

PREFACE

This report presents findings from the 2007 Tanzania Household Budget Survey (HBS) for Mainland Tanzania. The main objective of the survey was to get information on levels of consumption and expenditure at household level for poverty mapping and analysis of changes in the standards of living of Tanzanians over a specific period of time.

The sample was based on the revised National Master Sample developed from the 2002 Population and Housing Census. A total of 447 clusters and 10,466 households were surveyed giving estimates for Mainland Tanzania disaggregated by Dar es Salaam region which is entirely urban, Other Urban and Rural Areas.

Unlike previous similar surveys, the 2007 Household Budget Survey collected data on the characteristics of the communities from which household level data are being gathered. The information on the characteristics of the communities have been analyzed and presented in a separate report.

To ensure comparability, the questionnaires used were similar to those used in the 2000/01 HBS but with some improvements. Similar to previous household budget surveys, the 2007 HBS collected information on a wide range of households and individual characteristics such as household members' education, economic activities, health status, household expenditure, consumption and income, ownership of assets and consumer goods, housing structure and building materials, distance to services and facilities and food security.

It is expected that this report will be a useful source of information to policy makers, academicians and other stakeholders. It will also facilitate planning within the government and the business community and will stimulate further research and analysis.



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A BRIEF OVERVIEW

This report presents the findings of the 2007 Tanzania Household Budget Survey (HBS), which covered Mainland Tanzania. The analysis focuses on poverty-relevant indicators, including those defined in the Government's five year programme for economic and social development; the National Strategy for Growth and Reduction of Poverty (NSGRP), commonly referred to by its Kiswahili acronym, MKUKUTA. The similarity of survey design and format to earlier Household Budget Surveys, conducted in 2000/01 and 1991/92, means that the report can often provide information on trends in key indicators over the period. The focus is particularly on changes since 2000/01.

The 2007 Household Budget Survey

A nationally representative sample of 10,466 households was interviewed. The sample was based on a revised national master sample developed out of the 2002 census data. Sampling weights were used to make estimates representative. Estimates are provided for the Mainland population as a whole and separately for three areas: Dar es Salaam, other urban areas and rural areas.

The HBS collected information on a range of individual and household characteristics. These included

- Household members' education, economic activities, and health status
- Household expenditure, consumption and income
- Ownership of consumer goods and assets
- Housing structure and materials
- Distance to services and facilities
- Food security.

Information was collected using one main household questionnaire, together with a diary recording household consumption, expenditure, and income over a calendar month. The 2007 HBS also undertook a community questionnaire, which has been analysed separately.

To ensure comparability, questionnaires were similar to those used in 2000/01. There were two major changes: standard occupation and industry coding was introduced for information collected on employment, and consumption items were classified according to a revised coding system. These two changes, while complicating some comparisons, allows for more detailed analysis than previously possible. Some modifications to the questionnaire were also made in order to capture information for MKUKUTA indicators.

KEY FINDINGS

Household Demographic Composition

Average household size has declined appreciably in all areas since 1991/92, from 5.7 to 4.8 members in 2007. The age distribution is broadly similar to the 2000/01 survey, although there has been a small increase in the proportion of individuals over 65. The proportion of dependants has increased in rural and other urban areas while decreasing in Dar es Salaam. Overall, some 19 percent of the population have a birth certificate or birth notification.

There has been an increase in the proportion of female-headed households in all areas between 2000/01 and 2007, and they now constitute almost one quarter of all households. There is a striking difference in the marital status of male and female household heads; while the majority of male household heads are married, women who head households tend to be widowed, divorced, or separated.

Household Dwellings, Facilities and Consumer Goods

There has been an increase in the proportion of households living in **dwellings made with modern materials** – concrete, stone, cement and metal. Nearly a third of all households are constructed with non-earth floors, a third with durable walls and over half with a metal roof. There has been an increase in the use of these materials in all areas since 2000/01, including rural areas.

The proportion of households in Tanzania that report a **connection to the electricity grid** has increased slightly, from 10 percent in 2000/01 to 12 percent in 2007. The proportion of households using solar electricity remains very low. Coverage by the grid continues to be concentrated in Dar Es Salam and other urban areas, with rural coverage only 2.5 percent in 2007. Coverage has declined in urban areas as whole; this might partly reflect the reclassification of peri-urban areas as urban since previous surveys.

Nationally, some 73 percent of households depend on firewood as their main **source of energy for cooking**, although this has decreased from 79 percent in 2000/01. Charcoal is the main source for 23 percent of households, up from 14 percent in 2000/01. In Dar es Salaam, there has been a marked shift towards using charcoal in place of paraffin/kerosene for cooking since 2000/01. Paraffin provides the main source of energy for **lighting** nationally, used by 83 percent of households; electricity is most common source only in Dar es Salaam.

Nationally, some 34 percent of households have use of piped water and another 18 percent use another protected source for **drinking water**. As would be expected, use of a piped source is much more common in urban areas. There has been a decline in the use of improved sources in all areas, with urban areas being particularly affected. Barriers to access to safe drinking water in the form of **long travel distances** continue to affect a large number of rural households; over half of these households must travel more than a kilometre to their drinking water source in the dry season. There has been a small increase in the proportion of households reporting a drinking water source within one kilometre in the population as a whole since 2000/01, largely driven by

urbanisation. However, overall only 39 percent of the population, and 28 percent of the rural population, are able to collect water from a protected source and return home within 30 minutes. For almost one quarter of rural households, collecting water requires more than one hour.

A large proportion of Tanzanian households report using a **toilet** in 2007, including in rural areas, with use of toilets continuing to stand at 93 percent nationally.

Since 1991/92, there has been a decline in the **distance** to some important services for the population as a whole – including markets, shops, a milling machine and public transport. Urbanisation is probably driving a continuation of some of these trends since 2000/01. The distance to a primary court and to a primary cooperative society appears to have increased.

The ownership of many **consumer goods** has continued to increase since the 1990s. Urban areas have seen the largest increase in the ownership of most electrical goods, although the ownership of many non-electrical goods has increased in rural areas. On access to communications, there has been a remarkable rise between 2000/01 and 2007 of the proportion of households that have a telephone – from just 1 percent to 25 percent, largely due to the mobile phone revolution. Computer ownership remains very low. There has also been a large increase in the proportion of households owning mosquito nets, with more than two thirds of households reporting them.

Education and Health

The level of **education of the adult population** has not changed greatly, with a quarter of adults never having had any education at all. In rural areas, about a third of adults have never had an education. The disparity between men and women continues to be large: 30 percent for adult women have no education compared with 17 percent of men. The proportion of women with no education has decreased from 33 percent in 2000/01 to 30 percent in 2007, however. Literacy rates have not changed substantially. These indicators would be expected to change slowly in the absence of a widespread campaign of adult education.

School attendance, on the other hand, has improved dramatically since 2000/01, with some 84 percent of seven to thirteen-year olds attending primary school in 2007, compared with 59 percent in 2000/01. The gap between urban and rural areas is also diminishing. While there continue to be many overage children in primary schools, children are now more likely than they were to enter school at the right age and to be in the correct class for their age. Girls now have similar or higher levels of attendance at primary school compared to boys.

Enrolment in **secondary education** has also increased. There has been an improvement in the net secondary school attendance ratio from 5 percent to 15 percent between 2000/01 and 2007, although levels are still quite low.

The reported **distance to a primary school** appears to have increased since 2000/01, particularly in rural areas. Almost half of rural households are more than two kilometres away from a primary school. This result is puzzling, in a period of expansion of primary education. In contrast, the

average **distance to secondary schools** in rural areas has fallen substantially, from over 15 kilometres in 2000/01 HBS to 8 kilometres in 2007.

The frequency and age distribution of **self-reported illness** is similar in the 2007 and 2000/01 surveys. Individuals in rural areas are the most likely to report having been ill or injured in the previous four weeks; some 27 percent of the rural population reported this. Adult women report more illness than men, and children under five and older adults report more than other age groups. Over two-thirds of individuals who reported illness or injury **consulted a health care provider** of some type – which is unchanged from 2000/01. Some 63 percent of individuals who consulted a health care provider used a government service, an increase from 54 percent in 2000/01. The greatest increase in **use of government health providers** has been in rural areas, suggesting they are increasing their reach to more disadvantaged populations. Moreover, there has been a modest increase in user satisfaction with government health services from 2000/01, although long waiting times and lack of key medicines are still cited as problems in government facilities.

Overall there has been little change in mean **distance to the nearest primary health facility**, which stands at 3.6 km. Rural households are significantly further away, with the mean distance being 4.6 km compared with around 1 km for Dar es Salaam and other urban areas. Mean distance to the nearest hospital is 32 km for rural households, compared with 13 km for urban areas outside Dar es Salaam. The reported distance to a hospital appears to have increased since 2000/01.

Productive Activities and Productive Assets

Most Tanzanians still depend on agriculture: some 68 percent of **employed adults** are in the agriculture, hunting and forests industry. There has been some decline in its importance, however, with 57 percent of adults 15-60 giving it as their main activity, compared to 62 percent in 2000/01. There has also been an increase in self-employment, with some 13 percent of adults reporting it as their main activity in 2007. Some 87 percent of adults are classed as employed. Unemployment – as measured by individuals without a job, and who are actively seeking work—stands at 1.5 percent nationally, with a markedly greater rate among 15-24 year olds in Dar Es Salam and urban areas. These figures do not reflect under-employment, however. Entry into new employment is dominated by agriculture and elementary occupations.

Cash income accruing to Tanzanians continues to be largely through agricultural products – with food crops continuing to dominate, providing the main source of cash income for some 40 percent of households. Cash crops have declined in importance, continuing the trend seen over the 1990s. Some 47 percent of households report **owning a business** in 2007, compared with 42 percent in 2001, with this proportion being a little over one half in Dar es Salaam and other urban areas.

Around 87 percent of rural households report **owning land** for agricultural purposes – which is slightly smaller than the proportion reported in 2000/01. The mean acreage of land owned in rural areas appears to have declined from 6 to 5 acres. Ownership of specialised agricultural equipment continues to be very low, suggesting that there has not been much headway in mechanisation. **Livestock ownership** in rural areas appears to have declined substantially since 2000/01, possibly related to losses during the droughts.

There has been a slight increase in the proportion of households with a **bank account**, although levels are still well below what they were in 1991/92. The proportion of rural households participating in formal and informal savings groups has doubled, but from a very low base: some 6 percent now participate in informal savings mechanisms, compared with around 11 percent in urban areas.

Household Consumption and Expenditure

Average consumption expenditure stands at around 20,212 TSh per person for 28 days. There are large differences between areas: in Dar es Salaam the average is around 42,074 TSh, some 2.5 times higher than the figure in rural areas of 16,418 TSh. This is a similar proportional difference to 2000/01.

Mean household consumption expenditure has increased by around 5 percent in real terms since 2000/01. This suggests that overall household incomes have risen slightly. This seems to be driven by the urbanization process and modest gains in rural areas. Indeed, average real consumption levels in urban areas appear to have stagnated, or even declined. This may partly have been a consequence of fuel price shocks in 2007.

Food remains the largest single component of consumption, with an average share of 64 percent; this includes the value of home-produced food. The share has declined slightly from 66 percent in 2000/01. As can be expected, rural households spend the highest proportion on food (some 66 percent) while households in Dar es Salaam spend the lowest (52 percent). The decline in the share of expenditure on food would tend to suggest an increase in household income, although increases in non-food prices, including fuel, might also have contributed to it.

The share of household expenditure on educational and medical expenses remains around 2 percent each. Households in Dar es Salaam and other urban areas spend more on these services than households in rural areas. There has been a rise in spending on non-durables from 25 to almost 27 percent between 2000/01 and 2007, while expenditure on telecommunications has risen from 0.1 percent to 1.3 percent.

Income Poverty and Inequality

Two different **poverty lines** were defined in the 2000/01 HBS report. The food poverty line represents the cost of obtaining sufficient food to meet calorie needs with a consumption pattern typical of the poorest 50 percent of the population. The basic needs poverty line includes an additional allowance for non-food essentials. These two poverty lines were updated for price inflation in order to assess poverty levels in 2007. They stand at TSh 10,219 and TSh 13,998 respectively. A similar measure of household consumption was also used in the 2007 analysis, to maximise comparability over time.

Some 34 percent of Tanzanians now fall below the basic needs poverty line and 17 percent below the food poverty line. This represents a small decline of about 2 percentage points in the **proportion of the poor** on both measures since 2000/01. This is not large enough to be

statistically significant at the 5 percent level. The decline between 1991/92 and 2007 is larger and is significant at the 1 percent level.

The absolute number of people living in poverty has increased since 2000/01, due to population growth. Based on official population projections, there are now 12.9 million Tanzanians below the basic needs poverty line compared with 11.4 million in 2000/01.

Poverty remains overwhelmingly rural, with some 83 percent of individuals below the basic needs poverty line being resident in rural areas. However the general increase in the urban share of the population has also been accompanied by a rise in the share of the poor living in urban areas.

Inequality in the population as a whole has remained unchanged since 2000/01 according to the Gini coefficient, which stands at 0.35. This measure shows a small fall in inequality in Dar es Salaam and other urban areas, although it is based on the more restricted consumption measure used in the poverty analysis, which does not reflect all elements of consumption. Overall, inequality has increased slightly since 1991/92.

The proportion of households that report usually taking only **one meal per day** remains very low, at about 1 percent in 2007 and 2000/01. An increased proportion report three or more meals per day being usual - from 51 percent in 2000/01 to 58 percent in 2007. This increase is concentrated almost entirely in rural areas. However, there is a decline in the frequency with which households report the consumption of meat and dairy products. This might be related to the decline in the reported ownership of livestock.

Poverty Profile

Households are **more likely to be poor** if they are large, and have a larger number of dependents; if they have a head who is economically inactive; or if they are dependent on the sale of food and cash crops or earning a living from natural products, rather than being part of the formal sector and receiving a wage, salary, or business income. Poverty is also strongly related to education: where the household head has above-primary level education, the household is five times less likely to be poor compared with one where the head has received no education. Many of these relationships were also observed in previous surveys.

The HBS also reveals correlations between poverty status and **key indicators for social sectors**. While the poor are still less likely to send their children to school than the non-poor, all have experienced a significant increase in the percentage of children studying. The poorest households have seen a rise in education participation rates of more than 30 percentage points between 2000/01 and 2007. Poor households remain less likely to consult someone when sick, although they make greater use of government health services. Poor households continue to have the least access to piped water – some 26 percent of the poorest households have piped water compared with 36 percent of the non-poor. The poor also have less connection to the electricity grid, and the limited extension of the grid has largely benefited the non-poor.

Poor households are **further** from social services: the mean distance to the nearest primary school is nearly twice as far as for non-poor households. The mean distance to the nearest dispensary or health centre is also greatest for the poorest households. The distance to primary schools appears to have increased, particularly for the poor, since 2000/01, although this is difficult to explain; the distance to other social services has remained similar. Access to market and to public transport appears to have improved slightly.

Household Income

Reported income is not always a reliable welfare measure and is often less accurate than consumption information. The results must, therefore, be interpreted with caution.

Mean household income per capita stands at around 39,362 TSh per month in 2007. Income is highest in Dar es Salaam at 80,144 TSh and is lowest in rural areas at 28,418 TSh. Per capita reported income appears to have risen faster than consumer prices in all areas, with the mean for 2007 being some 14 percent above the 2000/01 mean, when the latter is inflated with the price index used in the consumption analysis.

Consistent with the findings of the 2000/01 survey, wages and income from self-employment are the most important **sources of income** in urban areas, particularly in Dar es Salaam. The average share of household income deriving from self-employment has risen to around 30 percent in the population as a whole. In rural areas, there has been an increase in the proportion of income earned from sources other than the household farm: agricultural income now has an average share of around 40 percent.

As in 2000/01, there are large **disparities in income** between different earners. More educated individuals earn much more than the least educated. These differences appear to have increased since 2000/01. There are also substantial differences between the average incomes of men and women. Men earn around 1.7 times what women earn. While these differences will reflect a number of factors, they remain even allowing for the differences in education between men and women. However, the differences appear to have narrowed slightly compared with 2000/01, when men earned 1.9 times what women earned.

CONCLUSIONS: POVERTY AND WELFARE IN TANZANIA

This report focuses on the trends identified between the 2000/01 and 2007 household budget surveys. The larger urban fraction in the 2007 survey is noteworthy, reflecting both urban growth and the re-classification of areas as urban. While it may complicate the interpretation of trends within urban areas, it should not bias estimates for the population as a whole, and the findings should be reasonably robust to them.

Overall, many welfare measures have improved since 2000/01, if sometimes only by a modest amount. Few have deteriorated.

The expansion of schooling, particularly primary schooling, stands out as a major accomplishment. This expansion has included rural areas, the poor, and girls. There has been less substantial progress in the health sector, although government services are utilised more than they were, and government primary facilities are a particularly important source of care for the poor. In contrast, access to piped and protected water sources appears to have deteriorated since 2000/01. This is complicated by data comparability issues between surveys, but a comparison with the census suggests that there has been indeed some decline in access, focussed on urban areas.

There has been a continued diversification of economic activity, with other activities supplementing and supplanting agriculture. The ownership of farming land and livestock appears to have declined, the latter quite dramatically. However, reported incomes have increased. The structure of dwellings has improved and the ownership of assets has often increased. There appear to have been modest increases in household consumption levels, however, and only a small fall in consumption poverty. The number of poor has increased in absolute terms due to population growth.

While adult women have less education than men, girls have benefited from the recent improvements in school participation, and their primary school participation rates are as high as boys'. Women have continued to diversify their activities away from agriculture, if not as extensively as men. There also appears to have been a small decline in earning disparities between women and men. Households headed by women are no poorer than those headed by men. Women remain more likely to report illness than men, however. Long distances to collect water will continue to impose a burden on the time of rural women and children.

Some of the positive changes observed since 2000/01 are driven by the increasing urbanisation, with the more advantaged urban population forming a larger part of the national picture. A number of indicators have improved for the rural population, however, if often by less than for the national population as a whole. The rural population remains disadvantaged compared with urban, and there is an ongoing need to focus development efforts on there. That being said, urbanisation and its consequences will clearly be of increasing salience in the development of Tanzania in the coming years.

Key Indicators from the Household Budget Surveys

	1991/92	2000/01	2007
THE FAMILY			
Average household size	5.7	4.9	4.8
Mean percentage of dependants	40	42	43
Percentage of female-headed households	18	23	25
Percentage of the population with a birth certificate / notification	--	--	19
HOUSING, WATER AND SANITATION, COMMUNICATIONS			
Percentage of households with a modern roof	36	43	55
Percentage of households with modern walls	16	25	35
Average number of persons per room for sleeping	2.6	2.4	2.2
Percentage of households with electricity	9	12	13
Percentage of households with a protected water source	46	55	52
Percentage of population within 30 mins of protected water source	--	--	39
Percentage of households within 1 km of drinking water	50	55	57
Percentage of households using a toilet	93	93	93
Percentage of households owning a radio	37	52	66
Percentage of households owning a telephone	1	1	25
EDUCATION AND HEALTH			
Percentage of adult men with any education	83	83	83
Percentage of adult women with any education	68	67	71
Percentage of literate adults	--	71	73
Primary school net attendance ratio	--	59	84
Percentage of children aged 7-13 years studying	57	61	86
Secondary net enrolment ratio (forms I-IV)	--	5	15
Percentage of households within 2km of a primary school	66	63	62
Percentage of ill individuals who consulted any health provider	--	69	69
Percentage of users satisfied with health provider	--	--	68
Percentage of households within 6km of a primary health facility	75	75	76
ECONOMIC ACTIVITIES AND INFRASTRUCTURE			
Percentage of adults whose primary activity is in agriculture, livestock or fishing	73	62	57
Mean area of land owned by rural households (acres)	--	6.0	5.0
Percent of rural population who live within 2 km of an all-season passable road	--	--	52
Percentage of households with a member with a bank account	18	6	10
CONSUMPTION AND POVERTY			
Percentage of consumption expenditure on food	71	66	64
Percentage of population below the food poverty line	22	19	17
Percentage of population below the basic needs poverty line	39	36	33
Percentage of population living in female-headed households below the basic needs poverty line	35	35	33
Gini coefficient	0.34	0.35	0.35
Percentage of total consumption by the poorest 20 percent of population	7	7	7
Percentage of households who usually take no more than one meal per day	--	1	1

1 INTRODUCTION

1.1 Introduction

This chapter outlines the implementation of the 2007 Household Budget Survey (HBS). It describes the fieldwork, sampling scheme, questionnaires, the analysis performed and data quality issues identified.

1.2 Implementation of the 2007 Household Budget Survey

The most recent round of the National Bureau of Statistic's household budget surveys was undertaken in 2007. It followed similar surveys in 2000/01 and 1991/92. Preparations for the 2007 HBS began in July 2006 and field staff were trained in December of that year. Data collection began on the 1st of January 2007 in all 21 regions of Mainland Tanzania. The field work continued for 12 months and was complete by December 31st 2007.

The sample was smaller than the 2000/01 HBS. This is because the 2000/01 HBS provided separate estimates for each of the regions of Mainland Tanzania, whereas the 2007 survey was not intended to provide that level of disaggregation. The 2007 HBS had an intended sample of 448 clusters (villages or census enumeration areas) and 10,752 households.

The fieldwork was conducted in the same way as the 2000/01 HBS. Two households in each cluster were enumerated in each calendar month. Therefore, over the course of the survey, 24 households were to be interviewed per cluster. Enumerators, who were residents in or near the cluster, conducted an initial interview with the two households at the beginning of the survey month. They then visited households on a regular basis during that month for the purpose of recording households' daily transactions, covering expenditure, consumption and income. These visits were scheduled to be daily for the households without any literate member and every two to three days for others. Field work supervision was mainly done by NBS staff in regional offices. Regional supervisors collected and checked completed questionnaires before sending them to the head office in Dar es Salaam for data entry. They also observed a sample of interviews.

The data entry, using CSPPro, went on in parallel with field work and was completed in March 2008. Data consistency checks were developed to identify any inconsistencies in the entered data and errors were corrected by referring to the original questionnaire. Data cleaning continued until July 2008 and the analysis was completed by mid-November 2008.

1.3 Sampling and weights

The sample was based on a revised national master sample that has been developed out of the 2002 Census information. For the 2007 HBS, the national master sample provided the primary sampling units (PSUs) for the national urban and rural sample. It was supplemented with additional PSUs to provide a regional sample for Dar es Salaam, so that the survey provides estimates for Dar es Salaam region, other urban areas and rural areas.

Primary sampling units were selected using probability proportional to size, with the number of household recorded in the Census preparatory estimates being the measures of size. A comprehensive household listing was undertaken in each of the sampled clusters. Information on a number of durable assets was collected for each household during the listing exercise. This information was used to stratify households within each cluster into high, middle and low income households. Separate proportional samples were then drawn from each of these categories. The sample selection was done in the head office and each regional supervisor was supplied with their respective list of pre-selected households.

In total, the analysis includes 10,466 households and 447 of the intended 448 clusters. This is over 97 percent of the original intended sample size of 10,752 households. However, of the households included in the analysis, 13 percent were interviewed as reserve (replacement) households after the originally selected ones could not be found, a similar proportion to 2000/01. Replacements were particularly high in Dar es Salaam, where they constituted almost 19 percent of the sample analysed. Replacement is not usually considered a good practice because of the risk of introducing bias into the sample. This was minimised in the survey because households used as replacements had similar characteristics to those being replaced, although its frequency in Dar es Salaam raises concerns.

Table 1.1 shows the resulting sample sizes in each of the analytical areas and compares them to the previous HBS.

Table 1.1 Number of Primary Sampling Units and Households included in the analysis (HBS 2000/01 and HBS 2007)

	2000/01				2007			
	DSM	Other Urban	Rural	Total	DSM	Other Urban	Rural	Total
Number of clusters	57	566	535	1,158	152	158	137	447
Number of households	1,225	13,384	7,569	22,178	3,456	3,737	3,273	10,466

Analytical weights were defined as the inverse of each household's selection probability, taking into account the selection of the primary sampling units and stratification within each PSU. The weights were adjusted so that the sum of individuals by area was equal to its projected population for 2007. In some cases this adjustment was quite large, raising concerns about the listing process. Details of the sampling process and weights are given in Appendix A1.

The 2007 HBS has some 75 percent of the population in rural areas, compared with 80 percent in the 2000/01 HBS. This fall in the proportion rural will be driven by urban growth and by the re-classification of areas as urban. The latter may be substantial because the 2000/01 HBS used a sample frame based on the 1988 census. One result is that indicators for the population as a whole may be observed to improve between surveys even when there is little apparent change within each area, simply because the overall population is more urban. Dar es Salaam constitutes 7.5 percent of the 2007 sample and around 6 percent of the 2000/01 sample. These issues are discussed in more detail in Appendix A1.

In order to ease readability of the tables in this report, the sample size on which the estimates are based is not stated. However, estimates are based on more than 150 observations, unless indicated; usually they are based on many more. Sampling errors and confidence intervals are presented for some key variables in Appendix A1.

1.4 Areas Covered by the Survey and the Analysis

Similar to previous household budget surveys, the 2007 HBS collected information on a wide range of household and individual characteristics. Many indicators that are central to poverty monitoring in Tanzania can be estimated. This analysis has focused on indicators that are comparable to ones presented for previous surveys, with the aim of examining trends. They include consumption (income) poverty and other productive and social sector indicators. The HBS is an important instrument for monitoring progress under the Government's five year programme for economic and social development (MKUKUTA) and information is provided on these indicators where possible.

Information was collected on the following areas in the 2007 HBS:

- Household members' education, economic activities, and health status
- Household expenditure, consumption and income
- Ownership of consumer goods and assets
- Housing structure and materials
- Distance to services and facilities, and
- Food security

The 2007 HBS also included a community questionnaire, a new development compared with previous surveys. The data from that questionnaire have been analysed and presented in a separate report.

With the intention of maximising the comparability between surveys, the 2007 household questionnaire was very similar to that used in 2000/01. However, there were some differences. The two most substantial changes were in the information that was collected on employment, where standard occupation and industry coding was introduced, and in the classification of consumption items in the diary. This introduced the use of a revised 'Classification of Individual Consumption by Purpose' (COICOP) coding system which divides the consumption items into more detailed categories. The new coding system introduced some complications in terms of comparability to previous surveys but provided more detail than previously possible.

The 2007 questionnaire had some improvements in some sections in order to capture current circumstances and add information needed for some MKUKUTA indicators. For instance, information on access to the internet and ownership of mobile phones was added; as was possession of a birth certificate, and whether parents were still alive for respondents under the age 18. Other changes included additional questions to capture other dimensions of household

conditions facilities, such as the time spent collecting water and the distance to the nearest all-season passable road.

Overall, the household questionnaires are very similar and the data are generally comparable to that collected in 1991/92 and 2000/01. The report generally presents estimates disaggregated for Dar es Salaam, other urban areas and rural areas for this and the 2000/01 survey. Where appropriate, the 1991/92 estimates are also presented. A small number of tables include revised figures for the 2000/01 survey to ensure comparability with the analysis of the 2007 data.

The analysis focused on ensuring comparability over time. This was particularly important for the income poverty estimates, where the emphasis has been on assessing whether poverty has changed in the period since the previous HBS. It would be useful to consider how data analysis (and future data collection) might be improved to provide a more comprehensive measure of poverty in the future, and possibly a revised baseline estimate from this data. NBS will review this issue as part of its future work. A good deal more analysis could be conducted than is presented here, and future work and publications are expected to make additional use of the data.

The surveys provide information on the population for the years in which they were undertaken. This will, to varying degrees, reflect the particular economic and environmental circumstances at the time.

1.5 Data Quality

Since the survey was smaller than the 2000/01 survey, it was possible to provide a higher ratio of supervisors to interviewers than in the previous survey. NBS also had the benefit of recent experience of quality control in fieldwork, data processing and data cleaning in the 2000/01 survey. Some of its lessons could be built upon in the 2007 survey.

Nevertheless, a number of similar data quality concerns were observed in the 2007 data. They include a decline in the number of recorded household members and transactions over the period, suggesting 'interviewer fatigue' (see Appendix). They also include problems with age heaping and the 'shifting' of children's reported age to four years, which were seen in both surveys. On a positive note, the introduction of the revised COICOP coding, and changes made to it during the fieldwork period itself, seemed to have been dealt with successfully and there was no evidence for substantial item miscoding resulting from it.

Overall, the quality of the data was probably broadly similar to the previous survey and sufficient for a comparable analysis.

2 HOUSEHOLD DEMOGRAPHIC COMPOSITION

2.1 Introduction

This chapter presents information on household demographic structure, in particular: household size; the age, sex and marital status of household members; the number of dependants; and the distribution of household head by sex and age.

2.2 Household Demographic Structure

Average household size has declined appreciably in all areas since 1991/92, from 5.7 to 4.8 members in 2007 (Table 2.1). However, the decline has been smaller between 2000/01 and 2007, except Dar es Salaam, where one- and two-person households now constitute more than a third of the total (see Appendix tables).¹

Table 2.1 Average Household Size

	Dar es Salaam	Other urban areas	Rural areas	Mainland Tanzania
HBS 1991/92	4.8	4.9	5.9	5.7
HBS 2000/01	4.3	4.5	5.1	4.9
HBS 2007	3.7	4.4	5.1	4.8

The age distribution is broadly similar to the 2000/01 survey (Table 2.2). There has been a small increase in the proportion of individuals over 65. In Dar es Salaam, there has been a decline in the proportion of children under 15 years of age.

Table 2.2 Distribution of Household Members in Broad Age Groups

	Dar es Salaam		Other urban areas		Rural areas		Mainland Tanzania	
	00/01	2007	00/01	2007	00/01	2007	00/01	2007
0–14	34.9	32.6	40.3	41.0	45.7	45.7	44.3	43.9
15–29	34.7	32.5	30.4	28.2	25.1	23.6	26.4	25.1
30–44	18.7	22.2	17.1	17.9	15.3	15.5	15.8	16.4
45–64	9.5	10.3	9.5	9.5	9.9	10.3	9.8	10.2
65+	2.2	2.4	2.8	3.4	3.9	4.9	3.7	4.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

The age-sex distribution of the two surveys is shown in Table 2.3. As in 2000/01, the 2007 HBS has fewer men than would be expected in the age group 15-29 years. This may partly be due to a greater tendency to age exaggeration by men; migration by young men to reside in places not captured by the household sample frame is also likely to be part of the explanation.

¹ There is some evidence that household members have been under-reported during the latter part of the survey, suggesting that households may be somewhat larger than suggested here. However, since the previous surveys also had this problem, the trend is probably reliable (see Appendix A2).

Table 2.3 Distribution of Household Members by Sex and Age (%)

	Dar es Salaam		Other urban areas		Rural areas		Mainland Tanzania	
	00/01	2007	00/01	2007	00/01	2007	00/01	2007
Males								
0–14	16.5	16.4	20.1	20.4	23.1	23.1	22.3	22.1
15–29	15.8	13.7	12.5	12.0	11.0	10.8	11.5	11.2
30–44	9.8	11.5	8.7	8.9	7.6	7.6	7.9	8.1
45–64	6.0	5.8	4.9	4.8	4.9	5.1	4.9	5.1
65+	1.2	1.3	1.4	1.4	1.9	2.4	1.8	2.2
Total	49.1	48.7	47.5	47.5	48.5	49.0	48.4	48.7
Females								
0–14	18.4	16.2	20.2	20.6	22.6	22.7	22.0	21.8
15–29	18.9	18.8	17.9	16.2	14.1	12.8	14.9	13.9
30–44	9.0	10.8	8.4	9.0	7.8	7.9	7.9	8.3
45–64	3.5	4.4	4.6	4.7	5.0	5.2	4.9	5.1
65+	1.0	1.2	1.4	2.0	2.0	2.4	1.9	2.3
Total	50.9	51.3	52.5	52.5	51.5	51.0	51.6	51.3

Dependants are members of the household who are under the age of 15 or 65 years and above. The proportion of dependants is highest in rural areas and lowest in Dar es Salaam (Table 2.4). Overall, the proportion of dependants has increased in rural and other urban areas while decreasing in Dar es Salaam. This might partly be due to labour migration into Dar es Salaam, leaving older and younger members of the household elsewhere.

Table 2.4 Mean Proportion of Dependants by Area

	Dar es Salaam	Other urban areas	Rural areas	Mainland Tanzania
HBS 1991/92	0.30	0.34	0.42	0.40
HBS 2000/01	0.30	0.36	0.45	0.42
HBS 2007	0.27	0.38	0.46	0.43

There have also been some changes in the marital status of individuals over the period. There has been a small increase in the proportion of adults who are divorced / separated and who are widowed (Table 2.5). These trends are seen in both urban and rural areas (see Appendix tables).

Men are more likely to report never having been married, possibly due in part to a later average age of marriage. Women are noticeably more likely than men to be widowed or divorced. This will probably reflect higher male mortality (for widowhood) and possibly a tendency of men to re-marry more often.

Table 2.5 Distribution of Adults by Marital Status (age 15+ years)

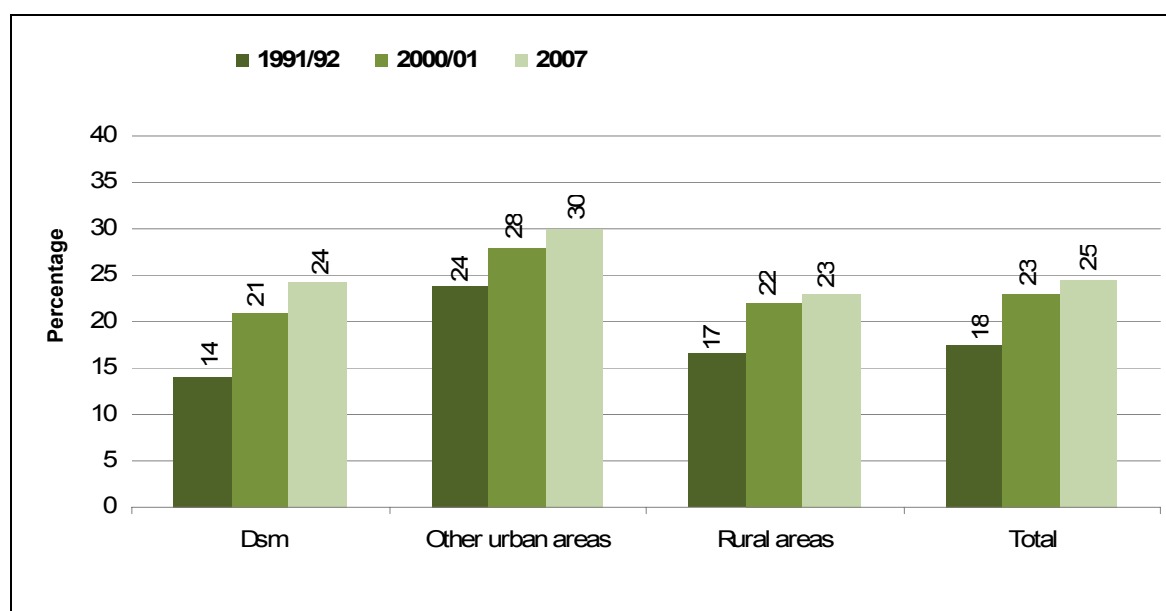
	Male		Female		Total	
	00/01	2007	00/01	2007	00/01	2007
Never married	35.4	33.8	23.3	23.1	29.0	28.2
Married/living together	59.9	60.4	61.2	59.2	60.6	59.7
Divorced/separated*	2.9	4.0	6.5	7.5	4.8	5.8
Widowed	1.7	1.8	9.0	10.3	5.6	6.2
Total	100.0	100.0	100.0	100.0	100.0	100.0

Note: the 2007 HBS collected separate information on 'living together' and 'separated', which has been combined here for clarity. A full breakdown is given in Appendix Table B2.6.

There has been an increase in the proportion of female-headed households in all areas between 2000/01 and 2007 (Figure 2.1 and Table 2.6), continuing a trend observed during the 1990s. This has been most marked in Dar es Salaam, where approximately one quarter of households are female-headed, compared to 21 percent in 2000/01. However, the highest proportion of female-headed households in Tanzania is in other urban areas, with 30 percent.

Table 2.6 Distribution of Households by Sex of the Household Head

	Dar es Salaam		Other urban areas		Rural areas		Mainland Tanzania	
	Male	Female	Male	Female	Male	Female	Male	Female
1991/92	85.9	14.1	76.1	23.9	83.3	16.7	82.4	17.6
2000/01	79.1	20.9	72.1	27.9	77.9	22.1	77.1	22.9
2007	75.5	24.4	69.9	30.1	77.0	23.0	75.5	24.5

Figure 2.1 Percentage of Female-headed Households by Area (HBS 1991/92, 2000/01 and 2007)

There is a striking difference in the marital status of male and female household heads, with the majority of male heads married while most female heads are widowed, divorced or separated (Figure 2.2). There appears to have been a large increase in the proportion of female heads who are widowed compared with the 2000/01 survey, from 34 to 41 percent (see Appendix tables). This might reflect the impact of HIV/AIDS. There has also been a small increase in the proportion of household heads over age 65 (Table 2.7).

Figure 2.2 Marital Status of Household Heads by Sex (HBS 2007)

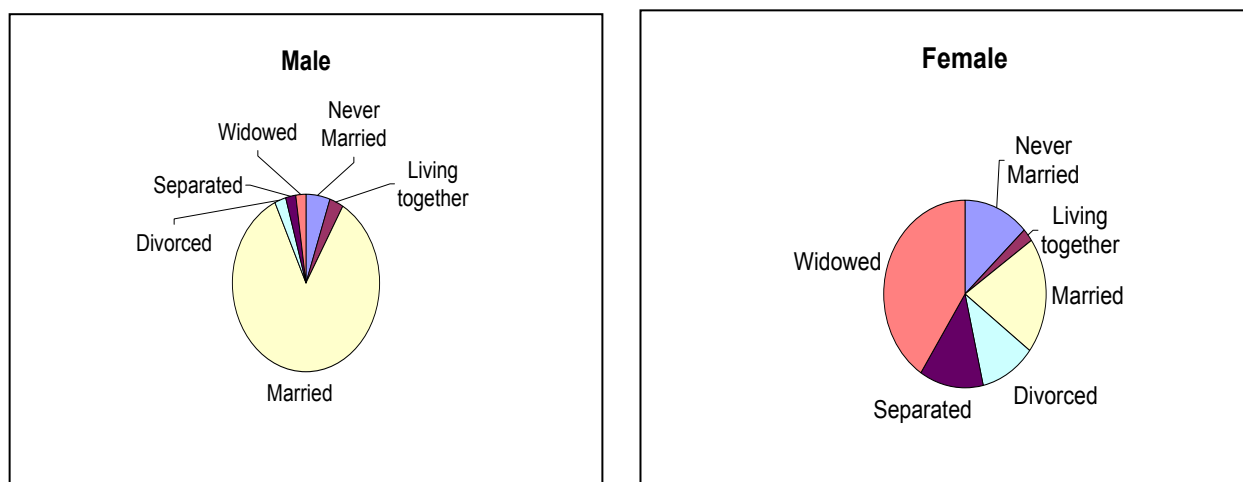


Table 2.7 Distribution of Households by Age of the Household Head

	Dar es Salaam		Other urban areas		Rural areas		Mainland Tanzania	
	00/01	2007	00/01	2007	00/01	2007	00/01	2007
Under 18	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0
18-29	20.3	20.8	20.3	18.1	16.6	14.7	17.4	15.9
30-44	45.2	47.5	43.2	44.1	39.9	37.8	40.7	40.0
45-64	29.5	26.7	28.5	28.7	31.0	31.8	30.5	30.7
65+	5.1	5.0	8.0	9.1	12.4	15.7	11.3	13.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

The 2007 HBS asked whether members of the household had a birth certificate or birth notification. Around 19 percent of the population had either one or the other (Table 2.8).² This was much more common in Dar es Salaam than elsewhere, and commoner for younger individuals than for older people.

Table 2.8 Possession of a Birth Certificate or Birth Notification

	Dar es Salaam	Other urban areas	Rural areas	Mainland Tanzania
Birth certificate	44.1	16.9	7.3	11.8
Birth notification	10.0	10.5	7.4	8.2
Neither	45.9	72.6	85.3	80.0
Total	100.0	100.0	100.0	100.0

2.3 Conclusions

This chapter has looked at the demographic make-up of households. It has shown a small fall in household size, and an increase in the proportion of the population over age 65 and the proportion widowed, divorced or separated. It has also shown an increase in the proportion of female-headed households, and illustrated the large differences in their marital status compared with male household heads. The changes seen between 2000/01 and 2007 are generally a continuation of trends observed during the 1990s.

² These figures exclude the 6 percent of cases where it was not known whether they had a birth certificate / notification or not.

3 HOUSEHOLD DWELLINGS, FACILITIES AND CONSUMER GOODS

3.1 Introduction

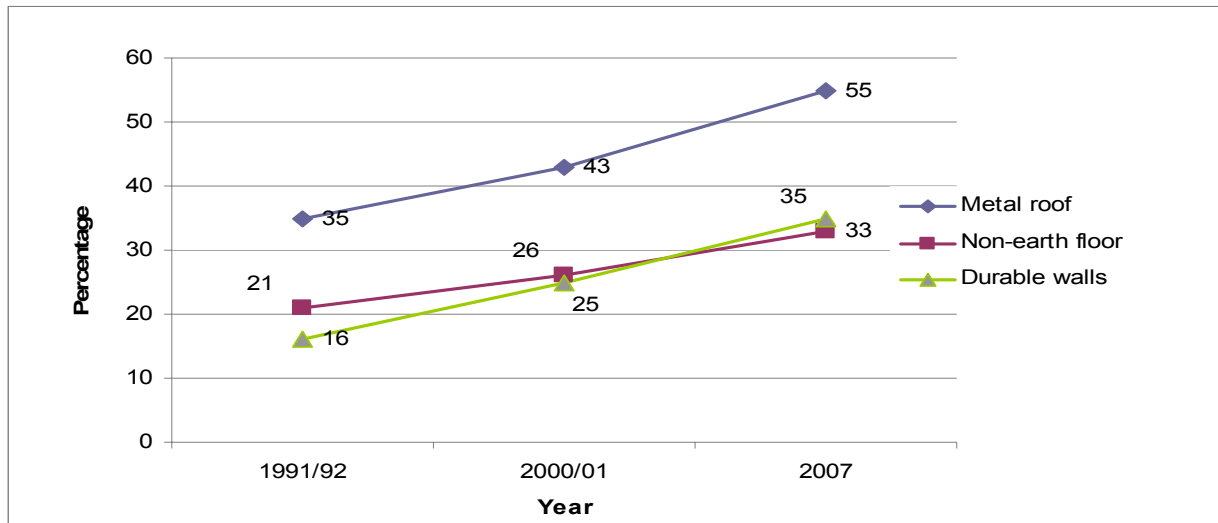
This chapter presents information on the construction of the dwelling and on household facilities, including the source of drinking water. It also provides information on ownership of consumer goods, housing tenure and distances to key social and economic services.

3.2 Housing Construction and Tenure

Information on building materials and tenure was collected on all buildings where household members reside (dwellings). For consistency and comparison with earlier surveys, the data is presented only for the household's primary building (Table 3.1 to 3.3). Patterns and trends are broadly similar if all buildings are included in the analysis.

The use of modern housing materials has increased in the population as a whole (Figure 3.1 and Table 3.1). Nearly a third of all households are constructed with durable walls, a third with non-earth floors and over half with a metal roof. The use of metal roofing sheets is commonest in urban areas. There has been an increase in the use of these materials in all areas since 1991/92. There have also been increases in these measures since 2000/01 in the population as a whole and in most areas, suggesting an increase in household wealth over the period.³

Figure 3.1 Percentage of Dwellings Constructed with Modern Materials



³ Although there appears to be small increase in earth floors in Dar es Salaam and a small decline in 'concrete/cement/stone' walls in other urban areas. The former might be due to changes in the sample distribution.

Table 3.1 Distribution of Households by Construction Materials

	Dar es Salaam			Other urban			Rural			Mainland Tanzania		
	1991/92	2000/01	2007	1991/92	2000/01	2007	1991/92	2000/01	2007	1991/92	2000/01	2007
House floor												
Earth	14.5	6.7	8.7	44.6	38.3	37.1	90.8	86.6	83.1	79.2	74.0	67.0
Cement, tiles etc	84.3	92.4	90.4	54.2	61.1	61.9	8.0	12.5	15.6	19.6	25.2	31.8
Other	1.2	0.9	1.0	1.2	0.5	0.9	1.2	0.9	1.3	1.2	0.8	1.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
House walls												
Poles, branches, grass	3.4	0.9	1.5	5.7	5.3	4.6	23.7	19.3	16.9	19.8	16.0	13.0
Mud & poles / stones	15.1	5.2	4.7	16.3	13.1	10.9	27.7	21.8	22.0	25.3	19.4	18.2
Mud only	2.0	2.2	1.9	11.1	12.1	10.3	14.6	18.1	12.0	13.3	16.1	10.7
Mud bricks	12.0	3.2	1.3	37.6	30.8	22.6	24.2	23.5	26.4	25.4	23.3	23.2
Baked / burnt bricks	4.8	1.3	1.6	11.9	15.9	29.9	8.1	13.7	18.8	8.5	13.2	19.3
Concrete, cement, stone	62.1	87.2	88.3	17.1	22.4	20.7	1.5	3.0	3.1	7.6	11.5	14.8
Other	0.7	0.0	0.5	0.2	0.4	1.0	0.1	0.6	0.9	0.2	0.5	0.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
House floor												
Grass, leaves, bamboo	1.1	1.1	2.1	21.7	14.3	12.3	63.1	55.7	48.2	53.1	45.8	36.8
Mud & grass	0.2	0.7	0.4	1.7	1.5	2.6	12.8	12.5	9.2	10.4	10.1	7.1
Concrete, cement	3.4	3.6	1.2	0.7	0.5	0.0	0.1	0.0	0.0	0.4	0.3	0.1
Galvanised metal sheets	91.5	91.7	94.4	74.2	81.9	84.1	23.8	31.1	41.8	35.4	42.8	55.1
Asbestos sheets	0.1	0.5	0.3	0.0	0.3	0.3	0.1	0.0	0.2	0.1	0.1	0.2
Tiles	3.8	2.4	1.2	0.5	1.0	0.2	0.0	0.1	0.0	0.3	0.4	0.2
Other	0.0	0.0	0.3	1.3	0.5	0.5	0.1	0.5	0.6	0.3	0.5	0.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table 3.2 Mean Number of Persons per Room for Sleeping

	Dar es Salaam	Other urban	Rural	Mainland Tanzania
1991/92	2.45	2.31	2.61	2.56
2000/01	2.50	2.21	2.44	2.41
2007	2.10	2.22	2.29	2.26

In general, there has been a decline in the average number of individuals per room for sleeping, with the exception of urban areas outside of Dar es Salaam. (Table 3.2). The larger decline in Dar es Salaam may be due the greater decline in average household size.

Table 3.3 Distribution of Households by Type of Tenure

	Dar es Salaam			Other urban			Rural			Mainland Tanzania		
	91/92	00/01	2007	91/92	00/01	2007	91/92	00/01	2007	91/92	00/01	2007
Owned by Household	31.2	32.4	38.8	55.8	54.2	55.0	95.3	94.5	92.3	85.4	84.3	79.9
Lived in Without Paying Rent	3.8	3.6	5.3	2.3	4.1	4.6	1.6	2.3	3.1	1.8	2.7	3.6
Rented Privately	54.6	54.9	52.5	36.9	35.9	37.6	2.0	2.3	3.3	10.5	10.8	14.7
Rented from NHC & other public real estate company	5.5	5.6	1.0	1.6	1.8	0.2	0.1	0.0	0.1	0.6	0.7	0.2
Rented From Employer (inc. govt.)	1.5	1.5	1.5	0.8	1.0	1.7	0.5	0.4	0.9	0.6	0.6	1.1
Subsidised Renting From Employer (inc. govt.)	2.7	1.2	0.6	0.8	1.1	0.5	0.3	0.2	0.0	0.5	0.4	0.2
Subsidised Renting From Relative / Friend	0.7	0.7	0.2	1.7	1.8	0.4	0.1	0.2	0.2	0.4	0.4	0.3
Other	0.0	0.1	0.1	0.0	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Total	100	100	100	100	100	100	100	100	100	100	100	100

Overall there has been a small increase in privately rented accommodation and a decrease in household ownership since 2000/01 (Table 3.3). However, there has been an increase in the frequency of owner-occupiers in Dar es Salaam.

3.3 Household Facilities and Distances to Services

Table 3.4 Percentage of Households with Electricity

Measure	Dar es Salaam	Other Urban Areas	Rural areas	Mainland Tanzania
Any electricity HBS 1991/92	51.4	21.7	2.6	8.5
Electricity grid HBS 2000/01	58.9	29.7	2.0	10.0
Electricity grid HBS 2007	55.0	25.9	2.5	12.1
Solar electricity HBS 2000/01	1.3	1.7	1.6	1.6
Solar electricity HBS 2007	0.7	0.9	0.5	0.6

The proportion of households in Tanzania that report a connection to the electricity grid has increased slightly, from 10 percent in 2000/01 to 12 percent in 2007 (Table 3.4). This is due to increased urbanisation and a small increase in coverage in rural areas, since there has been a decrease in urban areas. This may partly be due to changes in the classification of areas as urban since 2000/01 and the composition of the sample in Dar es Salaam.⁴ Nevertheless, the grid still predominantly serves the urban population. The proportion of households using solar electricity remains very low and has even declined slightly.

In Dar es Salaam, the most common source of energy for lighting is electricity, whereas paraffin is most prevalent in other urban areas and rural areas (Table 3.5). Since 2000/01, there has been a reduction in the use of electricity for lighting in urban areas, in keeping with Table 3.4, and an increase in the use of kerosene. Although firewood remains much the most common source of fuel for cooking in rural areas, the use of charcoal has increased from 4 percent in 2000/01 to 7 percent in 2007. Despite a decline in the use of charcoal in Dar es Salaam between 1991/92 and 2000/01, its use has increased to 75 percent in 2007, replacing paraffin. This might reflect changes in prices, particularly the rise in oil prices in 2007. In the population as a whole, the use of charcoal has increased substantially since 2000/01.

⁴ In particular, the small rural sample in Dar es Salaam has an appreciable influence on the trends in this measure for the region. If the urban population is analysed separately, then there is only a very small decline in the coverage of the grid there (see Appendix 1).

Table 3.5 Distribution of Households by energy source for lighting and cooking

	Dar es Salaam			Other urban areas			Rural areas			Mainland Tanzania		
	91/92	00/01	07	91/92	00/01	07	91/92	00/01	07	91/92	00/01	07
Lighting												
Electricity	50.2	57.3	54.3	20.7	29.1	26.5	0.5	2.0	2.7	6.6	9.8	12.5
Gas - biogas**	1.5	0.1	0.0	0.6	0.1	0.0	0.4	0.2	0.1	0.5	0.2	0.1
Paraffin /Kerosene*	48.2	40.4	42.4	78.7	69.6	72.0	95.2	90.4	91.2	89.8	83.9	83.0
Candles	0.0	1.8	2.6	0.0	0.3	0.8	0.0	0.3	0.8	0.0	0.4	1.0
Firewood & other	0.1	0.5	0.3	0.0	0.7	0.7	3.9	7.1	5.2	3.1	5.7	3.6
Total	100	100	100	100	100	100	100	100	100	100	100	100
Cooking												
Electricity	9.7	4.8	2.2	4.8	3.2	1.5	0.2	1.3	0.2	1.5	1.8	0.5
Gas – industrial	1.2	0.4	0.9	0.6	0.1	0.2	0.1	0.3	0.1	0.2	0.3	0.2
Gas – biogas	N/A	0.2	0.1	N/A	0.1	0.0	N/A	0.1	0.0	N/A	0.1	0.0
Paraffin /Kerosene*	33.7	43.0	12.4	13.3	8.9	6.0	1.4	1.0	0.7	5.2	5.0	3.0
Coal	1.1	0.6	0.4	0.3	0.3	0.1	0.1	0.0	0.2	0.2	0.1	0.2
Charcoal	52.1	46.2	74.9	36.6	53.3	53.9	2.5	3.9	7.0	10.6	14.2	22.7
Firewood	1.2	4.6	8.0	43.4	33.8	37.7	94.9	93.4	91.8	81.5	78.5	73.1
Wood/farm residuals	N/A	N/A	0.0	N/A	N/A	0.2	N/A	N/A	0.1	N/A	N/A	0.1
Other	1.0	0.3	1.1	1.0	0.2	0.2	0.8	0.0	0.0	0.8	0.1	0.1
Total	100	100	100	100	100	100	100	100	100	100	100	100

Notes: The 2007 survey disaggregated electricity between the grid and other sources. * Only paraffin in 1991/92 and 2000/01; ** Biogas in 2007

The surveys collected information on the source of household drinking water and the distance to that source in the dry season. The source is used as an approximate indicator of the quality of the water. Overall, some 48 percent of all Tanzanian households, and 60 percent of the population in rural areas, depend on an unprotected source of drinking water (Table 3.6). Almost 34 percent of households have use of piped water and another 18 percent use a protected well or spring. As would be expected, use of a piped source is much more common in urban areas.

The results show a decrease in the use of piped water and other protected sources in all areas. In the Dar es Salaam and other urban areas, the proportion of households with any piped water, and with water piped into the dwelling, has declined. There has been an increase in reliance on other sources. The proportion of rural households with access to piped water has also declined. However, these results must be interpreted with caution. The apparent changes since 2000/01 are very large for such a short period. While it seems clear that there has been some decline in the coverage of the piped water systems in urban areas, there are also concerns that there may have been changes in classification between the surveys, particularly for piped water.⁵ A comparison with the Census data suggests that the 2000/01 HBS might have overstated access to piped

⁵ This is especially a concern in Dar es Salaam and other urban areas where it is common for water from a well to be pumped into storage tanks before being piped into urban households. This may have led to drinking water from a well being misclassified as 'piped in' by respondents, particularly in the 2000/01 survey. The 2007 interviewer training gave explicit guidance on this issue, while the 2000/01 HBS did not. The 2007 survey also introduced the response category of 'water vendor', which was not included in earlier surveys.

water, and so the apparent decline is overstated. However, the Census data comparison also suggests that there has been some deterioration in water sources since 2002, concentrated in urban areas (see Appendix tables).

Table 3.6 Source of Drinking Water

	Dar es Salaam			Other urban areas			Rural areas			Mainland Tanzania		
	91/92	00/01	07	91/92	00/01	07	91/92	00/01	07	91/92	00/01	07
Piped plus protected	97.0	93.7	85.2	83.6	88.0	76.6	34.9	45.9	40.4	46.0	55.3	51.8
Any piped water	93.1	85.8	61.5	72.7	75.6	60.8	24.6	28.3	22.8	35.9	39.3	33.9
Private piped (tap) water in housing unit	22.1	13.7	8.0	20.3	15.1	12.6	1.1	0.8	0.9	5.2	3.8	3.8
Private piped (tap) water outside housing unit	52.6	19.1	11.8	22.7	17.0	11.5	3.3	2.1	2.0	9.2	5.5	4.8
Piped water on neighbour's housing unit	N/A	46.4	37.6	N/A	28.9	20.4	N/A	3.5	3.5	N/A	10.2	10.1
Piped water on community supply	18.4	6.6	4.1	29.7	14.6	16.3	20.2	21.9	16.4	21.5	19.8	15.2
Any other protected source	3.9	7.9	23.7	10.9	12.4	15.8	10.3	17.6	17.7	10.1	16.0	17.9
Public well (protected)	3.5	4.7	7.1	10.5	7.5	7.9	9.4	13.3	12.5	9.2	11.6	11.1
Private well (protected)	0.4	3.2	16.6	0.4	4.2	6.7	0.7	1.4	2.9	0.7	2.0	5.0
Spring (protected)	0.0	0.0	0.0	0.0	0.7	1.2	0.2	2.9	2.2	0.2	2.4	1.8
Other sources												
Public well (unprotected)	1.7	2.2	4.3	5.5	5.1	7.2	26.5	21.2	23.9	21.9	17.5	18.8
Private well (unprotected)	0.1	1.0	1.5	0.8	1.2	2.2	2.6	3.8	3.9	2.2	3.2	3.4
Spring (unprotected)	0.0	0.2	0.3	0.4	2.0	2.3	11.6	12.4	11.2	9.2	10.0	8.4
Rain catchment tank	N/A	N/A	0.2	N/A	N/A	0.2	N/A	N/A	0.9	N/A	N/A	0.7
River, Dam, Lake	0.0	0.1	0.0	3.4	3.0	5.4	23.2	15.8	18.5	18.8	12.8	14.2
Water vendor	N/A	N/A	8.1	N/A	N/A	5.9	N/A	N/A	0.6	N/A	N/A	2.4
Other	1.4	2.8	0.1	6.2	0.8	0.2	1.2	0.9	0.6	2.0	1.0	0.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Household drinking water supplies are much closer in urban areas than in rural areas (Table 3.7). Over half of rural households have to travel more than one kilometre to their drinking water source in the dry season. There has been an increase in the proportion of households reporting a drinking water source within one kilometre in the population as a whole, although this is largely due to the increased proportion of the population that is urban, since access has improved only slightly in rural areas and appears to have deteriorated in urban areas. Overall, there has been a slight decrease in the mean distance to drinking water for the population as a whole.

Table 3.7 Distribution and Mean Distance to Drinking Water in the Dry Season

	Dar es Salaam			Other urban areas			Rural areas (other)			Mainland Tanzania		
	91/92	00/01	2007	1991/92	2000/01	2007	91/92	00/01	2007	1991/92	2000/01	2007
Distribution of distance:												
Less than one km	88.5	84.0	82.0	66.8	73.2	70.5	43.8	48.9	49.6	49.9	54.9	56.8
1 to 1.9	7.8	6.5	9.7	17.3	12.2	13.1	25.0	21.1	18.5	22.8	18.8	16.6
2 to 2.9	2.3	1.7	2.9	8.7	6.7	5.7	11.2	9.4	10.8	10.3	8.5	9.1
3 to 3.9	0.1	3.3	3.2	2.1	4.1	5.4	7.1	8.8	8.5	6.0	7.8	7.4
4 to 5.9	0.6	2.3	0.8	4.2	1.9	1.9	6.7	3.6	4.8	6.0	3.2	3.8
6+	0.6	2.2	1.4	0.9	1.9	3.4	6.1	8.2	7.9	5.0	6.9	6.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Mean	0.2	0.5	0.4	0.7	0.6	0.7	1.5	1.7	1.6	1.3	1.5	1.3

Note: This table presents distances as they were recorded by interviewers which were integers ('1 to 1.9' for example was recorded as '1')

Information was also collected on the time taken to go to collect water from the source and return. The greater distances in rural areas translate into an average of 40 minutes to do this, with almost one quarter of households reporting that it took over an hour (Table 3.8). This is a substantial burden on the time of those who do this task, commonly women and children. Some 39 percent of the population are in households that are able to collect water from a piped or protected source and return within 30 minutes; this is the case for only 28 percent of the rural population.

Table 3.8 Time taken to collect water for consumption

	Dar es Salaam	Other urban areas	Rural areas	Mainland Tanzania
Time				
Zero	10.6	16.9	1.7	5.5
1 – 14 min	61.8	44.2	29.7	35.6
15 – 29 min	13.9	14.7	20.5	18.7
30 – 59 min	8.5	15.4	23.7	20.6
More than 1 hour	5.2	8.9	24.4	19.6
Total	100	100	100	100
Mean time (minutes)	15.8	18.5	40.3	33.7
Proportion of individuals able to collect water from a piped/protected source and return within 30 mins ¹	80.7	68.1	27.6	38.7

Note: ¹ includes those that reported exactly 30 minutes.

Table 3.9 Distribution of Households by Type of Toilet

Type of Toilet Facility	Dar es Salaam			Other urban areas			Rural areas			Mainland Tanzania		
	91/92	00/01	2007	91/92	00/01	2007	91/92	00/01	2007	91/92	00/01	2007
No toilet	1.3	5.7	1.1	1.8	2.3	2.7	8.7	8.1	9.5	7.2	7.1	7.4
Flush toilet	9.3	10.6	10.3	3.4	7.5	5.6	0.2	0.5	1.0	1.3	2.2	2.8
Pit Latrine	89.1	82.0	80.5	94.6	87.5	78.6	90.3	90.8	87.2	90.9	89.7	84.9
VIP	0.2	1.7	7.8	0.2	2.5	12.9	0.6	0.4	2.2	0.5	0.8	4.8
Other	0.1	0.0	0.2	0	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1
Total	100	100	100	100	100	100	100	100	100	100	100	100

There has been little change in the proportion of households that have use of a toilet since the 1990s (Table 3.9). Some 93 percent of households reported using a toilet of some type – a large number of households still use simple pit latrine. In rural areas, 90 percent of households report having use of a toilet. The proportion of households using a toilet has increased in Dar es Salaam. There appears to have been an increase in the use of VIP (improved) pit latrines, although this may be due to better classification in the most recent HBS.

Table 3.10 Distribution of Households by Means of Garbage Disposal

Means of garbage disposal	Dar es Salaam			Other urban areas			Rural areas			Mainland Tanzania		
	91/92	00/01	07	91/92	00/01	07	91/92	00/01	07	91/92	00/01	07
Rubbish pit in compound	2.1	14.6	15.4	3.7	24.7	33.5	3.1	23.5	31.9	3.2	23.1	30.6
Rubbish pit outside compound	87.0	38.4	21.3	76.4	44.9	36.6	40.4	27.1	23.8	48.6	30.5	26.0
Rubbish bin	5.3	20.3	32.8	4.8	8.8	9.0	1.1	0.5	0.4	1.9	3.1	5.2
Thrown inside compound	0.3	1.2	3.1	2.3	8.9	7.2	3.9	22.8	27.7	3.4	19.3	21.3
Thrown outside compound	5.3	16.2	22.4	9.2	11.8	12.1	40.0	24.5	15.1	33.3	22	15.2
Other	0.0	9.3	5.0	3.5	0.9	1.6	11.5	1.6	1.1	9.6	2.0	1.6
Total	100	100	100	100	100	100	100	100	100	100	100	100

There has been a continuous decrease in the disposal of garbage outside the household compound and an increase in disposal in a pit inside the compound (Table 3.10). There has been an increase in the use of rubbish bins in Dar es Salaam, although there has also been an increase in rubbish thrown outside the compound. Although these changes may appear to be large, it is difficult to know how precisely different categories were distinguished by respondents.

Table 3.11 Mean Distance to Selected Social and Economic Facilities by Area (Km)

	Dar es Salaam			Other urban			Rural			Mainland Tanzania		
	91 /92	00 /01	07	91 /92	00 /01	07	91 /92	00 /01	07	91 /92	00 /01	07
Firewood /charcoal ¹	**	0.2	1.9	**	1.2	2.6	3.2	3.2	2.8	(3.2)	2.7	2.8
Charcoal only	**	**	0.3	**	**	0.4	**	**	1.7	**	**	1.1
Market place	0.8	0.6	0.5	1.0	0.5	0.7	5.3	3.5	3.3	4.4	2.9	2.5
Shop	0.2	0.1	0.1	0.3	0.3	0.3	2.1	1.9	1.9	1.7	1.5	1.4
Church /mosque	0.6	0.4	0.5	1.2	0.6	0.8	2.0	1.7	2.2	1.8	1.4	1.7
Primary court	2.3	2.6	3.7	1.9	2.7	3.0	10.2	11.9	14.7	8.5	9.9	11.3
Household main farm	**	**	13.0	5.9	5.9	5.1	2.0	2.1	1.8	2.5	2.8	2.5
Public transport	0.7	0.5	0.6	1.0	0.8	0.8	6.1	5.4	5.3	5.0	4.4	4.0
Milling machine	0.4	0.8	0.8	0.5	0.4	0.5	4.4	2.4	2.5	3.6	2.0	1.9
Primary co-op society	**	1.8	1.4	**	2.9	3.4	3.4	5.2	8.3	3.2	5.0	7.3
Bank	N/A	3.0	4.3	N/A	8.5	15.2	N/A	37.6	37.7	N/A	30.5	30.2
Post Office	N/A	2.6	3.6	N/A	4.7	5.7	N/A	28.1	29.9	N/A	22.6	22.7
Police Post	N/A	1.1	1.6	N/A	1.9	2.4	N/A	18.7	18.5	N/A	14.9	13.8
Community /soc. centre	N/A	0.6	0.7	N/A	0.8	0.9	N/A	2.4	2.3	N/A	2.0	1.8

Notes: ¹Only firewood in 1991/92 and 2000/01; Estimates with over 10% of missing values are given in brackets; estimates with over 40 percent of missing values are suppressed and indicated with **. N/A indicates that the information was not collected.

As would be expected, most facilities are much closer to urban households than to rural households. A shop and a source of charcoal are the closest facilities for rural households (in addition to the farm). Since 1991/92, there has been a decline in the distance to some important services for the population as a whole – including markets, shops, a milling machine and public transport (Table 3.11). Access to a market and to public transport has continued to improve since 2000/01. This will partly be driven by increasing urbanisation. The average distance to a primary court and to a primary cooperative society appears to have increased.

The 2007 HBS shows that some 52 percent of the rural population are within 2 kilometres of a road that is passable in all seasons. This information was not collected in earlier surveys.

3.4 Ownership of Consumer Goods

Table 3.12 Percentage of Households Reporting Ownership of Selected Consumer Goods by Area

	Dar es Salaam			Other urban			Rural			Mainland Tanzania		
	91/92	00/01	07	91/92	00/01	07	91/92	00/01	07	91/92	00/01	07
Radio / radio cassette	79.5	79.6	79.1	55.7	71.5	73.3	30.6	45.7	62.2	37.4	51.9	66.0
Telephone - any	1.9	9.8	66.6	2.3	2.9	43.3	0.1	0.2	14.3	0.5	1.2	25.0
Landline	NA	NA	2.9	NA	NA	1.9	NA	NA	0.6	NA	NA	1.1
Cellphone	NA	NA	65.8	NA	NA	42.5	NA	NA	13.9	NA	NA	24.5
Refrigerator /freezer	7.1	20.2	26.9	2.9	5.6	8.0	0.1	0.4	1.1	1.0	2.5	4.9
Sewing machine	9.9	14.3	13.7	8.4	14.2	12.2	2.0	3.1	4.1	3.4	5.5	6.6
Television	0.8	20.1	40.3	0.6	7.0	15.8	0.0	0.2	1.8	0.1	2.6	8.2
Video	3.6	15.0	22.1	1.1	6.6	11.9	0.6	1.0	1.2	0.9	2.7	5.3
Chairs	83.7	81.9	82.5	92.7	88.2	85.9	81.0	74.7	76.6	82.9	77.2	79.0
Sofas	34.5	65.2	71.8	26.6	48.4	50.0	4.1	9.0	14.0	9.3	18.7	26.6
Tables	87.4	87.3	86.4	90.5	86.5	85.3	58.7	60.9	63.6	65.2	66.5	70.1
Watches	44.4	62.5	59.3	47.3	53.4	54.3	36.6	31.6	39.5	38.7	36.9	44.3
Beds	91.9	95.2	95.8	91.0	93.9	93.4	82.0	83.7	89.5	83.9	86.0	90.0
Lanterns	72.8	67.8	66.3	90.4	74.5	71.3	86.5	44.4	48.4	86.2	50.5	54.6
Computer	N/A	1.4	3.5	N/A	1.5	0.5	N/A	1.4	0.1	N/A	1.4	0.5
Kitchen utensils	66.5	87.1	92.0	76.9	92.9	93.9	88.3	92.2	93.7	85.3	91.9	93.6
Mosquito nets	N/A	79.6	92.6	N/A	66.3	84.1	N/A	27.9	61.3	N/A	37.1	68.9
Iron (charcoal / electric)	50.4	52.6	54.0	36.1	46.3	41.7	17.2	18.9	18.4	22.1	25.3	26.4
Electric/gas stove	16.6	13.4	11.2	7.8	8.9	7.0	0.6	1.2	1.0	2.7	3.2	3.2
Other stove	81.1	89.7	85.8	52.9	77.9	74.8	12.6	27.5	25.6	22.8	39.3	41.0
Water heater	12.2	8.5	11.8	21.1	20.7	15.6	17.8	23.4	14.2	18.0	22.0	14.1
Record / tape player	2.5	1.7	1.9	3.0	2.1	1.7	0.6	1.3	1.4	1.1	1.5	1.5
Complete music system	2.2	2.5	4.9	1.3	1.2	1.6	0.8	0.5	0.4	1.0	0.7	1.0
Books (not for school)	25.2	22.5	38.5	29.1	33.7	34.7	23.9	29.6	29.3	24.7	29.8	31.1
Motor vehicle	2.7	5.9	4.8	1.7	2.2	2.2	0.5	0.7	0.3	0.8	1.3	1.1
Motor cycle	0.4	1.4	1.2	1.5	1.8	2.9	0.6	0.7	1.2	0.7	0.9	1.5
Bicycle	9.7	11.6	12.9	21.9	34.3	35.9	24.8	38.4	45.4	23.4	36.0	40.5
Dish antenna /decoder	N/A	10.6	7.2	N/A	3.9	6.2	N/A	2.2	1.2	N/A	3.0	2.7

The proportion of households owning selected consumer goods is shown in Table 3.12. Ownership of nearly all of these items has continuously increased from 1991/92 to 2007. However, there are a few exceptions to this trend which can, in general, be explained by the replacement of older technologies with newer ones (eg. record/tape players replaced by CD players). There has been a large increase in the proportion of households owning mosquito nets and mobile phones, although computer ownership remains very low.

It is not surprising that the ownership of electrical items has increased much more in urban areas than in rural areas because of higher coverage of the electricity grid in urban areas. Ownership is particularly high in Dar es Salaam. However, ownership of a number of other items has increased in rural areas including radios, bicycles, mosquito nets, kitchen utensils and beds.

In so far as the ownership of household goods may be considered an approximate indicator of a household's wealth, there would appear to have been some increase in wealth in all areas, both over the whole period and since 2000/01.

3.5 Conclusions

This chapter has examined indicators of dwelling construction and access to basic facilities, including drinking water. There have been improvements in the use of modern construction materials across mainland Tanzania. This has been observed in all areas. There has been a decline in the density of occupation, as measured by persons per room for sleeping. In the Mainland population as a whole there has been little change in housing tenure since 2000/01.

There has been a small increase in the coverage of the electricity grid since 2000/01. This has been driven by urbanisation, although urban areas show a decline in the proportion of households connected to the grid. Solar power remains rare. There appears to have been a substantial increase in the use of charcoal since 2000/01, accompanied by a decline in the use of kerosene in Dar es Salaam and a small decline in the use of firewood in rural areas.

There has also been a decrease in the use of piped water and other protected sources in all areas, with urban areas particularly affected. While this decline appears to be large, it might in part be due to changes in the classification of water sources since the 2000/01 HBS. A comparison with the 2002 Census data suggests a much more modest decline, concentrated in urban areas. Only 42 percent of all households, and 30 percent of rural ones, are able to collect water from a protected source and return home within 30 minutes. A large proportion of households in Tanzania report using toilets; over 93 percent use toilets, even in rural areas. This has remained fairly constant over time.

A shop and a source of charcoal are the closest facilities for rural households, while banks, post offices and police posts are the most distant. Since 1991/92, there has been a decline in the distance to some important services for the population as a whole – including markets, shops, a milling machine and public transport. Urbanisation is probably driving a continuation of some of these trends since 2000/01. The distance to a primary court and to a primary cooperative society appears to have increased.

The ownership of many consumer goods has continued to increase since the 1990s. Urban areas have seen the largest increase in the ownership of most electrical goods, although the ownership of many non-electrical goods has increased in rural areas. The increase in the ownership of mosquito nets and mobile phones is noteworthy.

4 EDUCATION AND HEALTH

4.1 Introduction

The 2007 Household Budget Survey collected information on the education and health status of household members, on the use of these services and the distances to education and health facilities. This chapter reports on the two sectors.

4.2 Education

For individuals of five years and older, the 2007 HBS collected information on literacy and school attendance. Information was recorded on the highest class completed, current school attendance and class attended, and reasons for non-attendance.

The level of education of the adult population has not changed greatly, and around one quarter still have no education (Table 4.1). Since 1991/92, there has been an overall increase in the proportion of adults who have education of Standard 5 and above. Since 2000/01, there has been a modest increase in the proportion who have some secondary education or above, although this is still just around 10 percent of the population. Modest changes in these measures since 2000/01 are perhaps not surprising. Since most adults are no longer in education, improvements to these indicators come about largely as more educated youngsters enter the adult population – this is inevitably a fairly slow process.

Table 4.1 Highest Level of Education Achieved by Adults

Level Achieved	Dar es Salaam			Other urban			Rural			Mainland Tanzania		
	91/92	00/01	2007	91/92	00/01	2007	91/92	00/01	2007	91/92	00/01	2007
No education	9.0	7.6	7.9	13.0	13.1	12.1	28.0	29.0	28.5	24.9	25.2	23.6
Adult education only	1.2	0.9	0.4	1.3	1.1	0.7	3.7	2.3	1.2	3.3	2.1	1.1
Primary 1 - 4	8.6	6.4	5.2	14.3	9.8	7.9	15.8	12.8	12.3	15.2	11.9	10.9
Primary 5 - 8	57.0	60.6	57.0	58.8	57.6	58.9	49.0	52.5	52.4	50.7	53.8	54.0
Form 1 - 4	17.4	14.9	16.6	8.9	12.7	13.7	2.1	2.2	4.1	3.9	4.6	7.0
Form 5 - 6	1.4	1.7	2.4	1.0	0.9	1.0	0.1	0.2	0.2	0.3	0.4	0.6
Diploma / university	1.6	2.9	2.6	0.4	0.7	0.9	0.0	0.1	0.3	0.2	0.4	0.6
Course after primary	0.2	1.6	2.0	1.1	1.4	1.4	0.8	0.4	0.5	0.8	0.6	0.8
Course after secondary	2.3	2.7	4.8	0.6	2.2	2.8	0.2	0.2	0.4	0.4	0.7	1.1
Course after form VI	n.a.	n.a.	0.8	n.a.	n.a.	0.4	n.a.	n.a.	0.0	n.a.	n.a.	0.2
Other certificate	1.3	0.8	1.1	0.6	0.6	0.4	0.2	0.2	0.1	0.3	0.3	0.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Notes: Adults are aged 15 years and above. 'No education' includes pre-school in 2000/01 and 2007; pre-school was not included as a category in 1991/92.

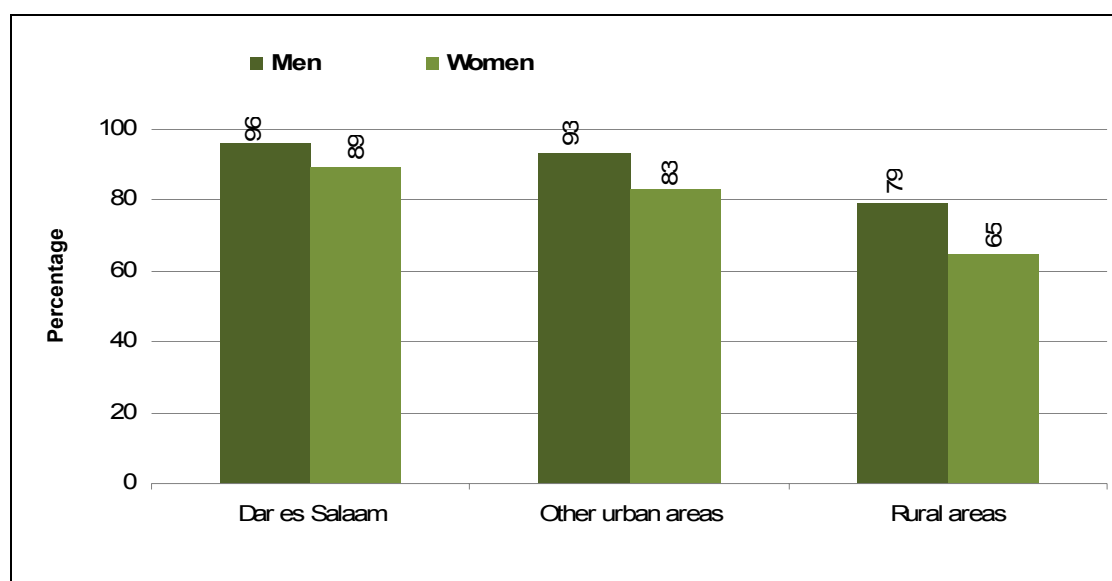
Similar to previous surveys, the proportion of adults with any education is greatest in Dar es Salaam and lowest in the rural areas (Figure 4.1 and Table 4.2). Rural women still have the lowest levels of education. However, the proportion of women with no education has decreased slightly from 33 percent in 2000/01 to 30 percent in 2007. This coincides with an increase in the proportion of women completing Standard 5 and above.

Table 4.2 Percentage of Adults' Highest Level of Education Achieved by Sex

Level Achieved	Dar es Salaam			Other urban			Rural			Mainland Tanzania		
	91/92	00/01	2007	91/92	00/01	2007	91/92	00/01	2007	91/92	00/01	2007
Men												
No education	6.3	4.5	4.5	7.0	7.6	6.9	19.6	19.8	20.9	17.1	16.9	16.9
Adult education only	1.1	0.5	0.4	0.9	1.0	0.6	3.9	2.7	1.4	3.3	2.3	1.2
Primary 1 - 4	9.1	7.4	5.2	16.6	11.2	8.5	18.7	15.4	14.6	17.8	14.2	12.6
Primary 5 - 8	55.4	59.6	55.5	58.4	56.1	59.2	53.0	57.6	55.7	53.9	57.5	56.3
Form 1 - 4	18.8	16.7	17.9	11.4	15.7	16.0	2.8	2.8	5.3	5.0	5.7	8.4
Form 5 - 6	2.0	1.8	3.0	1.8	1.7	1.7	0.2	0.3	0.3	0.5	0.6	0.8
Diploma / university	2.5	4.1	3.6	0.9	1.2	1.3	0.1	0.3	0.5	0.3	0.7	0.9
Course after primary	0.4	1.6	2.7	1.1	1.8	1.6	1.0	0.6	0.7	1.0	0.8	1.1
Course after secondary	2.6	3.0	4.7	0.8	2.9	3.0	0.4	0.3	0.4	0.6	0.9	1.3
Course after form VI	n.a.	n.a.	0.9	n.a.	n.a.	0.5	n.a.	n.a.	0.1	n.a.	n.a.	0.2
Other certificate	1.7	0.7	1.4	1.0	0.8	0.8	0.3	0.3	0.1	0.5	0.4	0.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Women												
No education	11.7	10.6	11.1	18.7	17.7	16.6	36.0	37.1	35.3	32.3	32.5	29.5
Adult education only	1.2	1.4	0.4	1.7	1.2	0.8	3.5	2.0	1.1	3.2	1.8	1.0
Primary 1 - 4	8.0	5.3	5.2	12.1	8.5	7.5	13.1	10.6	10.3	12.7	10.0	9.3
Primary 5 - 8	58.7	61.7	58.4	59.1	59.0	58.7	45.1	48.1	49.3	47.7	50.6	51.9
Form 1 - 4	15.9	13.0	15.4	6.5	10.1	11.8	1.4	1.7	3.0	2.9	3.7	5.8
Form 5 - 6	0.8	1.5	1.8	0.1	0.3	0.3	0.1	0.0	0.1	0.1	0.2	0.3
Diploma / university	0.7	1.7	1.8	0.0	0.3	0.6	0.0	0.0	0.1	0.1	0.2	0.3
Course after primary	0.1	1.5	1.4	1.2	1.0	1.2	0.6	0.2	0.2	0.6	0.4	0.5
Course after secondary	2.0	2.4	2.8	0.3	1.6	2.0	0.1	0.1	0.4	0.2	0.5	0.9
Course after form VI	n.a.	n.a.	0.7	n.a.	n.a.	0.3	n.a.	n.a.	0.0	n.a.	n.a.	0.1
Other certificate	0.8	0.9	0.8	0.2	0.5	0.2	0.1	0.2	0.0	0.2	0.3	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Notes: Adults are aged 15 years and above. 'No education' includes pre-school in 2000/01 and 2007; pre-school was not included as a category in 1991/92.

Figure 4.1 Percentage of Adults with any Education by Sex and Area (HBS 2007)



Some 72 percent of adults are literate in at least one language (Table 4.3). Literacy in Swahili is much more common than in English although literacy in both languages is increasing in all areas. Levels of illiteracy have changed little, although the proportion of women who are literate appears to have increased slightly. Nevertheless, women, and particularly rural women, remain less likely to be literate than men. This reflects their lower levels of participation in education in the past.

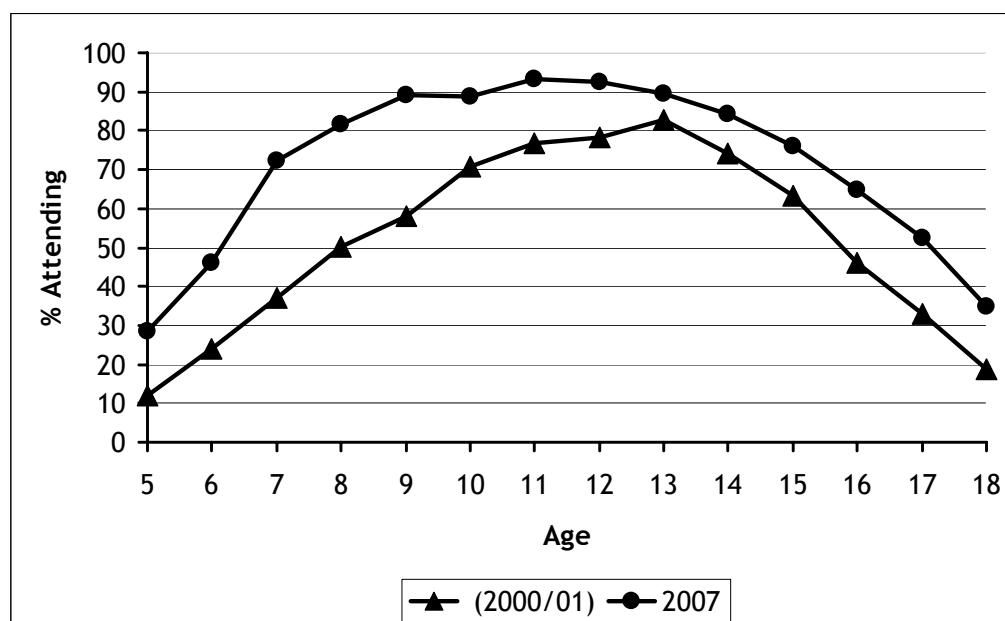
Table 4.3 Percentage Literacy of Adults

	Dar es Salaam		Other urban areas		Rural areas		Mainland Tanzania	
	00/01	2007	00/01	2007	00/01	2007	00/01	2007
All adults: literacy by language								
Swahili	68.0	64.3	66.7	64.2	60.0	59.7	61.5	60.9
English	3.8	4.2	4.1	2.7	1.9	1.1	2.4	1.7
Swahili & English	19.4	22.3	14.9	18.5	4.8	5.8	7.2	9.7
Other languages	0.2	0.2	0.2	0.4	0.2	0.2	0.2	0.2
Illiterate	8.7	9.0	14.2	14.2	33.1	33.2	28.6	27.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Percentage of adult men literate	94.3	94.6	91.5	91.5	76.1	74.7	79.6	79.5
Percentage of adult women literate	88.3	87.7	81.0	80.9	58.8	59.5	64.0	66.1

Note: Adults are aged 15 years and above. The percentage of adults literate by sex is for literacy in any language.

While adult education levels have changed only modestly, the HBS shows a dramatic improvement in children's school attendance since 2000/01 (Figure 4.2). At every age, a higher proportion of children attend school in 2007 compared to 2000/01.

Figure 4.2 Percentage of Children Attending School by Single Years of Age and Year of Survey (HBS 2000/01 and 2007)



Note: Source table in Appendix

Table 4.4 presents gross and net attendance ratios for primary education. These rates are analogous to the enrolment ratios and use the same age groups and classes as standard administrative enrolment ratios. However, they may differ from enrolment ratios, since they are based on whether a child is attending school rather than having enrolled in school at the beginning of the year.⁶ They are labelled as attendance ratios for clarity.

In 2007, nearly 84 percent of children aged seven to thirteen years were in primary school, compared with only 59 percent in 2000/01. This contrasts with findings from the previous HBS which showed that primary school attendance had largely stagnated during the 1990s. Improvements have benefited both urban and rural areas.

Table 4.4 Primary Net and Gross Attendance Ratios by Sex

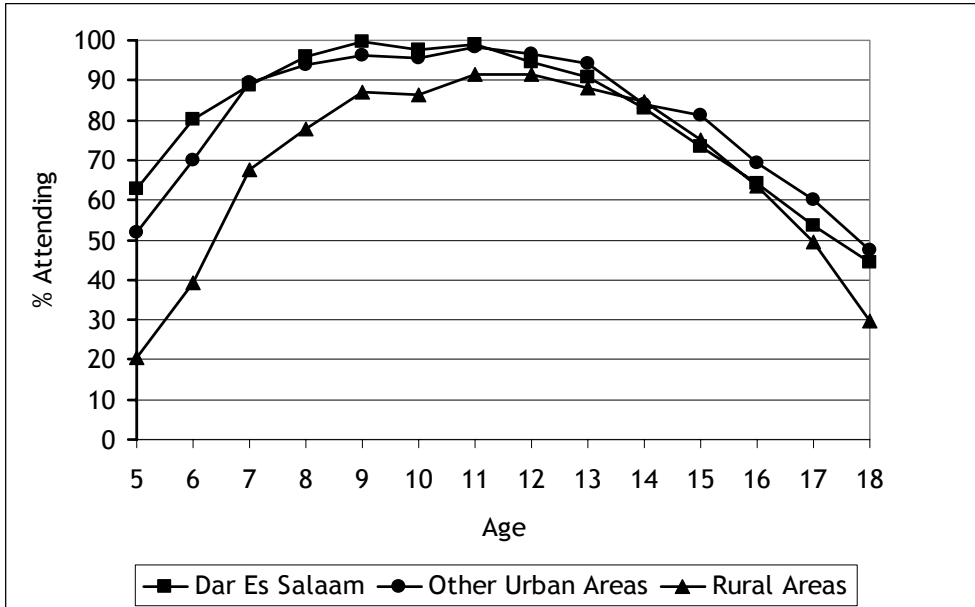
Maesure	Dar es Salaam		Other urban areas		Rural areas		Mainland Tanzania	
	2000/01	2007	2000/01	2007	2000/01	2007	2000/01	2007
Net attendance ratio:								
Total	71.0	90.8	71.4	91.3	56.0	81.5	58.7	83.7
Boys	68.3	91.0	72.0	91.0	53.9	78.7	56.7	81.4
Girls	73.4	90.7	70.7	91.6	58.4	84.4	60.8	86.1
Gross attendance ratio:								
Total	98.3	116.5	96.3	121.1	81.5	114.5	84.2	115.7
Boys	104.4	117.1	99.9	121.0	79.9	113.6	83.5	115.1
Girls	93.1	115.9	92.8	121.1	83.2	115.4	85.0	116.4

Note: Gross ratios are higher than net because of the presence of many over-age children in primary schools

⁶ They are calculated using Standards I-VII and ages 7-13 in order to make them comparable with the MoEC figures. They are based on the answer given to the question: 'Is (name) currently in school?'

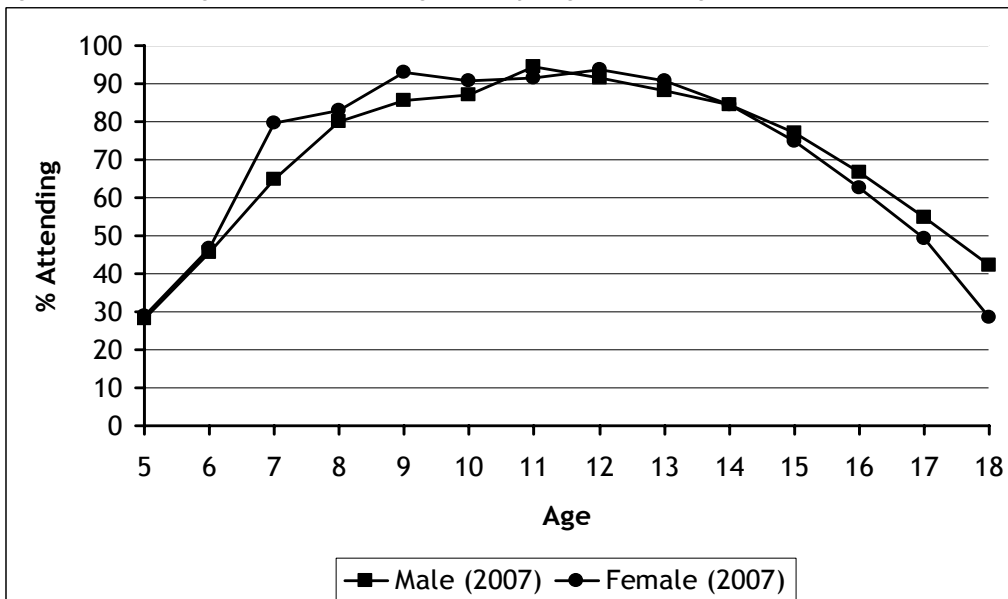
The gross attendance ratios are higher than net because of over-age children in primary schools. This is partly due to beginning schooling late. This problem has also reduced since the 2000/01 survey, although it remains something of a concern in rural areas (Figure 4.3).

Figure 4.3 Percentage of Children Attending School by Single Years of Age and Area (HBS 2007)



A greater proportion of girls age 7-13 years are in primary school than boys of the same age - net attendance rates are higher than for boys. Boys tend to have a lower participation rate at early ages, but the reverse is true for older children. Girls are less likely to be in school than boys after about fourteen years of age (Figure 4.4). As a result, gross primary attendance rates are similar.

Figure 4.4 Percentage of Children Attending School by Single Years of Age and Sex (HBS 2007)



Note: Source table in Appendix.

Late entry into school, coupled with repetition of classes, means that children are often below the class that they should be in according to their age. However, entry into school at the correct age has improved, with 66 percent of seven-year olds who are in school being in Standard 1 compared to only 52 percent in 2000/01 (Table 4.5). The proportion of thirteen-year olds reporting being in Standard 7 has also improved from just 4 percent in 2000/01 to 13 percent in 2007.

Table 4.5 Class Attended by Age of Child (HBS 2000/01, HBS 2007)

Age	Pre - School	St. I	St. II	St. III	St. IV	St. V	St. VI	St. VII	Above St. VII	Total
2000/01										
7	37.2	52.5	9.3	1.0						100
8	13.0	51.2	29.3	5.4	1.1					100
9	8.0	41.2	31.1	13.4	4.7	1.4				100
10	5.6	23.8	33.4	26.2	9.1	1.4	0.4			100
11	1.0	17.8	24.5	26.9	19.3	7.7	2.4	0.4		100
12	1.3	8.1	12.1	25.0	27.0	18.8	6.4	1.2	0.1	100
13	1.6	3.7	7.8	17.5	24.7	26.3	13.7	3.9	0.9	100
2007										
7	16.6	65.6	15.6	2.0	0.2					100
8	2.5	42.9	39.1	11.8	3.1	0.5	0.1			100
9	2.2	21.3	36.3	29.5	8.7	2.1	0.0	0.0		100
10	0.4	12.4	18.4	32.6	26.8	8.4	0.8	0.2	0.0	100
11	0.1	3.7	12.0	23.7	34.8	21.6	3.4	0.6	0.1	100
12	0.1	2.2	4.3	13.7	29.9	30.2	15.7	3.3	0.4	100
13	0.0	1.7	3.1	6.7	15.7	26.7	31.5	13.0	1.4	100

Secondary school attendance rates have also increased, though at a lower rate (Table 4.6). The net secondary attendance ratio of children aged 14 to 17 has increased from five percent in 2000/01 to fifteen percent in 2007. Enrolment rates have increased proportionately more in rural areas, but from a very low base; only around 10 percent of rural children of this age are in secondary school. A similar trend is shown by the 14 – 19 year old age group.

Table 4.6 Secondary Net and Gross Attendance Ratios by Sex (HBS 2000/01, HBS 2007)

Measure	Dar es Salaam		Other urban areas		Rural areas		Mainland Tanzania	
	2000/01	2007	2000/01	2007	2000/01	2007	2000/01	2007
Forms I-IV:								
Net attendance ratio:								
Total	18.9	31.5	15.2	28.1	2.0	10.4	5.1	15.2
Boys	17.2	33.7	12.7	25.7	1.5	9.7	4.0	13.9
Girls	20.4	29.8	17.1	30.2	2.5	11.2	6.1	16.5
Gross attendance ratio:								
Total	28.8	54.3	27.2	51.0	4.3	19.4	9.4	27.8
Boys	28.9	62.9	29.4	52.2	3.6	20.4	8.8	28.5
Girls	28.7	47.6	25.5	49.8	4.9	18.3	9.9	27.0
Forms I-VI								
Net attendance ratio:								
Total	16.0	31.7	15.3	29.2	2.3	11.4	5.3	16.4
Boys	14.5	35.8	14.9	29.0	1.8	11.7	4.6	16.5
Girls	17.4	28.5	15.6	29.4	2.8	11.1	5.9	16.3
Gross attendance ratio:								
Total	21.1	42.5	19.4	38.5	3.1	14.6	6.9	21.3
Boys	20.9	49.7	21.1	41.3	2.7	16.0	6.6	22.8
Girls	21.3	37.1	18.0	36.1	3.4	13.2	7.1	19.9

Note: These rates are calculated using the age groups 14-17 (Forms I-IV) and 14-19 years (Forms I-VI).

In the age group 14-17 years, girls' net secondary attendance ratios in school are higher than boys' in all areas except for Dar es Salaam, where both net and gross ratios are substantially higher for boys. This may be due to girls' tendency to leave school earlier; it may also be affected by the under-reporting of young men described in Chapter 1.

In contrast to the 2000/01 survey, where the most frequently given reason for primary-age children not attending school varied according to where they lived, in 2007, the most frequently given reason in all areas is that the children are too old, too young or have already completed school (Table 4.7). This is partly due to a change in the answer coding in 2007, so that 'too young' was added to the first category, whereas it was previously recorded under 'other'. There has been a noticeable fall in the proportion of households whose parents say that the reason they are not in school is that it is too expensive. There has also been an increase in the proportion saying that school is useless or uninteresting, particularly in Dar es Salaam; however it should be remembered that this is for a smaller group of children in the 2007 survey.

Table 4.7 Reasons for Not Attending School for Children Aged 7 to 13 Years by Area (HBS 2000/01, HBS 2007)

Reason	Dar es Salaam		Other urban areas		Rural areas		Mainland Tanzania	
	2000/01	2007	2000/01	2007	2000/01	2007	2000/01	2007
Too old / completed school*	6.3	50.9	5.4	46.9	4.0	49.0	4.2	48.9
Too far away	0.6	0.0	1.3	1.5	5.2	9.9	4.8	9.1
Too expensive	42.2	6.2	24.3	9.0	9.6	4.6	11.7	4.9
Is working	1.1	3.6	3.9	8.0	9.7	8.5	9.0	8.4
School is useless/uninteresting	2.3	22.2	6.2	10.9	10.5	14.3	9.9	14.3
Illness/ pregnancy	5.4	5.9	3.7	9.6	3.5	8.1	3.6	8.2
Failed exam	0.0	1.1	0.1	2.5	0.1	0.2	0.1	0.3
Got married	0.0	0.0	0.7	0.0	0.0	0.0	0.1	0.0
Others	42.0	10.1	54.3	11.6	57.5	5.4	56.8	5.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

* Also included 'too young' in 2007

Table 4.8 Distribution and Mean Distance to Nearest Primary School

	Dar es Salaam			Other urban areas			Rural areas			Mainland Tanzania		
	91/92	00/01	2007	91/92	00/01	2007	91/92	00/01	2007	91/92	00/01	2007
Distribution of distance:												
Less than one km	66.3	53.6	71.8	51.6	54.5	60.5	39.9	32.3	33.4	43.3	37.1	42.8
1 to 1.9	20.2	27.7	17.0	24.9	27.8	21.2	22.9	25.9	18.9	23.0	26.3	19.2
2-2.9	4.9	10.2	6.5	11.1	12.4	9.8	16.4	14.6	14.9	14.9	14.0	13.0
3-3.9	2	4.7	2.9	5.2	4.1	4.9	7.2	10.7	9.4	6.6	9.3	7.9
4-5.9	2.3	2.6	0.5	4.1	0.7	1.1	9.2	8.0	8.7	8.0	6.5	6.3
6+	4.3	1.2	1.3	3.1	0.5	2.4	4.5	8.4	14.6	4.3	6.7	10.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Mean distance	0.8	0.8	0.5	1.1	0.7	0.8	1.5	2.1	3.8	1.4	1.8	2.9

Note this table shows the distances as recorded by interviewers, which were integers ('1 to 1.9' is '1', for example).

The mean distance to the nearest primary school is highest in rural areas, where almost half of households are more than two kilometres away (Table 4.8). Rural households seem to be further from primary schools than they were in 2000/01. This seems surprising in a period of expansion of coverage – although it is consistent with the increase in the proportion saying that schools were too far away in rural areas (Table 4.7).

Table 4.9 Distribution and Mean Distances to Pre-School and Secondary Schools (HBS 2000/01 and 2007)

	Dar es Salaam		Other urban areas		Rural areas		Mainland Tanzania	
	2000/01	2007	2000/01	2007	2000/01	2007	2000/01	2007
Pre-school:								
Distribution of distance:								
Less than one km	77.4	47.1	65.5	55.3	31.6	34.1	41.5	39.4
1 to 1.9	15.4	29.7	22.3	23.3	20.4	21.2	20.4	22.4
2-2.9	4.4	14.2	7.3	10.6	12.2	14.7	10.6	13.8
3-3.9	1.3	6.6	2.7	6.3	10.7	11.1	8.4	9.7
4-5.9	0.4	1.3	1.2	2.2	6.2	9.1	4.9	7.0
6+	1.1	1.1	1.1	2.4	18.9	9.9	14.2	7.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Mean distance in km	0.7	0.9	0.7	1.0	5.2	2.2	4.0	1.8
Secondary school:								
Distribution of distance:								
Less than 2 km	47.8	45.2	50.7	56.4	7.2	14.4	16.7	25.5
2-5.9	46.8	48.4	38.6	35.8	20.9	32.6	25.4	34.8
6-9.9	2.1	5.5	4.3	5.1	18.5	24.7	15.2	19.1
10-19.9	2.3	0.9	3.1	2.0	28.0	21.1	22.4	15.4
20+	1.0	0.1	3.2	0.8	25.4	7.3	20.3	5.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Mean distance in km	2.5	2.1	3.0	2.1	15.4	8.2	12.6	6.4

Notes: This table shows the distances as recorded by interviewers, which were integers ('1 to 1.9' is '1', for example). A high proportion of rural households did not report distance to the nearest pre-school (25%), so the estimates of distance to this facility for the rural and total population are likely to be too low.

The surveys also collected information on the distance to pre-schools and secondary schools. The average distances to secondary schools differ much more between urban and rural areas than do distances to primary schools. However, the average distance to a secondary school in rural areas has decreased from over 15 kilometres in 2000/01 HBS to 8 kilometres in 2007, with only 7 percent of rural households now reporting being 20 kilometres or more from a secondary school (Table 4.9). The mean distance to pre-schools has also fallen in rural areas. This might reflect increased provision due to the introduction of a requirement for children to have attended pre-school before they enrol in primary school.

4.3 Health

The 2000/01 and 2007 surveys collected information on whether individuals had been ill or injured in the preceding four weeks, on the type of illness, on which type of health provider that had been consulted, if any, and on satisfaction with the source of care.

Table 4.10 Percentage of Individuals Reporting Illness or Injury in the Past Four Weeks by Age Group and Area (HBS 2000/01, HBS 2007)

Age Group	Dar es Salaam		Other urban areas		Rural areas		Mainland Tanzania	
	2000/01	2007	2000/01	2007	2000/01	2007	2000/01	2007
0-4	33.9	31.6	27.8	32.2	30.4	33.2	30.2	32.9
5-14	15.7	14.5	19.1	19.6	21.9	19.4	21.2	19.1
15-24	12.0	11.8	17.3	17.5	22.2	19.6	20.7	18.5
25-34	18.6	17.7	21.9	22.1	28.1	23.5	26.5	22.6
35-44	20.9	16.8	24.4	23.9	32.7	26.4	30.6	25.0
45-54	22.0	21.8	30.2	30.2	35.4	35.5	33.8	33.5
55-64	27.3	28.3	43.6	32.3	42.0	39.7	41.5	37.7
65+	39.3	46.5	53.0	54.7	55.5	51.1	54.7	51.4
Total	19.4	19.0	23.5	24.4	28.3	26.7	27.1	25.7

The frequency and age distribution of self-reported illness is similar in the two surveys. Individuals in rural areas are the most likely to report having been ill or injured in the previous four weeks; some 27 percent of the rural population reported this, though there been a small decline since 2000/01 (Table 4.10).

Reported illness shows a common pattern by age, with the highest rates occurring in the under fives and older adults, as in the 2000/01 survey. Adult women report higher levels of morbidity than men at all ages (Figure 4.4).

Figure 4.5 Percentage of Individuals Ill or Injured in the Past Four Weeks by Age Group and Sex (HBS 2007)

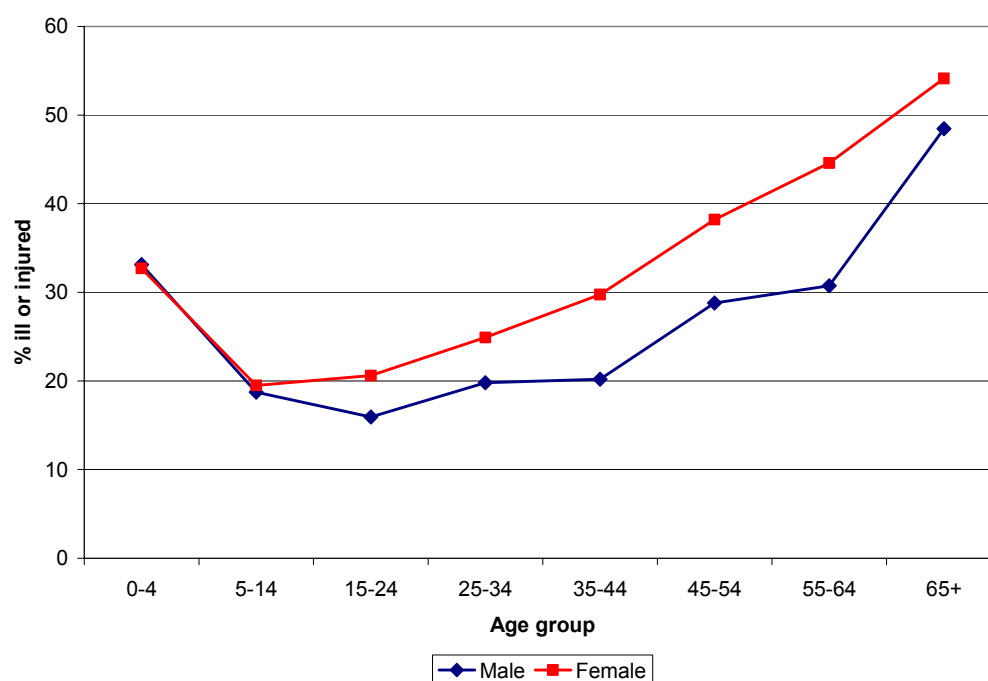


Table 4.11 Type of Illness or Injury Reported By Age Group and Sex (HBS 2007)

Age Group and Condition	Male		Female		Total	
	2000/01	2007	2000/01	2007	2000/01	2007
Children (under 15 years):						
Fever/Malaria	68.7	76.7	70.1	77.5	69.3	77.1
of which, fever malaria	N/A	49.7	N/A	50.8	N/A	50.3
	N/A	39.7	N/A	39.2	N/A	39.5
Diarrhoea	14.1	12.4	14.7	12.0	14.4	12.2
Accident	3.0	2.8	1.8	2.2	2.5	2.5
Dental	2.4	1.2	2.3	0.9	2.4	1.0
Skin condition	2.9	4.2	4.3	4.1	3.6	4.1
Eye	7.4	2.4	6.8	2.6	7.1	2.5
Ear, nose or throat	10.7	6.8	10.5	7.7	10.5	7.3
Chronic illnesses	N/A	2.8	N/A	2.1	N/A	2.4
Other	12.3	8.0	11.7	8.5	12.0	8.3
% who reported multiple complaints	17.8	16.4	19.3	16.5	18.5	16.5
Adults (15+ years):						
Fever/Malaria	60.4	61.0	59.9	63.1	60.1	62.2
of which, fever malaria	N/A	39.5	N/A	41.5	N/A	40.6
	N/A	30.2	N/A	31.5	N/A	31.0
Diarrhoea	9.7	7.3	10.1	7.0	9.9	7.1
Accident	8.7	7.9	2.4	3.6	5.0	5.4
Dental	5.1	3.5	6.1	4.1	5.6	3.8
Skin condition	2.2	2.6	2.0	2.1	2.1	2.3
Eye	5.2	4.6	5.2	4.7	5.2	4.6
Ear, nose or throat	7.8	6.0	9.2	6.5	8.6	6.3
Chronic illnesses	N/A	13.2	N/A	13.5	N/A	13.4
Other	25.1	15.1	29.2	17.8	27.5	16.7
% who reported multiple complaints	19.9	17.9	19.6	19.6	19.7	18.9

Note: For each age group, the first panel gives the frequency with which each condition was reported, for individuals who reported illness or injury in the preceding four weeks; since more than one condition could be reported, the columns may sum to over 100%. The final line shows the percentage of individuals who reported more than one complaint.

Fever/malaria was the most commonly reported complaint, being reported by 62 percent of adults and almost 77 percent of children (Table 4.11). It appears to have increased in frequency since 2000/01. This does not seem consistent with the increase in ownership of bednets presented in chapter 3. However, it should be noted that these are largely self-diagnosed conditions, and the 2007 questionnaire provided separate categories for malaria and fever, which is likely to increase the extent of recording fever. Diarrhoea was the second most common complaint in children, while adults reported more chronic illnesses and a large proportion of 'other' complaints that did not fit into any of the pre-coded categories.

Table 4.12 Percentage of Ill or Injured Individuals who Consulted any Health-care Provider by Sex and Area (HBS 2000/01, HBS 2007)

	Dar es Salaam		Other urban areas		Rural areas		Mainland Tanzania	
	2000/01	2007	2000/01	2007	2000/01	2007	2000/01	2007
Both sexes	80.2	83.7	76.2	75.7	67.1	66.5	68.7	69.0
Male	75.9	83.3	74.2	76.3	66.2	66.6	67.6	69.2
Female	84.3	84.0	77.9	75.2	67.8	66.5	69.7	68.9

Over two-thirds of individuals who reported being ill or injured in the past four weeks said that they had consulted a health-care provider of some type (Table 4.12). This proportion has remained largely unchanged since 2000/01. Individuals in Dar es Salaam are most likely to have consulted a health-care provider, but two-thirds reported a consultation even in rural areas.

Over half of the individuals who consulted any health-care provider saw a government provider (Table 4.13). The use of government services has increased in all areas, while there is less use of private modern providers and traditional healers. The increase in the use of government services is largest in rural areas, suggesting they are increasing their reach to more disadvantaged populations. Use of government services is lowest in Dar es Salaam, where use of the private sector is highest. Around 11 percent of individuals consulted more than one provider.

Table 4.13 Source of Consultation for Individuals who Consulted any Health-care Provider (2000/01 HBS, HBS 2007)

	Dar es Salaam	Other urban areas	Rural areas	Total
2000/01				
Government				
Public dispensary/hospital	40.0	37.9	42.3	41.6
Regional hospital	2.9	12.2	1.7	3.1
Community health centre	6.6	8.3	10.9	10.4
Private modern:				
Private dispensary/hospital	47.4	31.8	19.3	22.3
Private doctor/dentist	1.9	5.1	7.6	7.0
Missionary hospital/dispensary	1.2	6.6	10.1	9.2
Other:				
Traditional healer	2.6	5.5	17.2	15.0
Pharmacy/chemist	4.1	3.1	2.3	2.5
Other	0.7	0.8	1.9	1.7
% who consulted multiple providers	6.9	10.3	11.4	11.0
% who consulted any govt source	49.5	57.7	53.8	54.1
2007				
Government				
Public health centre or hospital	29.8	47.3	23.2	28.0
Public dispensary	26.3	17.1	43.0	37.1
Private modern:				
Private health centre or hospital	8.8	5.7	2.6	3.6
Private dispensary	34.1	22.6	16.8	19.0
Private doctor/dentist	0.4	2.6	2.5	2.3
Mission facility	1.8	2.2	5.1	4.3
Other:				
Traditional healer	1.5	4.3	11.1	9.2
Pharmacy	0.8	6.5	3.7	4.0
Other source	1.0	1.5	6.3	5.0
% who consulted multiple providers	3.7	8.0	12.8	11.3
% who consulted any govt source	55.5	63.4	63.6	63.0
% who consulted any private source	42.8	27.9	19.1	22.3

Note: The main panels gives the ratio of consultation with any source to individuals who consulted any source; since more than one source could be reported, the columns may sum to over 100%.

Enumerators also asked about users' satisfaction with the source of health care - specifically, whether the user had any problems at the time of the consultation. For all sources of care, two thirds or more of users reported that there was no problem (Table 4.14). There was a modest

increase in the satisfaction of users with government services, and they no longer stand out as the least satisfactory service, as they did in 2000/01. A long waiting time and a lack of drugs were still the problems most commonly reported problems in government facilities. High cost was the most frequent complaint about missionary hospitals and other private facilities, and this has increased.

Table 4.14 Satisfaction with Service Provided by Source of Care (HBS 2007)

	No problem (satisfied)		Facilities were not clean		Long waiting time		No trained professional		Too expensive		No drugs available		Treatment not successful		Other	
	00/01	2007	00/01	2007	00/01	2007	00/01	2007	00/01	2007	00/01	2007	00/01	2007	00/01	2007
	Any government facility (hospital, HC, dispensary)	66.0	68.9	3.9	2.8	13.7	17.9	2.4	2.2	4.7	4.7	12.8	11.3	6.1	2.1	0.8
Private facility (hospital, HC, dispensary)*	76.9	77.5	1.2	1.8	5.6	4.6	1.5	2.5	11.5	13.5	5.4	2.0	1.8	1.8	0.9	0.2
Private doctor / Dentist	82.2	74.5	0.2	3.4	2.2	1.6	1.1	3.0	10.1	14.0	2.3	3.5	1.2	6.7	1.8	0.0
Missionary hospital/dispensary	78.3	64.9	1.6	2.5	6.9	11.4	1.3	4.7	8.3	18.6	0.9	0.0	4.2	8.2	0.6	0.2
Traditional healer	73.7	78.4	3.7	1.9	3.4	2.2	1.2	1.5	5.7	1.2	2.1	0.6	11.7	15.1	2.5	0.6
Pharmacy/chemist	93.1	66.3	0.1	1.9	0.7	16.0	0.1	4.1	4.1	10.6	0.2	5.0	0.4	8.5	1.3	0.0

Note: Table gives simple frequency for each type of complaint: since more than one problem could be reported, rows may sum to over 100%; all 2007 cells based on >150 observations except private doctor on 129; * private hospital/dispensary in 2000/01

The most common reason given for not consulting a health provider when ill in 2007 was that the respondent had medicine at home, followed by the cost of medical care (Table 4.15). The changes in the answer codes make this hard to compare with the previous survey, although there is an appreciable decline in the proportion saying that it was due to cost.

Table 4.15 Reasons for Not Using Medical Care for Individuals who Reported Illness in the Past Four Weeks (HBS 2007)

	Dar es Salaam		Other urban areas		Rural areas (other)		Mainland Tanzania	
	2000/01	2007	2000/01	2007	2000/01	2007	2000/01	2007
No need	58.1	32.4	50.3	23.7	42.5	15.1	43.6	16.7
Too expensive	34.5	13.0	39.1	24.4	32.4	27.4	33.1	26.5
Too far	6.7	0.7	2.8	3.6	10.9	8.3	10.0	7.5
Had medicine at home	N/A	51.3	N/A	51.6	N/A	55.5	N/A	54.9
Other reason	6.9	3.3	8.9	4.0	20.2	4.3	18.8	4.2

All three household budget surveys collected information on distance to the nearest dispensary, health centre and nearest hospital (Table 4.16). As would be expected, the distance to a hospital is greater than primary health facilities. Even in rural areas, 68 percent of households report being

less than 6 kilometres away from a primary health facility.⁷ Overall, there has been little change in the distance to primary health facilities.

The average distance to a hospital appears to have increased. On average, rural households reported being 32 kilometres from a hospital, which has increased since 2000/01, although it is difficult to know how accurately such distances are reported. It is also possible that a more exact understanding of ‘hospital’ was used in the 2007 survey.

Table 4.16 Distribution and Mean Distance to Health Facilities

	Dar es Salaam			Other urban areas			Rural areas			Mainland Tanzania		
	91/92	00/01	2007	91/92	00/01	2007	91/92	00/01	2007	91/92	00/01	2007
Distance to the nearest dispensary / health centre												
Less than 2 km	71.4	85.6	74.9	68.8	70.3	71.6	25.7	27.7	32.3	34.3	37.9	43.8
2 to 5.9	23.6	12.5	23.6	28.0	27.4	25.6	44.6	41.6	35.3	41.0	37.5	32.4
6 to 9.9	3.3	1.7	1.2	2.0	1.4	2.0	18.4	19.9	19.9	15.3	15.9	14.7
10 to 19.9	1.6	0.2	0.3	1.2	0.4	0.8	8.8	9.0	11.1	7.3	7.1	8.1
20+	0.1	0.0	0	0.0	0.5	0.0	2.6	1.9	1.5	2.1	1.5	1.0
Total	100.0	100.0	100	100.0	100.0	100	100.0	100.0	100	100.0	100.0	100
Mean distance	1.4	0.7	1.0	1.4	1.3	1.1	5.1	4.7	4.6	4.4	3.9	3.6
Distance to the nearest hospital												
Less than 2 km	48.3	51.6	17.9	45.7	37.3	34.0	4.7	5.1	2.7	13.6	13.3	10.2
2 to 5.9	36.5	36.4	47.4	42.4	41.0	32.8	12.4	13.1	8.9	18.4	19.1	17.2
6 to 9.9	11.4	9.4	23.3	4.7	8.6	6.6	11.2	14.9	13.8	10.2	13.5	13.4
10 to 19.9	2.7	1.5	10.2	2.2	2.7	6.7	30.4	25.0	20.5	24.4	20.0	16.9
20 to 39.9	1.1	0.1	1.2	1.3	4.9	9.1	16.4	20.2	25.0	13.1	16.4	19.6
40+	0.0	0.9	0.1	3.7	5.4	10.8	24.9	21.6	29.1	20.2	17.7	22.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100
Mean distance	2.8	2.8	4.9	5.3	7.4	12.6	23.8	25.7	31.7	19.7	21.3	25.4

4.5 Conclusions

The 2007 HBS found levels of adult education similar to previous surveys, although there has been a limited increase in the proportion who have some secondary education or above since 2000/01, and some improvements in the proportion who have completed Standard 5 or above compared with 1991/92. Rural women remain particularly disadvantaged, with 40 percent being illiterate, reflecting their lower participation in education in the past.

School attendance amongst children has improved dramatically since 2000/01, however. Some 84 percent of seven to thirteen-year-olds attend primary school, compared with 59 percent in 2000/01. These improvements have benefited both urban and rural areas. As a result, the gap between urban and rural areas is diminishing. Children are also more likely than they were to enter school at the right age and to be in the correct class for their age, although many are still well

⁷ The 2007 HBS collected information on the distances to a dispensary and health centre separately; this shows that over 84 percent of rural households are within 10 kilometres of a dispensary.

behind their expected class. Girls now have similar or higher levels of attendance at primary school compared to boys.

Secondary school attendance has also increased substantially. This has also benefited both rural and urban areas, although attendance improved from such a low base in rural areas that only ten percent of rural children aged 14 to 17 years attend secondary school. As seen in the previous survey, girls enter school earlier but tend also to leave earlier.

The reported average distance to a primary school appears to have increased since 2000/01, particularly in rural areas. In contrast, the distance to secondary schools in rural areas has fallen substantially.

The 2007 HBS also collected information on health. As in the 2000/01 survey, children under five and older adults were the most likely to have been ill or injured in the four weeks preceding the survey. Overall, rural areas report the highest levels of illness, and adult women reported more illness than men.

Over two-thirds of individuals who had been ill reported that they had consulted a health-care provider, a similar proportion to 2000/01. Some 63 percent of the individuals who consulted a provider used a government service, representing an increase in the use of these services; this was particularly pronounced in rural areas. Dissatisfaction with government services has also declined.

Most households are not far from primary health care facilities, even in rural areas. The distance to the nearest hospitals appears to have increased since 2000/01, particularly in rural areas.

5 PRODUCTIVE ACTIVITIES AND PRODUCTIVE ASSETS

5.1 Introduction:

This chapter presents information on the economic and other activities of household members. Since additional questions were introduced in the 2007 HBS questionnaire, there is an extended section on labour market indicators. Household sources of income, both in cash and in-kind are analysed. Information is also presented on ownership of productive assets and household financial activities.

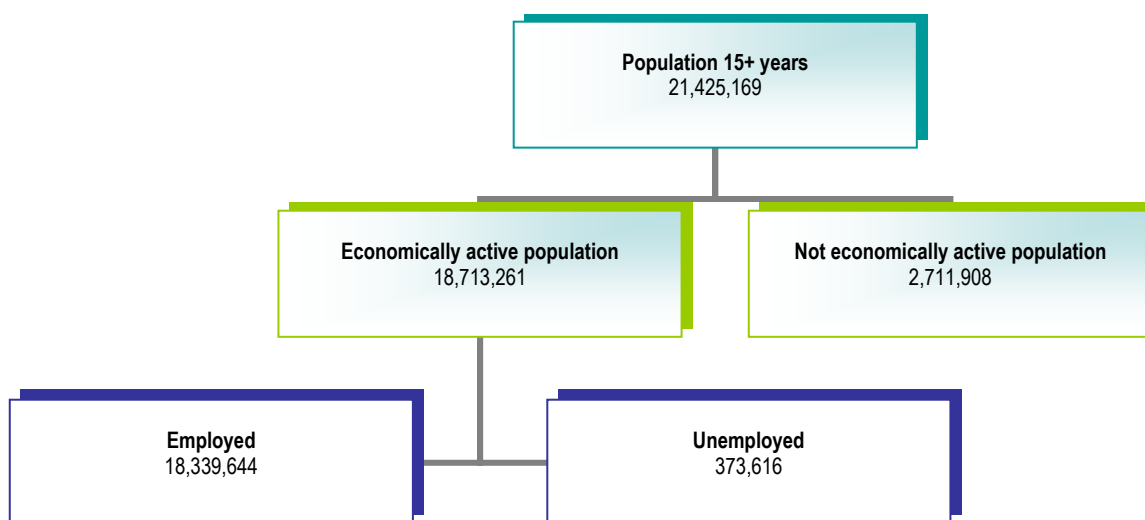
5.2 Labour Market Status

This section uses Tanzania's Standard Classification of Occupations (TASCO) for all sectors except for the industrial sector, where occupation is classified using codes from the International Standards of Industrial Classification (ISIC). Employment status is self-reported and employment is based on the main source of employment.

5.2.1 Employment Ratio:

The employment ratio is the proportion of an economy's working age population that is employed. Figure 5.1 depicts how the employment ratio is calculated. It shows that some 98 percent of the economically active population is employed.

Figure 5.1 Distribution of population 15+ years using Standard Definitions, HBS 2007



The total employment ratio is higher in rural areas than in urban areas across all age groups (Table 5.1). The overall employment ratio is highest among individuals aged 35 – 65 years old and is lowest among individuals aged 65 years old and above.

Table 5.1 Employment to Population Ratios by Age Groups and Geographical Area HBS 2007

Geographical Area	Age Groups				Total
	15 – 24	25 - 34	35 – 64	65+	
Dar es Salaam	60.9	87.3	90.2	54.2	79.0
Other urban	54.5	87.6	92.9	58.2	76.9
Rural areas	82.1	94.3	94.8	72.3	88.7
Total	74.7	92.0	94.1	69.5	85.6

Note: for individuals age 15 years and above

5.2.2 Occupation

More than two-thirds of all Tanzanians are employed in the agriculture and fisheries sector, with the large majority of these households living in rural and other urban areas (Table 5.2). The primary source of employment in Dar es Salaam is elementary occupations followed by service workers.

Table 5.2 Percentage distribution of Currently Employed Population by Main Occupation and Geographical Area, HBS 2007

Occupation	Geographical Area			Total
	Dar es Salaam	Other urban	Rural	
Legislators and administrators	1.4	0.7	0.1	0.3
Professionals	2.0	1.1	0.1	0.4
Technician and associate professionals	5.3	4.6	1.3	2.2
Office clerks	1.6	0.8	0.0	0.3
Service workers and shop sale workers	27.0	20.5	3.6	8.4
Agriculture and fishery workers	5.4	38.3	81.7	68.1
Craft and related workers	11.3	9.3	2.9	4.6
Plant and machine operators and assembly	5.8	3.5	0.5	1.5
Elementary occupations	40.1	21.1	9.6	14.1
Total	100.0	100.0	100.0	100.0

Note: for individuals age 15 years and above

5.2.3 Industry

Table 5.3 reveals that the agriculture, hunting and forestry industry employs more people than any other sector in Tanzania, where 81 percent of rural households and 38 percent of other urban households are employed. The leading industries in Dar es Salaam are trade and other services.

Table 5.3 Percentage distribution of Currently Employed Population by Main Industry and Geographical area, HBS 2007

Industry	Geographical Area			Total
	Dar es Salaam	Other urban	Rural	
Agriculture, Hunting, Forests	5.0	37.7	81.2	67.7
Fishing	0.5	1.3	1.4	1.3
Mining	0.3	2.6	0.6	0.9
Manufacturing	4.4	3.9	0.6	1.4
Production of electricity, gas and water	0.9	0.5	0.2	0.3
Construction	4.8	2.8	1.0	1.6
Trade (retail and wholesale)	27.3	18.6	3.6	8.1
Hotel and restaurants	4.7	3.2	0.6	1.4
Transport and communication	7.1	2.9	0.4	1.4
Financial services	0.7	0.2	0.1	0.1
Estate leasing	0.3	0.2	0.1	0.1
Administration, Defence and Public safety	5.6	3.1	0.5	1.3
Education	2.3	2.6	1.1	1.4
Health and social welfare	1.9	1.8	0.4	0.7
Other services	31.9	16.2	7.7	11.1
Private household employing other persons	2.3	2.1	0.4	0.9
Diplomatic offices and foreign service organizations	0.1	0.1	0.0	0.0
Total	100.0	100.0	100.0	100.0

Note: for individuals age 15 years and above

5.2.4 New Employment Reported in 2007

The HBS asked about the year of entry into income-earning employment. For employment activities that were begun in 2007, agriculture and fisheries and elementary occupations accounted for the majority (Table 5.4). Agriculture and fisheries were most important in rural areas. In urban areas, elementary occupations and service and shop workers were the most common occupations of the newly employed.

Table 5.4 Percentage distribution of Newly Employed Persons by Occupation and Area, HBS 2007

Occupation	Geographical Area			Total
	Dar es Salaam	Other urban	Rural	
Legislators and administrators	0.8	0.0	0.0	0.1
Professionals	2.2	0.0	0.0	0.3
Technician and associate professionals	2.3	4.3	0.0	1.5
Office clerks	3.0	0.0	0.0	0.4
Service workers and shop sale workers	38.0	22.3	7.7	15.6
Agriculture and fishery workers	0.0	22.9	64.6	44.8
Craft and related workers	4.5	4.8	4.2	4.4
Plant and machine operators and assembly	1.8	2.6	0.0	0.9
Elementary occupations	37.6	39.7	14.7	24.6
Not stated ¹	9.9	3.3	8.8	7.4
Total	100.0	100.0	100.0	100.0

Note: for individuals age 15 years and above; ¹ Individuals who began work in 2007 but were not employed at the time of the survey.

5.2.5 Unemployed Population

Since the 2000/01 Integrated Labour Force Survey (ILFS), Tanzania has adopted three definitions for the analysis of employment and unemployment. The first definition refers to individuals with no work who are actively looking for work. The second definition includes individuals that are unemployed looking for work and those that are not actively looking for work but are available for work. And, the third definition, known as national definition, refers to those unemployed on the first two definitions mentioned above plus all persons with marginal attachment to their employment. The persons with marginal attachment are those persons who are not sure of their employment for the next day in terms of its availability and income satisfaction capacity.

According to the International Labour Organization (ILO), the first two definitions are recommended for international data comparability whereas the third definition accurately reflects the situation of most of developing economies such as Tanzania. Information on the labour market in the 2007 HBS captures only the first definition of unemployment. This means it does not capture the extent of underemployment.

Table 5.5 provides unemployment rates by age groups and geographical area. Overall, unemployment is highest in Dar es Salaam and other urban areas at 3.7 percent, while unemployment is highest among 15 -24 year olds in all areas. Small-scale farming is presumably the usual activity that contributes to lower unemployment rates in rural areas.

Table 5.5 Current Unemployment Rates by Age Group and Area, HBS 2007

Geographical Area	Age Groups				Total
	15 – 24	25 - 34	35 - 64	65+	
DSM & other urban	9.3	3.0	1.0	1.1	3.7
Rural areas	1.2	0.9	0.3	0.3	0.7
Total	3.1	1.5	0.5	0.4	1.5

Note: for individuals age 15 years and above

5.3 Activities of Household Members

The 2007 HBS also recorded the main and secondary activities of each household member aged five years and above, using categories that were broadly comparable to the 2000/01 survey.⁸ The main activity of adults aged 15 to 60 years is shown in Table 5.6.

As in previous surveys, farming and related activities continued to dominate the time of three-quarters of the adults in rural areas, while paid employment, self employment and housekeeping continue to be important in Dar es Salaam. Overall, there has been a rise in the proportion of individuals who are employed, and in the proportion of adults who are self-employed without

⁸ Note that the categories that cover 'non-economic' activities were less comparable because of changes in the questions. This means that the proportion that is recorded as unpaid family helper, housewife, student and 'not active' may not be comparable. This and the following table refer to the age group 15 to 60 years in order to be comparable to similar tables presented in previous reports.

employees in all areas.⁹ There appears to have been a decline in adults involved in farming and related activities in rural areas(Table 5.6).

Table 5.6 Distribution of Main Activities of Adults in the previous Seven Days by Geographical Area (HBS 2000/01, 2007)

Activity	Dar es Salaam		Other urban		Rural		Mainland Tanzania	
	2000 /01	2007	2000 /01	2007	2000 /01	2007	2000 /01	2007
Farming/livestock/fishing/forest	3.0	3.1	26.1	27.6	74.1	72.5	61.8	57.3
Government Employee	3.8	5.2	5.1	5.3	1.2	1.6	1.9	2.7
Employee – other	19.1	21.7	11.1	11.6	2.1	3.1	4.7	6.5
Self Employed With Employees	5.9	5.4	4.4	3.7	0.9	0.9	1.8	1.9
Self Employed Without Employees	17.4	24.7	15.6	21.7	2.8	7.1	5.7	11.6
Unpaid Family Helper in Business	7.7	1.0	7.5	0.9	3.1	0.7	4.1	0.8
Housewife / House maker /Household Chores	20.1	21.7	14.7	10.3	6.0	5.3	8.3	7.8
Student	11.5	8.0	9.8	10.8	6.8	4.2	7.6	5.8
Not active	11.5	9.2	5.7	8.1	3.1	4.6	4.1	5.7
Total	100	100.0	100	100.0	100	100.0	100	100.0

Note: for individuals age 15 to 60 years

While there has been a decline in the involvement of both males and females in agriculture and related activities, women are now more likely than men to be employed in this area. There has been an increase in self-employment for men and women, although women are still less likely to be self-employed, with only 11 percent of women reporting this activity compared to 16 percent of men.

⁹ But there is a concern that some individuals previously classed as unpaid family helper might now be classified as self-employed without employees, inflating this category.

Table 5.7 Distribution of Main Activities among Adults by Geographical Area, Sex and Year of Survey (HBS 2000/01, 2007)

Activity	Dar es Salaam		Other urban		Rural		Mainland Tanzania	
	2000/01	2007	2000/01	2007	2000/01	2007	2000/01	2007
Male								
Farming/livestock/fishing/forest	2.8	3.4	25.4	24.6	77.0	69.8	63.7	55.0
Government Employee	4.4	6.4	6.9	6.9	1.8	2.4	2.8	3.6
Employee – other	27.1	31.4	16.7	15.9	3.4	4.4	7.2	9.1
Self Employed With Employees	9.1	7.3	6.5	5.0	1.4	1.4	2.7	2.7
Self Employed Without Employees	23.6	27.4	20.5	24.1	3.8	8.8	7.8	13.4
Unpaid Family Helper in Business	8.1	0.5	10.5	0.9	6.0	0.7	6.9	0.7
Housewife / House maker /Household Chores	0.3	7.6	0.6	3.7	0.6	2.9	0.5	3.5
Student	10.0	8.9	4.7	12.2	2.6	5.0	3.4	6.7
Not active	14.6	7.0	8.3	6.7	3.5	4.5	5.0	5.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Female								
Farming/livestock/fishing/forest	3.3	2.9	28.3	30.1	74.8	74.9	62.8	59.4
Government Employee	3.1	4.1	3.6	4.0	0.6	0.9	1.2	1.8
Employee - other	11.2	12.8	6.5	7.9	1.1	2.0	2.6	4.2
Self Employed With Employees	2.8	3.6	2.8	2.5	0.7	0.4	1.1	1.1
Self Employed Without Employees	12.7	22.3	13.4	19.6	2.2	5.6	4.6	9.9
Unpaid Family Helper in Business	13.0	1.4	15.1	1.0	8.7	0.7	10.0	0.8
Housewife / House maker /Household Chores	38.0	34.5	20.1	16.0	7.0	7.4	11.1	11.7
Student	7.3	7.2	3.9	9.5	1.5	3.5	2.2	5.0
Not active	8.6	11.2	6.2	9.3	3.5	4.6	4.3	6.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Note: for individuals age 15 to 60 years

5.3 Household Income Sources and Household Businesses

Households were asked about their most important source of cash income. The sale of food and cash crops is still the most important source of cash income for rural households, while salaries and business income predominates in urban areas (Table 5.8). In rural areas, there has been a decline in the importance of cash crops which have been replaced by the sale of food crops. In urban areas, the importance of wages and salaries has increased since 2000/01. This reflects the changes seen in employment in Table 5.7. There also appears to be a substantial decline in the importance of casual earnings across all areas.

Table 5.8 Distribution of Main Source of Household Income

	Dar es Salaam			Other urban areas			Rural areas			Mainland Tanzania		
	91/92	00/01	07	91/92	00/01	07	91/92	00/01	07	91/92	00/01	07
Sales of food crops	1.7	2.8	3.4	20.7	13.8	17.6	48.5	48.9	50.4	41.4	40.6	39.6
Sales of livestock & product	0.1	0.3	N/A	0.4	0.9	N/A	5.3	5.5	N/A	4.3	4.5	N/A
Sales of live stocks	N/A	N/A	0.4	N/A	N/A	0.4	N/A	N/A	3.1	N/A	N/A	2.3
Sales of livestock products	N/A	N/A	0.7	N/A	N/A	0.8	N/A	N/A	1.1	N/A	N/A	1.0
Sales of cash crops	1.2	0.6	2.0	8.3	7.4	6.3	25.6	20.5	15.3	21.6	17.2	12.3
Sales of charcoal	N/A	N/A	1.4	N/A	N/A	1.6	N/A	N/A	1.7	N/A	N/A	1.6
Sales of timber / poles	N/A	N/A	0.3	N/A	N/A	0.6	N/A	N/A	0.5	N/A	N/A	0.5
Sales of firewood	N/A	N/A	0.3	N/A	N/A	0.6	N/A	N/A	0.9	N/A	N/A	0.8
Sales of other non-timber products	N/A	N/A	1.3	N/A	N/A	1.4	N/A	N/A	1.3	N/A	N/A	1.3
Business income	26.8	31.1	28.8	26.8	30.3	23.9	6.1	8.1	7.4	10.4	13.0	12.6
Wages or salaries in cash	62.7	40.7	53.5	31.1	23.9	32.7	5.8	3.8	8.9	13.1	9.3	17.8
Other casual cash earning	2.9	15.2	3.8	4.9	12.0	3.9	1.9	4.2	1.5	2.4	6.1	2.2
Cash remittances	1.0	4.8	3.1	2.1	5.4	4.8	1.0	3.0	2.5	1.1	3.5	3.0
Fishing	0.7	0.6	0.4	2.0	0.8	1.8	1.9	2.2	2.6	1.9	1.9	2.3
Selling of local brew	N/A	N/A	0.5	N/A	N/A	3.0	N/A	N/A	2.4	N/A	N/A	2.4
Other	3.0	3.9	0.1	3.7	5.3	0.5	3.9	3.6	0.2	3.8	3.9	0.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table 5.9 Percentage of Households Reporting Business by Area

Dar es Salaam		Other urban areas		Rural areas		Mainland Tanzania	
2000/01	2007	2000/01	2007	2000/01	2007	2000/01	2007
42.3	50.1	54.7	55.8	39.6	44.9	42.1	47.5

Overall, some 47 percent of households reported having a business, which has increased from 42 percent in 2000/01 (Table 5.9). A business is most common in other urban areas; however businesses have increased most significantly in Dar es Salaam and rural areas.

5.5 Household Ownership of Productive Assets

The surveys collected information on household ownership of productive assets, particularly items used in agricultural production and on the ownership of animals and land. As would be expected, ownership of these items is most common in rural areas (Table 5.10). The proportion of households owning specialised agricultural equipment is low even in rural areas. Mechanisation remains very low.

In rural areas, the proportion of households reporting owning livestock has declined since 2000/01, while the proportion owning poultry has increased. Some 87 percent of rural households reported owning land for agriculture and grazing, a slightly smaller proportion than that recorded in 2000/01. Many households in urban areas also own land.

Table 5.10 Percentage of Households owning Productive Assets

	Dar es Salaam			Other urban areas			Rural areas			Mainland Tanzania		
	91/92	00/01	07	91/92	00/01	07	91/92	00/01	07	91/92	00/01	07
Cart	0.7	2.0	0.1	0.7	1.7	1.0	1.7	2.4	2.6	1.5	2.3	2.0
Boat/canoe	0.0	0.1	0.2	1.4	0.3	0.6	0.4	0.8	0.9	0.5	0.7	0.8
Wheel barrow	1.0	1.9	1.7	3.1	4.4	5.0	2.6	3.1	1.4	2.6	3.2	2.1
Livestock	1.1	2.9	2.0	13.5	14.1	14.6	44.6	44.5	41.3	37.4	37.1	32.4
Poultry	4.7	6.4	11.6	25.9	26.7	31.2	60.1	64.5	68.3	51.6	54.9	55.7
Donkeys	0.4	0.2	0.1	1.1	0.5	0.9	3.8	3.9	3.8	3.2	3.1	2.9
Fields/land	8.3	16.9	16.9	57.6	46.9	48.4	90.1	89.4	86.7	80.2	78.1	72.6
Hoes	11.0	17.5	15.8	59.2	56.0	57.2	90.3	91.8	87.6	80.8	81.5	74.8
Spraying machine	0.6	0.4	1.0	1.9	1.9	2.0	3.7	2.7	3.1	3.2	2.5	2.7
Tractor	0.0	0.0	0.0	0.3	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.1
Plough	0.0	0.7	0.1	1.4	1.8	1.9	11.3	11.1	10.3	9.2	9.0	7.7
Milling machine	0.0	0.0	0.1	0.0	1.1	0.6	1.6	1.9	2.4	1.3	1.6	1.8
Coffee pulping machine	0.0	0.0	N/A	0.1	0.2	0.1	0.1	1.5	0.7	0.1	1.2	0.5
Fishing nets/equipments	0.1	0.3	0.1	2.1	0.6	1.6	2.9	2.6	5.0	2.6	2.1	3.9
Beehives	0.0	0.0	0.1	0.7	0.4	1.1	4.9	6.4	4.6	4.0	5.1	3.5

On average, rural households own around 5 acres, although this reflects a skewed distribution in which 56 percent of households own less than 4 acres (Table 5.11). The mean area of land owned by urban households is smaller. The mean area owned appears to have declined since 2000/01.

Table 5.11 Ownership of Land for Productive Purposes

Amount owned in acres:	Dar es Salaam		Other urban areas		Rural areas		Mainland Tanzania	
	00/01	07	00/01	07	00/01	07	00/01	07
Less than 1	14.4	11.5	9.9	7.0	6.2	2.6	6.7	3.3
1 to 2	21.1	27.2	23.6	23.0	12.7	15.6	13.8	16.7
2 to 3	14.4	17.5	22.2	26.9	18.3	21.5	18.6	22.1
3 to 4	16.0	14.4	12.7	14.5	14.5	16.8	14.4	16.5
4 to 5	6.6	5.3	8.7	9.1	10.6	12.3	10.4	11.8
5 to 6	6.5	7.5	5.6	4.7	8.1	8.2	7.9	7.8
6 to 7	6.7	4.5	3.7	3.4	6.7	5.2	6.5	5.0
7 to 8	1.2	1.9	1.6	2.0	3.6	3.4	3.4	3.2
8 to 9	4.1	1.4	1.9	0.9	4.2	1.9	4.0	1.7
9 to 10	0.7	0.2	0.7	0.7	1.7	1.4	1.6	1.3
10 to 20	6.8	4.9	5.4	4.5	8.6	7.4	8.2	7.0
20+	1.5	3.8	3.8	3.1	4.7	3.7	4.6	3.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Mean	3.8	3.8	5.0	4.1	6.0	5.0	5.8	4.8

In rural areas, the ownership of medium-sized grazing livestock such as sheep or goats has decreased from almost 50 percent in 2000/01 to 35 percent in 2007, while the ownership of cattle and other large livestock has only seen a small decline (Table 5.12). It is possible that this reflects the impact of droughts in preceding years, together with movement out of agriculture, although the magnitude of the change is large. While ownership of cattle or large livestock is less common, the mean number of larger livestock owned is more than the mean number of medium sized livestock owned, for households that owned any.

Table 5.12 Ownership of Livestock

	Dar es Salaam		Other urban areas		Rural areas		Mainland Tanzania	
	2000/01	2007	2000/01	2007	2000/01	2007	2000/01	2007
Own cattle and other large animals (%)	1.2	1.2	8.9	8.8	28.9	26.4	24.0	20.6
Mean number owned	--	6.6	--	6.3	--	13.5	11.2	12.9
Median number owned	--	4.0	--	3.0	--	5.0	5.0	5.0
Own any sheep/goats/other medium sized animals (%)	2.5	1.6	17.3	11.7	49.4	35.1	41.5	27.1
Mean number owned	--	9.7	--	7.7	--	9.5	12	9.4
Median number owned	--	6.0	--	4.0	--	5.0	5.0	5.0

5.4 Banking and Savings

There has been an increase in the proportion of households with a bank account between 2000/01 and 2007 (Table 5.13). The proportion of households taking a bank loan in the year preceding the survey is low, although it has slightly increased from less than 1 percent in 2000/01 to 2.7 percent in 2007. The proportion of households participating in formal and informal savings groups has increased since 2000/01 in all areas. It has doubled in rural areas, suggesting that access to cash saving mechanisms has improved for rural households since 2000/01, although from a very low base.

Table 5.13 Percentage of Household with one or Members Participating in Savings or Banking Activity

	Dar es Salaam			Other urban areas			Rural areas			Mainland Tanzania		
	91/92	00/01	07	91/92	00/01	07	91/92	00/01	07	91/92	00/01	07
Operates a saving/current account	43.1	18.9	24.2	35.0	14.4	19.1	12.9	3.8	5.5	18.0	6.4	10.0
Took a bank loan last year	6.7	1.1	3.7	2.6	1.0	6.2	0.5	0.4	1.6	1.2	0.6	2.7
Participates in an informal saving group	12.4	7.9	11.8	10.0	6.7	11.2	3.6	2.8	6.3	5.1	3.8	7.8
Participates in any non-bank formal savings group	N/A	5.2	6.3	N/A	3.6	7.9	N/A	1.3	3.9	N/A	1.9	4.8

5.6 Conclusion

Over ninety-eight percent of the economically active population in Tanzania is employed, with the highest employment ratio among 35 – 65 year olds. More than two-thirds of the population is employed in the agriculture and fisheries sector, and women are now more likely than men to be employed in it. There has been a reduction in the overall proportion of individuals working in agriculture and fisheries, although, together with elementary occupations, is responsible for the majority of new employment in the country.

Unemployment, as measured by individuals with no work who are actively looking for work, is highest in urban areas, particularly among 15-24 year olds.

Although there has been an overall increase in the employed and in self-employment, most households depend on agricultural products for their cash income. Food crops remain the most important source and the importance of cash crops has declined, a trend that has continued since 1991/92. Some 47 percent of households reported having a business, compared to 42 percent recorded in 2000/01. Eighty seven percent of rural households own land for agriculture or grazing, although ownership of land for agriculture and for grazing animals seems to have declined since 2000/01.

Since 2000/01, there has been an increase in the use of banking and other saving facilities, although the proportion of households with a member with a bank account has not yet returned to the level it was in 1991/92. Despite the decline of savings groups during the 1990s, their frequency has now increased beyond 1991/92 levels.

6 HOUSEHOLD CONSUMPTION AND EXPENDITURE

6.1 Introduction

The Household Budget Surveys collected extensive information on households' consumption and expenditure. This includes information on which items were consumed, on their source and their cost. This chapter examines the overall level of household consumption and how it has changed. It also examines the structure of household consumption, presenting the share of consumption that is taken by various categories of goods and services.

6.2 Measuring Consumption and Expenditure

In line with previous surveys, the 2007 HBS collected information on household consumption and expenditure in three ways. A diary was kept in each household to record items purchased and consumed each day for one calendar month. This was filled in by a household member or, where household members were illiterate, by the interviewer. The interviewer was expected to visit households every two to three days to ensure that the diary was being correctly completed; visits were expected every day in the case of illiterate households. In addition to this, individual adults were provided with a personal diary that they used to record their personal expenditure outside the household. This information was later added to the household diary. In a separate part of the questionnaire, respondents were also asked to recall expenditure on non-food items in the last year.

The consumption recorded in the diary included items that were purchased and those that were consumed but which had not been purchased: home produced items, transfers received by the household (such as gifts or support from other households) and payments in kind for work done. Both the quantity and the value were recorded. Items that had not been purchased were valued at local market prices.

Since all items that were consumed were valued, a single monetary measure of household consumption can be calculated, denoted household consumption expenditure. This includes food consumption, health and educational expenses, expenditure on consumer durables and expenditure on other non-durables. It is standardised to 28 days. Changes were introduced to the coding of consumption items in the 2007, with a revised coding based on a new COICOP. This complicated both fieldwork and analysis to some degree, but overall the comparability of the information seems to have been maintained.

The surveys also collected information on household incomes. However, household income in developing countries fluctuates more over the short term and is often reported less accurately. Consumption expenditure provides a more reliable measure of households' income, reducing reporting errors and smoothing out short-term fluctuations. For this reason, the consumption expenditure measure is used as the basis for an analysis of households' money-metric welfare.

The collection of consumption data in a monthly diary generates a large volume of data, unavoidably producing some errors, which necessitated a careful data cleaning procedure. The cleaning of the 2007 data used the same procedures as that carried out for the previous two

surveys to ensure comparability. A process of linking new and old item codes was also necessary. For some items, it was possible to derive information on consumption either from the diary or the twelve-month recall section, the choice being based on an analysis of relative frequencies and values in the two sources. These and other technical issues are discussed in Appendix A2.

Chapter 7 compares household consumption levels to a poverty line. There, a more restricted consumption measure is used to provide a more comparable measure of change. However in this chapter we focus on describing consumption patterns more broadly.

6.3 Average Consumption Expenditure Levels

Table 6.1 shows the average levels of consumption expenditure per 28 days by area for 2000/01 and 2007 at current prices. Mean expenditure per capita in Tanzania in 2007 was 20,212 Shillings. The median – which shows the value below which half of the population falls – was substantially lower, because a small number of high values have more effect on the mean.

In both periods, mean per capita expenditure in Dar es Salaam was around 2.5 times higher than in rural areas; and around 1.7 times higher than in other urban areas. Differences in average consumption expenditure per household were slightly smaller because rural households tend to be larger: compared to rural areas, expenditure in Dar es Salaam was 2.2 times higher in 2000/01 and around 1.9 times higher in 2007.

Table 6.1 Average Consumption Expenditure Levels in 2000/01 and 2007 (28 days, TZ Shillings)

Measure	Dar es Salaam	Other urban areas	Rural areas	Mainland Tanzania
2000/01				
Mean expenditure per capita	21,415	14,185	8,456	9,997
Median expenditure per capita	16,203	11,407	6,825	7,434
Mean expenditure per household	92,767	63,657	42,999	49,428
2007				
Mean expenditure per capita	42,074	27,100	16,418	20,212
Median expenditure per capita	32,383	21,388	13,408	14,992
Mean expenditure per household	154,904	118,582	82,715	96,600

Note: Consumption expenditure in nominal prices.

An adjustment for price inflation is required to compare expenditure in 2007 and 2000/01. This is calculated using price information contained within the HBS data itself. With data on both the quantity consumed and its value, a Fisher Ideal price index is calculated. This suggests that an average consumption basket has increased in price by a factor of 1.93 since 2000/01. This is well above the increase in the consumer price index. The Fisher Index has the benefit of taking into account changes in consumption patterns that have occurred over the period.¹⁰

Table 6.2 presents mean and median per capita consumption expenditure for 2007, together with their equivalents for 2000/01 inflated by the Fisher Index. The inflated figures give the values that would be expected if average consumption levels had remained constant over the period and only prices had increased.

¹⁰ Further details on the calculation of the Fisher Index are given in Appendix A2.

This comparison shows that national average real consumption levels have increased only modestly since 2000/01. The mean and median consumption levels have increased by around 5 and 4 percent respectively, in real terms. Most of this national change is due to the increasing urban share of the population: within each area there has been little increase in per capita consumption levels. Median consumption per capita increased in Dar es Salaam by around 4 percent and in rural areas by 2 percent, while there was a slight fall in other urban areas. When price differences between areas are taken into account, households in Dar es Salaam and, particularly, other urban areas have seen a fall in median real expenditure. This ratio will be sensitive to the value of the price index used, but it suggests that average household consumption levels are not growing much faster than price inflation. The rapid rise in fuel costs in 2007 might have contributed to this finding.¹¹

Table 6.2 Trends in Real per Capita Expenditure (28 days, 2007 TZ Shillings)

	Dar es Salaam	Other urban areas	Rural areas	Mainland Tanzania
Mean expenditure				
2007	42,074	27,100	16,418	20,212
2000/01	41,330	27,376	16,320	19,294
Ratio (07) / (00/01)	1.02	0.99	1.01	1.05
Ratio with area price adjustment	0.96	1.01	1.03	1.06
Median expenditure:				
2007	32,383	21,388	13,408	14,992
2000/01	31,271	22,016	13,172	14,348
Ratio (07) / (00/01)	1.04	0.97	1.02	1.04
Ratio with area price adjustment	0.99	0.93	1.01	1.03

Note: 2000/01 values are inflated to 2007 prices using the national Fisher Index calculated from the HBS data (1.93). The second ratio for each measure gives the increase in real consumption when prices are adjusted separately for each area.

6.4 The Structure of Consumption

In addition to providing information on the overall level of household consumption, the HBS can be used to look at the structure of consumption. Table 6.3 shows the mean expenditure per capita on food, household durables, medical and education costs, spending on telecommunications and on other non-durables (in current prices).¹² Telecommunications are presented separately due to the increase in expenditure on mobile phones and its introduction into the expenditure codes.

In both years, mean expenditure on all categories is highest in Dar es Salaam and lowest in rural areas, with the exception of home-produced food. The increase in telecommunications and education expenditure are both above inflation, particularly the former.

¹¹ It is also possible that the higher proportion of 'replacement' households interviewed in urban areas, and particularly in Dar es Salaam, is tending to reduce the representation of the better-off households, despite efforts to avoid such a problem.

¹² Other non-durables include personal effects, personal care, recreation, fuel, transport, utilities and services, clothes, alcohol and other items. A table giving more details of mean expenditure by type of item can be found in the Appendix. Expenditure on water was excluded from the consumption aggregate because of changes in the way it was treated between surveys – in 2007, the imputed value of water collected by households from free sources was recorded.

Table 6.3 Mean Expenditure per Capita by Category of Item (Nominal figures, 28 days, TZ Shillings)

Category	2000/01				2007			
	Dar es Salaam	Other Urban	Rural	Mainland Tanzania	Dar es Salaam	Other Urban	Rural	Mainland Tanzania
Food - purchased	10,301	7,114	3,118	4,085	18,731	12,650	5,944	8,079
Food – not purchased	368	876	2,375	2,051	418	1,717	4,612	3,789
Total food	10,668	7,989	5,492	6,137	19,149	14,367	10,556	11,868
Durables	1,892	1,099	484	650	2,738	2,090	767	1,147
Medical Expenditure	569	338	190	232	816	490	286	362
Education Expenditure	974	431	138	227	2,387	1,059	248	550
Other non-durables	7,006	4,253	2,146	2,718	14,003	8,217	4,368	5,764
Telecommunications	304	74	6	33	2,980	877	194	522
Total consumption expenditure	21,415	14,185	8,456	9,997	42,074	27,100	16,418	20,212

Note: 'Food not purchased' includes food produced for home consumption, received as payment in kind or gifts etc.

It is also useful to look at mean share of consumption expenditure by category. Households in Dar es Salaam spend the lowest proportion on food (52 percent), while rural households have the highest food share (67 percent) (Table 6.4). The share of expenditure on food has declined overall and in all areas, particularly in Dar es Salaam and other urban areas. Households with higher incomes generally spend a lower proportion on food. The decline in food shares would tend to suggest an increase in household income, although it is possible that the fuel price shocks of 2007 also affected patterns of expenditure.

Table 6.4 Mean Percentage Share of Consumption Expenditure by Category of Expenditure

Category	Dar es Salaam		Other urban areas		Rural areas		Mainland Tanzania	
	2000	2007	2000	2007	2000	2007	2000	2007
Food – purchased	53.1	50.8	53.4	49.4	35.5	33.3	39.0	37.6
Food – not purchased	2.1	1.4	8.0	9.4	32.1	33.2	27.0	26.5
Durables	5.2	4.7	5.3	5.5	4.5	3.9	4.7	4.2
Other non-durables	31.6	31.5	27.5	28.6	24.1	25.8	25.0	26.7
Medical Expenditure	2.9	2.1	2.4	1.9	2.1	1.8	2.2	1.8
Educational Expenditure	4.1	3.9	3.1	2.9	1.7	1.4	2.0	1.8
Telecommunications	0.9	5.7	0.3	2.1	0.0	0.6	0.1	1.3
Total	100	100	100	100	100	100	100	100
Of which, total food	55.2	52.2	61.4	58.9	67.5	66.5	66.0	64.1

Note: These budget shares are means of the shares calculated for each household.

Other categories have also seen slight falls in their shares, the exceptions being: expenditure on telecommunications, which has increased reflecting the introduction of mobile phones - especially in Dar es Salaam, where telecommunications now account for almost 6 percent of household expenditure; and an increase in the share of expenditure on other non-durables outside Dar es Salaam.

6.5 Conclusions

Average consumption expenditure per capita is around 2.5 times higher in Dar es Salaam than in rural areas, a similar differential to that which was found in 2000/01. Across the population as a whole, mean real expenditure levels have increased by around 5 percent between 2000/01 and 2007, suggesting that overall household real incomes have been rising slightly. However, this seems to have been driven largely by the increasing urbanisation and very modest gains in rural areas; average real consumption levels in urban areas appear to have stagnated or even declined. This may partly have been a consequence of the fuel price shocks in 2007. The proportion of expenditure spent on food has declined, which would be expected if real incomes have risen. However, increases in non-food prices might also have contributed to this.

7 INCOME POVERTY AND INEQUALITY

7.1 Introduction

In this chapter, consumption expenditure information is used to look at income poverty and inequality. Information provided by households in response to questions on food security is also presented.

7.2 Measuring Income Poverty

The basis for assessing income poverty is a measure of households' consumption expenditure similar to the one outlined in Chapter 6.¹³ This is compared with a poverty line, which represents the cost of a basic basket of consumption. Households that fall below the poverty line are poor; individuals are classed as poor if they live in a poor household. In practice, undertaking this analysis has a number of complications, particularly when the objective is to compare income poverty levels over time. This section briefly outlines the analysis that was undertaken. Further details are given in Appendix A2. The main priority in the analysis presented here was to maximise comparability with the previous estimates of income poverty based on the 2000/01 HBS, so as to provide information on trends. As a result it was constrained in a number of ways. There would be a good case for undertaking an additional analysis of the data from this survey to provide a revised baseline for the future.

The Consumption Aggregate

Unlike the wider consumption measure outlined in Chapter 6, the measure used in the poverty analysis excludes large durable items, which are rare purchases and are not typical of the household's usual consumption level. Expenditure on medical care, education, water, telecommunications and postage are also excluded because there were large changes in the frequency and nature of these payments during the 1990s. Rent and imputed rent were also excluded because of the poor reporting of the latter.

Total household consumption is then adjusted for the number of individuals present in the household, since larger households require a higher expenditure than smaller households to meet their needs. The adjustment uses an adult equivalence scale, which allows for the fact that children have lower consumption needs than adults. Children count as a fraction of an adult on this scale, the fraction depending on their age. In this way, household size is represented by the number of 'adult equivalents' rather than simply the number of individuals. The basic measure of household welfare used in this analysis is then each household's consumption expenditure per adult equivalent over 28 days.

¹³ Note, by convention this is often referred to as income poverty, although in most developing countries it is based on consumption expenditure information, not reported incomes.

The Poverty Line

For 2007, the 2000/01 national food and basic needs poverty lines were inflated using a Fisher price index, calculated using information collected in the two surveys on the quantities and price of items consumed. It includes both food and non-food items. The overall value of this index is 1.93.

The 2000/01 poverty lines were defined using the HBS data. The food poverty line was calculated as the cost of meeting the minimum adult calorific requirement with a food consumption pattern typical of the poorest 50 percent of the population. A higher 'basic needs' poverty line allows for the fact that individuals need more than just food to live. It inflates the value of the food poverty line based on the non-food share of expenditure of the poorest 25 percent of the population.

The national poverty lines calculated in this way make no adjustment for the different prices faced by households in different areas, however. The price of most foodstuffs, for example, is higher in Dar es Salaam than in rural areas. The expenditure required to meet a given minimum consumption level therefore varies depending on where the household lives. For this reason, the poverty line is adjusted for the prices faced by the household. This is done using a Fisher Index, calculated to compare prices over space. The much larger sample in 2000/01 allows a separate Fisher Index to be calculated for each region. However the 1991/92 and 2007 sample is not large enough to permit this and price adjustments are made for the three main strata: Dar es Salaam, other urban areas and rural areas. The resulting poverty lines, for all three surveys, are presented in Table 7.1.

Table 7.1 Poverty Lines per Adult Equivalent for 28 days (TZ Shillings)

	Dar es Salaam	Other urban areas	Rural areas	Mainland Tanzania
Food Poverty Line				
1991/92	3,031	2,387	1,958	2,083
2000/01	6,719	5,607	5,107	5,295
2007	13,098	10,875	9,574	10,219
Basic Needs Poverty Line				
1991/92	4,040	3,182	2,611	2,777
2000/01	9,203	7,680	6,996	7,253
2007	17,941	14,896	13,114	13,998

Note: National poverty lines for the population as a whole are adjusted using Fisher Indexes to calculate the stratum lines for each year. The stratum lines for 2000/01 are illustrative because separate lines were calculated for each region in the analysis of that data.

7.3 The Incidence of Poverty

Table 7.2 shows the percentage of the population below the poverty lines in the three surveys. Some 34 percent of Tanzanians fall below the basic needs poverty line and 17 percent below the food poverty line in 2007. Nationally, and in rural areas, there has been a small decline since 2000/01 in the proportion below both poverty lines. In Dar es Salaam and other urban areas, however, there has been very little change in the proportion below the food poverty line, which

identifies the very poorest.¹⁴ The overall fall in poverty levels since 2000/01 is not large enough to be statistically significant at the 5 percent level.

The fall in poverty over the whole period from 1991/92 to 2007 is larger. Nationally, there has been a decline of about 5 percentage points in the proportions below the two poverty lines. Both falls are statistically significant at the 1 percent level. There has also been a small decline in the poverty gap, a measure of the depth of poverty that indicates the extent to which the poor fall below the poverty line.

Poverty remains highest in rural areas, where 38 percent of the population falls below the basic needs poverty line. Dar es Salaam has the lowest level of poverty, with 16 percent below the same line (Figures 7.1 and 7.2). Since 1991/92, poverty has declined most in Dar es Salaam and least in rural areas. However, since 2000/01, the decline in the proportion below the basic needs poverty line seems to be of a similar magnitude in all areas, while declines in the proportion below the food poverty line are concentrated in rural areas. It should be noted that these estimates provide a ‘snapshot’ for the year of the survey and will reflect any short-term factors that affect household income at that time. In particular, the prices faced by households may have been affected by large increases in global fuel prices during 2007 and reflected in the Fisher Index.¹⁵

Table 7.2 Incidence and Depth of Poverty in Tanzania

	Year	Dar es Salaam	Other Urban areas	Rural areas	Mainland Tanzania
Food	1991/92	13.6	15.0	23.1	21.6
	2000/01	7.5	13.2	20.4	18.7
	2007	7.4	12.9	18.4	16.6
Basic Needs	1991/92	28.1	28.7	40.8	38.6
	2000/01	17.6	25.8	38.7	35.7
	2007	16.4	24.1	37.6	33.6

¹⁴ Chapter 6 showed small or negative changes in real per capita consumption in Dar es Salaam and other urban areas. The decline in the proportion below the basic needs poverty line in these areas is probably due to increases in consumption levels in households that were just below the poverty line.

¹⁵ The price index will not reflect the significant increases in food prices in 2008, however, which may have further eroded households’ purchasing power.

Figure 7.1 Percentage of the Population below the Food Poverty Line, 1991/92 and 2000/01

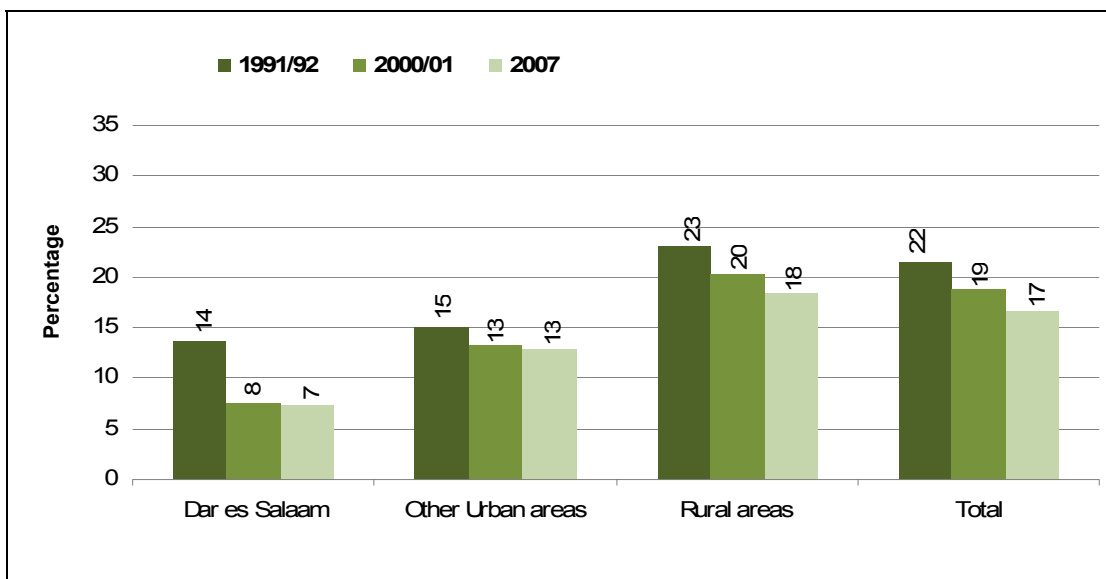


Figure 7.2 Percentage of the Population below the Basic Needs Poverty Line, 1991/92 and 2000/01

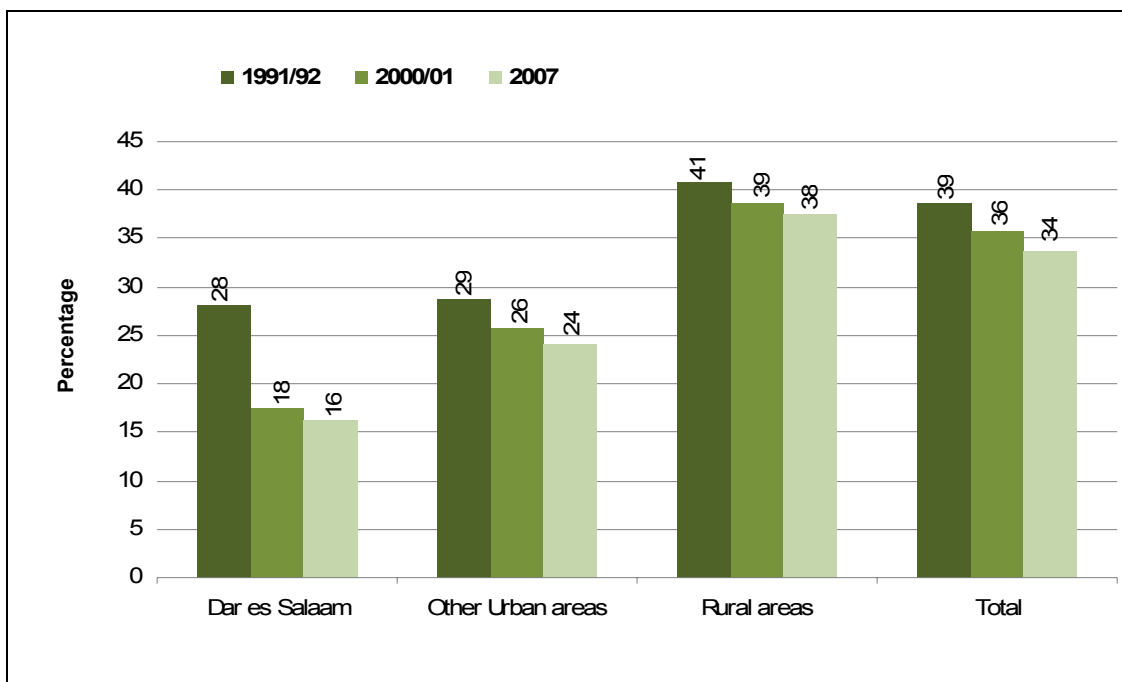


Table 7.3 Distribution of the Poor in Tanzania

	Dar es Salaam		Other urban areas		Rural areas		Mainland Tanzania	
	2000/01	2007	2000/01	2007	2000/01	2007	2000/01	2007
Total population '000	1,845	2,882	4,405	6,778	25,650	28,632	31,900	38,291
Share of population	5.8	7.5	13.8	17.7	80.4	74.8	100	100
Number of poor:								
Food Poverty '000	138	212	581	874	5,233	5,267	5,965	6,353
Basic Needs '000	325	474	1,136	1,636	9,926	10,760	11,388	12,870
Percentage of poor:								
Food Poverty	2.3	3.3	9.7	13.8	87.7	82.9	100	100
Basic Needs	2.9	3.7	10.0	12.7	87.2	83.6	100	100

Although the proportion of the population who are poor has declined, the absolute number of individuals who are poor will have increased since 2000/01 because of population growth (Table 7.3). Using official population projections, which imply about 20 percent growth in the population since 2000/01, some 12.9 million Tanzanians are below the basic needs poverty line. This compares with 11.4 million in 2000/01. Poverty remains an overwhelmingly rural phenomenon – about 83 percent of the poor are located in rural areas. However, there has been a change in the distribution, since 88 percent were in rural areas in 2000/01. This reflects the increasing proportion of the national population that is urban.

7.4 Inequality

The consumption expenditure measure can also be used to examine income inequality. Table 7.4 shows the Gini coefficients for all three surveys. This measure summarises how equal or unequal income or expenditure distribution is. Higher values indicate greater inequality. It is calculated on a per capita basis. Inequality is highest in urban areas outside Dar es Salaam and lowest in rural areas. For Mainland Tanzania and rural areas income inequality has not changed since 2000/01. A slight fall was noted in Dar es Salaam and other urban areas, although there is an increase in Dar es Salaam over the period as a whole.¹⁶

Table 7.4 Gini Coefficients

	Dar es Salaam	Other urban areas	Rural areas	Mainland Tanzania
1991/92	0.30	0.35	0.33	0.34
2000/01	0.36	0.36	0.33	0.35
2007	0.34	0.35	0.33	0.35

Another measure of income inequality is the share of total consumption accounted for by different expenditure classes. In Table 7.5, individuals have been divided into five groups based on their level of consumption per capita. The poorest fifth of the population accounts for just 7 percent of total consumption expenditure, while the richest fifth accounts for 42 percent. This measure also shows inequality to be highest in other urban areas and lowest in rural areas. The ratio also shows

¹⁶ Both the Gini coefficient and the following table use the more restricted consumption aggregate used for the poverty analysis for consistency. A Gini coefficient calculated for the full consumption aggregate is higher both for the population as a whole (0.37) and for Dar es Salaam and other urban areas (0.38).

a slight fall since 2000/01, most markedly in other urban areas, although the changes in the actual shares are small.

These changes seem surprising in the face of the substantial developments and apparent growth in economic activity in Dar es Salaam, in particular. It may be that these developments are largely benefiting a relatively small group of households that are difficult to capture in a household survey, particularly given the relatively high level of replacement households in the Dar es Salaam sample. It may also be due to the use of the more restricted consumption aggregate, which does not include some of the expenditure elements that might increase substantially amongst richer households (e.g., large durable goods).

Table 7.5 Percentage Share of Consumption Expenditure by Quintile

Quintile	Dar es Salaam		Other urban areas		Rural areas		Mainland Tanzania	
	2000/01	2007	2000/01	2007	2000/01	2007	2000/01	2007
Q1 - poorest	7.0	7.3	6.6	6.8	7.5	7.5	7.1	7.2
Q2	11.3	12.2	11.5	12.1	12.3	12.4	11.7	12.0
Q3	16.1	16.6	16.6	16.7	16.4	16.6	16.0	16.3
Q4	23.0	22.5	22.8	22.4	22.4	22.3	22.2	22.3
Q5 - richest	42.5	41.4	42.6	42.0	41.4	41.2	43.0	42.2
Ratio of Q5:Q1	6.0	5.7	6.5	6.1	5.5	5.5	6.0	5.9

7.5 Food Security

Food security is one dimension of poverty, assessing whether a household can meet its food needs and its vulnerability to shocks. While the food poverty estimates discussed above are a more direct measure of a household's ability to meet its food needs, the 2000/01 and 2007 HBS also collected information on food security in a series of specific questions. These were not asked in the 1991/92 survey. They included questions about the usual number of meals per day consumed by the household and the number of days in the preceding week in which certain types of food were consumed.

Most households report that they usually consume either two or three meals per day (Table 7.6). In urban areas three meals is the norm. There has been a fall in the proportion who usually consume two meals and an increase in the proportion who consume three meals a day. This result is driven by a shift in rural areas. Respondents were also asked whether the household had had fewer meals than the usual number on any days in the preceding month. Respondents were most likely to report that they had had fewer in Dar es Salaam and least likely to report it in rural areas, in inverse relationship to the distribution of poverty in Tanzania. The responses presumably reflect the expectation of more meals per day in urban areas. However, there has been a drop in the percent reporting fewer than usual meals across all areas, and particularly in Dar es Salaam.

Table 7.6 Usual Number of Meals Per Day By Area (HBS 2000/01 and 2007)

Usual no. of meals per day	Dar es Salaam		Other Urban areas		Rural areas		Mainland Tanzania	
	2000/01	2007	2000/01	2007	2000/01	2007	2000/01	2007
1	0.4	0.3	0.8	1.1	1.2	1.2	1.1	1.1
2	9.5	10.2	21.5	21.0	55.8	49.8	47.5	40.5
3	89.6	89.2	77.1	77.6	42.8	48.9	51.1	58.3
4	0.5	0.2	0.5	0.3	0.2	0.1	0.3	0.2
Total	100	100.0	100	100	100	100	100	100
% reporting fewer than usual	37.1	26.9	28.3	25.9	27.6	24.5	28.3	25.0

Household responses about the number of days in which they had eaten certain foodstuffs were found to be broadly in line with income poverty measures in the 2000/01 HBS. The average number of days in which all types of high protein, and usually high cost, food was consumed was consistently highest in Dar es Salaam and lowest in rural areas; this is seen again in 2007 (Table 7.7). However, a comparison of the two surveys suggests that there has been a decline in the frequency of consumption of meat and dairy products across the population as a whole.

Table 7.7 Mean Number of Days of Consumption of Specified Foods in the Preceding Week (HBS 2000/01 and 2007)

	Dar es Salaam		Other Urban		Rural		Mainland Tanzania	
	2000/01	2007	2000/01	2007	2000/01	2007	2000/01	2007
Meat	2.3	1.8	1.8	1.4	1.2	0.9	1.4	1.1
Fish	2.1	2.3	2.2	2.3	1.9	1.9	2.0	2.0
Eggs	0.8	0.6	0.4	0.4	0.3	0.2	0.3	0.3
Milk or dairy products	1.8	1.1	1.6	1.4	1.6	1.1	1.6	1.2
Beans /other legumes	3.1	3.4	2.7	2.6	2.8	2.6	2.8	2.7

7.6 Conclusions

There has been a small decline in income poverty of about 2 percentage points since 2000/01. This is not large enough to be statistically significant at the 5 percent level. The decline between 1991/92 and 2007 is larger and is significant at the 1 percent level. Inequality in the population as a whole has remained unchanged since 2000/01 according to the Gini coefficient, although there was a small fall in Dar es Salaam and other urban areas. This is based on the more restricted consumption measure used in the poverty analysis, which does not reflect all elements of consumption. Inequality has increased since 1991/92.

Some 34 percent of Tanzanians now fall below the basic needs poverty line and 17 percent below the food poverty line. The absolute number of people living in poverty has increased slightly because of population growth. Based on official population projections, there are now 12.9 million Tanzanians below the basic needs poverty line, compared with approximately 11.4 million in 2000/01. Poverty remains overwhelmingly rural but there has been an increase in the proportion of the poor who are found in urban areas, associated with an increase in the share of the overall population that is urban.

8 A POVERTY PROFILE

8.1 Introduction

Chapter 8 looks at the relationship between income poverty and other characteristics of households and individuals. It looks at how far poverty is associated with a household's demographic structure and with other characteristics of its members, and whether that relationship has changed over time. It also looks at the extent to which the distance to, and uptake of, basic social services is related to income poverty.

8.2 Poverty and Household Economic and Demographic Characteristics

The chances of a household being poor are related to its demographic structure and its economic activities. In this section, we look at how poverty levels vary according to the demographic structure and economic characteristics of the household. The tables present the percentage of individuals in each category who are poor according to the basic needs poverty line – the 'headcount ratio'. They show, in addition, the share of all the poor made up by individuals in that category – labelled the '% of the poor'. These two measures give a clear indication of whether a particular characteristic is associated with high levels of poverty and, if so, how much of a contribution this group makes to poverty in Mainland Tanzania.

Having a particular characteristic may be associated with poverty without necessarily being the source of poverty. Instead it could be an outcome of poverty, or both poverty and the characteristic may be due to association with another factor. Although the tables included in this section focus on characteristics that may contribute to causing poverty, it is not possible to assess their causal importance using these simple descriptive relationships.

Table 8.1 Distribution of Poverty by Household Size

Number of members	HBS 1991/92		HBS 2000/01		HBS 2007	
	Headcount ratio	% of the poor	Headcount ratio	% of the poor	Headcount ratio	% of the poor
1	5.8	0.2	4.7	0.2	11.5	0.8
2	10.7	0.9	11.0	1.3	13.8	1.8
3	12.9	2.1	15.8	4.3	16.6	4.4
4	20.4	4.8	21.4	7.6	21.7	9.0
5	27.0	7.5	28.1	10.9	28.2	12.5
6	38.3	12.3	35.2	13.6	34.3	15.0
7	44.0	13.5	46.1	15.5	39.9	14.7
8	45.2	11.7	44.8	10.5	42.4	10.4
9	35.7	7.7	48.3	8.1	50.7	9.3
10 or more	57.2	39.2	56.8	27.9	52.2	22.2
Total	38.6	100.0	35.7	100.0	33.6	100.0

Table 8.1 shows that households with many members are more likely to be poor compared to those with fewer members. The headcount ratio increases with household size in all the three surveys. Over half of the individuals in households with ten or more members are poor. The proportion of the poor that these households contain has decreased from 28 percent in 2000/01 to 22 percent in 2007.

Households with a higher proportion of dependants – that is, children under 15 years and adults 65 years and over – are more likely to be poor (Table 8.2). Households with a higher proportion of dependents account for a larger fraction of the poor. Those with the highest levels of dependency appear to have become more disadvantaged over the period, although the number of these households is relatively small so that they account for only 9 percent of the poor even in 2007.

Table 8.2 Distribution of Poverty by Proportion of Dependants

Proportion of dependants	HBS 1991/92		HBS 2000/01		HBS 2007	
	Headcount ratio	% of the poor	Headcount ratio	% of the poor	Headcount ratio	% of the poor
0.00 to 0.25	27.9	10.6	19.2	7.5	22.5	7.2
0.25 to 0.50	41.2	50.0	33.8	41.8	30.7	25.3
0.50 to 0.75	40.0	37.1	42.7	47.0	36.1	58.8
0.75 to 1.00	32.9	2.2	37.5	3.7	42.5	8.7
Total	38.6	100.0	35.7	100.0	33.6	100.0

Note: Dependants are individuals aged under 15 and 65 and above.

Male and female-headed households have equal chances of being poor (Table 8.3). However, male-headed households contain about 76 percent of the poor because they are more common than female-headed households. The proportion of the poor in female-headed households has increased to 24 percent, in line with their increase in frequency in the population as a whole.

Table 8.3 Distribution of Poverty by Sex of Household Head

Sex of head	HBS 1991/92		HBS 2000/01		HBS 2007	
	Headcount ratio	% of the poor	Headcount ratio	% of the poor	Headcount ratio	% of the poor
Male	39.1	87.7	35.8	81.4	33.4	75.8
Female	35.3	12.3	35.3	18.6	33.8	24.2
Total	38.6	100	35.7	100.0	33.6	100.0

Households headed by individuals who are not economically active have the highest levels of poverty and constitute an increasing proportion of the poor in Tanzania (Table 8.4). The proportion of poor individuals living in households whose head works in agriculture has decreased from 81 percent in 2000/01 to 74 percent in 2007, largely as a result of fewer household heads working in agriculture, since there has been only a slight decline in poverty levels in this group. Levels of poverty among employees and self-employed remain below the average and have generally declined since 1991/92.¹⁷

Households that depend on the sale of food and cash crops are more likely than average to be poor (Table 8.5) the former comprise almost half of all the poor in Tanzania. In contrast to 2000/01, households that depend on the sale of livestock appear to have lower levels of poverty than those that depend on agriculture. Households that depend on the processing of wild products

¹⁷ The category 'parastatal / other' combines non-parastatal employees in 2007 and so is not directly comparable to the previous surveys.

are more likely to be poor (particularly those selling firewood, although the number of observations is quite small). Households with formal sector incomes – wages and salaries or business income – have the lowest levels of poverty.

Table 8.4 Distribution of Poverty by Main Source of Income

Activity of Head	HBS 1991/92		HBS 2000/01		HBS 2007	
	Headcount ratio	% of the poor	Headcount ratio	% of the poor	Headcount ratio	% of the poor
Farming / livestock / fishing / forest	42.3	85.7	39.9	80.8	39.1	74.4
Govt employee	18.6	3.3	15.3	1.8	10.3	1.5
Parastatal employee / other	12.2	1.1	8.1	0.3	10.9	0.7
Employee - other	29.8	2.0	20.2	3.0	20.9	3.3
Self employed with employees	31.7	4.9	19.1	1.4	15.2	1.0
Self employed without employees	24.5	0.2	22.5	5.0	22.4	9.3
Unpaid family helper in business	N/A	0.0	57.4	1.5	7.1	0.0
Housewife / housemaker / household chores	14.7	0.1	27.7	0.7	42.4	1.0
Student	N/A	N/A	N/A	N/A	18.5	0.0
Not active	41.8	2.7	45.1	5.5	46.7	8.6
Total	38.6	100.0	35.7	100.0	33.6	100.0

Table 8.5 Distribution of Poverty by Main Source of Cash Income of the Household

Main source of Cash Income	HBS 2000/01		HBS 2007	
	Headcount ratio	% of the poor	Headcount ratio	% of the poor
Sales of food crops	40.6	46.9	40.0	49.9
Sales of livestock	59.1	7.2	33.0	2.9
Sales of livestock products	33.3	1.4	29.2	1.1
Sales of cash crops	38.6	20.5	39.6	16.7
Sales of charcoal	N/A	N/A	39.2	1.6
Sales of timber / poles	N/A	N/A	41.1	0.7
Sales of firewood	N/A	N/A	52.7	1.3
Sales of other non-timber wild products (e.g. honey, medical plants)	N/A	N/A	33.5	1.2
Business income	24.0	8.4	20.7	7.1
Wages or salaries in cash	14.9	3.6	20.3	9.5
Other casual cash earning	32.8	4.9	34.5	2.1
Cash remittances	35.2	2.3	38.8	2.3
Fishing	28.3	1.5	24.5	1.7
Selling of local brew	N/A	N/A	27.9	1.8
Other	34.0	3.3	4.4	0.0
Total	35.6	100.0	33.5	100.0

Households without any employed members are most likely to be poor, however, they account for a smaller proportion of the poor than they did in 2000/01 (Table 8.6). This will be due to their being less common, with the decline in the importance of agriculture and the increase in employment and self-employment presented in chapter 5.

Table 8.6 Distribution of Poverty by Number of Employees

Number	HBS 1991/92		HBS 2000/01		HBS 2007	
	Headcount ratio	% of the poor	Headcount ratio	% of the poor	Headcount ratio	% of the poor
None	42.5	82.4	40.3	80.5	41.0	75.1
1	23.5	10.2	23.8	12.9	20.9	14.2
2	33.1	5.2	26.2	4.8	21.9	6.9
3	39.0	1.6	24.9	1.0	19.7	1.8
4 or more	31.2	0.6	23.4	0.7	31.3	2.0
Total	38.6	100.0	35.7	100.0	33.6	100

Note: includes employees and self-employed but excludes farming/livestock keeping/fishing/forestry.

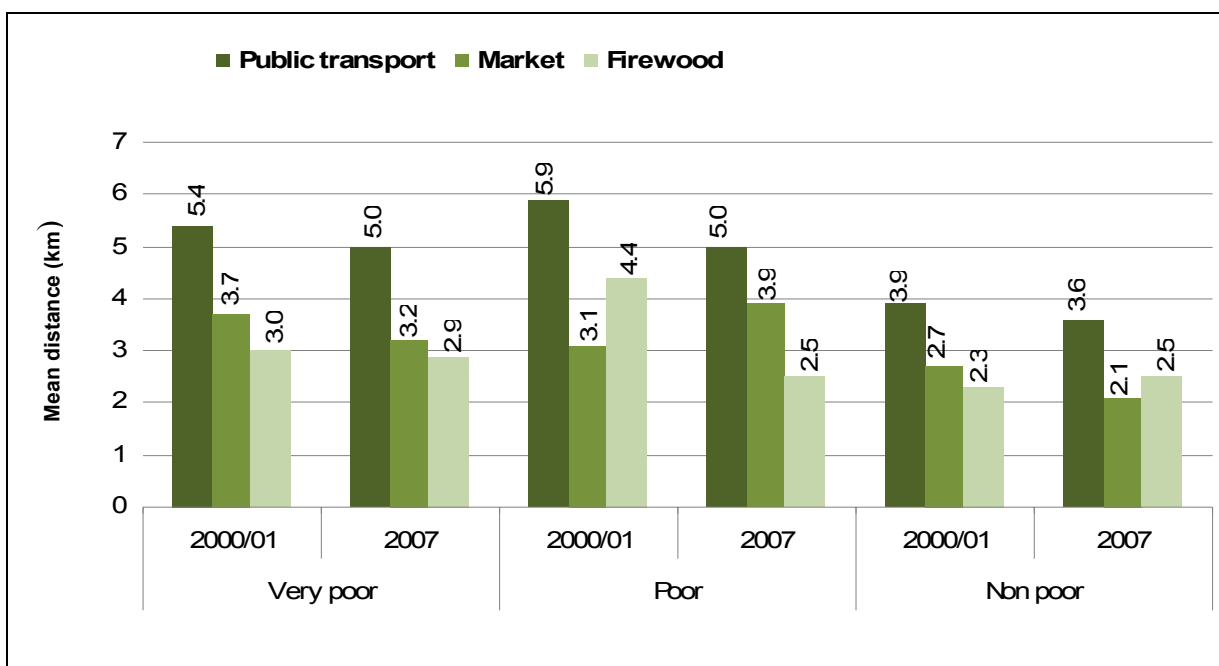
The relationship between poverty and the level of education of the household head was shown in previous surveys to be very strong, and remains so. Individuals in a household where the head has no education are now almost five times more likely to be poor than individuals in a household with a head educated above the primary level (Table 8.7). Although poverty levels increased for households with uneducated heads between 1991/92 and 2000/01, they appear to have decreased between 2000/01 and 2007.

Table 8.7 Distribution of Poverty by Education of the Household Head

Education of the head	HBS 1991/92		HBS 2000/01		HBS 2007	
	Headcount ratio	% of the poor	Headcount ratio	% of the poor	Headcount ratio	% of the poor
None	45.6	32.2	51.1	36.9	46.5	32.7
Adult educ. Only	51.0	9.8	46.4	5.2	38.2	2.1
Primary only	36.4	56.0	31.7	55.1	32.1	62.6
Above primary	13.2	2.1	12.4	2.8	9.9	2.7
Total	38.6	100.0	35.7	100.0	33.6	100.0

There has been a small decline in reported average distance to economic and other facilities since the previous survey and the poor appear to have benefited from this. Nevertheless, the poor remain further away from these facilities than households that are not poor – for example from public transport, a market and firewood (Figure 8.1). However, the average distance is not always higher for the very poor than for the poor, and the relationship does not hold for all facilities.

Figure 8.1 Mean Distance to Selected Facilities by Poverty Status (HBS 2000/01 & 2007)



8.3 Poverty and the Social Sectors

This section examines the association between household poverty status and key social sectors – education, health and water. Instead of showing the percentage of individuals who are poor for a given characteristic, the tables show how social indicators vary between poor households and those that are not poor. Amongst the poor, the very poor are identified as a separate category. These are households that fall below the food poverty line, while poor households are below the basic needs poverty line but above the food poverty line. The remaining households are not considered poor.

Chapter four showed that there has been a large increase in primary school enrolment since 2000/01. The poor have benefited very substantially from this – the poorest households have seen an increase of more than 30 percentage points in school participation over the period, a larger increase than for the non-poor (Figure 8.2). This trend is seen in both urban and rural areas, although it has been largest in Dar es Salaam (Table 8.8). The survey findings show that poor households are still somewhat less likely to send their children to school than other households, but nevertheless many more poor children are benefiting from schooling than were at the time of the previous survey.

Figure 8.2 Percentage of Children Studying by Poverty Status and Year (HBS 2000/01 & 2007)

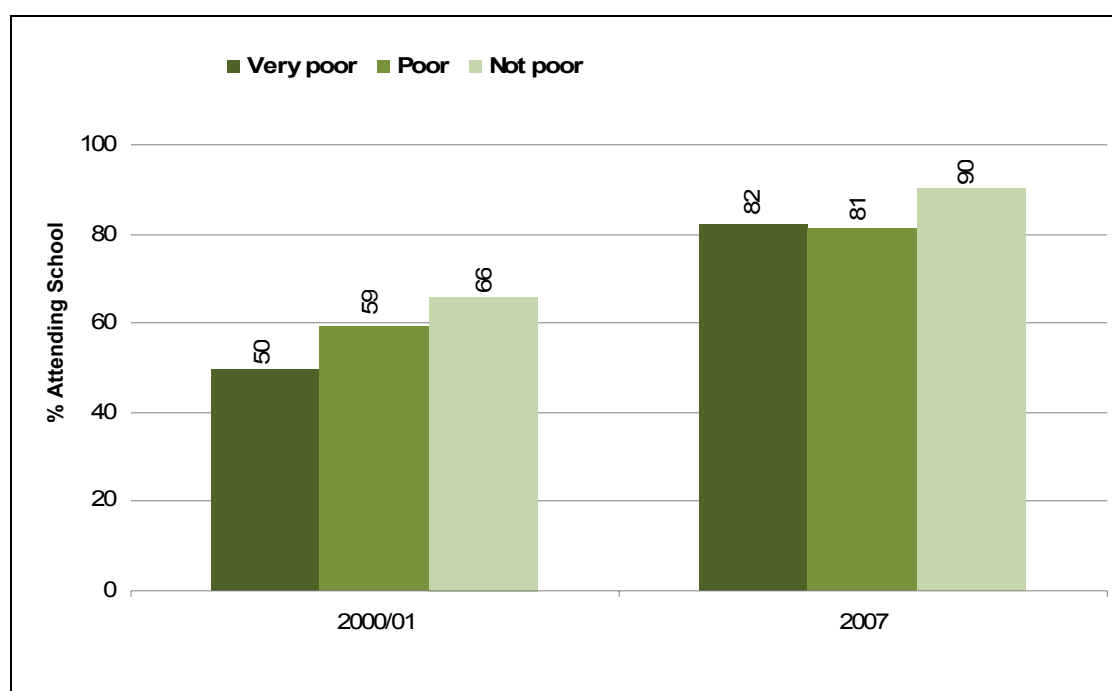


Table 8.8 Percentage of children aged 7-13 who are studying by poverty status

	HBS 1991/92			HBS 2000/01			HBS 2007		
	Very poor	Poor	Not poor	Very poor	Poor	Not poor	Very poor	Poor	Not poor
Dar es Salaam	59.2	69.7	66.1	56.3	69.6	79.9	89.9	91.8	96.1
Other urban areas	57.4	65.7	64.9	60.2	68.1	81.9	89.9	94.5	95.9
Rural areas	53.9	55.7	56.9	48.8	57.7	62.2	80.2	79.2	87.3
Total	54.4	57.3	58.6	50.1	59.2	66.3	81.8	81.3	89.6

The relationship between self-reported illness and poverty remains weak (Table 8.9); this may reflect different perceptions of illness in different groups. When they are sick, the poor are less likely to consult a health provider than the rest of the population (Table 8.10) and this appears to be a slightly lower proportion of the very poor than it was in 2000/01. Of those who do consult, the poorest are more likely to consult a government provider. Public dispensaries, in particular, are much the commonest source of consultations for the poorest households.

Table 8.9 Percentage of Individuals Reporting Illness or Injury by Poverty Status (HBS 2000/01 and 2007)

	Very poor		Poor		Not poor	
	2000/01	2007	2000/01	2007	2000/01	2007
Children < 15 years	21.4	23.9	23.3	24.9	26.3	25.3
Adults	29.8	27.0	28.3	26.0	28.9	26.2

Table 8.10 Frequency and Source of Health Consultations by Poverty Status (HBS 2007)

	Very poor	Poor	Not poor
% who consulted a health provider, 2007	62.4	66.2	71.3
% who consulted a health provider, 2000/01	68.5	62.1	70.1
Source of consultation, 2007			
Government			
Public health centre or hospital	20.6	22.9	30.9
Public dispensary	47.6	40.5	34.2
Private modern:			
Private health centre or hospital	2.9	2.2	4.1
Private dispensary	12.0	17.8	20.7
Private doctor/dentist	2.9	2.3	2.2
Mission facility	5.9	3.2	4.3
Other:			
Traditional healer	9.3	11.3	8.7
Pharmacy	3.9	4.1	3.9
Other source	5.9	7.5	4.1
% who consulted multiple providers, 2007	9.7	10.3	11.8
% who consulted any government source, 2007	66.1	60.8	63.1
% who consulted any private facility, 2007	14.8	19.9	24.4

Note: the central panel on source of consultations is a ratio of consultations to the number of sick individuals who consulted anyone; since more than one source could be consulted, it may sum to greater than 100%

Compared to 2000/01, access to piped water has declined across households of all levels of poverty in 2007, although it appears to have affected the non-poor more, presumably because it is concentrated in urban areas (Table 8.11).¹⁸ The poor remain less likely to have use of a toilet or an electrical connection than other households, and the minimal improvements in the coverage of the electrical grid have accrued to the non-poor, as might be expected.

Table 8.11 Household Facilities by Poverty Status

	1991/92			2000/01			2007		
	Very poor	Poor	Non-poor	Very poor	Poor	Non-poor	Very poor	Poor	Non-poor
Drinking water									
Piped	37.5	32.8	36.1	28.6	30.0	43.0	25.7	28.0	36.4
Other protected	13.3	11.3	9	16.9	18.1	15.7	18.6	18.7	17.6
Unprotected	47.8	54.4	52.6	54.4	50.9	40.2	54.6	51.2	41.8
Other	1.4	1.4	2.2	0.2	0.9	1.2	1.1	2.1	4.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
% with any toilet	91.5	90.8	93.5	88.6	90.9	94.1	88.7	90.7	93.7
% with electricity	4.0	4.9	10.2	2.9	5.4	12.1	2.9	3.7	15.7

¹⁸ But see the discussion on trends in piped water supplies in Chapter 4.

The mean distance to the nearest primary school is nearly twice as far for poor households than for households that are not poor. For the poorest households, this distance appears to have increased from 2 kilometres in 2000/01 to 5 kilometres in 2007; this seems difficult to explain, although it could, in part, be due to the establishment of new settlements that do not coincide with the expansion of key social services. The distance to nearest dispensary or health centre is also greater for the poor; as is the mean distance to water; however, these distances do not appear to have changed.

Table 8.12 Mean Distance to Key Social Services by Poverty Status (km)

	1991/92			2000/01			2007		
	Very poor	Poor	Non-poor	Very poor	Poor	Non-poor	Very poor	Poor	Non-poor
Nearest source of drinking / cooking water	1.2	1.2	1.3	1.7	1.6	1.4	1.5	1.4	1.3
Nearest dispensary/ health centre	4.4	4.9	4.2	4.3	4.6	3.7	4.2	4.6	3.3
Nearest primary school	1.4	1.4	1.4	1.7	2.1	1.7	5.1	4.1	2.1

Note: the 2007 HBS collected information on dispensary and health centre separately, but it has been combined here for ease of comparison.

8.4 Conclusions

Many of the relationships between poverty and other household characteristics found in previous surveys have also been seen in the 2007 HBS. Households with a large number of members and a large number of dependants have high levels of poverty, as do households with a head who is economically inactive. Households that depend on agricultural sources of income are more likely to be poor, as are the households that depend on some natural products, particularly the sale of firewood. Keepers of livestock seem to be less likely to be poor than previously. Poverty levels are also strongly related to the education of the household head.

While the poor are still less likely to send their children to school than the non-poor, all have experienced a significant increase in the percentage of children studying. Children in the poorest households have seen a 30 percentage point increase in school enrolment. Poor households are slightly less likely to consult someone when sick, although they make more use of government services. Poor households are less likely than others to have access to piped water and a connection to the electricity grid, and the limited extension to the coverage of the grid has benefited the non-poor.

Poor households are further from social services. The distance to primary schools appears to have increased, particularly for the poor, since 2000/01, although this is difficult to explain; the distance to other social services has remained similar. Access to market and transport seems to have improved slightly.

9 HOUSEHOLD INCOME

9.1 Introduction

In addition to collecting information on consumption and expenditure, the Household Budget Surveys also collected information on household income. The main focus of the analysis presented in this report has been on consumption expenditure information, which generally provides a more reliable basis for money-metric poverty analysis. For completeness, information on reported income is presented in this chapter.

9.2 Household Income

The surveys collected information on household income in two ways. First, households were requested to record in the diary all the income coming into the household during the survey month, together with an indication of its source and the household member who received it. In addition, a separate schedule was used to record annual household income at the end of the survey month. Each approach has its own benefits and limitations. In this chapter, we present information derived from the monthly diary, which may provide more comprehensive information on the range of sources in the population as a whole.

Households recorded income received from a wide variety of types and sources. It included income from employment and self-employment, including payment in kind. It distinguished income derived from agricultural sources and included the value of household consumption of home-produced items. It also included information on transfers received. The information was collected as gross revenue for some of the sources. For this reason, average per capita receipts may be well above per capita expenditure. While reported income and expenditure per capita would not be expected to be equal for each household, a correlation between the two would be expected. This is observed, with a correlation coefficient of 0.531 between income and expenditure per adult equivalent, while it was 0.596 in the 2000/01 HBS (both significant at the 1% level).

Table 9.1 Mean Per Capita Household Monthly Income by Source (TShs, HBS 2007)

Source	Dar es Salaam	Other Urban	Rural	Mainland Tanzania
2007 HBS				
Employment in cash	28,898	12,727	2,812	6,787
Employment paid in kind	84	309	53	104
Non-farm self-employment	38,826	34,654	10,241	17,166
Agricultural income	1,036	5,673	11,324	9,426
Producers co-operatives	39	135	73	82
Imputed rent	56	60	10	23
Interest & dividends	71	49	9	22
Rent received	724	1,023	118	338
Transfers & other receipts	10,410	9,599	3,777	5,413
Total, 2007 HBS	80,144	64,231	28,418	39,362
Total, 2000/01 HBS with price inflation	78,680	58,722	27,279	34,601
Ratio of totals	1.02	1.09	1.04	1.14

Table 9.1 shows mean per capita receipts by source. It presents monthly income per capita across all household members by summing income across all members and dividing by the total number

of members. Total per capita income is highest in Dar es Salaam at 80,144 TSh, and is lowest in rural areas at 28,418 TSh. If the 2000/01 per capita means are inflated with the price index used in the consumption analysis, then the 2007 mean is around 14 percent higher than would be expected through simple price inflation. There have been increases in all areas, with the largest increase is in other urban areas. However, it should be noted that these figures do not use area-specific price adjustments, and the presence of gross income figures in the data complicates their interpretation.

The importance of each source of income is indicated by examining the average share of household income that it contributes (Table 9.2). In rural areas, there has been a decline in the proportion of income from agricultural sources, from 60 percent in 2000/01 to 50 percent in 2007. Rural income appears to be increasingly dependent on off-farm sources. Wages and other income from employment provide 36 percent of household income in Dar es Salaam and 22 percent in other urban areas, marking a slight decrease from 2000/01. Income from self-employment has increased to 38 percent of income in Dar es Salaam and 37 percent in other urban areas, indicating growing dependency on this source. The information on economic activities presented in Chapter 5 suggests that, although both have increased, self-employment has grown more than employment in urban areas; the income data seems to be consistent with this.

Table 9.2 Percentage of Household Income by Source (HBS 2007)

	Dar es Salaam		Other Urban		Rural		Mainland Tanzania	
	2000 /01	2007	2000 /01	2007	2000 /01	2007	2000 /01	2007
Employment in cash	41.1	35.9	24.1	22.1	7.8	8.1	12.0	13.0
Employment paid in kind	0.6	0.1	0.4	0.4	0.5	0.2	0.5	0.2
Non-farm self-employment	29.1	37.6	32.8	37.1	17.8	27.3	20.6	30.0
Agricultural income	1.9	2.4	19.6	17.7	60.4	49.6	51.4	39.7
Producers co-operatives	0.6	0.3	0.4	0.3	0.3	0.5	0.4	0.4
Interest & dividends	0.2	0.1	0.1	0.1	0.1	0.0	0.1	0.1
Rents	1.8	1.4	1.2	1.1	0.2	0.3	0.5	0.5
Transfers & other receipts	24.7	22.1	21.2	21.3	12.8	14.1	14.7	16.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

It is also possible to examine the number of household income sources, differentiating each type of source recorded in the monthly diary. For example, two individuals earning a salary would count as one type of source – wages and salaries. Rural households stand out for the diversity of income sources that they depend on (Table 9.3). In contrast, over 43 percent of households in Dar es Salaam depend on a single type of source. In the population as a whole, households increasingly depend on two to three income sources, with a decline in those depending on four or more sources.

Table 9.3 Distribution of Number of Income Sources per Household (HBS 2007)

Number of sources	Dar es Salaam		Other Urban		Rural		Mainland Tanzania	
	2000 /01	2007	2000 /01	2007	2000 /01	2007	2000 /01	2007
1	40.3	43.4	23.9	21.1	10.5	6.7	14.0	12.4
2	23.9	35.7	24.4	35.5	24.0	26.5	24.1	28.9
3	24.0	15.9	25.4	29.3	29.2	41.9	28.4	37.4
4	7.9	4.3	17.2	11.6	24.9	20.9	22.9	17.8
5	3.0	0.5	6.9	2.3	9.7	3.5	9.0	3.0
6	0.9	0.2	2.2	0.2	1.4	0.5	1.5	0.4
7+	0.0	0.0	0.1	0.0	0.2	0.0	0.2	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Note: figures recalculated for 2000/01.

Examining mean income calculated per earner, rather than averaging total household income across all household members, makes it possible to look at how income varies with the characteristics of the individual who generates the income. It should be remembered that these averages are calculated across all individuals who report any income from any source. They make no adjustment for the amount of time spent generating that income; neither do they include in the denominator individuals who reported no income for the month. They will also be affected by some of the limitations discussed above, particularly the inclusion of gross income for some sources.

As was seen in 2000/01, more educated individuals have much higher average earnings than the least educated (Table 9.4). These differentials appear to have increased substantially: the earnings of individuals with a tertiary education compared to those with no education has increased from 4 times as much in 2000/01 to nearly 10 times in 2007.¹⁹

Table 9.4 Mean Monthly Income per Earner by Educational Level (TShs, HBS 2007)

Educational level	Dar es Salaam	Other Urban	Rural	Mainland Tanzania
None	38,991	38,910	36,845	37,044
Primary / adult education	91,112	82,064	43,935	51,659
Secondary	159,006	176,705	86,637	129,306
Tertiary	510,822	396,041	152,877	360,893
Total	108,360	88,554	42,250	51,678

Note: the estimates for tertiary-educated individuals by area are based on small numbers and should be treated with caution.

The surveys have also revealed slight decline in gender disparities in average incomes. Men's average earnings are nearly 1.7 times higher than women's (Table 9.5). This has decreased from 1.9 times in 2000/01. The differences are largest in Dar es Salaam and other urban areas when men earn 2.4 times as much as women, and lowest in rural areas where men earn 1.4 times as much as women.

¹⁹ These differentials are largest in Dar es Salaam, but the estimates by area for tertiary-educated individuals are based on small numbers of observations.

Table 9.5 Mean Monthly Income per Earner by Sex (TShs, HBS 2007)

	Dar es Salaam	Other Urban	Rural	Mainland Tanzania
Male	156,159	131,049	51,050	67,291
Female	65,109	54,794	36,034	39,845
Total	108,360	88,554	42,250	51,678

These differences in income will reflect a number of factors. One of them may be the level of participation in the labour market, since some of the women may not work full-time because of household responsibilities. Another factor will be education. However, it is clear that educational differences alone do not explain much of the difference between the average earnings of men and women. Men's income remains above women's even when we control for the level of education (Table 9.6 and Figure 9.1). This disparity is largest amongst earners with a secondary education, with men earning 2.4 times more than women.²⁰

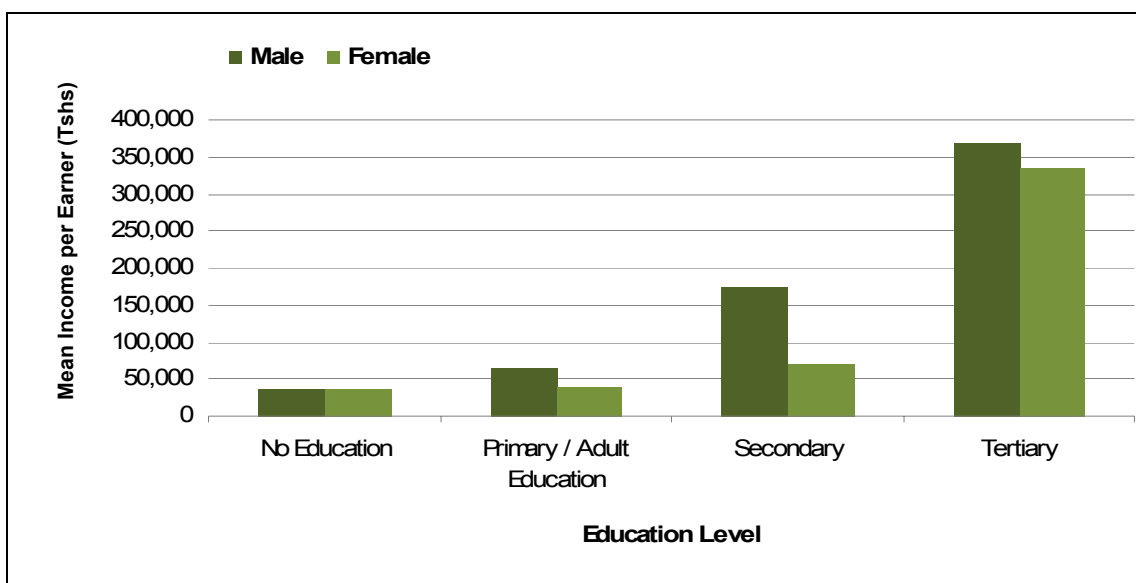
Table 9.6 Mean Monthly Income per Earner by Sex and Educational Level, and Ratio of Earnings (HBS 2007 and 2000/01)

Educational level	Earnings, male (TSh)	Earnings, female (TSh)	Ratio, 2007	Ratio, 00/01
None	36,722	37,226	0.99	1.13
Primary / adult ed.	65,016	38,626	1.68	1.88
Secondary	174,849	71,685	2.44	2.14
Tertiary	369,519	333,976	1.11	1.96
Total	67,291	39,845	1.69	1.90

Note: the estimates for tertiary-educated women is based on a small number of observations and should be treated with caution.

²⁰ But note that the estimate for tertiary-educated women is based on only 97 observations.

Figure 9.1 Mean Income per Earner by Sex and Educational Level



9.3 Conclusions

Reported income is frequently an unreliable measure of welfare, and is often less accurate than consumption information. In addition, it is possible that the information includes both gross and net income. The results need to be treated with caution as a consequence.

As in 2000/01, the data show the predominance of wages and self-employment in urban areas, particularly Dar es Salaam. In rural areas, there has also been an increase in the share of income from sources outside the households' own farm, which is now 50 percent.

More educated individuals earn much more than the least educated. These differences appear to have increased since 2000/01. There are also substantial differences between the average incomes of men and women. Men earn around 1.7 times what women earn. While these differences will reflect a number of factors, they remain even allowing for the differences in education between men and women. However, the differences appear to have narrowed slightly compared with 2000/01, when men earned 1.9 times what women earned.

10 CONCLUSIONS

This report has documented the findings of the 2007 Household Budget Survey for a number of important indicators of the welfare of the population. It has reported on trends since 1991/92, with a focus on **changes observed since 2000/01**, the most recent previous Household Budget Survey. On the whole, the three surveys utilised similar questionnaires and data collection methods. The data was analysed so as to maximise the comparability of the results across the three surveys. This should help to give the most reliable picture of trends. Nevertheless, there are some issues of comparability that should be borne in mind. The 2007 HBS used a more recent sample frame and finds a larger urban fraction in the population. There were also some small changes to certain parts of the questionnaires. It should also be remembered that each survey provides a ‘snapshot’ at the time it was undertaken and may to some extent reflect particular conditions then.

The 2007 survey showed a continuation in many of the trends in **household demographic composition** that were seen during the 1990s. Average household size has continued to decline, the population has aged slightly, and the share of households headed by women has increased. These women are most likely to be widowed, divorced or separated.

There has been an increase in the use of **modern materials for housing** since 2000/01; in most cases, this is seen in both rural and urban areas. However, there has been only a small increase in the coverage of the electricity grid, driven largely by urbanisation. Households are also less likely to use **pipled water and other protected sources** than they were, even in comparison with the 2002 Census. This has particularly affected urban areas. Many rural households are burdened by long distances to collect drinking water. The ownership of many **consumer goods** has continued to increase in both urban and rural areas. Households use charcoal more for cooking than they did in 2000/01; in Dar es Salaam there has been a large reduction in the use of kerosene.

In education, the 2007 survey shows a dramatic increase in the proportion of primary school age children who attend school – an overall increase of 25 percentage points. This has benefited all households, including rural areas and the poor. Children are also more likely than they were to be in the correct class for their age. Secondary school attendance has increased substantially in both rural and urban areas, although attendance in rural areas remains low. As seen in the previous survey, girls enter school earlier but tend also to leave earlier. They are now at least as likely as boys to be in primary school. The level of education of adults has improved only slightly since 2000/01 and patterns of disadvantage remain the same. This measure would be expected to change only slowly, but the recent improvements in school attendance should gradually feed through into the adult population.

There was less change in the **health sector**. Similar proportions to the 2000/01 survey reported illness in the previous four weeks and reported consulting a health provider when ill. However, there was an increase in the proportion who used a government health service and a small decline in the extent of dissatisfaction with those services. Government services are used more by the poor and primary-level facilities are particularly important to them.

The 2007 HBS collected more information on **employment and economic activities** than the previous surveys. Some 87 percent of the population over 15 years is employed, and formal

unemployment is less than two percent. The economy continues to diversify. Agriculture and fisheries remains the largest industry of employment, although its importance has reduced since 2000/01, continuing a trend seen during the 1990s. The ownership of land and grazing animals has also declined. There has been an increase in the proportion employed, in self-employment and in the proportion of households reporting having a business. There has been a modest increase in the use of **banking and saving facilities** since 2000/01, though coverage remains low overall.

Since 1991/92, there has been a decline in the **distances** to some important services for the population as a whole – including markets, shops and public transport. There have also been some improvements since 2000/01, most strikingly for secondary schools, but also for markets and public transport. The distance to primary schools and hospitals appears to have increased since 2000/01, however. This seems difficult to reconcile with improvements for the other facilities and it is difficult to know how accurately distances are reported. Poor households still tend to be further from these services.

Consumption per capita has increased modestly in the population as a whole. However, this seems to have been driven by urbanisation and gains in rural areas, as it has stagnated or declined in urban areas. The proportion of expenditure spent on food has declined, which would be expected if real incomes have risen, although increases in non-food prices might also have contributed to this. **Inequality** overall has remained unchanged since 2000/01, when looking at the restricted consumption aggregate that is used in the poverty analysis. It has increased since 1991/92. There has been a small decline in **income poverty** of about 2 percentage points since 2000/01, although this is not large enough to be statistically significant at the 5 percent level. The decline between 1991/92 and 2007 is larger and statistically significant. Poverty remains largely rural but there has been an increase in the proportion of the poor found in urban areas.

The 2007 survey found many of the same **relationships between poverty** and other household characteristics found previously. Households with a large number of members or dependents, with an economically inactive head or who depend on agricultural sources of income are more likely to be poor. Poverty levels are strongly related to the education of the household head.

Reported household **income** has increased more than consumption, if compared with the same price deflator as used for the consumption analysis. There has been a reduction in the importance of agricultural income, consistent with findings on employment. Differentials in earnings by education seem to have increased, while gender differentials appear to have decreased slightly.

Overall, an appreciable number of welfare measures have improved since 2000/01. The expansion of schooling stands out as a major accomplishment. Housing materials and the ownership of assets have improved, and reported income has increased. There appear to have been quite modest improvements in household consumption and poverty, however.

Annex A TECHNICAL NOTES

A.1 Sampling and Sampling Errors

The sample of households interviewed in the 2007 HBS was selected in two stages. In the first stage, 448 Primary Sampling Units (PSUs) were selected throughout the country. In the second stage, 24 households were selected in each PSU.

The sample was based on a new national master sample that has been developed out of the 2002 Census information.²¹ The national master sample provided the primary sampling units (PSUs) for the national urban and rural sample. It was supplemented with additional PSUs to provide a sample for Dar es Salaam. This gave three domains of estimation, in line with the analysis of previous HBS.

In urban areas, census enumeration areas were selected as PSUs using probability proportional to size (PPS), with the number of household recorded in the Census preparatory estimates being the measures of size. In rural areas, Enumeration Areas (EA) were also selected with PPS, but the entire village in which that EA was located was treated as the PSU, which was equivalent to selecting the village with PPS.

A comprehensive household listing was undertaken in each of the sampled clusters. Information on a number of durable assets was collected for each household during the household listing exercise. This information was used to stratify households within each cluster into high, middle and low income households. Separate proportional samples were then drawn from each of these categories, using systematic random sampling. The sample selection was done in the head office and each regional supervisor was supplied with their respective list of pre-selected households. A list of replacement households was also drawn, to be used to replace households that could not be located or had been moved away. These were drawn from the same income stratum, to minimise biases. These lists were held at the head office to ensure control over this process.

Analytical weights were defined as the inverse of each household's selection probability, taking into account the selection of the primary sampling units and stratification within each PSU.

The weights can be expressed as follows:

$$W_{hijk} = \frac{\sum_i m_{hi}}{n_h \cdot m_{hi}} \cdot \frac{t_{hij}}{r_{hij}} \cdot a_h$$

Where:

W_{hijk} = final weight for a household k in the j -th income stratum of the i -th PSU in domain h

n_h = number of PSUs selected and included in the analysis in domain h

²¹ This appendix draws on the documents: 'The Sample Design of the Household Budget Survey in Tanzania Mainland,' Naimani, G, NBS, Dar es Salaam July 2006, mimeo; and 'The Weights for the Household Budget Survey in Tanzania Mainland' Naimani, G, NBS, Iringa, June 2008, mimeo.

m_{hi} = number of households in the pre-Census estimates the i -th PSU in domain h

t_{hij} = number of households listed during survey preparations in the j -th income stratum of the i -th PSU in domain h

r_{hij} = number of households interviewed and included in the analysis for the j -th income stratum of the i -th PSU in domain h

a_h = an adjustment factor calculated as the ratio of the projected population in domain h to the weighted population prior to the application of the adjustment

The measure of size m_{hi} in rural areas was taken as the sum of the size of all EAs listed for that village.

The adjustment factor a_h ensured that the sum of individuals by domain (area) was equal to the projected population for 2007. This was necessary because the implied population of each domain, and the entire Mainland population, was well below the projected population. The overall ratio of the two was 1.26, with the highest value in Dar es Salaam (for urban DSM, 1.47).²² These discrepancies, and a comparison of the number of households listed with census estimates (and with census counts), raised concerns about the listing process, the sample frame, or both. It is not clear what the source of the problem was. The previous surveys also adjusted the population size, reflecting similar problems. For the 2000/01 HBS the adjustment was done for the entire population, while for the 1991/92 HBS it was also adjusted by area.

The proportion of the population in the three domains is given in Table A1.1 for each of the surveys and the 2002 Census. Between surveys, it shows a substantial fall in the percentage of the population that is rural and rise in the share that is urban and in Dar es Salaam. The change between the census and the 2007 HBS reflects the differential rates of growth of urban and rural populations in the population projections. The household listing data did not permit any adjustment to those estimates based on observed growth since the census, given the low overall estimated population of the unadjusted sum of weighted individuals. The larger proportion urban in the census compared with the 2000/01 HBS will reflect the fact that the survey used the 1988 census as a basis for the sample frame and the classification of enumeration areas was based on their status at that time. The 2002 census redefined and reclassified enumeration areas by urban/rural. The higher proportion urban, compared with the 2000/01 HBS will therefore reflect both more rapid growth of areas that were already classed as urban and the reclassification of new areas as urban between the censuses. The responsibility for designating areas as urban shifted to local government between the censuses and it is not clear whether there is any standard classification process or any systematic source of information on it. The implications of these issues for the results are considered further below.

²² The sample for Dar es Salaam was designed as an urban sample, although the analysis was undertaken for the region in order to be comparable to previous surveys. The small rural element was adjusted to reflect the projected rural population size in the region.

The share of the population accounted for by Dar es Salaam increases between the two surveys, as might be expected. There is no increase in this share between the Census and the 2007 HBS because the population projections maintain the same share. It is possible that this underestimates the relative growth of Dar es Salaam, but the listing data does not provide a basis for any adjustments and the impact on national estimates is in any case likely to be small.

Table A.1 Share of population by domain (%)

	1991/92 HBS	2000/01 HBS	2002 Census	2007 HBS
Dar es Salaam region	5.3	5.8	7.5	7.5
Other urban areas	12.6	13.8	15.6	17.7
Rural areas	82.1	80.4	76.9	74.8

Note: for the surveys, this is the weighted share of the sample of individuals.

Households were included in the analysis if they had at least one record in both the roster and the monthly diary, as for the 2000/01 HBS. The weights were calculated for this group of households. In total, 10,466 households are included in the analysis. This is over 97 percent of the original intended sample size of 10,752 households (Table A2). However, replacement households constitute some 12 percent of the initial sample, similar to 2000/01, and 13 percent of the sample actually analysed. They are supposed to replace only households that could not be found, although the level is sufficiently high that it raises concerns about whether interviewers might also have been replacing refusals. The level of replacement was particularly high in Dar es Salaam, with around 19 percent of the sample analysed being replacement households. This is so frequent as to raise concerns about affecting the estimates, particularly if better off households were more likely to be lost from the sample, as is often the case.

One PSU, in Dar es Salaam, was dropped entirely, so that 447 PSUs were included in the analysis rather than 448.

Table A.2 Households Sampled, Lost and Replaced

	1991/92	2000/01	2007
No of PSUs included in final sample analysed	222	1,158	447
No of households selected in final sample	5,328	22,584	10,752
Total number analysed	4,823	22,178	10,466
No of first selections interviewed	4,466	19,500	9,222
No of replacements interviewed	357	2,678	1,244
Total number analysed as a percentage of initial sample	90.5	98.2	97.3
No of first selections interviewed as a percentage of initial sample	83.8	86.3	85.8
Replacements as a percentage of initial sample	6.7	11.9	11.6

Sensitivity of the Findings to the Proportion of the Population Classed as Urban

As outlined above, the increase in the percentage urban between the two surveys reflects both urban growth and reclassification of areas between the two surveys. It also reflects the relative growth of the urban population in the population projections to 2007. The effect of re-classification could potentially be to complicate the interpretation of trends within urban areas (and possibly, though much less so, in rural areas), in so far as new areas are included in the urban sample that have different characteristics than those classed originally as urban in the previous survey. However, it should not introduce any bias into national estimates, which at each point will be weighted estimates of two properly represented domains.²³

Nevertheless, given concerns about the listing information and the dependence on population projections for adjusting the weights, it is of interest to know how much any possible errors in estimated proportion urban in each survey might have on the findings of the analysis. It is possible to assess how much impact there would be on the apparent trends in the estimates, if the change in the percentage of the population that is urban were in fact over-stated. Table A3 presents alternative national estimates for selected indicators, calculated by re-weighting the estimates for Dar es Salaam, other urban and rural areas with different shares of the population. It presents three scenarios. In the first (H1), the 2000/01 survey estimates are re-weighted with Dar es Salaam having the same share of the population as in the 2002 Census and the percentage of 'other urban' being an average of the Census and 2000/01 survey shares, with rural as the difference. In the second (H2), the 2007 HBS is re-weighted so that 'other urban' is the average of the Census and the 2007 shares. In the third, (H3), both apply. It can be seen that, on the whole, while the magnitude of differences between the two surveys change, the directions of change do not. With the exception of the coverage of the electric grid, where improvements become negligible, the conclusions that are presented in the main report continue to hold, if of smaller magnitude. This fairly strong test suggests that any possible errors in the estimated proportion urban is unlikely to have a dramatic effect on the main conclusions of the analysis.

²³ And note that it would not be appropriate to re-weight the 2000/01 survey with the urban share of the 2002 census because the latter refers to a different urban population, due to reclassification.

Table A.3 Sensitivity of estimates of change to percentage urban in the population

Estimate	Scenario	2000/01	2007	Difference
% of people below the basic needs poverty line	Actual	35.7	33.6	-2.1
	H1	35.2	33.6	-1.6
	H2	35.7	33.8	-1.9
	H3	35.2	33.8	-1.5
Mean consumption per capita	Actual	19,293	20,240	946
	H1	19,813	20,240	427
	H2	19,293	20,119	826
	H3	19,813	20,119	307
% of adults in farming/fishing/forestry	Actual	61.8	57.3	-4.5
	H1	59.9	57.3	-2.6
	H2	61.8	58.1	-3.7
	H3	59.9	58.1	-1.8
% of children 7-13 in primary school	Actual	58.7	83.7	25.0
	H1	59.0	83.7	24.7
	H2	58.7	83.6	24.9
	H3	59.0	83.6	24.6
% of households with electricity from grid	Actual	10.0	12.1	2.2
	H1	11.5	12.1	0.7
	H2	10.0	11.7	1.7
	H3	11.5	11.7	0.2
% of households with metal roof	Actual	42.8	55.1	12.3
	H1	44.8	55.1	10.3
	H2	42.8	54.6	11.8
	H3	44.8	54.6	9.8
% of households with non-earth floor	Actual	26.0	33.0	7.0
	H1	28.3	33.0	4.7
	H2	26.0	32.4	6.4
	H3	28.3	32.4	4.1

Given that the rural sample in Dar es Salaam was small and adjusted to equal the projected population, it is also possible to look at trends in selected estimates only for the urban population of Dar es Salaam. They generally show trends broadly similar to the whole Dar es Salaam sample. The main exception is in the coverage of the electricity grid, which shows a much smaller decline than do the estimates for the region as a whole.

Table A.4 Trends in selected estimates for Dar es Salaam urban only population

Indicator	Year	Estimate
Proportion of people below the basic needs poverty line	2000/01	16.5
	2007	15.9
	Diff	-0.6
Mean consumption per capita	2000/01	21,850
	2007	42,858
	Diff	21,008
Proportion of children 7-13 in primary school	2000/01	70.5
	2007	90.7
	Diff	20.2
% of households with electricity from grid	2000/01	59.9
	2007	59.0
	Diff	-1.0
% of households with metal roof	2000/01	92.4
	2007	96.0
	Diff	3.6
% of households with non-earth floor	2000/01	94.3
	2007	94.5
	Diff	0.3
% of households with flush toilet	2000/01	10.8
	2007	11.0
	Diff	0.1

Sampling Errors

Table A5 shows standard errors and confidence intervals around a number of estimates, calculated in STATA. It also presents the results of statistical tests for a significant difference between the 2000/01 and 1991/92 estimates, for the total population and each of the three areas. While STATA allows the specification of sample design in the calculation of sampling errors, identifying the strata and PSUs used, it is not possible to specify fully the complexity of the design of the survey because of the within-PSU stratification that was used. The standard errors, confidence intervals and tests are therefore approximate.

Table A.5 Standard Errors and Confidence Intervals around Selected Estimates

	Estimate	Standard Error	95% Confidence Intervals		Significance of difference (p-value)		
			Lower	Upper	1991/92-2007	2000/01-2007	
Food Poverty Line: Percentage of population below the line							
2007	Total	0.166	0.007	0.153	0.179	0.000	0.068
	Dar es Salaam	0.074	0.007	0.060	0.087	0.001	0.925
	Other urban	0.129	0.008	0.114	0.144	0.407	0.777
	Rural	0.184	0.009	0.167	0.201	0.004	0.154
2000/01	Total	0.187	0.009	0.169	0.205		
	Dar es Salaam	0.075	0.013	0.049	0.101		
	Other urban	0.132	0.009	0.114	0.150		
	Rural	0.204	0.011	0.184	0.226		
1991/92	Total	0.216	0.012	0.192	0.239		
	Dar es Salaam	0.136	0.017	0.103	0.170		
	Other urban	0.150	0.024	0.103	0.197		
	Rural	0.231	0.014	0.204	0.259	--	--
Basic Needs Poverty Line: Percentage of population below the line							
2007	Total	0.336	0.008	0.320	0.353	0.002	0.110
	Dar es Salaam	0.164	0.010	0.145	0.183	0.000	0.603
	Other urban	0.241	0.010	0.222	0.261	0.141	0.257
	Rural	0.376	0.011	0.355	0.397	0.086	0.484
2000/01	Total	0.357	0.010	0.338	0.376		
	Dar es Salaam	0.176	0.021	0.135	0.217		
	Other urban	0.258	0.011	0.236	0.280		
	Rural	0.387	0.012	0.364	0.410		
1991/92	Total	0.386	0.013	0.360	0.412		
	Dar es Salaam	0.281	0.021	0.240	0.323		
	Other urban	0.287	0.029	0.229	0.344		
	Rural	0.408	0.015	0.378	0.438		
Percentage of female-headed households							
2007	Total	0.245	0.008	0.229	0.261	0.000	0.178
	Dar es Salaam	0.244	0.009	0.226	0.263	0.000	0.093
	Other urban	0.301	0.012	0.277	0.324	0.020	0.195
	Rural	0.230	0.011	0.208	0.251	0.000	0.559
2000/01	Total	0.229	0.009	0.212	0.246	--	--
	Dar es Salaam	0.209	0.019	0.172	0.246	--	--
	Other urban	0.279	0.012	0.255	0.302	--	--
	Rural	0.221	0.011	0.200	0.242	--	--
1991/92	Total	0.176	0.011	0.154	0.197	--	--
	Dar es Salaam	0.141	0.017	0.107	0.175	--	--
	Other urban	0.239	0.024	0.192	0.286	--	--
	Rural	0.167	0.013	0.142	0.192	--	--
Percentage of households owning a radio							
2007	Total	0.660	0.012	0.636	0.683	0.000	0.000
	Dar es Salaam	0.791	0.013	0.766	0.816	0.895	0.897
	Other urban	0.733	0.014	0.705	0.760	0.000	0.322
	Rural	0.622	0.016	0.591	0.654	0.000	0.000
2000/01	Total	0.518	0.013	0.493	0.543	--	--
	Dar es Salaam	0.794	0.019	0.757	0.831	--	--
	Other urban	0.713	0.014	0.685	0.741	--	--
	Rural	0.457	0.015	0.428	0.486	--	--
1991/92	Total	0.374	0.02	0.335	0.412	--	--

Table A.5 Standard Errors and Confidence Intervals around Selected Estimates

	Estimate	Standard Error	95% Confidence Intervals		Significance of difference (p-value)	
			Lower	Upper	1991/92-2007	2000/01-2007
Dar es Salaam	0.795	0.027	0.741	0.849	--	--
Other urban	0.557	0.048	0.462	0.652	--	--
Rural	0.306	0.023	0.261	0.352	--	--
Percentage of adults with no education						
2007	Total	0.233	0.211	0.256	0.367	0.276
	Dar es Salaam	0.075	0.010	0.056	0.094	0.342
	Other urban	0.120	0.009	0.103	0.137	0.623
	Rural	0.283	0.015	0.253	0.312	0.917
2000/01	Total	0.252	0.232	0.271	--	--
	Dar es Salaam	0.076	0.011	0.053	0.098	--
	Other urban	0.131	0.007	0.116	0.147	--
	Rural	0.290	0.012	0.266	0.314	--
1991/92	Total	0.249	0.225	0.273	--	--
	Dar es Salaam	0.090	0.012	0.066	0.113	--
	Other urban	0.130	0.020	0.091	0.169	--
	Rural	0.280	0.015	0.252	0.309	--
Percentage of children aged 7-13 years reported as studying (at all)						
2007	Total	0.863	0.839	0.887	0.000	0.000
	Dar es Salaam	0.946	0.931	0.961	0.000	0.000
	Other urban	0.947	0.936	0.958	0.000	0.000
	Rural	0.838	0.808	0.869	0.000	0.000
2000/01	Total	0.614	0.585	0.642	--	--
	Dar es Salaam	0.760	0.713	0.807	--	--
	Other urban	0.765	0.727	0.803	--	--
	Rural	0.581	0.549	0.614	--	--
1991/92	Total	0.574	0.538	0.609	--	--
	Dar es Salaam	0.657	0.596	0.718	--	--
	Other urban	0.636	0.542	0.729	--	--
	Rural	0.559	0.518	0.599	--	--
Percentage of households with piped or protected water sources						
2007	Total	0.518	0.471	0.565	0.179	0.263
	Dar es Salaam	0.854	0.805	0.902	0.000	0.015
	Other urban	0.766	0.715	0.818	0.156	0.000
	Rural	0.404	0.341	0.468	0.281	0.177
2000/01	Total	0.555	0.514	0.595	--	--
	Dar es Salaam	0.936	0.891	0.981	--	--
	Other urban	0.88	0.849	0.91	--	--
	Rural	0.459	0.411	0.508	--	--
1991/92	Total	0.459	0.394	0.525	--	--
	Dar es Salaam	0.968	0.946	0.99	--	--
	Other urban	0.837	0.753	0.92	--	--
	Rural	0.349	0.27	0.428	--	--
Percentage of adults in agriculture (main activity)						
2007	Total	0.572	0.540	0.603	0.000	0.008
	Dar es Salaam	0.031	0.016	0.047	0.393	0.923
	Other urban	0.275	0.231	0.319	0.009	0.843
	Rural	0.723	0.692	0.755	0.000	0.075
2000/01	Total	0.633	0.607	0.658	--	--
	Dar es Salaam	0.03	0.016	0.045	--	--
	Other urban	0.269	0.236	0.303	--	--
	Rural	0.758	0.737	0.78	--	--
1991/92	Total	0.728	0.705	0.752	--	--
	Dar es Salaam	0.023	0.01	0.035	--	--
	Other urban	0.43	0.321	0.54	--	--
	Rural	0.834	0.812	0.857	--	--
Percentage of households within 2km of a primary school						
2007	Total	0.620	0.581	0.659	0.225	0.597
	Dar es Salaam	0.888	0.849	0.927	0.633	0.089
	Other urban	0.818	0.767	0.869	0.302	0.882
	Rural	0.523	0.471	0.576	0.018	0.083
2000/01	Total	0.635	0.6	0.669	--	--
	Dar es Salaam	0.813	0.736	0.89	--	--

Table A.5 Standard Errors and Confidence Intervals around Selected Estimates

	Estimate	Standard Error	95% Confidence Intervals		Significance of difference (p-value)		
			Lower	Upper	1991/92-2007	2000/01-2007	
1991/92	Other urban	0.823	0.022	0.779	0.866	--	--
	Rural	0.583	0.022	0.541	0.625	--	--
	Total	0.663	0.029	0.607	0.719	--	--
	Dar	0.866	0.042	0.782	0.949	--	--
	Other urban	0.765	0.044	0.677	0.852	--	--
	Rural	0.628	0.035	0.558	0.697	--	--
Percentage of households within 6km of dispensary / health centre							
2007	Total	0.761	0.023	0.715	0.807	0.849	0.838
	Dar es Salaam	0.985	0.007	0.970	0.999	0.049	0.720
	Other urban	0.972	0.009	0.953	0.990	0.828	0.590
	Rural	0.676	0.033	0.612	0.740	0.606	0.674
2000/01	Total	0.755	0.020	0.716	0.794	--	--
	Dar es Salaam	0.981	0.009	0.963	0.998	--	--
	Other urban	0.978	0.005	0.968	0.987	--	--
	Rural	0.693	0.025	0.645	0.741	--	--
1991/92	Total	0.754	0.033	0.69	0.818	--	--
	Dar es Salaam	0.95	0.016	0.918	0.982	--	--
	Other urban	0.968	0.015	0.937	0.998	--	--
	Rural	0.702	0.04	0.624	0.781	--	--
Percentage of households within 1km of drinking water							
2007	Total	0.568	0.022	0.524	0.612	0.087	0.528
	Dar es Salaam	0.820	0.025	0.771	0.870	0.073	0.711
	Other urban	0.705	0.028	0.650	0.761	0.592	0.457
	Rural	0.496	0.031	0.435	0.556	0.238	0.873
2000/01	Total	0.549	0.018	0.514	0.584	--	--
	Dar es Salaam	0.840	0.046	0.749	0.930	--	--
	Other urban	0.732	0.022	0.688	0.776	--	--
	Rural	0.490	0.021	0.448	0.531	--	--
1991/92	Total	0.499	0.032	0.436	0.562	--	--
	Dar es Salaam	0.885	0.026	0.833	0.937	--	--
	Other urban	0.668	0.064	0.543	0.794	--	--
	Rural	0.438	0.038	0.362	0.513	--	--

A.2 Calculating the Consumption Aggregate and Defining the Poverty Lines

This appendix outlines the cleaning of the consumption expenditure data, the calculation of the consumption aggregate and the setting of the poverty lines.

Cleaning the Consumption Data

The data on consumption was the most problematic because such a large volume was collected – there were 2.6 million records in the files containing the data from the monthly diaries. Despite some consistency checks being built into the data entry and checking programmes, a substantial number of households had problems in the consumption/expenditure component of the final data set, which had to be resolved at the beginning of the analysis. In retrospect, this could have been reduced with some further strengthening of the data entry and data processing systems while the survey was being undertaken.

The cleaning process was similar to that undertaken for the previous two surveys. The change to the new COICOP item coding in the 2007 survey introduced some additional complications, which are outlined below.

Food Consumption Data

Most errors were identified in the food consumption data. These were largely due to a number of identifiable, simple errors, most of which could be corrected. An important quality indicator used was quantity consumed per adult equivalent. This was calculated for all households and out-of-range households were investigated.

The main causes of high consumption were very clear: most common error was miscoding of the units of quantity (grams as kilograms etc); with less frequency there were cases where interviewers miscoded as consumption bulk items that had been bought for re-sale or storage; and miscoding as consumption harvested food that was stored or sold.

Cleaning took a number of stages:

1. Syntax written in SPSS identified extreme outlier unit prices. Cases were identified, by commodity, for prices that were greater than 20 times the median price. This identified gram/kilogram miscoding and similar errors very effectively. Syntax was written to correct it.
2. Similar syntax was written to identify quantity and values 20 times greater than the median per person. Again patterns were identified by commodity and syntax written to correct the outliers identified
3. Less extreme outliers identified by examining consumption per person for each commodity were flagged and the quantity was replaced with the median level for the size of the household.
4. Households with low consumption were also investigated. In a number of cases, unit miscoding of staple carbohydrates could be identified as the cause, through the presence of outlying unit prices for these items. The correct quantities were imputed based on the reported expenditure.

In 2007 less than 1% of entries were imputed. After cleaning, consumption per adult equivalent was re-calculated and far fewer households were found to have outlying values.

Non-Food Items

Some problems were also identified in the non-food data. Outliers were identified using two criteria: that the actual expenditure per capita on that item/category was high, and that the budget share of the item was also high for that household. The latter criterion helps ensure that wealthy households with genuinely high expenditure on a range of items are not mistakenly identified as outliers. Outlying expenditure values for a given item were replaced with the mean expenditure calculated across all households.

Reporting of Household Size and the Number of Transactions

It was found that average household size dropped significantly during the fieldwork of the 2000/01 survey (Figure A1). The same pattern occurred for 2007 (Figure A2), with a somewhat steeper decline over the period.²⁴ In neither case is this taken as a true reflection of actual household size.

²⁴ Note that there are more transactions per household in the 2000/01 data because that file includes income data.

It is almost certainly an outcome of enumerator fatigue. It could potentially have a very damaging effect on consumption and poverty estimates. However, it was found that the average number of transactions recorded also declined over the period in 2007 (Figure A3 and A4), as it did in 2000/01, suggesting that the biases will to some degree cancelled out. The 1991/92 data also showed similar trends.

Figure A.1 Mean Number of Household Members by Month of Survey (HBS 2000/01)

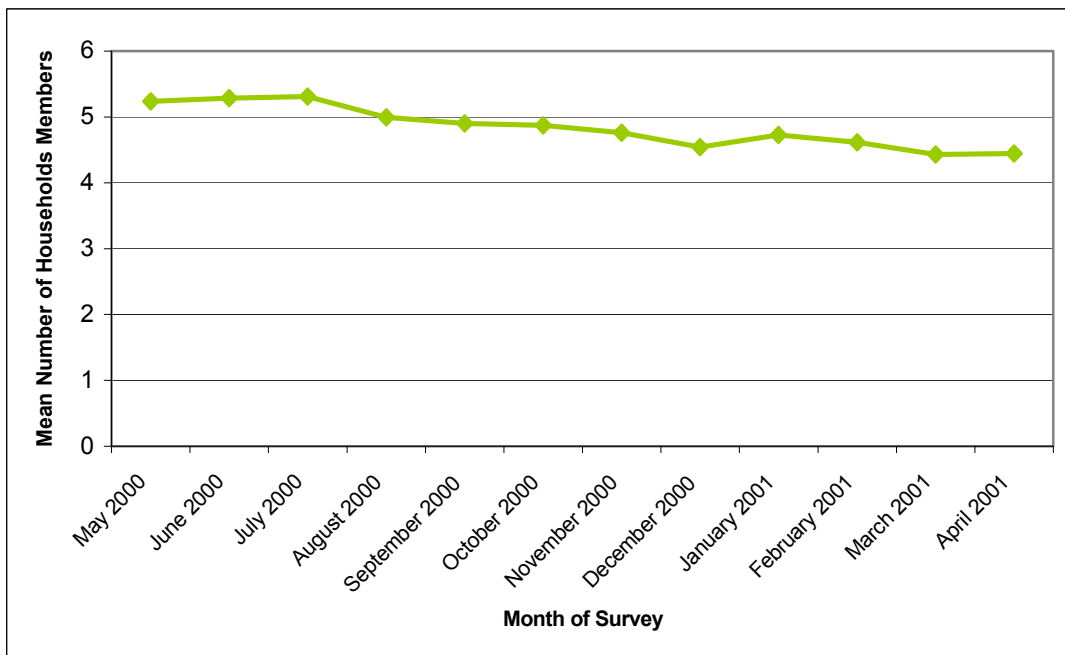


Figure A.2 Mean Number of Household Members by Month of Survey (HBS 2007)

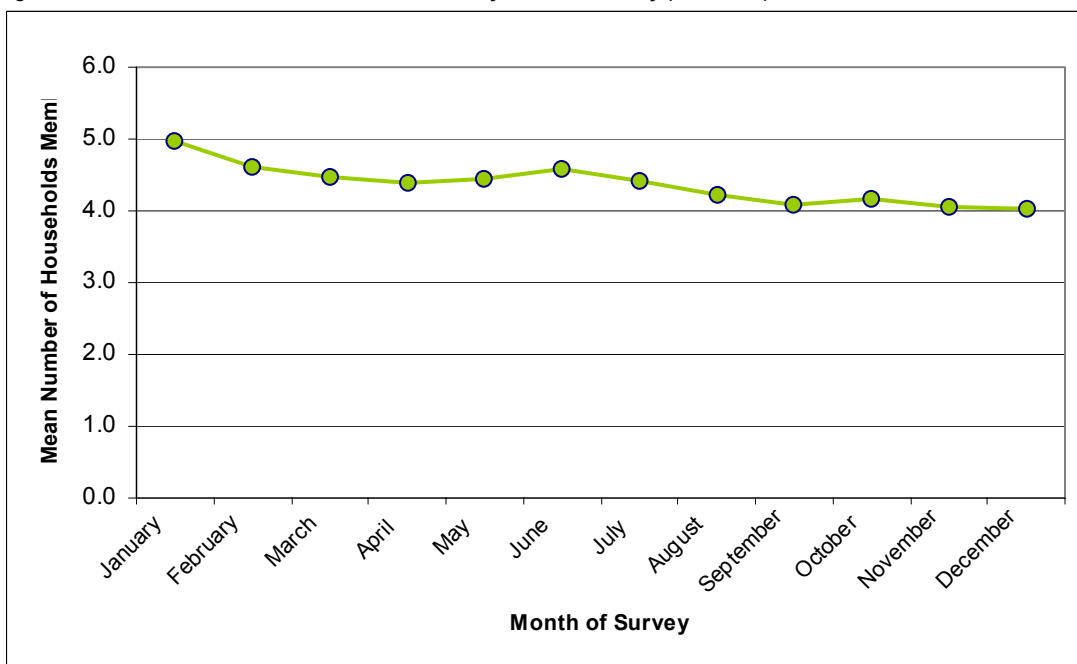


Figure A.3 Mean Number of Transactions recorded in the Diary by Month of Survey (HBS 2000/01)

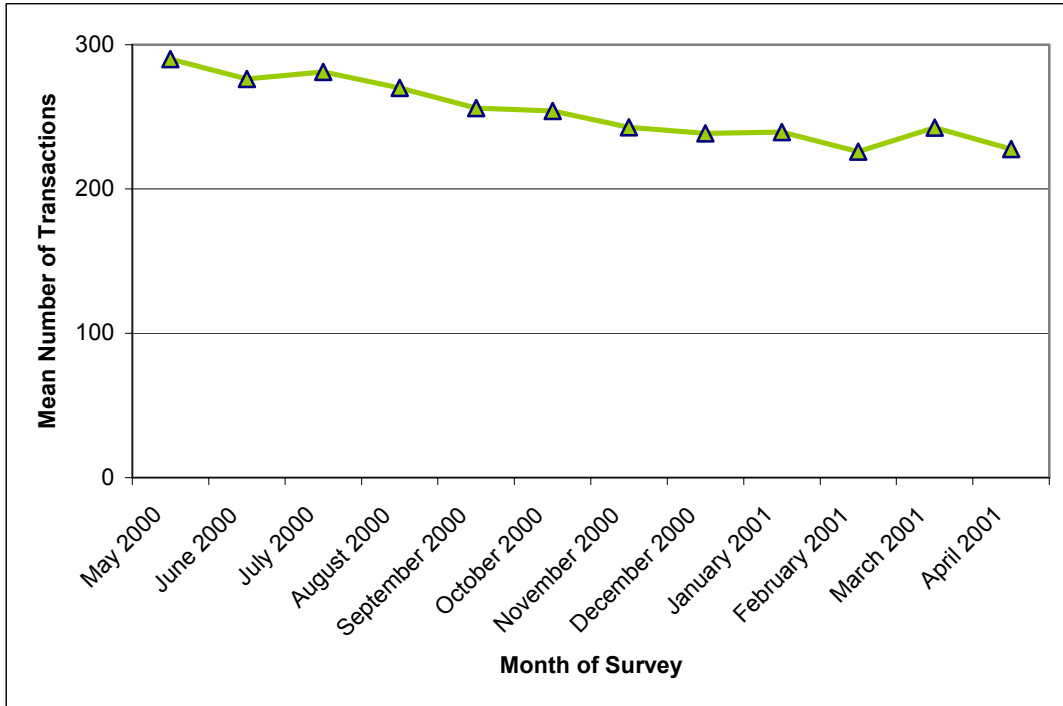
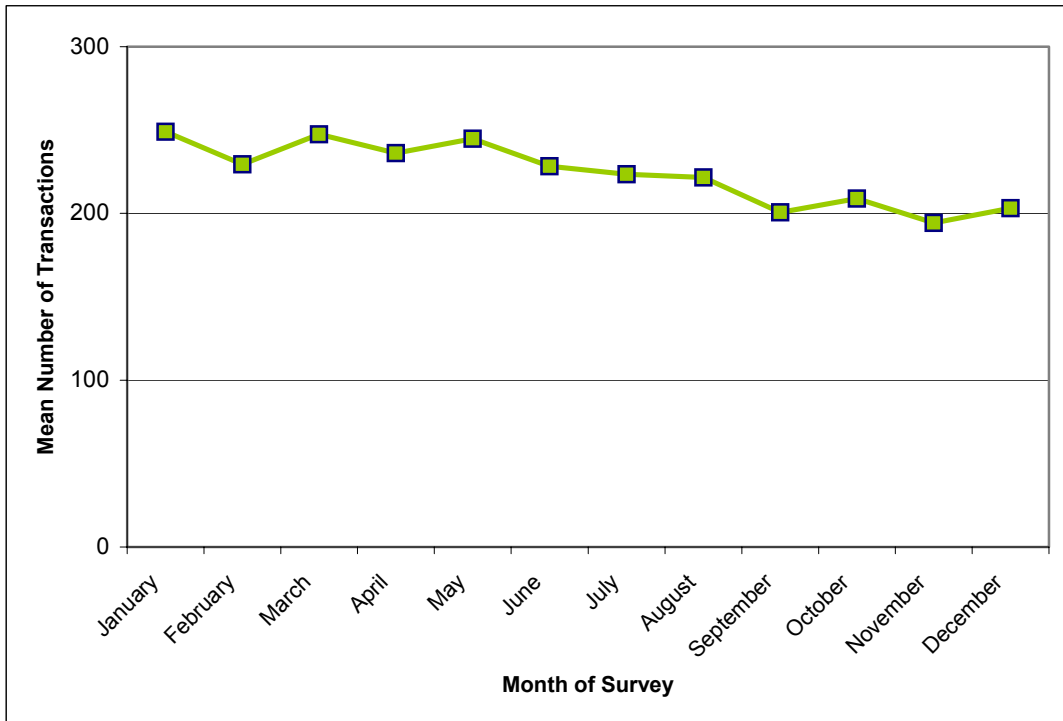


Figure A.4 Mean Number of Transactions recorded in the Diary by Month of Survey 2007



Calculation of the Consumption Aggregate

The consumption aggregate sums the value of consumption across all consumption items. This includes purchased and home produced items, as well as items received as payment in kind or as gifts. It includes food and drinks, clothing and personal effects, most household effects and consumables (but excluding durables), recreation and transport. Non-consumption expenditure – such as production costs – are excluded²⁵.

For a number of items, information on consumption is collected in both the monthly diary and in the annual recall section. The question arises as to which is the better source of information for inclusion in the consumption aggregate. In 199/92 and 2000/01 this was decided by examining three measures. These were: the proportion of households reporting consumption of that item in the annual recall; the ratio of the number of households reporting expenses on an item in the annual reports to the number reporting expenses in the diary; and the ratio of the reported amount spent in the annual recall over the amount reported in the diary (the latter multiplied by 12). They can be used to decide which appears to be the more reliable source for each category of item.²⁶ For 2007 to ensure comparability the decision was made to use the same source as that in the previous analysis.

During the previous analysis a number of items were identified as having been paid for much more often in 2000/01 than in 1991/92. This included health, education, water, postage and telephone charges. These were services that saw increased cost recovery over the 1990s. On the assumption that these changes largely reflected an increase in payment for similar services (rather than a large increase in the quantity or quality of services supplied), it was decided to exclude them from the consumption aggregate used in the poverty analysis. This was repeated for 2007.

Since the diaries were recorded for a calendar month, the consumption measure is standardised to 28 days (as was done for the previous two surveys). It is also standardised for the demographic composition of the household, adjusted for the consumption needs of different individuals using the adult equivalence scale shown in Table A6.

²⁵ In particular: two consumption aggregates were calculated: a complete aggregate and a more restricted aggregate for the poverty estimates. The latter includes food and selected durables and non-durables: linen, household equipment, clothes, personal effects, personal care, recreation, cleaning, domestic services, contributions, fuel, petrol, soap and cigarettes. It excludes medical and educational expenditure, water costs and telephones/postage expenses. The complete aggregate includes all that is in the poverty aggregate plus: medical, education and telecommunications expenditures; and furniture, mattresses, household durables, jewellery, music, additional transport costs, other services. Production costs and non-consumption financial transactions (taxes, fines, repayments of debt, losses, money transfers, savings and investment) were excluded from both aggregates.

²⁶ See Blaizeau, D, 'Household Expenditure in the seven UEMOA countries,' (mimeo).

Table A.6 Adult equivalence scale

Age groups	Sex			
	Male	Female		
0 – 2	X ₁	0.40	X ₂	0.40
3 – 4	X ₃	0.40	X ₄	0.48
5 – 6	X ₅	0.56	X ₆	0.56
7 – 8	X ₇	0.64	X ₈	0.64
9 – 10	X ₉	0.76	X ₁₀	0.76
11 – 12	X ₁₁	0.80	X ₁₂	0.88
13 – 14	X ₁₃	1.00	X ₁₄	1.00
15 – 18	X ₁₅	1.20	X ₁₆	1.00
19 – 59	X ₁₇	1.00	X ₁₈	0.88
60 +	X ₁₉	0.80	X ₂₀	0.72

Information is collected in the roster on the number of days that members were present in the household during the month that the diary is completed. The consumption aggregate was adjusted for the number of days that household members were present during the month of survey

The Impact of the New Consumption Item Codes in 2007

The 2007 survey introduced a revised coding of consumption items based on a new COICOP. This increased the level of detail in the coding quite considerably. In 1991/92 and 2000/01, 128 food item categories were listed, while in 2007 this increased to 216. This raised concerns about the comparability of the consumption aggregate across the two surveys, including a concern that consumption may be higher simply because there were more possible items to report.²⁷

To assess this, new item codes were matched to the previous codes. This highlighted where items had been further disaggregated under the new coding (for example macaroni and spaghetti were previously recorded as 1 item, they are now 2 separate items; the previously single item 'bread' now includes 9 items: flatbread, chapatti, small round loaf, sliced bread, etc.; and where they had been aggregated (eg drinks consumed at home and outside home are now combined). In 48 cases the old code encompassed more than 1 new code. Some old codes were split into as many as 10 further categories, although the majority were just 2 or 3. Of the 48, only 13 had more than 4 new items listed under the old code. This raised some concerns about the comparability of the consumption recorded under them.

In addition, significant further changes to the coding were introduced while the survey was in the field, raising concerns that interviewers might have confused the initial and revised codes. The questionnaires from the first quarter were manually recoded to address this, before data entry.

Median quantity per adult equivalent were compared between 2000/01 and 2007 to see if there were any substantial changes in consumption patterns associated with the items that had most changed their coding structure. There did not appear to be any alarming pattern of increased median consumption for them. Focussing on those that were further disaggregated in 2007, 20

²⁷ See Lanjouw and Lanjouw (2001) 'How to Compare Apples and Oranges: Poverty measurement based on different definitions of consumption'

saw increases in consumption, although only 7 were large increases; and 24 saw falls in consumption, none of which were large.

The overall conclusion was that there did not appear to be sufficient concerns about the consumption of these items to warrant any adjustments in the final consumption aggregate.

Adjusting for Prices: the Fisher Index

The consumption aggregate provides a measure of how much was spent by a household per adult equivalent. However, the goods and services that can be purchased with that expenditure depend on the prices faced by that household. The poverty line (or equivalently, the consumption aggregate) must be adjusted to reflect this. This is done using the Fisher Ideal Index.²⁸

The value of any price index will depend on the goods included in it. Consumption patterns vary between different areas, and over time, so a particular consumption basket cannot represent average consumption patterns everywhere. This is the limitation to any price index which is anchored to a single reference consumption basket – such as a Laspeyre's index. Different consumption patterns will tend to reflect differences in prices, as households substitute a more expensive good with a cheaper one. For example, if the relative price of one staple carbohydrate increases over time, households may shift to another one. A price index that failed to reflect this would overestimate the prices faced by households at the later time because it would fail to reflect the change in consumption patterns. A similar argument applies to variation in consumption patterns in different geographical areas.

For this reason, the consumer price index was not used to adjust for prices between the two surveys. In addition to the theoretical disadvantage of being a Laspeyre's index, the CPI has a number of practical limitations. The consumption basket used is based on the 2000/01 HBS and so will tend to be out of date. It is explicitly an urban index and Dar es Salaam weights very heavily in it, which means it not representative of prices faced in rural areas.

Instead a Fisher Index is used to adjust for price variation both over time and across different geographical areas. It can be thought of as representing a sort of 'average' consumption pattern between the two populations being compared.

The index is calculated using the price and quantity information from the surveys themselves. Respondents were asked to provide information on how much they spent on each item and on the physical quantity consumed. The ratio of expenditure to volume provides a measure of price, or more precisely, a measure of unit value. In 2007 there were 295,547 price observations; for 2000/01 there was half a million; in 1991/92 there was information on 272,178 transactions. It is therefore possible to construct a price index both between the surveys and between geographical areas within each year. For 2000/01 it was possible to construct price indexes across regions, although the sample size in 1991/92 and 2007 did not allow this level of disaggregation. For the

²⁸ For a detailed description of the Fisher Index and its benefits see Deaton, A. and Tarozzi, A. 'Prices and Poverty in India,' (1999) Princeton University (mimeo).

2007 and 1991/92 data, indexes are calculated for Dar es Salaam, other urban areas and rural areas, relative to the national population. A separate Fisher index is calculated to measure price differences between the three surveys.

In each case, the largest possible basket of goods is compared between the two populations, subject to there being at least ten observations for that item in each population. Items with fewer than this number are excluded from the index. Likewise, the index that is calculated to compare prices between 2000/01 and 2007 excludes items that are absent from one or other data set.

Food Price Index

As discussed above the 2000/01 HBS contained information on approximately 128 food items, whilst in 2007 this number increased to 216. In the majority of cases this increase in codes was a result of disaggregation in 2007 rather than the introduction of completely new items. Comparing prices between 2000/01 and 2007 was therefore not straight forward. A careful matching of the items codes was undertaken. This matching was then subject to sensitivity checks. In defining the items to be included in the food basket, after the matching exercise a number of items were dropped from the basket where a direct comparison was not possible, whilst other items were aggregated to try to maximise comparability.

Additionally, items not measured in standard units (grams, kilograms, litres and millilitres) were excluded, with the exception of eggs that were measured as a 'number'. For a few commodities it was effectively impossible to record quantities and so these were also dropped from the calculation. This reduced the number of items to 100.

Records that had missing information on quantity were excluded and the quantity of each item was then standardised to a common unit (grams to kilograms, etc). A unit price was calculated for each transaction record, dividing amount spent (or its equivalent) by the quantity. A small number of outlying unit prices were removed and median unit prices were then calculated for each item. The Fisher Index is then a weighted average of these unit prices, with the median quantity of each item consumed constituting the weights.

Between 2000/01 and 2007 the Laspeyres index for food items is 1.96. By contrast, the national food CPI shows a rise in prices by a factor of about 1.52 over a similar period. The Fisher Index is 1.90.

Non Food Price Index

Given the difference in food price inflation found by the survey compared with the CPI, it was decided that it would be better to use price information from the survey for non-food items as well. The choice of consumption basket is less clear in this case. One approach examined was to take the CPI non-food items that can be identified in the HBS data and have sufficient observations in both surveys (a relatively weak cut-off of 10 items was used to avoid eliminating too many items). This gave a basket of 67 items, with a resulting Laspeyre's index of 2.12, compared to the national non food CPI of 1.29.

Another approach was to examine the distribution of non-food items that are recorded in the two surveys and retain those that appear to be comparable and have sufficient observations (at least 100). This is more consistent with the approach taken for the food index. After examination, firewood was excluded from this second basket. This was because the unit price rise appeared to be very high, while much of the firewood was gathered rather than traded and it was known that the quantity estimates for the 2000/01 HBS were based quite heavily on imputation using an average regional price.²⁹ The resulting basket with 40 items is listed below in Table A8 with the budget shares and price of each item in 2000/01 and 2007. The Laspeyre's price index for this basket of good is of 2.04. The Fisher index for both this basket and the CPI-based basket of goods is 2.01, meaning that the results become insensitive to which basket is used.

A weighted average of the food and non food Fisher indices are used as the price deflator. The two figures are combined to give an overall price index - weighted according to the share of food and non food expenditure for the bottom 25% of the sample: 0.72 and 0.28 respectively.

In the analysis, the Fisher Index is used to adjust the consumption aggregate for price variation between the different geographical regions. It is also used to assess whether there has been real growth in household expenditure. It is also used to inflate the 2000/01 poverty line to 2007 prices.

²⁹ In 2007, 80% of entries for firewood were classified as gathered. In 2000 63% were gathered. It is clear that inferring quantities and prices from information on gathered goods with imputed quantities could be problematic if included in a price index. If firewood was left in the non-food items, it accounted for around 30% of non-food budget share, while it was only 3% of the total share of expenditure, and only 10% of non food expenditure. It was decided that it was unreasonable to allow this commodity to drive the non food index on that basis, when the price data was suspect. The CPI does not include firewood.

Table A.7 Food Items used to calculate Price Indices with Budget Shares and Prices for 2000/01 and 2007

Item code	Item label	Budget share, 2007	Median unit price, 2007	Budget share 00/01	Median unit price, 00/01	Price ratio
10101	paddy	0.0033	400	0.0049	214	1.87
10102	rice, husked	0.1017	754	0.0819	405	1.86
10103	green maize cob	0.0060	409	0.0107	201	2.04
10104	maize, grain	0.0445	200	0.0489	123	1.62
10105	maize, flour	0.1508	389	0.1709	187	2.08
10106	millet, grain	0.0011	500	0.0016	270	1.86
10107	millet, flour	0.0009	600	0.0016	367	1.63
10108	sorghum, grain	0.0027	200	0.0060	140	1.43
10109	sorghum, flour	0.0104	267	0.0205	140	1.91
10110	wheat, grain	0.0002	500	0.0006	328	1.52
10111	wheat, flour	0.0061	700	0.0059	356	1.97
10201	bread	0.0220	1,154	0.0057	607	1.90
10202	baby food excl.	0.0001	828	0.0002	795	1.04
10203	biscuits	0.0019	2,143	0.0012	1,907	1.12
10205	macaroni, spaghe	0.0010	1,200	0.0005	749	1.60
10301	cassava fresh	0.0143	167	0.0163	123	1.35
10302	cassava dry	0.0025	250	0.0101	133	1.88
10303	cassava flour	0.0321	206	0.0300	135	1.52
10304	seet potatoes	0.0253	167	0.0247	112	1.49
10305	yam. cocoyam	0.0053	193	0.0034	134	1.44
10306	potatoes	0.0046	400	0.0071	196	2.04
10307	cooking bananas,	0.0156	222	0.0234	147	1.51
10401	sugar	0.0596	1,200	0.0556	577	2.08
10402	LT honey	0.0008	1,500	0.0007	818	1.83
10501	peas, dry	0.0057	582	0.0062	298	1.95
10502	beans, dry	0.0547	750	0.0518	314	2.39
10503	lentils & other	0.0063	600	0.0094	301	1.99
10504	pulse product	0.0006	1,000	0.0010	217	4.62
10601	groundnuts in she	0.0027	723	0.0042	518	1.40
10602	groundnuts, shel	0.0070	1,136	0.0116	528	2.15
10603	coconuts, mature	0.0090	500	0.0072	206	2.43
10604	coconuts, immatu	0.0008	228	0.0005	167	1.37
10605	cashewnuts	0.0006	600	0.0004	798	0.75
10606	almond & other n	0.0001	500	0.0003	399	1.25
10701	sesame seeds	0.0002	800	0.0003	508	1.58
10702	sunflower seeds	0.0002	400	0.0004	383	1.04
10703	products from nu	0.0000	2,188	0.0001	539	4.06
10801	carrots	0.0008	871	0.0006	407	2.14
10802	radishes, beets,	0.0004	457	0.0013	331	1.38
10803	garlic	0.0001	2,000	0.0002	733	2.73
10804	onion	0.0105	1,020	0.0097	480	2.12
10805	leeks	0.0000	1,500	0.0001	434	3.46
10806	spinach	0.0100	560	0.0097	334	1.68
10808	cabbage	0.0035	333	0.0026	196	1.70
10809	other leafy vege	0.0251	532	0.0134	352	1.51
10810	tomatoes	0.0285	630	0.0220	328	1.92
10811	bitter tomatoes	0.0018	600	0.0011	317	1.89
10812	ladies finger	0.0025	833	0.0018	473	1.76
10813	cauliflower	0.0008	621	0.0009	327	1.90
10814	cucumber,					
10814	pumpki	0.0042	200	0.0040	179	1.12
10815	brinjals, eggpla	0.0004	500	0.0003	362	1.38
10816	green peas, shel	0.0013	500	0.0014	282	1.77
10817	green beans, she	0.0045	573	0.0059	259	2.21
10818	fresh green pepe	0.0007	1,600	0.0004	711	2.25
10820	other wild veget	0.0070	625	0.0028	235	2.66
10821	dried vegetables	0.0011	943	0.0033	316	2.98
10822	canned vegetable	0.0000	351	0.0000	1,563	0.22
10901	sweet bananas, r	0.0055	573	0.0042	273	2.10
10902	orange, tangerin	0.0049	500	0.0032	228	2.19
10903	grapefruits, lem	0.0009	667	0.0008	374	1.78
	mangoes,					
10904	avocado	0.0054	414	0.0033	246	1.68
10905	pawpaw	0.0024	222	0.0017	131	1.69

Table A.7 Food Items used to calculate Price Indices with Budget Shares and Prices for 2000/01 and 2007

Item code	Item label	Budget share, 2007	Median unit price, 2007	Budget share 00/01	Median unit price, 00/01	Price ratio
10906	pineapples	0.0024	367	0.0012	199	1.84
10907	melons	0.0005	313	0.0003	124	2.51
10909	jack fruit	0.0004	273	0.0002	111	2.46
10910	apples, pears	0.0002	556	0.0001	361	1.54
10912	other wild fruit	0.0004	1,000	0.0006	313	3.19
10913	dried fruits	0.0004	473	0.0000	650	0.73
10914	canned fruits	0.0000	750	0.0000	2,571	0.29
11001	goat, sheep	0.0109	2,000	0.0152	829	2.41
11002	cattle meat, inc	0.0516	2,000	0.0623	823	2.43
11003	pork, incl sausa	0.0062	1,750	0.0029	797	2.20
11006	offal	0.0014	1,400	0.0006	826	1.69
11007	dried, salted	0.0006	1,500	0.0003	1,271	1.18
11009	other meat produ	0.0020	1,000	0.0002	624	1.60
11010	chicken & other	0.0227	2,500	0.0186	1,022	2.45
11011	wild birds & ins	0.0001	1,000	0.0010	891	1.12
11012	CE eggs	0.0037	136,364	0.0029	63,649	2.14
11201	fresh fish	0.0336	1,000	0.0271	575	1.74
11202	shell fish	0.0000	1,000	0.0033	1,199	0.83
11203	fresh dried fish	0.0490	1,519	0.0062	865	1.76
11204	dried or salted	0.0130	1,667	0.0468	780	2.14
11205	canned fish/shel	0.0000	1,111	0.0000	1,379	0.81
11301	fresh milk	0.0124	400	0.0214	241	1.66
11303	cheese	0.0045	400	0.0001	1,238	0.32
11304	LT yoghurt	0.0007	500	0.0137	247	2.02
11305	canned milk	0.0001	2,000	0.0000	2,519	0.79
11306	milk powder	0.0003	5,000	0.0003	3,094	1.62
11401	cottonseed oil	0.0028	1,804	0.0068	986	1.83
11402	groundnuts oils	0.0004	2,000	0.0017	1,020	1.96
11403	sesame/sunflower	0.0073	2,000	0.0079	978	2.05
11404	coconut cooking	0.0001	2,500	0.0003	1,028	2.43
11405	other cooking oil	0.0345	1,819	0.0181	937	1.94
11406	butter, ghee	0.0001	2,400	0.0008	1,758	1.37
11407	LT margarines cooking	0.0015	2,963	0.0013	1,117	2.65
11408	LT other oil & fat	0.0000	1,714	0.0003	1,250	1.37
11501	red pepper/black	0.0001	2,000	0.0001	1,573	1.27
11502	curry powder	0.0001	3,750	0.0005	1,325	2.83
11503	other spices	0.0004	3,000	0.0006	1,291	2.32
11504	salt	0.0118	400	0.0159	284	1.41

Table A.8 Non-food Items used to calculate Price Indices with Budget Shares and Prices for 2000/01 and 2007

Item code	Type of item*	Budget share, 2007	Median unit price, 2007	Budget share 00/01	Median unit price, 00/01	Price ratio
20201	Charcoal	0.1253	193	0.0732	75	2.55
20203	Karosene	0.3183	1,400	0.2747	610	2.30
20205	Electricity {TANESCO}	0.0056	143	0.0032	25	5.71
20206	Matches	0.0332	50	0.0285	20	2.50
20207	Candles and other fuel and light	0.0030	150	0.0012	105	1.43
20208	Lamp / stove wicks	0.0003	100	0.0005	100	1.00
20501	Sheets	0.0105	4,000	0.0143	2,650	1.51
20503	Towels	0.0010	3,000	0.0010	2,500	1.20
20509	Mosquito nets	0.0035	3,500	0.0022	3,500	1.00
20601	Charcoal stove	0.0008	2,250	0.0005	1,500	1.50
20701	Pans, Bowls	0.0092	1,000	0.0132	800	1.25
20702	Pots of clay for cooking and water	0.0010	400	0.0035	250	1.60
20704	Plates, dishes	0.0043	500	0.0058	500	1.00
20705	Cups, Mugs	0.0025	333	0.0043	200	1.67
20706	Other household tools	0.0050	500	0.0037	250	2.00
20707	Thermos flasks	0.0031	3,500	0.0031	2,600	1.35
20709	Kerosene lighting lamp	0.0016	300	0.0026	150	2.00
20711	Brushes, brooms, broom head	0.0013	200	0.0007	100	2.00
30102	Hats, caps and turbans	0.0024	1,500	0.0022	600	2.50
30104	Trousers	0.0407	4,000	0.0351	1,500	2.67
30111	Shirts	0.0047	2,000	0.0368	800	2.50
30201	Khangas	0.0353	3,500	0.0640	2,000	1.75
30202	Kitenges	0.0358	4,500	0.0330	3,000	1.50
30205	Women's gown	0.0157	3,000	0.0262	1,500	2.00
30207	Women's skirts	0.0013	1,500	0.0063	700	2.14
30302	Girls dresses, frocks or gowns	0.0115	3,000	0.0135	933	3.21
30304	Blouses, boys shirts	0.0093	1,333	0.0110	500	2.67
30307	Underwear	0.0024	500	0.0043	300	1.67
30308	Baby clothes, nappies	0.0026	800	0.0020	486	1.65
40201	Toilet Soap	0.0122	2,667	0.0234	1,875	1.42
40204	Razor blade	0.0065	50	0.0056	25	2.00
40207	Tooth brush, combs, hair brushes	0.0032	160	0.0021	150	1.07
40208	Toilet paper	0.0002	300	0.0001	200	1.50
40213	Make-up kits and cosmetics	0.0015	300	0.0023	500	0.60
40214	Hair clip	0.0004	300	0.0002	200	1.50
40402	Newspapers, magazines	0.0025	200	0.0028	100	2.00
40503	Diesel, petrol	0.0127	1,500	0.0086	630	2.38
40701	Detergents liquid or power	0.0010	3,000	0.0089	1,738	1.73
40703	Laundry soap, bar {piece}	0.2300	1,000	0.2349	588	1.70
40901	Other cigarettes	0.0385	50	0.0403	33	1.50

Note: see complete classification documentation for full descriptions of items corresponding to codes

Setting the Poverty Lines

The poverty lines define the minimum expenditure necessary to meet basic human needs. The food poverty line represents the expenditure necessary to eat sufficient calories. The basic needs poverty line includes the cost of other essential items of expenditure. The 2007 poverty lines were based on the 2000/01 poverty lines inflated for price changes using the Fisher index outlined above.

The 2000/01 poverty line was based on the food basket consumed by the poorest 50 percent of Tanzanians. Median quantities consumed per adult equivalent were estimated for every food item, excluding alcohol and those that could not be assigned a calorific value. Median unit prices were also calculated. The calorific values of these foods were calculated. The food basket gives the *share* of consumption accounted for by each item. The *level* is set so that the sum of calories is 2,200 per day, the minimum necessary for survival. The food basket defined by these two parameters is then priced to give the food poverty line.

This food poverty line was then adjusted to allow for non-food consumption, giving the basic needs poverty line. This was done by calculating the share of expenditure that goes on food in the poorest 25 percent of households. Multiplying the food poverty line by the inverse of this share inflates it to allow for non-food consumption. The food share was 73 percent in 2000/01.³⁰

A cross check on the 2007 line produced through applying the Fisher price index was undertaken by calculating a new poverty line with the 2007 data using the above approach. The resulting poverty lines were slightly lower than the inflated 2000/01 line: the food poverty line was 5% lower at 9,683 TSh and the basic needs line was 4% lower at 13,449 TSh. However, these figures partly reflect the fact that some items are excluded from the new basket. Applying the 2000/01 prices and quantities to the new set of items gives a food poverty line of 5,080 TSh. The ratio of the directly calculated 2007 food poverty line to this revised 2000/01 food poverty line is 1.90, the same as the Fisher index for food items between the two periods. This suggests that the approach is reasonably robust to the specification of the food consumption basket.

³⁰ Full details of the calculation of the 2000/01 poverty lines are given in the 2000/01 HBS report.

Annex B ADDITIONAL TABLES AND GRAPHS

Chapter 2

Table B.1 Distribution of Number of Household Members (%)

	Dar es Salaam		Other urban areas		Rural areas		Mainland Tanzania	
	00/01	2007	00/01	2007	00/01	2007	00/01	2007
1	15.7	20.2	13.7	13.9	7.8	8.7	9.2	10.8
2	11.9	14.6	11.9	11.0	9.9	9.5	10.3	10.3
3	16.2	18.3	15.9	16.4	15.9	13.1	15.9	14.2
4	15.6	15.6	16.3	17.2	15.7	16.6	15.8	16.6
5	12.8	12.4	11.8	13.0	14.0	14.8	13.6	14.3
6	10.7	7.5	10.9	10.5	11.5	12.5	11.4	11.6
7	5.6	4.8	6.6	6.6	9.2	9.4	8.5	8.4
8	3.6	2.6	4.9	4.7	5.4	5.3	5.2	4.9
9	2.6	1.9	2.7	2.2	3.4	3.7	3.3	3.3
10	1.8	0.7	1.6	1.8	2.0	1.9	1.9	1.8
11	0.9	0.7	1.5	1.0	1.3	1.3	1.3	1.2
12+	2.6	0.8	2.3	1.5	4.0	3.1	3.6	2.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table B.2 Distribution of Adult Household Members by Sex, Marital Status and Area (age 15+ years)

	Dar es Salaam		Other urban areas		Rural areas		Mainland Tanzania	
	00/01	2007	00/01	2007	00/01	2007	00/01	2007
Males								
Never Married	46.4	40.3	39.7	38.8	33.6	31.7	35.4	33.8
Living together	n.a	5.3	n.a	3.5	n.a	2.0	n.a	2.6
Married	49.1	49.1	56.0	52.2	61.7	60.2	59.9	57.8
Divorced/separated*	3.0	1.5	2.9	1.4	2.9	2.4	2.9	2.1
Separated	n.a	2.3	n.a	2.5	n.a	1.7	n.a	1.9
Widowed	1.5	1.6	1.4	1.7	1.8	1.8	1.7	1.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Females								
Never Married	38.3	34.2	32.8	31.7	20.2	19.5	23.3	23.1
Living together	n.a	5.4	n.a	3.3	n.a	2.1	n.a	2.6
Married	51.7	45.0	51.9	46.6	63.8	60.7	61.2	56.6
Divorced/separated*	5.7	3.7	7.8	4.3	6.3	3.3	6.5	3.6
Separated	n.a	4.0	n.a	4.1	n.a	3.8	n.a	3.9
Widowed	4.3	7.7	7.6	10.1	9.7	10.6	9.0	10.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

* Only divorced in 2007. n.a. = not applicable

Table B.3 Distribution of Household Heads by Sex, Marital Status and Area

	Dar es Salaam		Other urban areas		Rural areas		Mainland Tanzania	
	00/01	2007	00/01	2007	00/01	2007	00/01	2007
Males								
Never Married	12.9	15.4	9.8	8.7	6.0	2.9	7.0	5.2
Living together	n.a	7.2	n.a	4.4	n.a	2.2	n.a	3.1
Married	81.7	70.9	84.8	79.6	87.9	88.0	87.1	84.8
Divorced/separated*	3.8	1.8	3.8	1.5	3.7	2.7	3.7	2.4
Separated	n.a	3.2	n.a	3.4	n.a	2.0	n.a.	2.4
Widowed	1.5	1.6	1.6	2.3	2.4	2.1	2.3	2.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Females								
Never Married	39.0	27.5	22.2	21.5	9.8	8.0	13.8	13.1
Living together	n.a	3.3	n.a	2.5	n.a	2.2	n.a	2.4
Married	20.3	14.8	23.9	16.6	32.5	21.8	30.1	19.9
Divorced/separated*	23.8	11.0	27.7	13.3	19.9	10.4	21.6	11.2
Separated	n.a	14.8	n.a	12.7	n.a	12.2	n.a.	12.6
Widowed	16.9	28.6	26.1	33.3	37.9	45.4	34.4	40.9
Total	100.0	27.4	100.0	100.0	100.0	100.0	100.0	100.0

* Only divorced in 2007. n.a. = not applicable

Chapter 3

Table B.4 Comparison of estimates of piped and protected drinking water sources between surveys and the census

Source:	HBS 2000/01			Census, 2002			HBS 2007		
	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban
Any piped water	39.3	28.3	78.7	33.5	20.6	70.1	33.9	22.8	61.0
Any other protected source	16.0	17.6	11.0	19.9	21.5	15.3	17.9	17.6	18.4
Piped plus protected	55.3	45.9	89.7	53.4	42.0	85.4	51.8	40.4	79.5

Chapter 4

Table B.5 Percentage of children attending school by single years of age and area, sex (HBS 2007)

Age	DSM	Other urban	Rural	Mainland		
				Tanzania	Male	Female
5	62.7	51.9	20.6	28.6	28.2	29.1
6	80.9	69.9	39.4	46.2	45.7	46.7
7	88.8	89.5	67.5	72.3	64.8	79.8
8	95.8	94.2	77.7	81.8	80.1	83.2
9	99.8	96.1	87.2	89.2	85.5	93.0
10	97.8	96.0	86.4	88.7	86.9	90.8
11	99.1	98.4	91.3	93.1	94.4	91.6
12	94.9	96.5	91.4	92.5	91.3	93.7
13	90.9	94.1	88.2	89.4	88.2	90.8
14	82.8	84.0	84.7	84.4	84.3	84.6
15	73.1	81.3	75.0	76.0	77.1	74.9
16	63.8	69.3	63.6	64.7	66.7	62.6
17	53.1	60.2	49.6	52.3	55.0	49.1
18	44.4	47.7	29.7	34.7	42.1	28.6

Table B.6 Percentage of individuals ill in the last four weeks by age and sex (HBS 2007)

Age group	Male	Female
0-4	33.1	32.7
5-14	18.8	19.5
15-24	15.9	20.6
25-34	19.7	24.9
35-44	20.2	29.8
45-54	28.8	38.2
55-64	30.7	44.6
65+	48.6	54.1
Total	23.7	27.6

Chapter 9

Table B.7 Mean Monthly Income per Household by Source (TShs, HBS 2007)

Source	Dar es Salaam	Other Urban	Rural	Mainland Tanzania
Wages & salaries	63,202	33,770	8,785	17,892
Allowances	4,961	2,107	228	964
Director fees	38	21	3	9
Bonuses	226	344	5	87
Taxes and social security	790	30	44	102
Other cash income	6,280	2,779	1,129	1,855
In kind payment in form of food	197	600	225	294
In kind payment in form of housing	8	6	11	10
In kind payment in form of transport	0	32	7	11
In kind payment in other form	27	16	4	8
Employers contribution to s.security	0	60	9	18
Cash from services	22,973	15,119	4,770	8,194
Cash from sales of purchased goods	72,689	71,091	18,710	32,977
Cash from sales of homemade goods	5,495	10,781	3,593	5,109
Cash from sales of gathering,hunting,fiishing activities	3,932	7,346	5,647	5,832
Revenue in form of goods and services	989	637	490	558
Value of domestic consumption of output	318	1,989	6,941	5,470
Cash income used for domestic consumption	376	506	196	270
Cash from sale of grains,field and cash crops	617	9,576	14,371	12,358
Cash from sale of roots,fruit and vegetables	522	1,776	3,719	3,094
Cash from sale of processed own products	7	484	675	585
Cash from sale of livestock	2,231	3,142	6,431	5,470
Value of consumption of own produce	735	9,892	27,691	22,151
Cash from non-farm cooperatives	101	42	39	44
In kind payment from non-farm cooperatives	26	303	49	95
Cash from producer cooperatives	0	50	57	51
In kind payment from producer cooperatives	17	295	206	208
Imputed rent	159	64	27	44
Interest on accounts	164	137	3	42
Other interest	45	19	0	7
Dividends	87	35	42	45
Cash from renting house	1,872	1,433	172	548
Cash from renting land	480	25	22	60
Cash from renting animals	0	4	0	1
Cash from renting agricultural tools	0	22	0	4
Cash from renting assets	1	407	100	150
In kind value from goods and services	42	3,881	76	795
Value of imputed rent	0	0	0	0
Employer sickness benefits	27	42	5	14
Employer family allowance	1,365	765	61	299
Social assistance grant	68	107	141	129
Pension and insurance annuity	204	149	0	45
Other transfers	406	674	290	372
Remittances	362	430	97	181
Gifts in cash	15,409	14,859	11,406	12,383
Cash from sale of possessions	1,573	888	183	428
Withdrawal of savings	1,705	3,876	254	1,057
Lottery prizes	25	339	27	86
Loans obtained	5,377	7,519	2,822	3,918
Loans repaid	447	697	640	635
Compensation received	44	5	5	8
Lump-sum inheritances	0	6	0	1
Maturity payment of life insurance	0	0	0	0
Other lump-sum payments	11	52	278	214
Total Household Income	216,630	209,228	120,684	145,179

Table B.8 Mean Monthly Income per Earner by Sex and Level of Education (TShs, HBS 2007)

Educational level	Dar es Salaam	Other Urban	Rural	Mainland Tanzania
Men				
None	51,647	50,493	35,353	36,722
Primary (including adult education)	132,081	113,584	52,963	65,016
Secondary	199,976	249,408	116,305	174,849
Tertiary	532,467	427,849	160,167	369,519
Total	156,159	131,049	51,050	67,291
Women				
None	16,539	20,517	15,955	16,261
Primary (including adult education)	30,227	31,774	17,758	19,990
Secondary	61,450	55,351	31,871	44,676
Tertiary	116,310	71,878	22,165	42,722
Total	40,565	32,678	17,343	19,798

Note the number of observations with tertiary education is often low so these numbers should be treated with caution.

Table B.9 Mean number of types of income source reported per household

Year	Dar es Salaam	Other urban areas	Rural areas	Mainland Tanzania
1991/92	1.3	1.9	1.8	1.8
2000/01*	2.1	2.7	3.0	2.9
2007	1.8	2.4	2.9	2.7

* Note: recalculated.