 | 125   | 3.6  | 3,448 |
| Lodwar         | 52  | 1.6 | 9   | 0.3  | 4  | 0.1 | 78    | 2.4  | 6     | 0.2  | 36    | 1.1  | 109   | 3.3  | 2,851 | 86   | 5   | 0.2 | 166   | 5    | 3,316 |
| Taveta         | 2   | 0.1 | 4   | 0.1  | 7  | 0.2 | 4     | 0.1  | 9     | 0.3  | 3     | 0.1  | 2     | 0.1  | 3,245 | 98   | 14  | 0.4 | 22    | 0.7  | 3,312 |
| Mw ingi        | 57  | 1.8 | 33  | 1    | 57 | 1.8 | 95    | 2.9  | 14    | 0.4  | 215   | 6.6  | 16    | 0.5  | 2,657 | 81.6 | 35  | 1.1 | 77    | 2.4  | 3,256 |
| Kapenguria     | 7   | 0.2 | 3   | 0.1  | 2  | 0.1 | 1,278 | 39.8 | 226   | 7    | 24    | 0.7  | 25    | 0.8  | 1,586 | 49.3 | 21  | 0.7 | 43    | 1.3  | 3,215 |
| Lokiachoggio   | 17  | 0.5 | 0   | 0    | 1  | 0   | 6     | 0.2  | 49    | 1.6  | 50    | 1.6  | 2,775 | 89.3 | 78    | 2.5  | 30  | 1   | 101   | 3.3  | 3,107 |
| Maua           | 22  | 0.7 | 3   | 0.1  | 8  | 0.3 | 238   | 7.7  | 18    | 0.6  | 33    | 1.1  | 38    | 1.2  | 2,696 | 86.9 | 4   | 0.1 | 42    | 1.4  | 3,102 |
| Kehancha       | 45  | 1.5 | 48  | 1.6  | 4  | 0.1 | 1,006 | 33.6 | 190   | 6.3  | 861   | 28.7 | 483   | 16.1 | 177   | 5.9  | 7   | 0.2 | 175   | 5.8  | 2,996 |
| Mariakam       | 27  | 0.9 | 8   | 0.3  | 5  | 0.2 | 12    | 0.4  | 109   | 3.7  | 0     | 0    | 2     | 0.1  | 2,716 | 93.1 | 4   | 0.1 | 34    | 1.2  | 2,917 |

|               |     |     |    |     |    |     |       |      |     |      |       |      |     |      |       |      |    |     |     |     |       |
|---------------|-----|-----|----|-----|----|-----|-------|------|-----|------|-------|------|-----|------|-------|------|----|-----|-----|-----|-------|
| Eldama Ravine | 11  | 0.4 | 2  | 0.1 | 2  | 0.1 | 428   | 15   | 8   | 0.3  | 8     | 0.3  | 14  | 0.5  | 2,294 | 80.3 | 18 | 0.6 | 72  | 2.5 | 2,857 |
| Marsabit      | 8   | 0.3 | 2  | 0.1 | 7  | 0.3 | 7     | 0.3  | 420 | 15.1 | 251   | 9    | 92  | 3.3  | 1,861 | 67   | 44 | 1.6 | 86  | 3.1 | 2,778 |
| Lamu          | 5   | 0.2 | 4  | 0.1 | 3  | 0.1 | 11    | 0.4  | 5   | 0.2  | 1,127 | 41.9 | 4   | 0.1  | 1,492 | 55.5 | 7  | 0.3 | 30  | 1.1 | 2,688 |
| Kimilili      | 13  | 0.5 | 3  | 0.1 | 2  | 0.1 | 28    | 1.1  | 69  | 2.6  | 144   | 5.4  | 12  | 0.5  | 2,343 | 88.4 | 5  | 0.2 | 32  | 1.2 | 2,651 |
| Msambweni     | 15  | 0.6 | 3  | 0.1 | 11 | 0.4 | 96    | 3.7  | 14  | 0.5  | 227   | 8.7  | 988 | 37.7 | 1,221 | 46.6 | 2  | 0.1 | 44  | 1.7 | 2,621 |
| Tala/Kangundo | 171 | 6.6 | 7  | 0.3 | 13 | 0.5 | 19    | 0.7  | 339 | 13.1 | 612   | 23.7 | 433 | 16.8 | 871   | 33.7 | 14 | 0.5 | 106 | 4.1 | 2,585 |
| Hola          | 10  | 0.4 | 0  | 0   | 2  | 0.1 | 1,203 | 53.8 | 2   | 0.1  | 53    | 2.4  | 2   | 0.1  | 890   | 39.8 | 8  | 0.4 | 64  | 2.9 | 2,234 |
| Matuu         | 26  | 1.3 | 23 | 1.2 | 10 | 0.5 | 7     | 0.4  | 68  | 3.5  | 7     | 0.4  | 6   | 0.3  | 1,744 | 89.3 | 10 | 0.5 | 53  | 2.7 | 1,954 |
| Elwak         | 32  | 1.8 | 0  | 0   | 4  | 0.2 | 4     | 0.2  | 3   | 0.2  | 1,732 | 95   | 3   | 0.2  | 8     | 0.4  | 2  | 0.1 | 35  | 1.9 | 1,823 |
| Moyale        | 59  | 3.3 | 78 | 4.3 | 0  | 0   | 98    | 5.5  | 4   | 0.2  | 1,160 | 64.7 | 236 | 13.2 | 74    | 4.1  | 17 | 0.9 | 68  | 3.8 | 1,794 |
| Mtito-Andei   | 14  | 0.9 | 2  | 0.1 | 8  | 0.5 | 113   | 7    | 125 | 7.7  | 2     | 0.1  | 9   | 0.6  | 1,324 | 81.8 | 4  | 0.2 | 17  | 1.1 | 1,618 |

**Table B7: Distribution of Households by Main Type of Human Waste Disposal in Selected Towns**

| Town           | Main Sewer |      | Septic Tank |      | Cess Pool |     | Pit Latrine |      | Bucket Latrine |     | Bush   |      | Other  |     | Total   |
|----------------|------------|------|-------------|------|-----------|-----|-------------|------|----------------|-----|--------|------|--------|-----|---------|
|                | Number     | %    | Number      | %    | Number    | %   | Number      | %    | Number         | %   | Number | %    | Number | %   |         |
| Nairobi        | 310,201    | 48.2 | 33,134      | 5.2  | 9,650     | 1.5 | 270,481     | 42.1 | 4,531          | 0.7 | 6,784  | 1.1  | 8,125  | 1.3 | 642,906 |
| Mombasa        | 14,853     | 8.2  | 25,786      | 14.2 | 5,101     | 2.8 | 126,410     | 69.5 | 1,419          | 0.8 | 6 047  | 3.3  | 2 233  | 1.2 | 181,849 |
| Nakuru         | 19,474     | 29.6 | 2,632       | 4    | 1,055     | 1.6 | 42,310      | 64.3 | 163            | 0.2 | 80     | 0.1  | 99     | 0.2 | 65,813  |
| Kisumu         | 8,257      | 16.2 | 2,565       | 5    | 228       | 0.4 | 38,274      | 75.1 | 250            | 0.5 | 1,121  | 2.2  | 285    | 0.6 | 50,980  |
| Eldoret        | 9,067      | 18.7 | 3,243       | 6.7  | 225       | 0.5 | 35,392      | 73.1 | 108            | 0.2 | 273    | 0.6  | 112    | 0.2 | 48,420  |
| Thika          | 15,615     | 57.8 | 441         | 1.6  | 22        | 0.1 | 10,710      | 39.6 | 34             | 0.1 | 120    | 0.4  | 76     | 0.3 | 27,018  |
| Ruiru          | 1,481      | 58   | 5,973       | 23.4 | 257       | 1   | 17,590      | 68.8 | 5              | 0   | 25     | 0.1  | 219    | 0.9 | 25,550  |
| Nyeri          | 3,894      | 25.1 | 2,274       | 14.6 | 170       | 1.1 | 9,059       | 58.3 | 82             | 0.5 | 40     | 0.3  | 24     | 0.2 | 15,543  |
| Malindi        | 288        | 1.9  | 4,277       | 28.3 | 523       | 3.5 | 9,477       | 62.6 | 84             | 0.6 | 427    | 2.8  | 53     | 0.4 | 15,129  |
| Kakamega       | 2,380      | 16.3 | 1,028       | 7    | 194       | 1.3 | 10,631      | 72.9 | 44             | 0.3 | 244    | 1.7  | 67     | 0.5 | 14,588  |
| Kitale         | 2,727      | 22.1 | 539         | 4.4  | 100       | 0.8 | 8,675       | 70.3 | 11             | 0.1 | 273    | 2.2  | .12    | 0.1 | 12,337  |
| Meru           | 912        | 7.4  | 1,693       | 13.8 | 47        | 0.4 | 9,504       | 77.4 | 17             | 0.1 | 98     | 0.8  | 16     | 0.1 | 12,287  |
| Ukunda         | 338        | 2.8  | 658         | 5.4  | 111       | 0.9 | 9,596       | 79.1 | 195            | 1.6 | 1,139  | 9.4  | 97     | 0.8 | 12,134  |
| Bungoma        | 478        | 4.5  | 725         | 6.9  | 16        | 0.2 | 9,128       | 86.5 | 62             | 0.6 | 63     | 0.6  | 76     | 0.7 | 10,548  |
| Ongata Rongai  | 432        | 4.1  | 1,274       | 12.1 | 65        | 0.6 | 8,565       | 81.2 | 30             | 0.3 | 102    | 1    | 79     | 0.7 | 10,547  |
| Naivasha       | 3,398      | 33.2 | 438         | 4.3  | 42        | 0.4 | 6,097       | 59.7 | 188            | 1.8 | 23     | 0.2  | 35     | 0.3 | 10,221  |
| Mumias         | 2,646      | 25.9 | 278         | 2.7  | 172       | 1.7 | 6,891       | 67.5 | 123            | 1.2 | 70     | 0.7  | 30     | 0.3 | 10,210  |
| Embu           | 2,472      | 24.9 | 1,852       | 18.6 | 63        | 0.6 | 5,434       | 54.7 | 50             | 0.5 | 16     | 0.2  | 53     | 0.5 | 9,940   |
| Garissa        | 1,095      | 11.3 | 191         | 2    | 93        | 1   | 7,614       | 78.5 | 32             | 0.3 | 580    | 6    | 100    | 1   | 9,705   |
| Nanyuki        | 4,991      | 52.8 | 522         | 5.5  | 9         | 0.1 | 3,465       | 36.7 | 412            | 4.4 | 33     | 0.3  | 20     | 0.2 | 9,452   |
| Machakos       | 3,124      | 36.9 | 1,114       | 13.2 | 96        | 1.1 | 3,923       | 46.4 | 109            | 1.3 | 24     | 0.3  | 66     | 0.8 | 8,456   |
| Kericho        | 1,935      | 23.4 | 434         | 5.2  | 116       | 1.4 | 5,616       | 67.8 | 56             | 0.7 | 96     | 1.2  | 33     | 0.4 | 8,286   |
| Homa Bay       | 1,378      | 17.6 | 167         | 2.1  | 34        | 0.4 | 5,687       | 72.7 | 33             | 0.4 | 457    | 5.8  | 65     | 0.8 | 7,821   |
| Migori         | 175        | 2.3  | 102         | 1.3  | 5         | 0.1 | 7,163       | 93.3 | 21             | 0.3 | 201    | 2.6  | 9      | 0.1 | 7,676   |
| Busia          | 468        | 6.1  | 149         | 1.9  | 6         | 0.1 | 6,906       | 90.2 | 16             | 0.2 | 89     | 1.2  | 22     | 0.3 | 7,656   |
| Mavoko         | 3,377      | 44.5 | 301         | 4    | 37        | 0.5 | 3,220       | 42.4 | 63             | 0.8 | 499    | 6.6  | 96     | 1.3 | 7,593   |
| Nyahururu      | 3,591      | 48.1 | 281         | 3.8  | 61        | 0.8 | 3,417       | 45.8 | 60             | 0.8 | 15     | 0.2  | 36     | 0.5 | 7,461   |
| Kilifi         | 151        | 2.1  | 747         | 10.2 | 124       | 1.7 | 5,610       | 76.4 | 105            | 1.4 | 474    | 6.5  | 131    | 1.8 | 7,342   |
| Narok          | 284        | 4.2  | 531         | 7.8  | 8         | 0.1 | 4,680       | 69.1 | 30             | 0.4 | 1,215  | 1.8  | 20     | 0.3 | 6,768   |
| Elburgon       | 101        | 1.6  | 70          | 1.1  | 5         | 0.1 | 6,060       | 96.7 | 23             | 0.4 | 2      | 0    | 4      | 0.1 | 6,265   |
| Molo           | 285        | 4.7  | 252         | 4.1  | 12        | 0.2 | 5,542       | 90.5 | 18             | 0.3 | 2      | 0    | 10     | 0.2 | 6,121   |
| Kisii          | 1,212      | 20.6 | 290         | 4.9  | 14        | 0.2 | 4,190       | 71.3 | 124            | 2.1 | 35     | 0.6  | 15     | 0.3 | 5,880   |
| Mtwapa         | 102        | 1.8  | 977         | 17.4 | 27        | 0.5 | 4 415       | 78.6 | 1              | 0   | 74     | 1.3  | 18     | 0.3 | 5,614   |
| Gilgil         | 1,414      | 25.3 | 907         | 16.2 | 2         | 0   | 3,103       | 55.5 | 13             | 0.2 | 59     | 1.1  | 97     | 1.7 | 5,595   |
| Webuye         | 1,624      | 31.5 | 144         | 2.8  | 2         | 0   | 3,351       | 64.9 | 9              | 0.2 | 16     | 0.3  | 16     | 0.3 | 5,162   |
| Mandera        | 54         | 1    | 64          | 1.2  | 42        | 0.8 | 4,147       | 80.5 | 3              | 0.1 | 645    | 12.5 | 199    | 3.9 | 5,154   |
| Karuri         | 174        | 3.4  | 101         | 2    | 14        | 0.3 | 4,742       | 94   | 3              | 0.1 | 2      | 0    | 11     | 0.2 | 5,047   |
| Isiolo         | 976        | 19.7 | 86          | 1.7  | 22        | 0.4 | 3,763       | 75.8 | 73             | 1.5 | 31     | 0.6  | 13     | 0.3 | 4,964   |
| Kerugoya/Kutus | 275        | 5.7  | 1,738       | 35.9 | 8         | 0.2 | 2,699       | 55.7 | 83             | 1.7 | 5      | 0.1  | 39     | 0.8 | 4,847   |
| Kapsabel       | 229        | 4.7  | 161         | 3.3  | 49        | 1   | 4,368       | 90.3 | 1              | 0   | 23     | 0.5  | 4      | 0.1 | 4,835   |
| Njoro          | 167        | 3.5  | 92          | 1.9  | 8         | 0.2 | 4,528       | 94.3 | 3              | 0.1 | 6      | 0.1  | 0      | 0   | 4,804   |
| Voi            | 341        | 7.2  | 767         | 16.2 | 129       | 2.7 | 3,472       | 73.3 | 1              | 0   | 6      | 0.1  | 18     | 0.4 | 4,734   |
| Vihiga         | 44         | 1    | 57          | 1.3  | 20        | 0.4 | 4,334       | 96.7 | 8              | 0.2 | 12     | 0.3  | 7      | 0.2 | 4,482   |
| Kiambu         | 1,291      | 30.7 | 417         | 9.9  | 6         | 0.1 | 2,470       | 58.7 | 2              | 0   | 4      | 0.1  | 17     | 0.4 | 4,207   |
| Awendo         | 832        | 20.9 | 97          | 2.4  | 5         | 0.1 | 2,862       | 71.7 | 8              | 0.2 | 173    | 4.3  | 13     | 0.3 | 3,990   |

|               |       |      |     |      |    |     |       |      |       |     |       |      |     |     |     |
|---------------|-------|------|-----|------|----|-----|-------|------|-------|-----|-------|------|-----|-----|-----|
| Maralal       | 28    | 0.7  | 184 | 4.6  | 3  | 0.1 | 2,363 | 59.5 | 6     | 0.2 | 1,312 | 3.3  | 75  | 1.9 | 3.9 |
| Muhoroni      | 316   | 8    | 426 | 10.8 | 2  | 0.1 | 2,994 | 75.9 | 11    | 0.3 | 177   | 4.5  | 21  | 0.5 | 3.9 |
| Muranga       | 1,475 | 37.7 | 504 | 12.9 | 45 | 1.2 | 1,768 | 45.2 | 90    | 2.3 | 10    | 0.3  | 17  | 0.4 | 3.9 |
| 01 Kalou      | 230   | 6.1  | 147 | 3.9  | 1  | 0   | 3,356 | 89.1 | 11    | 0.3 | 15    | 0.4  | 8   | 0.2 | 3.7 |
| Wajif         | 38    | 1    | 64  | 1.8  | 16 | 0.4 | 41    | 1.1  | 2,733 | 7.5 | 581   | 15.9 | 172 | 4.7 | 3.6 |
| Siaya         | 226   | 6.5  | 181 | 5.2  | 45 | 1.3 | 2,936 | 84.6 | 51    | 1.5 | 28    | 0.8  | 5   | 0.1 | 3.4 |
| Kitui         | 113   | 3.3  | 447 | 12.9 | 8  | 0.2 | 2,839 | 81.9 | 21    | 0.6 | 31    | 0.9  | 6   | 0.2 | 3.4 |
| Ngong         | 482   | 14   | 634 | 18.4 | 6  | 0.2 | 2,264 | 65.7 | 0     | 0   | 13    | 0.4  | 49  | 1.4 | 3.4 |
| Lodwar        | 72    | 2.2  | 234 | 7.1  | 0  | 0   | 2,249 | 67.8 | 7     | 0.2 | 721   | 21.7 | 33  | 1   | 3.3 |
| Taveta        | 77    | 2.3  | 233 | 7    | 48 | 1.4 | 2,778 | 83.9 | 4     | 0.1 | 169   | 5.1  | 3   | 0.1 | 3.3 |
| Mwingi        | 51    | 1.6  | 34  | 1    | 0  | 0   | 3,095 | 95.1 | 4     | 0.1 | 63    | 1.9  | 9   | 0.3 | 3.2 |
| Kapenguria    | 10    | 0.3  | 62  | 1.9  | 5  | 0.2 | 3,000 | 93.3 | 13    | 0.4 | 122   | 3.8  | 3   | 0.1 | 3.2 |
| Lokiachoggio  | 4     | 0.1  | 5   | 0.2  | 2  | 0.1 | 2,017 | 64.9 | 18    | 0.6 | 1,002 | 32.2 | 59  | 1.9 | 3.1 |
| Maua          | 57    | 1.8  | 231 | 7.4  | 11 | 0.4 | 2,710 | 87.4 | 60    | 1.9 | 24    | 0.8  | 9   | 0.3 | 3.1 |
| Kehancha      | 81    | 2.7  | 47  | 1.6  | 2  | 0.1 | 2,633 | 87.9 | 81    | 2.7 | 146   | 4.9  | 6   | 0.2 | 2.9 |
| Mariakani     | 86    | 2.9  | 348 | 11.9 | 60 | 2.1 | 2,340 | 80.2 | 13    | 0.4 | 49    | 1.7  | 21  | 0.7 | 2.9 |
| Eldama Ravine | 37    | 1.3  | 231 | 8.1  | 71 | 2.5 | 2,474 | 86.6 | 11    | 0.4 | 26    | 0.9  | 7   | 0.2 | 2.8 |
| Marsabit      | 16    | 0.6  | 43  | 1.5  | 1  | 0   | 2,662 | 95.8 | 7     | 0.3 | 32    | 1.2  | 17  | 0.6 | 2.7 |
| Lamu          | 13    | 0.5  | 74  | 2.8  | 5  | 0.2 | 2,563 | 95.3 | 6     | 0.2 | 26    | 1    | 1   | 0   | 2.6 |
| Kimilili      | 36    | 1.4  | 104 | 3.9  | 10 | 0.4 | 2,490 | 93.9 | 6     | 0.2 | 2     | 0.1  | 3   | 0.1 | 2.6 |
| Msambweni     | 27    | 1    | 64  | 2.4  | 3  | 0.1 | 1,309 | 49.9 | 5     | 0.2 | 1,190 | 45.4 | 23  | 0.9 | 2.6 |
| Tala/Kangundo | 92    | 3.6  | 145 | 5.6  | 3  | 0.1 | 2,296 | 88.8 | 0     | 0   | 49    | 1.9  | 0   | 0   | 2.5 |
| Hola          | 26    | 1.2  | 25  | 1.1  | 50 | 2.2 | 1,794 | 80.3 | 3     | 0.1 | 328   | 14.7 | 8   | 0.4 | 2.2 |
| Matuu         | 7     | 0.4  | 26  | 1.3  | 0  | 0   | 1,891 | 96.8 | 13    | 0.7 | 2     | 0.1  | 15  | 0.8 | 1.9 |
| Elwak         | 25    | 1.4  | 1   | 0.1  | 0  | 0   | 1,442 | 79.1 | 5     | 0.3 | 350   | 19.2 | 0   | 0   | 1.8 |
| Moyale        | 78    | 4.3  | 3   | 0.2  | 0  | 0   | 1,587 | 88.5 | 1     | 0.1 | 117   | 6.5  | 8   | 0.4 | 1.7 |
| Mtito-Andei   | 101   | 6.2  | 12  | 0.7  | 7  | 0.4 | 1,468 | 90.7 | 4     | 0.2 | 18    | 1.1  | 8   | 0.5 | 1.6 |

**Table B8: Distribution of Households by main type of Lighting in selected Towns**

| Town          | Electricity |      | Pressure Lamp |     | Lantern |      | Tin Lamp |      | Fuel Wood |     | Solar  |     | Other  |     | Total   |
|---------------|-------------|------|---------------|-----|---------|------|----------|------|-----------|-----|--------|-----|--------|-----|---------|
|               | Number      | %    | Number        | %   | Number  | %    | Number   | %    | Number    | %   | Number | %   | Number | %   |         |
| Nairobi       | 336,299     | 52.3 | 12,476        | 1.9 | 136,469 | 21.2 | 140,334  | 21.8 | 698       | 0.1 | 341    | 0.1 | 16,289 | 2.5 | 642,906 |
| Mombasa       | 75,568      | 41.6 | 3,056         | 1.7 | 41,270  | 22.7 | 57,290   | 31.5 | 322       | 0.2 | 78     | 0.0 | 4,265  | 2.3 | 181,849 |
| Nakuru        | 32,858      | 49.9 | 1,058         | 1.6 | 18,418  | 28.0 | 12,108   | 18.4 | 109       | 0.2 | 50     | 0.1 | 1,212  | 1.8 | 65,813  |
| Kisumu        | 14,074      | 27.6 | 814           | 1.6 | 15,418  | 30.2 | 19,818   | 38.9 | 118       | 0.2 | 46     | 0.1 | 692    | 1.4 | 50,980  |
| Eldoret       | 16,549      | 34.2 | 742           | 1.5 | 17,121  | 35.4 | 12,610   | 26.0 | 119       | 0.2 | 55     | 0.1 | 1,224  | 2.5 | 48,420  |
| Thika         | 12,595      | 46.6 | 533           | 2.0 | 6,823   | 25.3 | 6,261    | 23.2 | 39        | 0.1 | 43     | 0.2 | 724    | 2.7 | 27,018  |
| Ruiru         | 11,228      | 43.9 | 823           | 3.2 | 8,803   | 34.5 | 3,978    | 15.6 | 39        | 0.2 | 27     | 0.1 | 652    | 2.6 | 25,550  |
| Nyeri         | 8,898       | 57.2 | 183           | 1.2 | 3,479   | 22.4 | 2,785    | 17.9 | 36        | 0.2 | 10     | 0.1 | 152    | 1.0 | 15,543  |
| Malindi       | 5,133       | 33.9 | 307           | 2.0 | 3,776   | 25.0 | 5,523    | 36.5 | 66        | 0.4 | 13     | 0.1 | 311    | 2.1 | 15,129  |
| Kakamega      | 3,427       | 23.5 | 258           | 1.8 | 5,828   | 40.0 | 4,744    | 32.5 | 42        | 0.3 | 73     | 0.5 | 216    | 1.5 | 14,588  |
| Kitale        | 3,256       | 26.4 | 172           | 1.4 | 5,083   | 41.2 | 3,593    | 29.1 | 39        | 0.3 | 7      | 0.1 | 187    | 1.5 | 12,337  |
| Meru          | 5,972       | 48.6 | 161           | 1.3 | 3,921   | 31.9 | 1,963    | 16.0 | 36        | 0.3 | 64     | 0.5 | 170    | 1.4 | 12,287  |
| Ukunda        | 2,600       | 21.4 | 128           | 1.1 | 4,777   | 39.4 | 4,268    | 35.2 | 15        | 0.1 | 17     | 0.1 | 329    | 2.7 | 12,134  |
| Bungoma       | 2,015       | 19.1 | 278           | 2.6 | 4,499   | 42.7 | 3,487    | 33.1 | 23        | 0.2 | 40     | 0.4 | 206    | 2.0 | 10,548  |
| Ongata Rongai | 5,064       | 48.0 | 236           | 2.2 | 3,154   | 29.9 | 1,674    | 15.9 | 20        | 0.2 | 22     | 0.2 | 377    | 3.6 | 10,547  |
| Naivasha      | 4,276       | 41.8 | 253           | 2.5 | 4,133   | 40.4 | 1,398    | 13.7 | 24        | 0.2 | 1      | 0.0 | 136    | 1.3 | 10,221  |
| Mumias        | 2,331       | 22.8 | 115           | 1.1 | 2,866   | 28.1 | 4,731    | 46.3 | 20        | 0.2 | 8      | 0.1 | 139    | 1.4 | 10,210  |
| Embu          | 5,142       | 51.7 | 121           | 1.2 | 2,370   | 23.8 | 1,941    | 19.5 | 63        | 0.6 | 7      | 0.1 | 296    | 3.0 | 9,940   |
| Garissa       | 4,660       | 48.0 | 78            | 0.8 | 3,026   | 31.2 | 1,599    | 16.5 | 31        | 0.3 | 5      | 0.1 | 306    | 3.2 | 9,705   |
| Nanyuki       | 4,235       | 44.8 | 195           | 2.1 | 3,132   | 33.1 | 1,595    | 16.9 | 39        | 0.4 | 17     | 0.2 | 239    | 2.5 | 9,452   |
| Machakos      | 4,023       | 47.6 | 113           | 1.3 | 3,192   | 37.7 | 897      | 10.6 | 22        | 0.3 | 6      | 0.1 | 203    | 2.4 | 8,456   |
| Kericho       | 2,958       | 35.7 | 165           | 2.0 | 2,889   | 34.9 | 2,048    | 24.7 | 23        | 0.3 | 2      | 0.0 | 201    | 2.4 | 8,286   |
| Homa Bay      | 1,207       | 15.4 | 216           | 2.8 | 2,897   | 37.0 | 3,262    | 41.7 | 25        | 0.3 | 13     | 0.2 | 201    | 2.6 | 7,821   |
| Migori        | 1,001       | 13.0 | 189           | 2.5 | 3,337   | 43.5 | 2,867    | 37.4 | 19        | 0.2 | 17     | 0.2 | 246    | 3.2 | 7,676   |
| Busia         | 1,801       | 23.5 | 165           | 2.2 | 2,866   | 37.4 | 2,682    | 35.0 | 20        | 0.3 | 9      | 0.1 | 113    | 1.5 | 7,656   |
| Mavoko        | 1,309       | 17.2 | 242           | 3.2 | 3,988   | 52.5 | 1,844    | 24.3 | 61        | 0.8 | 9      | 0.1 | 140    | 1.8 | 7,593   |
| Nyahururu     | 2,631       | 35.3 | 110           | 1.5 | 3,526   | 47.3 | 947      | 12.7 | 47        | 0.6 | 7      | 0.1 | 193    | 2.6 | 7,461   |
| Kilifi        | 1,554       | 21.2 | 137           | 1.9 | 2,375   | 32.3 | 3,088    | 42.1 | 17        | 0.2 | 6      | 0.1 | 165    | 2.2 | 7,342   |
| Narok         | 1,572       | 23.2 | 149           | 2.2 | 2,529   | 37.4 | 1,630    | 24.1 | 308       | 4.6 | 12     | 0.2 | 568    | 8.4 | 6,768   |
| Elburgon      | 712         | 11.4 | 108           | 1.7 | 3,008   | 48.0 | 2,287    | 36.5 | 41        | 0.7 | 17     | 0.3 | 92     | 1.5 | 6,265   |
| Molo          | 1,376       | 22.5 | 157           | 2.6 | 2,859   | 46.7 | 1,601    | 26.2 | 20        | 0.3 | 7      | 0.1 | 101    | 1.7 | 6,121   |

| Town           | Electricity |      | Pressure Lamp |     | Lantern |      | Tin Lamp |      | Fuel Wood |      | Solar  |     | Other  |      | Total |
|----------------|-------------|------|---------------|-----|---------|------|----------|------|-----------|------|--------|-----|--------|------|-------|
|                | Number      | %    | Number        | %   | Number  | %    | Number   | %    | Number    | %    | Number | %   | Number | %    |       |
| Kisii          | 2,456       | 41.8 | 124           | 2.1 | 1,923   | 32.7 | 1,010    | 17.2 | 11        | 0.2  | 12     | 0.2 | 344    | 5.9  | 5,880 |
| Mtwapa         | 2,021       | 36.0 | 79            | 1.4 | 2,241   | 39.9 | 1,090    | 19.4 | 4         | 0.1  | 6      | 0.1 | 173    | 3.1  | 5,614 |
| Gilgil         | 2,481       | 44.3 | 87            | 1.6 | 2,183   | 39.0 | 701      | 12.5 | 30        | 0.5  | 12     | 0.2 | 101    | 1.8  | 5,595 |
| Webuye         | 1,258       | 24.4 | 102           | 2.0 | 2,267   | 43.9 | 1,422    | 27.5 | 37        | 0.7  | 10     | 0.2 | 66     | 1.3  | 5,162 |
| Mandera        | 1,206       | 23.4 | 14            | 0.3 | 3,285   | 63.7 | 544      | 10.6 | 17        | 0.3  | 1      | 0.0 | 87     | 1.7  | 5,154 |
| Karuri         | 2,185       | 43.3 | 58            | 1.1 | 1,922   | 38.1 | 768      | 15.2 | 17        | 0.3  | 9      | 0.2 | 88     | 1.7  | 5,047 |
| Isiolo         | 1,892       | 38.1 | 68            | 1.4 | 1,999   | 40.3 | 829      | 16.7 | 23        | 0.5  | 18     | 0.4 | 135    | 2.7  | 4,964 |
| Kerugoya/Kutus | 2,571       | 53.0 | 85            | 1.8 | 1,252   | 25.8 | 754      | 15.6 | 6         | 0.1  | 3      | 0.1 | 176    | 3.6  | 4,847 |
| Kapsabet       | 1,009       | 20.9 | 43            | 0.9 | 2,059   | 42.6 | 1,580    | 32.7 | 13        | 0.3  | 7      | 0.1 | 124    | 2.6  | 4,835 |
| Njoro          | 438         | 9.1  | 103           | 2.1 | 2,056   | 42.8 | 1,149    | 23.9 | 13        | 0.3  | 19     | 0.4 | 1,026  | 21.4 | 4,804 |
| Voi            | 1,078       | 22.8 | 76            | 1.6 | 2,550   | 53.9 | 966      | 20.4 | 12        | 0.3  | 3      | 0.1 | 49     | 1.0  | 4,734 |
| Vihiga         | 905         | 20.2 | 69            | 1.5 | 1,969   | 43.9 | 1,479    | 33.0 | 10        | 0.2  | 6      | 0.1 | 44     | 1.0  | 4,482 |
| Kiambu         | 2,671       | 63.5 | 81            | 1.9 | 863     | 20.5 | 486      | 11.6 | 2         | 0.0  | 3      | 0.1 | 101    | 2.4  | 4,207 |
| Awendo         | 1,079       | 27.0 | 70            | 1.8 | 947     | 23.7 | 1,826    | 45.8 | 14        | 0.4  | 3      | 0.1 | 51     | 1.3  | 3,990 |
| Maralal        | 978         | 24.6 | 38            | 1.0 | 1,094   | 27.5 | 913      | 23.0 | 831       | 20.9 | 18     | 0.5 | 99     | 2.5  | 3,971 |
| Muhoroni       | 519         | 13.1 | 62            | 1.6 | 1,331   | 33.7 | 1,930    | 48.9 | 13        | 0.3  | 20     | 0.5 | 72     | 1.8  | 3,947 |
| Muranga        | 2,571       | 65.8 | 36            | 0.9 | 807     | 20.6 | 413      | 10.6 | 8         | 0.2  | 2      | 0.1 | 72     | 1.8  | 3,909 |
| Olkalu         | 553         | 14.7 | 60            | 1.6 | 1,993   | 52.9 | 1,068    | 28.3 | 22        | 0.6  | 32     | 0.8 | 40     | 1.1  | 3,768 |
| Wajir          | 975         | 26.7 | 10            | 0.3 | 1,636   | 44.9 | 851      | 23.3 | 28        | 0.8  | 0      | 0.0 | 145    | 4.0  | 3,645 |
| Siaya          | 628         | 18.1 | 44            | 1.3 | 1,484   | 42.7 | 1,264    | 36.4 | 7         | 0.2  | 9      | 0.3 | 36     | 1.0  | 3,472 |
| Kitui          | 1,615       | 46.6 | 63            | 1.8 | 980     | 28.3 | 731      | 21.1 | 14        | 0.4  | 7      | 0.2 | 55     | 1.6  | 3,465 |
| Ngong          | 1,547       | 44.9 | 69            | 2.0 | 953     | 27.6 | 765      | 22.2 | 10        | 0.3  | 9      | 0.3 | 95     | 2.8  | 3,448 |
| Lodwar         | 680         | 20.5 | 18            | 0.5 | 1,162   | 35.0 | 798      | 24.1 | 252       | 7.6  | 20     | 0.6 | 386    | 11.6 | 3,316 |
| Taveta         | 845         | 25.5 | 43            | 1.3 | 1,084   | 32.7 | 1,280    | 38.6 | 6         | 0.2  | 2      | 0.1 | 52     | 1.6  | 3,312 |
| Mwingi         | 1,389       | 42.7 | 64            | 2.0 | 946     | 29.1 | 741      | 22.8 | 6         | 0.2  | 13     | 0.4 | 97     | 3.0  | 3,256 |
| Kapenguria     | 691         | 21.5 | 28            | 0.9 | 1,471   | 45.8 | 946      | 29.4 | 26        | 0.8  | 5      | 0.2 | 48     | 1.5  | 3,215 |
| Lokiachoggio   | 105         | 3.4  | 27            | 0.9 | 1,055   | 34.0 | 1,212    | 39.0 | 507       | 16.3 | 24     | 0.8 | 177    | 5.7  | 3,107 |
| Maua           | 1,409       | 45.4 | 52            | 1.7 | 1,198   | 38.6 | 361      | 11.6 | 27        | 0.9  | 5      | 0.2 | 50     | 1.6  | 3,102 |
| Kehancha       | 55          | 1.8  | 59            | 2.0 | 1,584   | 52.9 | 1,090    | 36.4 | 20        | 0.7  | 11     | 0.4 | 177    | 5.9  | 2,996 |
| Mariakani      | 623         | 21.4 | 100           | 3.4 | 1,243   | 42.6 | 870      | 29.8 | 5         | 0.2  | 6      | 0.2 | 70     | 2.4  | 2,917 |
| Eldama Ravine  | 758         | 26.5 | 44            | 1.5 | 1,444   | 50.5 | 516      | 18.1 | 16        | 0.6  | 9      | 0.3 | 70     | 2.5  | 2,857 |
| Marsabit       | 982         | 35.3 | 39            | 1.4 | 1,254   | 45.1 | 420      | 15.1 | 11        | 0.4  | 17     | 0.6 | 55     | 2.0  | 2,778 |
| Lamu           | 2,042       | 76.0 | 10            | 0.4 | 438     | 16.3 | 154      | 5.7  | 2         | 0.1  | 0      | 0.0 | 42     | 1.6  | 2,688 |

| Town          | Electricity |      | Pressure Lamp |     | Lantern |      | Tin Lamp |      | Fuel Wood |     | Solar  |     | Other  |     | Total |
|---------------|-------------|------|---------------|-----|---------|------|----------|------|-----------|-----|--------|-----|--------|-----|-------|
|               | Number      | %    | Number        | %   | Number  | %    | Number   | %    | Number    | %   | Number | %   | Number | %   |       |
| Kimilili      | 268         | 10.1 | 71            | 2.7 | 1,240   | 46.8 | 973      | 36.7 | 8         | 0.3 | 4      | 0.2 | 87     | 3.3 | 2,651 |
| Msambweni     | 335         | 12.8 | 11            | 0.4 | 504     | 19.2 | 1,701    | 64.9 | 3         | 0.1 | 5      | 0.2 | 62     | 2.4 | 2,621 |
| Tala/Kangundo | 1,062       | 41.1 | 49            | 1.9 | 1,006   | 38.9 | 352      | 13.6 | 2         | 0.1 | 44     | 1.7 | 70     | 2.7 | 2,585 |
| Hola          | 88          | 3.9  | 49            | 2.2 | 1,147   | 51.3 | 849      | 38.0 | 25        | 1.1 | 3      | 0.1 | 73     | 3.3 | 2,234 |
| Matuu         | 706         | 36.1 | 13            | 0.7 | 721     | 36.9 | 437      | 22.4 | 0         | 0.0 | 3      | 0.2 | 74     | 3.8 | 1,954 |
| Elwak         | 0           | 0.0  | 0             | 0.0 | 1,641   | 90.0 | 82       | 4.5  | 36        | 2.0 | 1      | 0.1 | 63     | 3.5 | 1,823 |
| Moyale        | 909         | 50.7 | 20            | 1.1 | 612     | 34.1 | 185      | 10.3 | 6         | 0.3 | 2      | 0.1 | 60     | 3.3 | 1,794 |
| Mtito-Andei   | 442         | 27.3 | 40            | 2.5 | 665     | 41.1 | 423      | 26.1 | 4         | 0.2 | 0      | 0.0 | 44     | 2.7 | 1,618 |

**Table B9: Distribution of Dwelling Units, Rooms and Households in selected Towns**

| Town          | Number of Dwelling Units | Number of Rooms | Number of Households | Population | Rooms per Dwelling Unit | Average Household Size | Average Persons per Room |
|---------------|--------------------------|-----------------|----------------------|------------|-------------------------|------------------------|--------------------------|
| Nairobi       | 722,243                  | 1,183,605       | 642,906              | 2,083,509  | 1.64                    | 3.24                   | 1.76                     |
| Mombasa       | 219,601                  | 351,994         | 181,849              | 643,168    | 1.60                    | 3.54                   | 1.83                     |
| Nakuru        | 76,693                   | 120,856         | 65,813               | 217,109    | 1.58                    | 3.30                   | 1.80                     |
| Kisumu        | 64,711                   | 101,126         | 50,980               | 190,497    | 1.56                    | 3.74                   | 1.88                     |
| Eldoret       | 56,762                   | 87,520          | 48,420               | 164,153    | 1.54                    | 3.39                   | 1.88                     |
| Thika         | 30,046                   | 46,528          | 27,018               | 81,070     | 1.55                    | 3.00                   | 1.74                     |
| Ruiru         | 30,476                   | 51,111          | 25,550               | 79,478     | 1.68                    | 3.11                   | 1.56                     |
| Kakamega      | 19,023                   | 37,558          | 14,588               | 54,805     | 1.97                    | 3.76                   | 1.46                     |
| Malindi       | 17,524                   | 31,419          | 15,129               | 52,112     | 1.79                    | 3.44                   | 1.66                     |
| Garissa       | 13,330                   | 19,834          | 9,705                | 49,651     | 1.49                    | 5.12                   | 2.50                     |
| Nyeri         | 20,154                   | 32,088          | 15,543               | 44,030     | 1.59                    | 2.83                   | 1.37                     |
| Kitale        | 14,507                   | 23,068          | 12,337               | 43,655     | 1.59                    | 3.54                   | 1.89                     |
| Bungoma       | 13,456                   | 25,488          | 10,548               | 41,658     | 1.89                    | 3.95                   | 1.63                     |
| Meru          | 15,771                   | 29,051          | 12,287               | 41,094     | 1.84                    | 3.34                   | 1.41                     |
| Ukunda        | 15,280                   | 24,208          | 12,134               | 40,864     | 1.58                    | 3.37                   | 1.69                     |
| Mumias        | 15,475                   | 21,822          | 10,210               | 35,585     | 1.41                    | 3.49                   | 1.63                     |
| Ongata Rongai | 11,542                   | 22,590          | 10,547               | 35,393     | 1.96                    | 3.36                   | 1.57                     |
| Naivasha      | 11,828                   | 19,354          | 10,221               | 32,052     | 1.64                    | 3.14                   | 1.66                     |
| Homa Bay      | 10,270                   | 17,392          | 7,821                | 31,196     | 1.69                    | 3.99                   | 1.79                     |
| Nanyuki       | 11,175                   | 17,984          | 9,452                | 30,609     | 1.61                    | 3.24                   | 1.70                     |
| Migori        | 9,581                    | 19,973          | 7,676                | 30,609     | 2.08                    | 3.99                   | 1.53                     |
| Busia         | 10,499                   | 15,674          | 7,656                | 29,812     | 1.49                    | 3.89                   | 1.90                     |
| Embu          | 11,222                   | 19,390          | 9,940                | 29,811     | 1.73                    | 3.00                   | 1.54                     |
| Mandera       | 6,233                    | 10,028          | 5,154                | 29,679     | 1.61                    | 5.76                   | 2.96                     |
| Kilifi        | 8,659                    | 17,900          | 7,342                | 29,667     | 2.07                    | 4.04                   | 1.66                     |
| Machakos      | 9,850                    | 16,810          | 8,456                | 27,468     | 1.71                    | 3.25                   | 1.63                     |
| Kericho       | 9,201                    | 15,973          | 8,286                | 26,645     | 1.74                    | 3.22                   | 1.67                     |
| Nyahururu     | 8,868                    | 13,436          | 7,461                | 23,667     | 1.52                    | 3.17                   | 1.76                     |
| Narok         | 7,744                    | 12,035          | 6,768                | 23,199     | 1.55                    | 3.43                   | 1.93                     |
| Elburgon      | 8,744                    | 13,463          | 6,265                | 22,672     | 1.54                    | 3.62                   | 1.68                     |
| Kisii         | 8,711                    | 15,500          | 5,880                | 22,356     | 1.78                    | 3.80                   | 1.44                     |
| Mavoko        | 8,296                    | 13,104          | 7,593                | 22,067     | 1.58                    | 2.91                   | 1.68                     |
| Molo          | 7,883                    | 12,236          | 6,121                | 20,858     | 1.55                    | 3.41                   | 1.70                     |
| Gilgil        | 6,161                    | 11,910          | 5,595                | 20,146     | 1.93                    | 3.60                   | 1.69                     |
| Wajir         | 6,490                    | 8,000           | 3,645                | 19,837     | 1.23                    | 5.44                   | 2.48                     |
| Karuri        | 7,888                    | 16,365          | 5,047                | 19,687     | 2.07                    | 3.90                   | 1.20                     |
| Webuye        | 6,544                    | 11,512          | 5,162                | 19,096     | 1.76                    | 3.70                   | 1.66                     |
| Vihiga        | 6,138                    | 16,560          | 4,482                | 18,896     | 2.70                    | 4.22                   | 1.14                     |
| Isiolo        | 6,046                    | 9,909           | 4,964                | 18,631     | 1.64                    | 3.75                   | 1.88                     |
| Mtwapa        | 5,997                    | 10,406          | 5,614                | 18,337     | 1.74                    | 3.27                   | 1.76                     |
| Kapsabet      | 6,188                    | 11,018          | 4,835                | 17,481     | 1.78                    | 3.62                   | 1.59                     |
| Njoro         | 6,732                    | 11,396          | 4,804                | 16,054     | 1.69                    | 3.34                   | 1.41                     |
| Maralal       | 6,387                    | 8,005           | 3,971                | 15,799     | 1.25                    | 3.98                   | 1.97                     |
| Voi           | 5,914                    | 10,163          | 4,734                | 15,670     | 1.72                    | 3.31                   | 1.54                     |
| 01 Kalou      | 7,543                    | 11,226          | 3,768                | 14,629     | 1.49                    | 3.88                   | 1.30                     |
| Lodwar        | 5,163                    | 6,660           | 3,316                | 14,114     | 1.29                    | 4.26                   | 2.12                     |
| Awendo        | 4,450                    | 6,858           | 3,990                | 13,692     | 1.54                    | 3.43                   | 2.00                     |

| Town           | Number of Dwelling Units | Number of Rooms | Number of Households | Population | Rooms per Dwelling Unit | Average Household Size | Average Persons per Room |
|----------------|--------------------------|-----------------|----------------------|------------|-------------------------|------------------------|--------------------------|
| Muhoroni       | 4,752                    | 7,826           | 3,947                | 13,664     | 1.65                    | 3.46                   | 1.75                     |
| Kerugoya/Kutus | 6,326                    | 10,746          | 4,847                | 13,519     | 1.70                    | 2.79                   | 1.26                     |
| Siaya          | 4,574                    | 8,321           | 3,472                | 13,226     | 1.82                    | 3.81                   | 1.59                     |
| Kiambu         | 4,671                    | 8,818           | 4,207                | 13,187     | 1.89                    | 3.13                   | 1.50                     |
| Msambweni      | 3,283                    | 8,056           | 2,621                | 12,920     | 2.45                    | 4.93                   | 1.60                     |
| Lokichoggio    | 3,940                    | 4,899           | 3,107                | 12,863     | 1.24                    | 4.14                   | 2.63                     |
| Kapenguria     | 4,195                    | 6,653           | 3,215                | 12,733     | 1.59                    | 3.96                   | 1.91                     |
| Ngong          | 4,218                    | 8,329           | 3,448                | 11,718     | 1.97                    | 3.40                   | 1.41                     |
| Kehancha       | 4,530                    | 7,301           | 2,996                | 11,674     | 1.61                    | 3.90                   | 1.60                     |
| Kitui          | 4,469                    | 8,037           | 3,465                | 11,532     | 1.80                    | 3.33                   | 1.43                     |
| Marsabit       | 3,468                    | 5,914           | 2,778                | 11,408     | 1.71                    | 4.11                   | 1.93                     |
| Lamu           | 3,298                    | 6,849           | 2,688                | 11,313     | 2.08                    | 4.21                   | 1.65                     |
| Taveta         | 3,958                    | 5,966           | 3,312                | 11,279     | 1.51                    | 3.41                   | 1.89                     |
| Muranga        | 4,945                    | 7,061           | 3,909                | 11,021     | 1.43                    | 2.82                   | 1.56                     |
| Mariakani      | 3,592                    | 6,663           | 2,917                | 10,987     | 1.85                    | 3.77                   | 1.65                     |
| Elwak          | 2,862                    | 3,637           | 1,823                | 10,885     | 1.27                    | 5.97                   | 2.99                     |
| Kimilili       | 3,423                    | 6,098           | 2,651                | 10,193     | 1.78                    | 3.84                   | 1.67                     |
| Eldama Ravine  | 3,639                    | 5,849           | 2,857                | 10,180     | 1.61                    | 3.56                   | 1.74                     |
| Hola           | 2,652                    | 5,483           | 2,234                | 10,046     | 2.07                    | 4.50                   | 1.83                     |
| Moyale         | 3,525                    | 4,053           | 1,794                | 10,001     | 1.15                    | 5.57                   | 2.47                     |
| Mwingi         | 3,836                    | 5,207           | 3,256                | 9,519      | 1.36                    | 2.92                   | 1.83                     |
| Maua           | 4,009                    | 6,087           | 3,102                | 9,136      | 1.52                    | 2.95                   | 1.50                     |
| Tala/Kangundo  | 3,245                    | 5,888           | 2,585                | 8,922      | 1.81                    | 3.45                   | 1.52                     |
| Matuu          | 2,279                    | 2,902           | 1,954                | 5,024      | 1.27                    | 2.57                   | 1.73                     |
| Mtito-Andei    | 1,870                    | 2,482           | 1,618                | 4,109      | 1.33                    | 2.54                   | 1.66                     |

Table B10: Distribution of Households by Housing Quality in Selected Towns

| Town            | Rank 1  |      | Rank 2  |      | Rank 3  |      | Rank 4 |      | Rank 5 |     | Rank 6 |   | Total   | Median |
|-----------------|---------|------|---------|------|---------|------|--------|------|--------|-----|--------|---|---------|--------|
|                 | Number  | %    | Number  | %    | Number  | %    | Number | %    | Number | %   | Number | % |         |        |
| Nairobi         | 271,079 | 42.2 | 210,225 | 32.7 | 157,218 | 24.5 | 4,362  | 0.7  | 22     | 0   | 0      | 0 | 642,906 | 12.2   |
| Mombasa         | 39,437  | 21.7 | 96,396  | 53   | 38,143  | 21   | 7,450  | 4.1  | 423    | 0.2 | 0      | 0 | 181,849 | 13.67  |
| Nakuru          | 15,085  | 22.9 | 38,434  | 58.4 | 11,772  | 17.9 | 520    | 0.8  | 2      | 0   | 0      | 0 | 65,813  | 13.32  |
| Kisumu          | 7,867   | 15.4 | 23,704  | 46.5 | 17,743  | 34.8 | 1,651  | 3.2  | 15     | 0   | 0      | 0 | 50,980  | 14.72  |
| Eldoret         | 6,969   | 14.4 | 19,048  | 39.3 | 18,526  | 38.3 | 3,871  | 8    | 6      | 0   | 0      | 0 | 48,420  | 15.53  |
| Thika           | 12,238  | 45.3 | 5,881   | 21.8 | 8,372   | 31   | 524    | 1.9  | 3      | 0   | 0      | 0 | 27,018  | 12.08  |
| Ruiru           | 6,345   | 24.8 | 13,508  | 52.9 | 5,216   | 20.4 | 481    | 1.9  | 0      | 0   | 0      | 0 | 25,550  | 13.38  |
| Nyeri           | 4,935   | 31.8 | 6,310   | 40.6 | 3,783   | 24.3 | 514    | 3.3  | 1      | 0   | 0      | 0 | 15,543  | 13.25  |
| Malindi         | 2,966   | 19.6 | 6,673   | 44.1 | 4,341   | 28.7 | 1,147  | 7.6  | 2      | 0   | 0      | 0 | 15,129  | 14.45  |
| Kakamega        | 1,534   | 10.5 | 6,083   | 41.7 | 4,721   | 32.4 | 2,246  | 15.4 | 4      | 0   | 0      | 0 | 14,588  | 15.73  |
| Kitale          | 1,436   | 11.6 | 5,405   | 43.8 | 4,440   | 36   | 1,053  | 8.5  | 3      | 0   | 0      | 0 | 12,337  | 15.38  |
| Meru            | 1,996   | 16.2 | 6,133   | 49.9 | 3,741   | 30.4 | 416    | 3.4  | 1      | 0   | 0      | 0 | 12,287  | 14.38  |
| Ukunda          | 980     | 8.1  | 5,814   | 47.9 | 3,369   | 27.8 | 1,918  | 15.8 | 53     | 0.4 | 0      | 0 | 12,134  | 15.37  |
| Bungoma         | 746     | 7.1  | 4,303   | 40.8 | 4,241   | 40.2 | 1,255  | 11.9 | 3      | 0   | 0      | 0 | 10,548  | 16.27  |
| Ongata Rongai   | 2,286   | 21.7 | 5,795   | 54.9 | 2,334   | 22.1 | 132    | 1.3  | 0      | 0   | 0      | 0 | 10,547  | 13.58  |
| Naivasha        | 1,743   | 17.1 | 5,422   | 53   | 2,626   | 25.7 | 429    | 4.2  | 1      | 0   | 0      | 0 | 10,221  | 14.11  |
| Mumias          | 1,795   | 17.6 | 3,658   | 35.8 | 3,024   | 29.6 | 1,728  | 16.9 | 5      | 0   | 0      | 0 | 10,210  | 15.52  |
| Embu            | 3,103   | 31.2 | 4,450   | 44.8 | 2,077   | 20.9 | 309    | 3.1  | 1      | 0   | 0      | 0 | 9,940   | 13.1   |
| Garissa         | 874     | 9    | 5,121   | 52.8 | 2,461   | 25.4 | 928    | 9.6  | 321    | 3.3 | 0      | 0 | 9,705   | 14.88  |
| Nany uki        | 2,807   | 29.7 | 3,337   | 35.3 | 2,698   | 28.5 | 608    | 6.4  | 2      | 0   | 0      | 0 | 9,452   | 13.88  |
| Machakos        | 2,580   | 30.5 | 5,072   | 60   | 774     | 9.2  | 30     | 0.4  | 0      | 0   | 0      | 0 | 8,456   | 12.62  |
| Kericho         | 1,056   | 12.7 | 4,100   | 49.5 | 2,938   | 35.5 | 166    | 2    | 26     | 0.3 | 0      | 0 | 8,286   | 14.76  |
| Homa Bay        | 462     | 5.9  | 2,143   | 27.4 | 3,665   | 46.9 | 1,456  | 18.6 | 95     | 1.2 | 0      | 0 | 7,821   | 17.78  |
| Migori          | 214     | 2.8  | 2,791   | 36.4 | 3,534   | 46   | 1,131  | 14.7 | 6      | 0.1 | 0      | 0 | 7,676   | 17.18  |
| Busia           | 276     | 3.6  | 3,173   | 41.4 | 3,113   | 40.7 | 1,091  | 14.3 | 3      | 0   | 0      | 0 | 7,656   | 16.61  |
| Mavoko          | 1,149   | 15.1 | 3,401   | 44.8 | 2,921   | 38.5 | 122    | 1.6  | 0      | 0   | 0      | 0 | 7,593   | 14.89  |
| Nyahururu       | 1,009   | 13.5 | 3,968   | 53.2 | 2,021   | 27.1 | 462    | 6.2  | 1      | 0   | 0      | 0 | 7,461   | 14.43  |
| Kilifi          | 606     | 8.3  | 3,206   | 43.7 | 2,217   | 30.2 | 1,311  | 17.9 | 2      | 0   | 0      | 0 | 7,342   | 15.78  |
| Narok           | 637     | 9.4  | 3,354   | 49.6 | 1,560   | 23   | 1,083  | 16   | 134    | 2   | 0      | 0 | 6,768   | 15.1   |
| Elburgon        | 81      | 1.3  | 1,416   | 22.6 | 3,551   | 56.7 | 1,217  | 19.4 | 0      | 0   | 0      | 0 | 6,265   | 18.3   |
| Molo            | 251     | 4.1  | 2,069   | 33.8 | 2,917   | 47.7 | 884    | 14.4 | 0      | 0   | 0      | 0 | 6,121   | 17.27  |
| Kisii           | 1,053   | 17.9 | 2,544   | 43.3 | 1,760   | 29.9 | 522    | 8.9  | 1      | 0   | 0      | 0 | 5,880   | 14.71  |
| Mtwapa          | 581     | 10.3 | 3,369   | 60   | 1,228   | 21.9 | 436    | 7.8  | 0      | 0   | 0      | 0 | 5,614   | 14.3   |
| Gilgil          | 1,288   | 23   | 3,087   | 55.2 | 1,025   | 18.3 | 179    | 3.2  | 16     | 0.3 | 0      | 0 | 5,595   | 13.44  |
| Webuye          | 528     | 10.2 | 2,626   | 50.9 | 1,580   | 30.6 | 428    | 8.3  | 0      | 0   | 0      | 0 | 5,162   | 14.91  |
| Mandera         | 202     | 3.9  | 1,557   | 30.2 | 807     | 15.7 | 2,331  | 45.2 | 257    | 5   | 0      | 0 | 5,154   | 21.02  |
| Karuri          | 315     | 6.2  | 1,836   | 36.4 | 2,317   | 45.9 | 578    | 11.5 | 1      | 0   | 0      | 0 | 5,047   | 16.8   |
| Isiolo          | 586     | 11.8 | 2,608   | 52.5 | 1,721   | 34.7 | 41     | 0.8  | 8      | 0.2 | 0      | 0 | 4,964   | 14.63  |
| Kerugoy a/Kutus | 1,751   | 36.1 | 1,945   | 40.1 | 955     | 19.7 | 196    | 4    | 0      | 0   | 0      | 0 | 4,847   | 12.73  |
| Kapsabet        | 218     | 4.5  | 1,199   | 24.8 | 2,374   | 49.1 | 1,043  | 21.6 | 1      | 0   | 0      | 0 | 4,835   | 18.11  |
| Njoro           | 347     | 7.2  | 1,315   | 27.4 | 1,975   | 41.1 | 1,166  | 24.3 | 1      | 0   | 0      | 0 | 4,804   | 17.87  |
| Voi             | 663     | 14   | 2,449   | 51.7 | 1,576   | 33.3 | 46     | 1    | 0      | 0   | 0      | 0 | 4,734   | 14.48  |
| Vihiga          | 145     | 3.2  | 1,787   | 39.9 | 1,466   | 32.7 | 1,081  | 24.1 | 3      | 0.1 | 0      | 0 | 4,482   | 17.05  |
| Kiambu          | 940     | 22.3 | 1,986   | 47.2 | 1,071   | 25.5 | 210    | 5    | 0      | 0   | 0      | 0 | 4,207   | 13.93  |
| Awendo          | 552     | 13.8 | 973     | 24.4 | 1,750   | 43.9 | 714    | 17.9 | 1      | 0   | 0      | 0 | 3,990   | 17.34  |

|               |       |      |       |      |       |      |       |      |     |      |   |     |       |       |
|---------------|-------|------|-------|------|-------|------|-------|------|-----|------|---|-----|-------|-------|
| Maralal       | 108   | 2.7  | 1,478 | 37.2 | 1,137 | 28.6 | 1,152 | 29   | 96  | 2.4  | 0 | 0   | 3,971 | 17.76 |
| Muhoroni      | 273   | 6.9  | 955   | 24.2 | 1,946 | 49.3 | 756   | 19.2 | 17  | 0.4  | 0 | 0   | 3,947 | 17.92 |
| Muranga       | 1,785 | 45.7 | 1,446 | 37   | 614   | 15.7 | 64    | 1.6  | 0   | 0    | 0 | 0   | 3,909 | 11.59 |
| Olkalou       | 147   | 3.9  | 1,033 | 27.4 | 1,120 | 29.7 | 1,463 | 38.8 | 5   | 0.1  | 0 | 0   | 3,768 | 19.14 |
| Wajir         | 52    | 1.4  | 821   | 22.5 | 1,186 | 32.5 | 742   | 20.4 | 844 | 23.2 | 0 | 0   | 3,645 | 20    |
| Siaya         | 167   | 4.8  | 1,530 | 44.1 | 1,394 | 40.1 | 370   | 10.7 | 11  | 0.3  | 0 | 0   | 3,472 | 16.14 |
| Kitui         | 286   | 8.3  | 2,365 | 68.3 | 777   | 22.4 | 36    | 1    | 1   | 0    | 0 | 0   | 3,465 | 14.06 |
| Ngong         | 857   | 24.9 | 987   | 28.6 | 1,319 | 38.3 | 284   | 8.2  | 1   | 0    | 0 | 0   | 3,448 | 15.39 |
| Lodwar        | 162   | 4.9  | 1,587 | 47.9 | 951   | 28.7 | 475   | 14.3 | 139 | 4.2  | 2 | 0.1 | 3,316 | 15.71 |
| Taveta        | 188   | 5.7  | 1,461 | 44.1 | 1,438 | 43.4 | 225   | 6.8  | 0   | 0    | 0 | 0   | 3,312 | 16.02 |
| Mwingi        | 234   | 7.2  | 2,452 | 75.3 | 542   | 16.6 | 27    | 0.8  | 1   | 0    | 0 | 0   | 3,256 | 13.84 |
| Kapenguria    | 70    | 2.2  | 1,306 | 40.6 | 1,342 | 41.7 | 449   | 14   | 48  | 1.5  | 0 | 0   | 3,215 | 16.86 |
| Lokichoggio   | 17    | 0.5  | 303   | 9.8  | 1,364 | 43.9 | 1,008 | 32.4 | 415 | 13.4 | 0 | 0   | 3,107 | 20.52 |
| Maua          | 351   | 11.3 | 2,175 | 70.1 | 493   | 15.9 | 81    | 2.6  | 2   | 0.1  | 0 | 0   | 3,102 | 13.76 |
| Kehancha      | 38    | 1.3  | 552   | 18.4 | 1,629 | 54.4 | 705   | 23.5 | 72  | 2.4  | 0 | 0   | 2,996 | 18.79 |
| Mariakani     | 260   | 8.9  | 1,667 | 57.1 | 889   | 30.5 | 100   | 3.4  | 1   | 0    | 0 | 0   | 2,917 | 14.59 |
| Eldama Ravine | 194   | 6.8  | 1,113 | 39   | 1,128 | 39.5 | 420   | 14.7 | 2   | 0.1  | 0 | 0   | 2,857 | 16.54 |
| Marsabit      | 70    | 2.5  | 1,161 | 41.8 | 1,346 | 48.5 | 201   | 7.2  | 0   | 0    | 0 | 0   | 2,778 | 16.59 |
| Lamu          | 247   | 9.2  | 1,742 | 64.8 | 600   | 22.3 | 97    | 3.6  | 2   | 0.1  | 0 | 0   | 2,688 | 14.15 |
| Kimilili      | 81    | 3.1  | 1,119 | 42.2 | 1,270 | 47.9 | 181   | 6.8  | 0   | 0    | 0 | 0   | 2,651 | 16.49 |
| Msambweni     | 70    | 2.7  | 367   | 14   | 816   | 31.1 | 1,283 | 49   | 85  | 3.2  | 0 | 0   | 2,621 | 21.22 |
| Tala/Kangundo | 270   | 10.4 | 1,589 | 61.5 | 712   | 27.5 | 14    | 0.5  | 0   | 0    | 0 | 0   | 2,585 | 14.22 |
| Hola          | 82    | 3.7  | 491   | 22   | 769   | 34.4 | 655   | 29.3 | 237 | 10.6 | 0 | 0   | 2,234 | 19.54 |
| Matuu         | 179   | 9.2  | 1,695 | 86.7 | 79    | 4    | 1     | 0.1  | 0   | 0    | 0 | 0   | 1,954 | 13.35 |
| Elwak         | 0     | 0    | 26    | 1.4  | 500   | 27.4 | 946   | 51.9 | 351 | 19.3 | 0 | 0   | 1,823 | 23.04 |
| Moyale        | 33    | 1.8  | 666   | 37.1 | 922   | 51.4 | 163   | 9.1  | 10  | 0.6  | 0 | 0   | 1,794 | 17.07 |
| Mtito-Andei   | 196   | 12.1 | 1,190 | 73.5 | 215   | 13.3 | 17    | 1.1  | 0   | 0    | 0 | 0   | 1,618 | 13.58 |

**Table B11: Distribution of Households by main type of Cooking Fuel**

| Town          | Electricity |     | Paraffin |      | Gas    |      | Firewood |      | Charcoal |      | Solar  |     | Other  |     | Total   |
|---------------|-------------|-----|----------|------|--------|------|----------|------|----------|------|--------|-----|--------|-----|---------|
|               | Number      | %   | Number   | %    | Number | %    | Number   | %    | Number   | %    | Number | %   | Number | %   |         |
| Nairobi       | 36,868      | 5.7 | 485,309  | 75.5 | 75,017 | 11.7 | 11,394   | 1.8  | 26,012   | 4.0  | 299    | 0.0 | 8,007  | 1.2 | 642,906 |
| Mombasa       | 4,980       | 2.7 | 118,501  | 65.2 | 14,427 | 7.9  | 15,082   | 8.3  | 25,749   | 14.2 | 94     | 0.1 | 3,016  | 1.7 | 181,849 |
| Nakuru        | 1,816       | 2.8 | 37,156   | 56.5 | 4,064  | 6.2  | 2,404    | 3.7  | 19,725   | 30.0 | 59     | 0.1 | 589    | 0.9 | 65,813  |
| Kisumu        | 1,392       | 2.7 | 21,427   | 42.0 | 2,503  | 4.9  | 2,829    | 5.5  | 22,408   | 44.0 | 61     | 0.1 | 360    | 0.7 | 50,980  |
| Eldoret       | 1,031       | 2.1 | 11,941   | 24.7 | 2,647  | 5.5  | 2,472    | 5.1  | 29,910   | 61.8 | 49     | 0.1 | 370    | 0.8 | 48,420  |
| Thika         | 865         | 3.2 | 20,616   | 76.3 | 2,049  | 7.6  | 1,618    | 6.0  | 1,170    | 4.3  | 8      | 0.0 | 692    | 2.6 | 27,018  |
| Ruiru         | 1,158       | 4.5 | 20,713   | 81.1 | 2,021  | 7.9  | 851      | 3.3  | 382      | 1.5  | 12     | 0.0 | 413    | 1.6 | 25,550  |
| Nyeri         | 769         | 4.9 | 7,487    | 48.2 | 1,143  | 7.4  | 1,748    | 11.2 | 4,170    | 26.8 | 6      | 0.0 | 220    | 1.4 | 15,543  |
| Malindi       | 288         | 1.9 | 7,335    | 48.5 | 1,229  | 8.1  | 2,098    | 13.9 | 3,889    | 25.7 | 18     | 0.1 | 272    | 1.8 | 15,129  |
| Kakamega      | 230         | 1.6 | 3,941    | 27.0 | 567    | 3.9  | 3,571    | 24.5 | 6,085    | 41.7 | 104    | 0.7 | 90     | 0.6 | 14,588  |
| Kitale        | 205         | 1.7 | 3,527    | 28.6 | 484    | 3.9  | 1,445    | 11.7 | 6,560    | 53.2 | 9      | 0.1 | 107    | 0.9 | 12,337  |
| Meru          | 449         | 3.7 | 3,457    | 28.1 | 865    | 7.0  | 3,125    | 25.4 | 4,252    | 34.6 | 57     | 0.5 | 82     | 0.7 | 12,287  |
| Ukunda        | 345         | 2.8 | 6,676    | 55.0 | 591    | 4.9  | 3,666    | 30.2 | 641      | 5.3  | 7      | 0.1 | 208    | 1.7 | 12,134  |
| Bungoma       | 256         | 2.4 | 2,962    | 28.1 | 387    | 3.7  | 1,979    | 18.8 | 4,832    | 45.8 | 11     | 0.1 | 121    | 1.1 | 10,548  |
| Ongata Rongai | 315         | 3.0 | 7,707    | 73.1 | 1,459  | 13.8 | 364      | 3.5  | 445      | 4.2  | 26     | 0.2 | 231    | 2.2 | 10,547  |
| Naivasha      | 210         | 2.1 | 5,989    | 58.6 | 588    | 5.8  | 553      | 5.4  | 2,785    | 27.2 | 11     | 0.1 | 85     | 0.8 | 10,221  |
| Mumias        | 839         | 8.2 | 3,205    | 31.4 | 661    | 6.5  | 2,171    | 21.3 | 3,261    | 31.9 | 4      | 0.0 | 69     | 0.7 | 10,210  |
| Embu          | 296         | 3.0 | 5,941    | 59.8 | 690    | 6.9  | 889      | 8.9  | 1,917    | 19.3 | 5      | 0.1 | 202    | 2.0 | 9,940   |
| Garissa       | 197         | 2.0 | 1,254    | 12.9 | 161    | 1.7  | 2,070    | 21.3 | 5,813    | 59.9 | 22     | 0.2 | 188    | 1.9 | 9,705   |
| Nanyuki       | 774         | 8.2 | 2,795    | 29.6 | 595    | 6.3  | 802      | 8.5  | 4,430    | 46.9 | 4      | 0.0 | 52     | 0.6 | 9,452   |
| Machakos      | 194         | 2.3 | 5,016    | 59.3 | 679    | 8.0  | 275      | 3.3  | 2,219    | 26.2 | 10     | 0.1 | 63     | 0.7 | 8,456   |
| Kericho       | 253         | 3.1 | 1,664    | 20.1 | 479    | 5.8  | 364      | 4.4  | 5,461    | 65.9 | 14     | 0.2 | 51     | 0.6 | 8,286   |
| Homa Bay      | 141         | 1.8 | 1,545    | 19.8 | 170    | 2.2  | 1,694    | 21.7 | 4,217    | 53.9 | 17     | 0.2 | 37     | 0.5 | 7,821   |
| Migori        | 95          | 1.2 | 1,129    | 14.7 | 128    | 1.7  | 1,571    | 20.5 | 4,674    | 60.9 | 26     | 0.3 | 53     | 0.7 | 7,676   |
| Busia         | 73          | 1.0 | 1,515    | 19.8 | 121    | 1.6  | 1,090    | 14.2 | 4,718    | 61.6 | 3      | 0.0 | 136    | 1.8 | 7,656   |
| Mavoko        | 374         | 4.9 | 5,922    | 78.0 | 376    | 5.0  | 191      | 2.5  | 672      | 8.9  | 3      | 0.0 | 55     | 0.7 | 7,593   |
| Nyahururu     | 127         | 1.7 | 994      | 13.3 | 337    | 4.5  | 743      | 10.0 | 5,207    | 69.8 | 7      | 0.1 | 46     | 0.6 | 7,461   |
| Kilifi        | 85          | 1.2 | 2,516    | 34.3 | 257    | 3.5  | 2,751    | 37.5 | 1,629    | 22.2 | 12     | 0.2 | 92     | 1.3 | 7,342   |
| Narok         | 252         | 3.7 | 1,105    | 16.3 | 202    | 3.0  | 1,159    | 17.1 | 3,994    | 59.0 | 13     | 0.2 | 43     | 0.6 | 6,768   |
| Elburgon      | 52          | 0.8 | 233      | 3.7  | 57     | 0.9  | 1,728    | 27.6 | 4,161    | 66.4 | 5      | 0.1 | 29     | 0.5 | 6,265   |

| Town           | Electricity |      | Paraffin |      | Gas    |      | Firewood |      | Charcoal |      | Solar  |     | Other  |     | Total |
|----------------|-------------|------|----------|------|--------|------|----------|------|----------|------|--------|-----|--------|-----|-------|
|                | Number      | %    | Number   | %    | Number | %    | Number   | %    | Number   | %    | Number | %   | Number | %   |       |
| Molo           | 37          | 0.6  | 605      | 9.9  | 123    | 2.0  | 1,663    | 27.2 | 3,667    | 59.9 | 2      | 0.0 | 24     | 0.4 | 6,121 |
| Kisii          | 270         | 4.6  | 1,909    | 32.5 | 358    | 6.1  | 792      | 13.5 | 2,481    | 42.2 | 7      | 0.1 | 63     | 1.1 | 5,880 |
| Mtwapa         | 115         | 2.0  | 3,930    | 70.0 | 509    | 9.1  | 622      | 11.1 | 361      | 6.4  | 2      | 0.0 | 75     | 1.3 | 5,614 |
| Gilgil         | 458         | 8.2  | 1,599    | 28.6 | 217    | 3.9  | 354      | 6.3  | 2,937    | 52.5 | 4      | 0.1 | 26     | 0.5 | 5,595 |
| Webuye         | 194         | 3.8  | 1,318    | 25.5 | 206    | 4.0  | 723      | 14.0 | 2,679    | 51.9 | 8      | 0.2 | 34     | 0.7 | 5,162 |
| Mandera        | 225         | 4.4  | 51       | 1.0  | 19     | 0.4  | 3,575    | 69.4 | 1,257    | 24.4 | 0      | 0.0 | 27     | 0.5 | 5,154 |
| Karuri         | 151         | 3.0  | 1,676    | 33.2 | 363    | 7.2  | 1,836    | 36.4 | 935      | 18.5 | 5      | 0.1 | 81     | 1.6 | 5,047 |
| Isiolo         | 92          | 1.9  | 878      | 17.7 | 113    | 2.3  | 394      | 7.9  | 3,451    | 69.5 | 2      | 0.0 | 34     | 0.7 | 4,964 |
| Kerugoya/Kutus | 172         | 3.5  | 3,125    | 64.5 | 500    | 10.3 | 417      | 8.6  | 491      | 10.1 | 2      | 0.0 | 140    | 2.9 | 4,847 |
| Kapsabet       | 137         | 2.8  | 619      | 12.8 | 100    | 2.1  | 1,198    | 24.8 | 2,751    | 56.9 | 2      | 0.0 | 28     | 0.6 | 4,835 |
| Njoro          | 15          | 0.3  | 698      | 14.5 | 52     | 1.1  | 1,213    | 25.2 | 2,804    | 58.4 | 5      | 0.1 | 17     | 0.4 | 4,804 |
| Voi            | 68          | 1.4  | 1,788    | 37.8 | 217    | 4.6  | 668      | 14.1 | 1,931    | 40.8 | 4      | 0.1 | 58     | 1.2 | 4,734 |
| Vihiga         | 33          | 0.7  | 1,073    | 23.9 | 132    | 2.9  | 2,295    | 51.2 | 915      | 20.4 | 2      | 0.0 | 32     | 0.7 | 4,482 |
| Kiambu         | 143         | 3.4  | 2,656    | 63.1 | 741    | 17.6 | 327      | 7.8  | 258      | 6.1  | 2      | 0.0 | 80     | 1.9 | 4,207 |
| Awendo         | 556         | 13.9 | 873      | 21.9 | 26     | 0.7  | 285      | 7.1  | 2,204    | 55.2 | 1      | 0.0 | 45     | 1.1 | 3,990 |
| Maralal        | 21          | 0.5  | 194      | 4.9  | 37     | 0.9  | 1,766    | 44.5 | 1,918    | 48.3 | 9      | 0.2 | 26     | 0.7 | 3,971 |
| Muhoroni       | 157         | 4.0  | 615      | 15.6 | 137    | 3.5  | 551      | 14.0 | 2,458    | 62.3 | 3      | 0.1 | 26     | 0.7 | 3,947 |
| Muranga        | 124         | 3.2  | 2,638    | 67.5 | 380    | 9.7  | 285      | 7.3  | 374      | 9.6  | 1      | 0.0 | 107    | 2.7 | 3,909 |
| 01 Kalou       | 22          | 0.6  | 305      | 8.1  | 71     | 1.9  | 2,165    | 57.5 | 1,188    | 31.5 | 5      | 0.1 | 12     | 0.3 | 3,768 |
| Wajir          | 120         | 3.3  | 190      | 5.2  | 12     | 0.3  | 2,425    | 66.5 | 833      | 22.9 | 7      | 0.2 | 58     | 1.6 | 3,645 |
| Siaya          | 99          | 2.9  | 541      | 15.6 | 40     | 1.2  | 620      | 17.9 | 2,153    | 62.0 | 5      | 0.1 | 14     | 0.4 | 3,472 |
| Kitui          | 57          | 1.6  | 1,377    | 39.7 | 171    | 4.9  | 170      | 4.9  | 1,636    | 47.2 | 6      | 0.2 | 48     | 1.4 | 3,465 |
| Ngong          | 170         | 4.9  | 1,608    | 46.6 | 486    | 14.1 | 310      | 9.0  | 818      | 23.7 | 4      | 0.1 | 52     | 1.5 | 3,448 |
| Lodwar         | 61          | 1.8  | 254      | 7.7  | 35     | 1.1  | 939      | 28.3 | 1,956    | 59.0 | 6      | 0.2 | 65     | 2.0 | 3,316 |
| Taveta         | 18          | 0.5  | 674      | 20.4 | 42     | 1.3  | 636      | 19.2 | 1,864    | 56.3 | 1      | 0.0 | 77     | 2.3 | 3,312 |
| Mwingi         | 80          | 2.5  | 1,233    | 37.9 | 71     | 2.2  | 156      | 4.8  | 1,640    | 50.4 | 13     | 0.4 | 63     | 1.9 | 3,256 |
| Kapenguria     | 17          | 0.5  | 302      | 9.4  | 51     | 1.6  | 779      | 24.2 | 2,052    | 63.8 | 4      | 0.1 | 10     | 0.3 | 3,215 |
| Lokiachoggio   | 6           | 0.2  | 932      | 30.0 | 17     | 0.5  | 1,028    | 33.1 | 1,081    | 34.8 | 5      | 0.2 | 38     | 1.2 | 3,107 |
| Maua           | 52          | 1.7  | 2,005    | 64.6 | 155    | 5.0  | 247      | 8.0  | 535      | 17.2 | 3      | 0.1 | 105    | 3.4 | 3,102 |
| Kehancha       | 43          | 1.4  | 431      | 14.4 | 39     | 1.3  | 813      | 27.1 | 1,630    | 54.4 | 4      | 0.1 | 36     | 1.2 | 2,996 |
| Mariakani      | 21          | 0.7  | 957      | 32.8 | 150    | 5.1  | 288      | 9.9  | 1,447    | 49.6 | 3      | 0.1 | 51     | 1.7 | 2,917 |
| Eldama Ravine  | 36          | 1.3  | 520      | 18.2 | 70     | 2.5  | 958      | 33.5 | 1,217    | 42.6 | 2      | 0.1 | 54     | 1.9 | 2,857 |

| Town          | Electricity |     | Paraffin |      | Gas    |     | Firewood |      | Charcoal |      | Solar  |     | Other  |     | Total |
|---------------|-------------|-----|----------|------|--------|-----|----------|------|----------|------|--------|-----|--------|-----|-------|
|               | Number      | %   | Number   | %    | Number | %   | Number   | %    | Number   | %    | Number | %   | Number | %   |       |
| Marsabit      | 41          | 1.5 | 448      | 16.1 | 37     | 1.3 | 1,540    | 55.4 | 693      | 24.9 | 1      | 0.0 | 18     | 0.6 | 2,778 |
| Lamu          | 41          | 1.5 | 386      | 14.4 | 108    | 4.0 | 738      | 27.5 | 1,363    | 50.7 | 4      | 0.1 | 48     | 1.8 | 2,688 |
| Kimilili      | 27          | 1.0 | 618      | 23.3 | 43     | 1.6 | 645      | 24.3 | 1,286    | 48.5 | 4      | 0.2 | 28     | 1.1 | 2,651 |
| Msambweni     | 39          | 1.5 | 164      | 6.3  | 23     | 0.9 | 2,162    | 82.5 | 219      | 8.4  | 5      | 0.2 | 9      | 0.3 | 2,621 |
| Tala/Kangundo | 47          | 1.8 | 1,381    | 53.4 | 74     | 2.9 | 383      | 14.8 | 638      | 24.7 | 3      | 0.1 | 59     | 2.3 | 2,585 |
| Hola          | 6           | 0.3 | 204      | 9.1  | 21     | 0.9 | 953      | 42.7 | 1,033    | 46.2 | 2      | 0.1 | 15     | 0.7 | 2,234 |
| Matuu         | 28          | 1.4 | 1,196    | 61.2 | 35     | 1.8 | 29       | 1.5  | 566      | 29.0 | 1      | 0.1 | 99     | 5.1 | 1,954 |
| Elwak         | 4           | 0.2 | 3        | 0.2  | 3      | 0.2 | 1,794    | 98.4 | 16       | 0.9  | 2      | 0.1 | 1      | 0.1 | 1,823 |
| Moyale        | 42          | 2.3 | 182      | 10.1 | 17     | 0.9 | 859      | 47.9 | 680      | 37.9 | 2      | 0.1 | 12     | 0.7 | 1,794 |
| Mtito-Andei   | 14          | 0.9 | 895      | 55.3 | 50     | 3.1 | 61       | 3.8  | 463      | 28.6 | 3      | 0.2 | 132    | 8.2 | 1,618 |

## Appendix: List of Contributors

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### Main Contributors to the Kenya 1999 Population and Housing Census Analytical Reports

| <i>Name and Institution</i>                                                           | <i>Contribution</i>                                                                         |
|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|
| Mr. David S. O. Nalo<br>Director<br>Central Bureau of Statistics                      | Project Administration and Coordination                                                     |
| Dr. Coulibaly Sidiki<br>UNFPA Country Representative                                  | Financial Support                                                                           |
| Dr. John Blacker<br>London School of Hygiene<br>and Tropical Medicine                 | Technical Advisor and Co-Author of Population<br>Dynamics Monograph                         |
| Prof. John Oucho<br>University of Botswana                                            | Technical Advisor and Co-Author of Population<br>Dynamics Monograph                         |
| Dr. Michael J. Levin<br>USAID/BUCEN                                                   | General Technical Assistance in Data<br>Processing and Analysis                             |
| Dr. Caribert Irazi<br>USAID/BUCEN                                                     | Trainer/Technical Adviser on Demographic<br>Analysis Techniques                             |
| Ms Eva Ndavu<br>AMREF                                                                 | Editorial Consultant                                                                        |
| Mr. Jean Marc Hie<br>UNFPA Country Support Team                                       | Data Processing Technical Adviser                                                           |
| Mr. Bogale Demissie<br>UNFPA Country Support Team                                     | Data Processing Technical Adviser                                                           |
| Mr. Zablon Felix Muga<br>Consultant                                                   | Local Area Network Maintenance                                                              |
| Prof. E. H. O. Ayiamba<br>University of Nairobi                                       | Co-Author of Fertility and Nuptiality Monograph                                             |
| Mr. Collins Opiyo<br>Central Bureau of Statistics                                     | Co-Author of Fertility and Nuptiality Monograph<br>and assistance with overall data editing |
| Ms Mary Muyonga<br>Population Studies and Research Institute<br>University of Nairobi | Student/Trainee Analyst and Co-Author of<br>Fertility and Nuptiality Monograph              |

| <b><i>Name and Institution</i></b>                                                           | <b><i>Contribution</i></b>                                                             |
|----------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| Mr. Ben Obonyo<br>Consultant                                                                 | Co-Author of Mortality Monograph and assistance with overall data editing              |
| Mr. Fredrick Otieno<br>Central Bureau of Statistics                                          | Co-Author of Mortality Monograph                                                       |
| Mr. Lawrence Kanampiu<br>Population Studies and Research Institute<br>University of Nairobi  | Student/Trainee Analyst and Co-Author of Mortality Monograph                           |
| Mr. George Odipo<br>University of Nairobi                                                    | Co-Author of Migration and Urbanization Monograph                                      |
| Mr. Jackson Cheruiyot<br>Central Bureau of Statistics                                        | Co-Author of Migration and Urbanization Monograph                                      |
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| Mr. Francis M. Munene<br>Central Bureau of Statistics                                        | Co-Author of Population Projections Monograph                                          |
| Mr. Fredrick Gitahi<br>Central Bureau of Statistics                                          | Co-Author of Education Monograph                                                       |
| Mr. Joshua M. Musyimi<br>Central Bureau of Statistics                                        | Co-Author of Education Monograph                                                       |
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| Mr. Jimmie Katabwa<br>Central Bureau of Statistics                                           | Co-Author of Labour Force Monograph                                                    |
| Mr. Kamotho Manyara<br>Ministry of Labour and Human Resource Development                     | Co-Author of Labour Force Monograph                                                    |
| Mr. Thomas Ogutu<br>Ministry of Roads and Public Works Housing Department                    | Co-Author of Housing Monograph                                                         |
| Mr. Silas Opiyo<br>Central Bureau of Statistics                                              | Co-Author of Housing Monograph                                                         |
| Ms Margaret Ndwiga<br>University of Nairobi                                                  | Co-Author of Gender Dimensions Monograph                                               |

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| Mr. Titus Katembu<br>Office of the President<br>Efficiency Monitoring Unit                   | Edited Education Monograph                                              |
| Mr. Peter W. Nyongesa<br>Central Bureau of Statistics                                        | Programming and Tabulation                                              |
| Mr. Edward G. Mungai<br>Central Bureau of Statistics                                         | Programming and Tabulation                                              |
| Mr. Sammy Kinyanjui<br>Central Bureau of Statistics                                          | Programming and Tabulation                                              |
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| Mr. Manasse Kadenge<br>Central Bureau of Statistics                                          | Driver                                                                  |
| Mr. Charles Onyango Ayot<br>Central Bureau of Statistics                                     | Driver                                                                  |

This map of Kenya displays its administrative divisions. The country is bordered by Ethiopia to the north, Somalia to the east, Tanzania to the south, and Uganda and Sudan to the west. Major regions are labeled, including North Eastern, Eastern, Central, Rift Valley, and Coast. Numerous districts are shown, such as Turkana, Samburu, Garissa, Wajir, Mandera, West Pokot, Trans Nzoia, Marakwet, Baringo, Laikipia, Nyeri, Kiambu, Thika, Nairobi, Nakuru, Kericho, Karuri, Kajiado, Taita Taveta, Kilifi, Malindi, Mombasa, Kwale, Lamu, and Mandera. The map also shows the Indian Ocean to the east and Lake Turkana to the west. A legend in the bottom left corner defines the symbols for international, provincial, and district boundaries, as well as lakes and oceans. A scale bar at the bottom indicates distances up to 620 kilometers, and a north arrow is located near the legend.

GIS and Cartography by CBS